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IN REPLY REFER TO:
5830
IO
4 May 24

From: (b) (6) USMC
To: Commanding General, I Marine Expeditionary Force

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING THE CLASS A AVIATION MISHAP OF AN MV-22B OF MARINE
MEDIUM TILTROTOR SQUADRON 363 (REINFORCED) ON 27 AUGUST 2023 IN
AUSTRALIA

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Ref: (a) JAGINST 5800.7G Ch 1 (JAGMAN)
(b) Title 10 U.S.C. § 2255
(c) Marine Rotational Force-Darwin Execution Order
(d) CO, VMM-363 (REIN) ltr 3700 S-3 of 1 Feb 21 (VMM-363 (REIN) Operations
SOP)
(e) CNAF 3710.7 DTD 01 Sep 2023
(f) MV-22 Maneuver Description Guide (MDG) of January 2022
(g) (b) (6) ltr 5830 KBS of 28 Apr 17 w/ends
(h) MCO 1500.60 Force Preservation Council (FPC) Program
(i) MARADMIN 464/20 (CIRRAS Implementation)
(j) MCO 1300.8 Marine Corps Personnel Assignment Policy
(k) NATOPS Flight Manual Navy Model MV-22B Tiltrotor (A1-V22AB-NFM-000)
(l) Naval Aviation Maintenance Program (NAMP) 4790.2
(m) U.S. Navy Regulations, 1990
(n) Marine Corps Manual w/CH 1-3, 1980
(o) Air Naval Tactics, Techniques, and Procedures (Air NTTP) 3-22.3-MV-22

Encl: (1) CG, I MEF ltr 5830 CG of 30 Aug 23 (Appointing Order)
(2) (b) (6) ltr 5830 IO of 13 Sep 23 w/end (Line of Duty Preliminary Inquiry)
(3) (b) (6) ltrs 5830 IO of 13 Oct 23, 9 Jan 24, 6 Feb 24, and 25 Mar 24 w/ends
(Extension Requests & Approvals)
(4) Marine Rotational Force-Darwin (MRF-D) Command Relationships
(5) MRF-D Training, Exercise, and Employment Plan (TEEP)
(6) VMM 363 (REIN) Standard Operating Procedures (SOP) & Local Command
Procedures (LCP)
(7) Exercise PREDATOR'S RUN Confirmation Brief
(8) Assault Flight Lead (AFL)/Escort Flight Lead (EFL) Brief
(9) 27 August 2023 Daily Weather Observations
(10) Mishap Flight Risk Assessment Worksheets (RAWs)
(11) Mishap Aircraft Manifest
(12) JMPS Mission Profile Data for Lead Aircraft
(13) ASIST Lead Aircraft Flight Re-Creation Video
(14) Air Traffic Control Audio Recordings
(15) Interview Summary of (b) (6) Australian
Defense Forces (ADF)
(16) Written Statement of (b) (6), ADF
(17) Interview Summary of (b) (6), ADF
(18) Transcript of Witness Interview of (b) (6), 3rd
Battalion, 1st Marines
(19) Transcript of Witness Interview of (b) (6) VMM-363 (REIN)
(20) Transcript of Witness Interview of (b) (6), VMM-363 (REIN)
(21) Transcript of Witness Interview of (b) (6) VMM-363
(REIN)
(22) Interview Summary of (b) (6) VMM-363 (REIN)

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- (23) Interview Summary of (b) (6) 3rd Battalion, 1st Marines
- (24) Interview Summary of (b) (6) MAWTS-1
- (25) Written Statement of (b) (6) MAWTS-1
- (26) Transcript of Witness Interview of (b) (6) VMM-363 (REIN)
- (27) Transcript of Witness Interview of (b) (6) VMM-363 (REIN)
- (28) Transcript of Witness Interview of (b) (6) VMM-363 (REIN)
- (29) Transcript of Witness Interview of (b) (6) VMM-363 (REIN)
- (30) CO, MRF-D ltr 1000 CO of 1 Nov 23 (unsigned) (MRF-D SOP)
- (31) Consolidated Line of Duty Questionnaires of PAX Aboard Mishap Aircraft
- (32) Consolidated Medical Treatment Records of PAX Aboard Mishap Aircraft
- (33) Consolidated List of Injuries
- (34) Autopsy Report ICO Major Lewis
- (35) Autopsy Report ICO Captain LeBeau
- (36) Autopsy Report ICO Corporal Collart
- (37) Ground Combat Element (GCE) Equipment Lost or Destroyed in Mishap
- (38) Naval Air Training and Operating Procedures Standardization (NATOPS) Flight
Personnel Training/Qualification Jacket in the case of (ICO) Major Lewis
- (39) NATOPS Flight Personnel Training/Qualification Jacket ICO Captain LeBeau
- (40) NATOPS Flight Personnel Training/Qualification Jacket ICO Corporal Collart
- (41) NATOPS Flight Personnel Training/Qualification Jacket ICO (b) (6)
- (42) Flight Logbook ICO Major Lewis
- (43) Flight Logbook ICO Captain LeBeau
- (44) Flight Logbook ICO Corporal Collart
- (45) Flight Logbook ICO (b) (6)
- (46) Consolidated Medical Record Excerpts of Deceased Aircrew
- (47) Aircraft Discrepancy Book (ADB) ICO Aircraft Bureau Number (BUNO) 168616
- (48) Aircraft Logbook ICO Aircraft BUNO 168616, Vols. 1-4
- (49) Aircraft Weight and Balance Handbook ICO Aircraft BUNO 168616
- (50) Aircraft BUNO 168616 Maintenance Records
- (51) VMM 363 (REIN) Original and Corrected Flight Schedules for 2 July 2023 to 6
September 2023
- (52) VMM 363 (REIN) Operations Duty Officer (ODO) Binder
- (53) VMM-363 (REIN) Key Personnel Troop to Task Matrix
- (54) Transcript of Witness Interview of (b) (6) VMM-
363 (REIN)
- (55) Interview Summary of (b) (6) 3rd Battalion, 1st Marines
- (56) Interview Summary of (b) (6) VMM-363 (REIN)
- (57) Interview Summary of (b) (6) VMM-363 (REIN)
- (58) Interview Summary of (b) (6) VMM-363 (REIN)
- (59) Interview Summary of (b) (6) MRF-D CE
- (60) Interview Summary of (b) (6) 3rd Battalion, 1st Marines
- (61) Interview Summary of (b) (6) VMM-363 (REIN)
- (62) Interview Summary of (b) (6) 3rd Battalion, 1st
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- (63) Interview Summary of (b) (6), 3rd Battalion, 1st Marines
- (64) Interview Summary of (b) (6), 3rd Battalion, 1st Marines
- (65) Interview Summary of (b) (6), VMM-363 (REIN)
- (66) Transcript of Witness Interview of (b) (6), MRF-D
- (67) Transcript of Witness Interview of (b) (6), MRF-D
- (68) Transcript of Witness Interview of (b) (6), MRF-D
- (69) Interview Summary of (b) (6), ADF
- (70) Interview Summary of (b) (6), 3rd Battalion, 1st Marines
- (71) Interview Summary of (b) (6), VMM-363 (REIN)
- (72) Interview Summary of (b) (6), VMM-363 (REIN)
- (73) Interview Summary of (b) (6), ADF
- (74) Post Crash Video Footage (CAUTION, VIEWER DISCRETION ADVISED.)
- (75) Crash Site Photographs (CAUTION, CONTAINS GRAPHIC MATERIAL. VIEWER DISCRETION ADVISED.)
- (76) Mishap Investigation Support Team (MIST) Report for Aircraft BUNO 168616 of 5 Sep 23
- (77) (b) (6) Weight and Balance Officer Designation Letter
- (78) UH-1Y Mishap Flight Video Footage
- (79) Interview Summary of (b) (6), VMM-363 (REIN)
- (80) Interview Summary of (b) (6), VMM-363 (REIN)
- (81) Interview Summary of (b) (6), MRF-D
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- (86) Interview Summary of (b) (6), ADF
- (87) VMM-363 Manpower Assessment
- (88) Interview Summary of (b) (6), VMM-363 (REIN)
- (89) Interview Summary of (b) (6), Naval Aviation Technical Training Detachment—Whiting Field
- (90) Medical Treatment Records Excerpts of (b) (6), Wounded Warrior Battalion, East
- (91) CO, VMM-363 (REIN) ltrs 5000 CO of 11 Aug 23 (Maj Lewis Acting Letters)
- (92) CIRRAS Entries for Mishap Crew
- (93) Interview Summary of (b) (6), Wounded Warrior Battalion, East
- (94) VMM-363 (REIN) PERSTATs for 25 and 27 August 2023
- (95) V-22 Dynamic Component Bulletin Number 64 (TD CODE 52) TCTO 1V-22(C)B-1151 with Amendment 1
- (96) Plane Captain Proficiency Training of (b) (6), VMM-363 (REIN)

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- (97) Plane Captain Designation of (b) (6), VMM-363 (REIN)
- (98) Witness Statement of (b) (6), VMM-363 (REIN)
- (99) 27 August 2023 Flight Schedule
- (100) Mishap Aircraft Safe for Flight Checklist
- (101) Interview Summary of (b) (6), VMM-363 (REIN)
- (102) 27 August 2023 ODO Logbook
- (103) Automated Aircraft Discrepancy Book (AADB) Summary Report for BUNO 168618
- (104) V-22 Dynamic Component Bulletin No. 64 (TD Code 52) TCTO 1V-22(C)B 1151
- (105) Itemized Component Serial Number List for BUNO 168616
- (106) Index of Names
- (107) Engineering Investigation Flight Control Systems Findings
- (108) Engineering Investigation Avionics Findings
- (109) Engineering Investigation Engine Findings
- (110) Engineering Investigation Full Drives Findings
- (111) Engineering Investigation Rotors Findings
- (112) (b) (6) email of 24 Aug 23 (PRED RUN UPDATES)
- (113) Aviation Officer Maintenance Fundamental's Course Completion Certificate for VMM-363 (REIN) AMO
- (114) (b) (6) email of 7 Sep 23 (PREDATOR'S RUN PLANNING)
- (115) Pilot Smartpacks for Mishap Flight
- (116) MA Load Computation Reconstruction Under Mishap Conditions
- (117) CO, VMM-363 (REIN) ltr 3700 S-3 of 1 Feb 21 (VMM-363 (REIN) Operations SOP)

PRELIMINARY STATEMENT

1. Conduct of the Investigation. This report completes a command investigation conducted in accordance with reference (a) and as directed by enclosure (1). While there are no changes to the line of duty recommendations made in enclosure (2), throughout the course of this investigation and the Aviation Mishap Board (AMB) investigation additional personnel were at the crash site and may have been exposed to harmful materials. While their potential injuries are beyond the scope of this investigation, I recommend appropriate documentation be made in their medical records of any potential injury that has resulted or may come to light as a result of their presence at the crash site.

a. In compliance with 10 U.S.C. § 2255 and reference (a), (b) (6) USMC, is qualified to conduct this investigation, having extensive tactical aviation experience. (b) (6) USMC, was appointed as an Assistant Investigating Officer and has significant tactical aviation, and aviation maintenance experience in both H-1s and MV-22Bs. (b) (6) USMC, was appointed as Assistant Investigating Officer and has

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significant tactical aviation and aviation safety experience. (b) (6) USMC,
was appointed as the Legal Advisor in support of this investigation.

b. This investigation team reported to Darwin, Australia on 31 August 2023 and 1 September 2023 to conduct investigative actions, interview witnesses, and to document all injuries to personnel and damage to U.S. Government property. Due to the complexity of this investigation and concurrent related investigations, we maintained strict accountability of all witness statements and documentary evidence. This investigation team did not collect, nor was it made aware of, any privileged information. Further, no privileged information was used or included in this investigation report and did not influence any of the findings, opinions, or recommendations.

c. Collection of relevant evidence. The investigation team was not able to collect all relevant and material evidence.

1. The Aerial Observer (AO) in the mishap aircraft (MA) sustained significant and very serious injuries. Because of the extent of his injuries, he was not able to be interviewed until March 2024. As of the writing of this report, he remains hospitalized under intensive care. We wish him a full and speedy recovery.

2. The flight mission data from the H-1s flying during the mishap was initially turned over to the AMB. The AMB processed only the post-mishap video recordings from the H-1 Advanced Memory Units (AMUs), and then subsequently returned all but one of the AMUs to VMM-363 (REIN). The AMB did not retrieve or process any other flight mission data (including GPS data) and the AMUs were used in subsequent flights by VMM-363 (REIN). Consequently, all other H-1 flight data was deleted or overwritten. The data on the remaining AMU was unfortunately corrupted and irretrievable. Consequently, this investigative team had to rely solely on testimony to determine the location and position of the H-1s in relation to the mishap MV-22B section rather than the GPS data from the aircraft. Finally, because of the extent and intensity of the post-crash fire, the following information could not be collected from the MA: the aircraft global position data, mission data, engine calibration data, vibration, structural life, and engine diagnostics (VSLED) data, maintenance data, K-Series Voice and Data Recorder (KVADR) data, fuel metering, engine performance data, and all other avionics data. All other reasonably available and relevant evidence was collected and considered.

d. Prior to interviews, witnesses were advised of the purpose of this command investigation and the apparent reasons for duplication of effort with the AMB in accordance with reference (a) and enclosure (1), the privileged nature of communications with the AMB, the fact that the safety privilege does not apply to command investigations, and their rights under the Privacy Act of 1974. All applicable personnel and witnesses cooperated fully with this investigation. During the investigation, a suspicion arose that two witnesses may have violated Article 92 (Dereliction of Duty), Uniform Code of Military Justice (UCMJ), and they were duly advised of their rights under Article 31(b), UCMJ, prior to continued questioning.

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e. The IO focused on eight areas while investigating the facts and circumstances pertaining to the mishap, and the context in which it occurred. (1) Mission planning and execution; (2) VMM-363 (REIN) culture and command climate; (3) aircrew readiness and ability to complete the assigned mission; (4) mishap reconstruction; (5) MRF-D mission, command relationships, and SOPs; (6) VMM-363 (REIN) maintenance practices and procedures; (7) overall damages caused by the mishap; and (8) safety of flight procedures.

f. In anticipation of requests for release of this investigation pursuant to the Freedom of Information Act (FOIA) and to facilitate compliance with the Privacy Act, the names of personnel involved are largely omitted from the body of the investigation but are listed at enclosure (106).

g. All times used in this report are in Australian Central Time (GMT +9:30).

2. Organization. The findings of fact (FF) in this report are organized by subject area in the following order:

- a. Mission Planning
- b. Mishap Flight
- c. Post-Mishap Events
- d. Background and Experience of Air Crew
- e. VMM-363 (REIN) Risk Management Practices and Training Requirements
- f. VMM-363 (REIN) Training Scheduling, Human Factors Monitoring, Manpower, and Operations
- g. MRF-D Training, Operations, and Integration
- h. MA and VMM-363 (REIN) Maintenance.
- i. Engineering Determinations

EXECUTIVE SUMMARY

1. On 27 August 2023, a flight of two MV-22B Ospreys from VMM-363 (REIN), Marine Rotational Force-Darwin (MRF-D), departed from Royal Australian Air Force (RAAF) Base Darwin towards Melville Island as part of exercise PREDATOR'S RUN. During the flight's right-hand 90-degree tactical approach to the landing zone the Mishap Aircraft (MA), as the Dash-2 aircraft on the outside of the turn to final, executed three extreme right banks. The first

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bank at the initiation of the turn to final resulted in a near mid-air collision before corrections were made by the MA crew. The second resulting in placing the MA in an aerodynamic stall condition and subsequent indication within the aircraft. The third extreme bank resulted in MA entering a tight, descending right-wing down, nose-low flight condition. Once in this right-wing down, nose-low condition the MA Commander (MAC) took the controls, rolled the wings level, and attempted to decrease the MA's forward velocity by pulling back on the cyclic with both hands. After conducting three near 90-degree turns, the MA was now flying approximately 180 degrees away from its intended final landing heading and was experiencing a 20-knot tailwind. Given the nacelle and power settings, low altitude, weight of the aircraft and tailwind experienced, there was insufficient time and space to arrest the descent and resume flight. Consequently, the MA crashed into the ground and burst into flames. Ultimately, based on the evidence available, the primary cause for this mishap was pilot error and complacency.

2. This investigation also revealed several concerning maintenance practices by VMM-363 (REIN). While there is no evidence to indicate that these practices caused the mishap on 27 August 2023, ultimately, the aircraft should not have been certified as safe-for-flight for several maintenance-related reasons including: that required maintenance actions had not been completed by the expected due date; turnaround inspection actions were not complete prior to the aircraft being certified safe-for-flight; and the aircraft's weight and balance paperwork was not completed or current prior to the mishap flight. Furthermore, these maintenance practices highlighted a lackadaisical attitude across the squadron regarding certain procedures designed to ensure safe flight operations.

3. This investigation also highlights how well-developed the Australian Defence Force casualty evacuation (CASEVAC) and mass casualty (MASSCAS) support structure is allowing Marine units to conduct multi-national military training events in the Northern Territories without sacrificing force protection requirements. Without these well-established relationships in place this mishap may have been more tragic.

4. The mishap resulted in the death of both pilots and the crew chief, serious injury to the AO, injuries to the majority of the Marines in the cabin, the total loss of the MA, and the loss of various equipment and weapons.

FINDINGS OF FACT

A. Mission Planning

1. The mishap flight occurred as part of an Australian Defense Forces (ADF)-led exercise, called PREDATOR'S RUN. [Encl (7)]
2. A confirmation brief was given to the MRF-D CO on 10 August 2023 that covered MRF-D involvement in PREDATOR'S RUN. [Encl (7)]

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3. The MRF-D CO approved VMM-363 (REIN)'s involvement in PREDATOR'S RUN.
[Encls (7), (66)]
4. There were no ADF personnel involved in the PREDATOR'S RUN confirmation brief given to the MRF-D CO, but they were involved throughout the planning and orders processes with the MRF-D ACE and Ground Combat Element (GCE). [Encls (66), (67), (15)]
5. The PREDATOR'S RUN confirmation brief reflects the MRF-D plan for participation in PREDATOR'S RUN, not the detailed scheme of maneuver for the mishap flight. [Encl (7)]
6. The PREDATOR'S RUN confirmation brief did not address tactical risk levels or planned mitigations. [Encl (7)]
7. At the time of the confirmation brief, only one MV-22B from VMM-363 (REIN) aircraft was going to support PREDATOR'S RUN with an Australian Air Force C-27J providing the rest of the required support. On 24 August 2023, the level of support increased to two MV-22Bs (a section) due to the Australian C-27J support falling out for the mission. [Encl (7), (112), (114)]
8. The MRF-D CO was aware of and approved of the changes. [Encls (54), (66), (68)]
9. Planned medical evacuation support was provided by contracted services. [Encl (7), (67), (68)]
10. Contracted casualty evacuation is the preferred method while conducting training in the Northern Territory, similar to continental United States (CONUS)-based training, for a variety of reasons including the inability of an MV-22B to land in the vicinity of local hospitals. [Encl (67)]
11. ADF personnel served as exercise control (EXCON) for PREDATOR'S RUN and had EXCON personnel and role players in the vicinity of the intended landing zone at the time of the mishap. [Encls (7), (15)]
12. During the days prior to the mishap, there were several planning sessions with the ACE and GCE where detailed planning for the mishap flight occurred. [Encls (19), (20)].
13. The Squadron Executive Officer (XO), the Mishap Aircraft Commander (MAC) and designated Assault Flight Leader for the MV-22 flight was not present for detailed planning of the mishap flight. [Encls (19), (20)]
14. The section lead under instruction (SLUI) (Mishap Pilot 3 (MP3)), as the Assault Flight Lead (AFL) under instruction and MA Tiltrotor Second Pilot (T2P) (MP2), in coordination with the Escort Flight Lead (EFL), conducted most of the detailed planning for the mishap flight that resulted in an AFL/EFL Brief. [Encls (8), (19), (20)]

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15. The MAC was present for the AFL/EFL brief the night before the mishap flight and for the ODO brief the morning of the flight. [Encls (19), (20)]

16. The Mishap Flight (MF) consisted of a section of MV-22B Ospreys.¹ The Lead Aircraft (LA), call sign DUMPTRUCK 11 (DK11), was flown by MP3 and Mishap Pilot 4 (MP4). The MA was the wingman, or Dash-2 aircraft, call sign DUMPTRUCK 12 (DK12), and was flown by MAC and MP2. To note, the MAC was designated the Mishap Section Leader² per the flight schedule and was conducting a cross-cockpit³ SLUI for MP3 in the LA. So, while fully responsible for conduct of the flight, MAC was at no time in the LA position during the MF. [Encl (19), (20), (26), (57) (99)]

17. The MF was supported by a mixed section of H-1s (one AH-1Z and one UH-1Y). [Encl (8)]

18. Neither the AFL/EFL Brief nor the PREDATOR'S RUN Confirmation Brief addressed which serials/PAX would be loaded on which aircraft or how many per aircraft, but the MF planned for 19 passengers (PAX) to be loaded on each MV-22B for insert on Wave One to maximize aircraft capacity while balancing the GCE's desires for number of PAX landed at once in the Landing Zone (LZ). [Encls (7), (8), (18), (19), (20)]

19. Planned time en route from takeoff to landing was 20 minutes. [(Encl (8), (11), (18), (19), (20))]

20. A planned holding area (HA) outside of the mission objective area (OA) was to be used for any final coordination prior to entering the OA or, if necessary, to burn off extra fuel, if weather conditions and/or aircraft state was such that they could not land safely. [Encls (8), (20)]

21. Based on heaviest aircraft weight and number of PAX per aircraft, MF planners planned for a battery fuel⁴ of 7,500 pounds. [Encl (8)]

22. Altitude deconfliction was planned for 200 feet of separation between MF and the H-1 section. With MF flying at 700 feet mean sea level (MSL) and below and H-1 section flying at 900 feet MSL and above. Routing was deconflicted by H-1s being established in their Battle Position (BP) and MF routing to the west to avoid the BP. [Encls (8), (19), (20), (26)]

¹ Per reference (e), a section of Ospreys is two MV-22B aircraft.

² An MV-22B Section Leader is a Tiltrotor Aircraft Commander who is fully qualified to lead a section of MV-22Bs under all conditions, in performance of any of the squadron tasks.

³ Cross-Cockpit instruction is when the instructor is in one aircraft and the pilot under instruction is in a separate aircraft.

⁴ Battery Fuel is defined as aircraft fuel state upon switching the battery on prior to the start of the engines.

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Figure 1. Planned MV-22 routing for the mishap flight with altitude deconfliction. [Encl (8)]

23. The planned landing configuration was a reverse echelon right in the LZ. This would have placed the LA to the north and behind the MA upon landing. With the MA to the south and forward of the LA once on deck. [Encls (8), (19), (20)]



Figure 2. Landing Zone Diagram [Encl (8)]

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24. Planned L-Hour⁵ was 0920. [Encl (58)]

25. Throughout the planning process the GCE changed their plan multiple times due to RAAF aircraft availability, planned MV-22 availability, and total number of Marines being inserted for the mission. [Encls (18), (19), (20), (20), (27), (112)]

26. Initial planning included a RAAF C-27 support to insert GCE PAX. This changed during final planning as the RAAF C-27 support dropped out due to a “red stripe” on C-27s.⁶ [Encls (18), (19), (27), (28), (112)]

27. ACE and GCE planners used 300 pounds per PAX as their planning factor during mission planning. [Encls (18), (19)]

28. At no time during prior integrated ACE/GCE training events or mission planning was it discussed or ordered by Commanders to weigh GCE PAX individually to provide an accurate weight for planning purposes. [Encl (18), (19), (27), (28)]

29. The approved mission of the MF was to conduct a tactical insert of Marines into Pickertaramoor Airfield under the mission name “PREDATOR’S RUN.” The planned and briefed approach to landing was a “Right-Tactical 90 Degree Approach.” The approved flight totaled 3 sorties and 4.0 flight hours on each aircraft. [Encls (7), (8), (99)]

30. A combined AFL/EFL mission brief was conducted at approximately 1715 the night prior to the MF, ending between approximately 1800-1830. All pilots participating in the MF were present, including the MAC. [Encls (19), (20), (26)]

B. Mishap Flight⁷

31. At 0530, 27 August 2023, MP4 departed billeting, picked up remainder of MF crew members, and drove to MS spaces for the ODO brief. [Encl (20)]

32. At 0540, MP3 was picked up by MP4, then shortly thereafter all crew chiefs were picked up. [Encl (20), (22), (21)]

⁵ L-Hour is defined as the time at which the first aircraft of the assault wave touches down in the landing zone.

⁶ A “red-stripe” message is a message that grounds a particular type of aircraft for any of a variety of reasons. Examples include safety of flight and maintenance precautions.

⁷ During the mishap and the immediate aftermath (described in sections B and C), many events occurred simultaneously or near simultaneously, but were evidenced from different witnesses or perspectives. Accordingly, it was impossible to perfectly reconstruct a precise timeline of events and the investigative team has endeavored to note when events occurred concurrently.

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33. VMM-363 (REIN) scheduled the MF on Sunday, 27 August 2023. The squadron was not regularly scheduling Sunday flights and consequently the maintenance shift schedules were adjusted to accommodate the flights scheduled for 27 August. The night shift of maintenance did not work the night prior to the MF during their normal work time window due to the squadron giving the Marines liberty during this period. The morning shift of maintenance, which normally would arrive at 2400, did not arrive until 0600, the scheduled arrival time for the morning of the MF. The morning maintenance crew that showed at 0600 was the full morning crew of Marines. [Encl (22)]

34. The Operations Duty Officer (ODO) for the day of the mishap was a member of the H-1 detachment who had joined VMM-363 (REIN) in Australia in late June. While training was conducted for the H-1 detachment pilots joining the squadron on 17 July 2023, no record of who received that training was maintained by the squadron and the ODO on the day of the mishap indicated he did not receive training on VMM-363 (REIN) ODO procedures and that he was using the procedures of his parent, CONUS-based Marine Light Attack Helicopter (HMLA) squadron and what was in the VMM-363 (REIN) ODO binder (enclosure 52). [Encls (29), (51), (72)]

35. At approximately 0605, the ODO conducted a brief for the MF that covered the weather forecasted for the departure airfield aboard RAAF Base Darwin (YPDN⁸). This was in accordance with standard brief times for an ODO brief for a planned 0900 takeoff time. [Encl (6), (19), (20), (117)]

36. During the ODO brief, only Darwin weather was briefed. At no time was weather for Pickertaramoor Airfield, the intended landing zone (LZ), briefed. [Encl (20)]

37. During the ODO brief, the bird/wildlife aircraft strike hazard (BASH) level was either briefed as low or not briefed. [Encls (19), (20), (26)]

38. Based on witness testimony, there was nothing out of the ordinary about the ODO brief the morning of the mishap. [Encls (20), (21), (29)]

39. After the completion of the ODO brief the MF crews relocated to the Squadron's Department of Safety and Standardization (DOSS) building for the MF Section Leader brief, conducted by the SLUI.⁹ [Encls (19), (20), (22), (21)]

40. At 0615, the MF Section Leader Brief began. Key elements from the MF Section brief include the following:

⁸ YPDN is the airport code for RAAF Base Darwin.

⁹ The Operations Section building, where the ODO brief occurred, and the DOSS building, are temporary structures located immediately adjacent to each other.

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- a. Planned takeoff fuel would be different from actual fuel due to delayed communication from MF planners to MS Maintenance Department of required fuel load on mission aircraft. Planned battery fuel was 7,500 pounds for each aircraft. The actual fuel level was 9,500 pounds.
 - b. Planned approaches to landing within each separate LZ would be Right 90-degree tactical approaches. Each 90-degree turn, however, would not be an exact 90-degree turn, and therefore were briefed as 'non-standard.' MAC questioned the SLUI on both planned approaches to clarify. [Encls (19), (20), (22), (21)]
41. MF section brief ended at approximately 0700. [Encls (19), (20), (22), (21)]
42. Following the section brief, the MA Crew relocated and conducted the required NATOPS Crew Brief, as required by reference (d). [Encl (112)]
43. MAC did not provide a completed and signed load computation for the MA to the ODO, as required by reference (d), prior to takeoff. [Encl (29)]
44. MAC did not provide a completed and signed Operational Risk Assessment Worksheet (RAW) for the MA to the ODO as required prior to takeoff.¹⁰ [Encl (29)]
45. The SLUI provided both a signed load computation and RAW for the LA to the ODO prior to takeoff.¹¹ [Encls (19), (29)]
46. At no time did the ODO delay takeoff or attempt communication with the MAC or MP2 to receive either the load computation or RAW prior to takeoff, actions within his authority and responsibility as the ODO¹². [Encls (29), (65), (52)]
47. Despite not receiving formal training on VMM-363 (REIN) ODO Procedures, the ODO knew the MAC should have turned in to him a RAW and load computation. Knowing the requirement, he did nothing to delay the flight or attempt to contact the MAC when the MAC failed to submit the required documents. [Encl (29)]
48. Due to more than planned fuel onboard each aircraft, both crews intended to man their respective aircraft earlier than the Standard Operation Procedure (SOP) man-time of 30

¹⁰ For FF 42 and 43, the ODO turned over all load computations and RAWs received for on the day of the mishap, and these documents did not exist for the MA.

¹¹ While it is common for the section lead (or section lead under instruction in this case) to turn in the load computation for both aircraft, it does not absolve the ultimate responsibility of the aircraft commander for each aircraft flying to review and sign both the load computation and risk assessment worksheet prior to departure.

¹² Enclosure (52) states, "You are a direct reflection/represents of the command; conduct yourself and the squadron's business accordingly. You are the one responsible for everything that is going on during your shift."

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minutes prior to takeoff in an attempt to burn down as much fuel as possible prior to takeoff.
[Encls (19), (20), (21), (22)]

49. Of the witnesses interviewed, none observed the MAC review the Aircraft Discrepancy Book (ADB), as required by CNAF M-3710.7 Ch. 10.2.1,¹³ prior to manning the aircraft.
[Encls (19), (20), (85)]

50. Each crew began manning 45 minutes prior to takeoff. [Encls (19), (20), (21), (22)]

51. The PAX Safety Brief was completed by the MA Crew Chief around 0810 and included donning/doffing life preserver units (LPUs) procedures, location of emergency exits, and egress procedures. [Encls (18), (22), (60)]

52. The LA was fully manned by 0816. [Encl (19), (20)]

53. The LA had 9,500 pounds of fuel in aircraft upon turning on the battery. [Encl (20)]

54. According to the Maintenance Material Control Officer (MMCO), the morning of the mishap, the MAC was in Maintenance Control talking with the MMCO regarding the MAC's support to the Gold Coast Airshow earlier that month. The conversation lasted approximately 15-20 minutes; the MAC was showing the MMCO pictures from the airshow on his phone and was so engaged in the conversation that the MMCO asked him if he should leave maintenance control to man his aircraft for the flight. [Encl (85)]

55. The MMCO opined that the conversation lasted too long for the morning's planned timeline. [Encl (85)]

56. Due to maintenance troubleshooting with the LA,¹⁴ there was an approximately 10-minute delay prior to taxiing for takeoff. Consequently, the SLUI determined the delay would result in either the mission being executed by only one aircraft or by both aircraft cycling in and out of the OA to complete the mission, and so he directed execution of the pre-briefed bump plan,¹⁵ moving the priority PAX serials for the mission from the LA to the MA. [Encl (19), (20), (22), (21), (18)]

57. While delayed, the LA crew continued to burn fuel down by running the Auxiliary Power Unit (APU). [Encl (20)]

¹³ CNAF M-3710.7 Ch 10.2.1 states, "The pilot in command shall review a record of aircraft discrepancies and corrective actions for the 10 previous flights."

¹⁴ LA experienced a failed Flight Control System (FCS) Pre-Flight Built-In Test (BIT)).

¹⁵ A bump plan is a decision point in the event the number of assault support aircraft available during mission execution is less than planned, when the AFC and AMC execute a detailed plan to move priority serials between available aircraft. This is created during mission planning based on mission requirements.

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58. During testimony, when asked if the SLUI felt pressure (internal or external) to accomplish the mission and gain his Training & Readiness (T&R) code for this event, he stated, “Yes, but not to a point where I would push to make it [the mission] happen.” [Encl (19)]

59. While the priority passengers were executing the bump plan, the LA’s maintenance issues were resolved. Accordingly, the SLUI decided the flight would execute as planned, albeit 10 minutes behind schedule after completion of the bump plan, rather than as single aircraft separated by time. [Encls (19), (20)]

60. The maintenance issue and execution of the bump plan resulted in a 10-minute delay in the planned takeoff from RAAF-D. [Encls (19), (20)]

61. Prior to takeoff, the LA crew conducted a Performance Calculation (PERF CALC) using their Cockpit Management System (CMS) software to assess if their aircraft at its current weight and configuration would have the power margin¹⁶ required to conduct a landing to the planned Landing Zone (LZ), a hard-surface runway on Melville Island. [Encls (19), (20)]

62. During testimony, when asked what weight was entered into CMS to perform their PERF CALC, MP4 stated “300 pounds per PAX, the standard planning factor used by VMM-363 (REIN) in Australia.” [Encl (20)]

63. During this PERF CALC process, MP4 used their current fuel load, 8,900 pounds, for these calculations and both SLUI and the MP4 state their CMS PERF CALC provided a 7% power margin on landing to their LZ. [Encls (19), (20)]

64. Reference (d) requires a 5% power margin to conduct a hover landing to a hard-surface runway with no expected Reduced Visibility Landing (RVL) conditions. [Ref (d)]

65. Prior to takeoff, the MA Crew Chief conducted an Inter-aircraft Communication System (ICS) check with the senior GCE Marine in the troop cabin, the Lima Company XO/Ground Force Commander (GFC). Once the ICS check was completed, the MA Crew Chief switched GFC’s ICS settings to allow him to simultaneously hear the MA’s ICS and radios. (Encl (18))

66. The GFC could see into the cockpit and observed that the MAC, in the right seat, was not at the controls (flying the aircraft). The GFC also heard an exchange between the pilots over ICS while taxiing for takeoff, when MAC asked MP2 if MP2 wanted to fly or not, MP2 stated MP2 would fly. [Encl (18)]

¹⁶ Power Margin is defined as the difference of the actual weight of the aircraft and the first of the limits that would be reached by one of the limiting parameters of the MV-22.

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67. Between approximately 0831 and 0858, the mixed H-1 section departed. At approximately 0915 the MF departed. [Encl (102)]

68. At 0915 the MF conducted a 60-degree Short Takeoff (STO) from RAAF-D en route to their intended OA and LZ on Melville Island. [Encls (19), (20), (22), (102)]

69. The MF conducted a left-hand turn to the north and began its climb at 180-190 knots (KTS) and 1500 FPM to an altitude of 2,500 feet Mean Sea Level (MSL) on course rules away from RAAF-Darwin, then direct to Point Gambier toward their OA. [Encl (20)]

70. Flight time from RAAF-D to the LZ was approximately 20 minutes. Due to the takeoff delay of 10 minutes, the planned holding area to burn off excess fuel was not used, and the MF continued through the holding area into the OA. [Encls (19), (20)]

71. During testimony, when asked if the SLUI was rushing to get into the OA to meet original L-Hour or make up time due to the delay departing, the LA crew stated “the SLUI openly communicated that there was no need to rush into the OA by speeding up.” [Encls (19), (20)]

72. Once at their cruising altitude of 2,500 feet MSL and airspeed 220 knots (KTS), the SLUI completed appropriate radio procedures, checking out with Darwin Civil Aviation Safety Authority (CASA) and began conducting tactical radio check-in requirements as defined with the Assault Support Tactical SOP (ASTACSOP) with the already established section of H-1s in the HA. [Encls (26), (57), (19), (20), (78)]

73. During check-in with the H-1 section, the SLUI incorrectly reported the flight was ‘up as fragged’ without noting that the passenger serials were swapped between aircraft in the pickup zone (PZ) when the bump plan was executed. [Encls (19), (20), (26), (57), (22)]

74. The change of serials on each aircraft was not communicated to the H-1 section. [Encls (19), (20), (26)]

75. Relative position and distance between aircraft throughout the flight was noted to be approximately 0.3 nautical miles reported via the distance measuring equipment (DME)¹⁷ on the Air-to-Air Tactical Air Navigation System (TACAN) with the MA remaining on the left side of the LA at the seven o’clock position, as noted by the MP4 and the LA AO, stationed on the ramp of the lead aircraft. [Encls (20), (22), (21)]

¹⁷ Often referred to as .3 DME rather than 0.3 nautical miles.

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Figure 3. Still image taken from a video captured by MRF-D COMMSTRAT embarked aboard the UH-1/EFL over Melville Island en route to the OA. The DME at the time of this photo is unknown.

76. In the LA, the descent from 2,500 feet MSL to the appropriate OA altitude was hand-flown by MP4 and noted as being the standard 220 KTS and 2000 feet per minute (FPM) rate of descent (ROD). [Encls (19), (20)]

77. The section of H-1s were established at 900 feet MSL and above (in fact flying at 1,500 feet MSL) and the MF was approved to continue into the OA for landing at 700 feet MSL and below (approximately 500 feet AGL). [Encls (19), (20), (26)]

78. The planned approach to the LZ in the OA was to execute a Right-Hand 90-degree tactical approach as prescribed in reference (f).¹⁸ This approach profile was chosen due to forecasted winds out of the east-southeast (140 degrees) and routing deconfliction with the H-1s Battle Positions (BPs). The final landing heading was to be 090 degrees with a slight non-standard ingress to the landing of 350 degrees (instead of a standard ingress heading of 360 degrees). [Encls (8), (19), (20), (26); Ref (f)]

79. MP4 was flying the LA, seated on the left side of the cockpit, and was not within normal parameters for an approach to landing as planned. So much so, that MP4 stated, he expected to be debriefed on this by MAC after the flight. [Encl (13), (20)] See figure 5 below.

80. When asked if there was a breakdown in crew coordination in the LA during the descent and upon entry into the OA, the crew stated that there was no breakdown, but this portion of the flight was busy as expected. MP4 acknowledged, however, that he erred in execution both where and how to fly the planned and briefed approach. [Encls (19), (20), (22), (21)]

81. The LA entered the OA (from Initial Point (IP) to LZ) by making a right turn inside of the IP.¹⁹ The SLUI told MP4 that the right turn was the incorrect maneuver and to turn back to

¹⁸ See Figure 4 below, taken from reference (f) depicting the appropriate offsets for a 90-degree tactical approach. Note, figure 4 depicts a Left-Hand 90-degree approach, when the MF was executing a Right-Hand 90-degree approach.

¹⁹ IP is defined as the final checkpoint prior to the planned landing zone or point.

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the left to intercept the appropriate inbound course. MP4 began an easy left-hand turn to intercept the correct course. [Encls (19), (20), (18)]

82. The LA did not intercept the standard 1.0 Nautical Mile (NM) offset until inside the 2.0 NM conversion point.²⁰ [Encl (13)]

83. Per reference (f), the LA should have intercepted the 1.0 NM offset approximately 3 NM sooner in the approach. [Ref (f)]

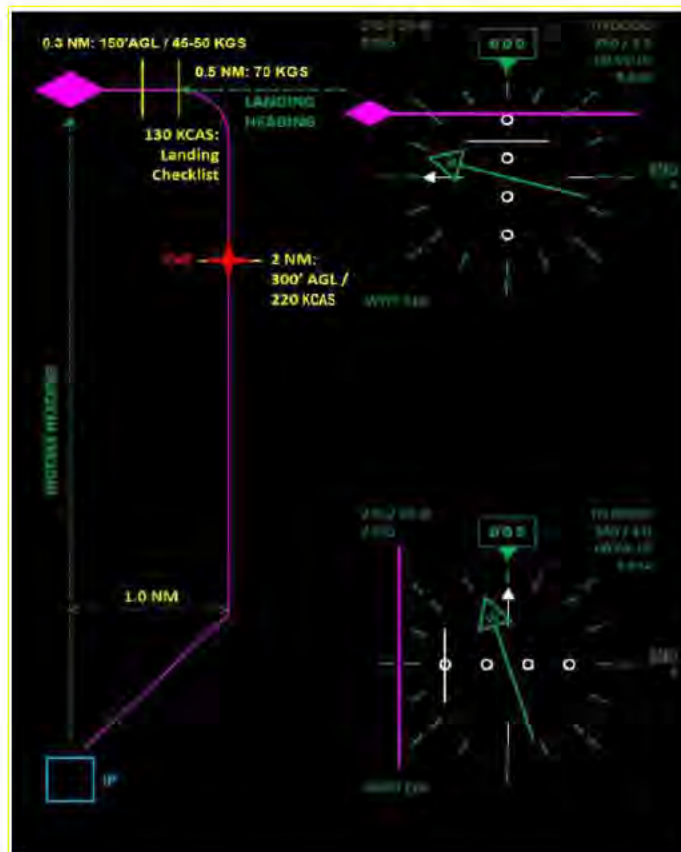


Figure 4 taken from reference (f).

84. The LA's flight path based on GPS data recovered from the LA is depicted in Figure 5. See figure 5. [Encl (13)]

²⁰ Conversion Point is defined as when the MV-22 begins converting from airplane mode to conversion mode (see footnote 25), ultimately setting up the aircraft for landing.

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Figure 5. Graphic depiction of the tactical 90-degree approach executed by the mishap section generated by the investigation team using GPS data recovered from the LA along with mission planning data recovered from the Joint Mission Planning System (JMPS) used to plan the mishap flight.²¹

85. No GPS data was recovered from the MA due to the intensity and extent of the post-crash fire. [Encl (108)]

86. The LA flight path finally crossed over the 1.0 NM offset at the 2.0NM slant range distance from aircraft to LZ location and then continued to extend beyond the 1.0 NM offset (up to 0.3NM) until the LA eventually turned inbound for final landing heading. [Encls (13), (19), (20)]

87. During the MA's turn to final landing heading, witnesses aboard the MA describe three separate aggressive, or hard, right-hand turns. [Encl (18), (23), (60)]

88. At approximately 0928, during the approach, but before beginning the 90-degree turn, MP4 in the LA reduced speed. While this reduction in speed is required for this entry method,

²¹ The 90-degree approach displayed in Figure 5 matches what the SLUI planned for the approach with a 350-ingress heading from the IP and a 090-intercept heading for the right turn to final. The planned 90-degree approach deviates from the standard procedure that is described in the MV-22B Maneuver Description Guide (MDG) for a tactical 90-degree approach. The planned tactical approach accounts for 100-degrees of right turn.

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MP4 reduced speed at a non-standard distance and position relative to the LZ. MP4 did not make a “sugar call” to the MA when he reduced speed.²² [Encl (20), ref (f)]

89. While beginning the MFs turn to final landing heading, and as a result of this reduction in speed by the LA, the distance between the LA and MA closed dramatically and is most likely when MP2, per procedure, reduced power to begin the process of slowing, converting, and began their first hard right-hand turn to final landing heading in formation with LA. When MAC noticed how close the MA was to LA, MAC said to MP2 “You’re right on top of Lead.” [Encls (13), (18)]

90. Shortly after initiation of this right-hand turn, MA came within 300 feet of the lead aircraft. [Encl (13), (18)]

91. After the first right turn, MP2 then rolled wings-level to extend away from the LA and avoid a collision. [Encl (13), (18)]

92. MP2 initiated the MA’s second right turn shortly after rolling wings-level. During this turn, a stall indication and warning was broadcast over the MA’s ICS and MP2 again rolled the wings to a level position. [Encl (18)]

93. Stall indication and warnings initiate when the aircraft nacelles are at 35 degrees or below. Based on MA’s speed, combined power and nacelle settings coupled with aerodynamic principles results in a stall indication and warning²³ being broadcast over MA’s ICS. Based on the load computation, MA stall parameters at 45 degrees Angle of Bank (AOB) would be 143 Knots Indicated Airspeed (KIAS) (power-on condition) and 155 KIAS (power-off condition). [Encl (18), (116)²⁴; Ref (k)]

94. Once the LA intercepted their final landing heading of 90 degrees and was proceeding inbound to land, the LA crew members saw the MA move from the seven o’clock position to the eight o’clock, then nine o’clock position with its right wing down before the MA began to approach the LA on a converging course. [Encls (20), (21), (57)]

95. MP4 (seated in the left seat of the LA), reduced power to increase the LA’s ROD to avoid a mid-air collision. [Encls (13), (20), (21)]

²² A “sugar call” is a non-standard verbal communication over the radio from LA to the Dash-2 to communicate deviations to standard procedures or pre-briefed items. Sugar calls are not required per reference (f).

²³ Stall warnings are provided at nacelle settings of 35 degrees or lower and is triggered at approximately 75-85% of the maximum usable lift during accelerated stalls.

²⁴ Enclosure (116) is a load computation developed by the investigation team to assess the power margins of the MA under the mishap conditions.

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96. This power reduction initiated a 1000 FPM ROD on the LA and avoided a mid-air collision. During this maneuver the MA flew within 300 feet (0.0 DME) of the LA. Within 0.13 seconds of the MA flying within 0.0 DME, MP4 reduced power. [Encl (13)] (See figure 7 below for a timeline of the LA's last minute of flight prior to the MA's impact showing DME readings between the LA and the MA based on flight data recovered from the LA.)

97. The LA AO felt the vibration and could hear MA engines/rotors 'over the top of them' as the LA was descending and continuing to approach to landing zone. [Encl (21)]

98. While in this increased ROD, MP4 saw the MA transitioning into conversion mode,²⁵ as the MA's nacelles were off the down-stops and moving toward a vertical position. (Encl (20))

99. Concurrently, the GFC, in the MA, heard the MAC tell MP2 over ICS to input "one more hard turn" and MP2 began the third right turn. This last turn, as described by the Marines in the troop compartment, was the most aggressive of the three and put the MA in a near 90-degree right wing down condition, with a nose-down attitude. [Encls (18), (23), (60)]

100. Some Marines in the MA stated that while the MA AO was laying down on the ramp at this time, it appeared as though he was standing upright in comparison to the horizon. [Encls (18), (23), (60)]

101. During this low right-wing down and nose-down attitude, the MAC called over ICS for control of the aircraft, and MP2 verbally responded, 'you have the controls' and physically transferred the controls to MAC. The GFC saw the MAC take the controls and roll the wings level and immediately call over ICS to 'brace' for impact. [Encls (18), (60)]

102. From the ramp of the LA the AO observed the MA directly behind the LA, wings-level, in conversion mode, heading the opposite direction, and slowly descending. [Encl (21)]

103. After hearing the MAC call "brace" over ICS, the GFC repeated the brace call and physically put the Marines next to him into a brace position. [Encl (18)]

104. After taking the controls, the MAC was observed pulling back on the cyclic with both hands. [Encl (60)]

105. After leveling the wings, the MA was oriented approximately 180-degrees out from the intended landing heading, or approximately 270 degrees magnetic (due west). [Encl (21), (26), (57)]

106. Marines in the troop compartment reported hearing an audible alarm prior to impact. [Encls (18), (60)]

²⁵ Conversion Mode is defined as nacelle settings between 1 and 84 degrees, colloquially referred to as helicopter mode.

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107. There are no reports of seeing MA landing gear in the down position [Encls (21), (26), (57)]

108. The MAC executed a nose up attitude to attempt to slow the MA's speed into the trees. This resulted in the tail striking the trees first and being sheared off. [Encls (18), (21), (57)].

109. The LA AO then saw the MA pitching nose up as it neared the treetops. The LA AO observed the MA descend into the trees and burst into a fireball upon impacting the ground. [Encl (21)]

110. The nacelles were at approximately 66 degrees when the MA impacted the ground. [Encl (107)]

111. Upon impact with the ground, the aircraft skidded for approximately 200 feet before coming to rest, where it became engulfed in flames starting in the cockpit. [Encl (74), (75)]



Figure 6. Still photograph depicting the crash site and burning aircraft taken immediately after the mishap taken from video footage captured by a MRF-D videographer from aboard a VMM-363 (REIN) UH-1 that participated in the mishap flight. (Note, while there was an MRF-D videographer aboard the UH-1, no footage of the actual mishap was captured.)

112. The MA impacted the ground at approximately 0930. [Encl (13), (15), (16), (78)]

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113. Fire was reported near the cockpit and the area forward of the wing before moving aft into the cabin. [Encls (18), (23), (60)]

114. The LA crew stated that during the execution of this approach, very little to no communications were made by the MA and no 'Wave off' call was made over either radio frequency being monitored by the LA or the H-1s.²⁶ [Encls (19), (20), (78)]

115. The LA identified and communicated internally that the MA had crashed, circled back to confirm, and then safely landed under restricted visual landing (RVL) conditions on the runway. [Encls (13), (19), (20), (22), (21), (78)]

116. Once on deck in the landing zone, the LA crew began to communicate with the Squadron ODO to report the mishap. [Encls (19), (20)]

Figure 7. Timeline showing distance between LA and MA during the final minute of flight based on data from the LA.

Time*	Event	LA Distance to MA by DME
08:28:55	LA reduces power to initiate slowdown and the procedures to execute the 90-degree right-hand tactical approach.	0.6
08:29:06	LA starts right-hand bank to return to inbound course of 350 degrees.	0.4
08:29:15	LA executes nacelle beep to increase Nr [†] from 84% to 100%.	0.3
08:29:28	LA pitch indicates 10-degree nose-up attitude with nacelles at 64 in turn for Final Landing Heading (FLH) of 90 degrees.	0.4
08:29:33	LA still in turn for FLH.	0.1
08:29:34	LA still in turn for FLH. No maneuvers seen from LA during this close approach from MA.	0.0
08:29:38	LA still in turn for FLH.	0.1
08:29:41	LA still in turn for FLH.	0.4
08:29:44	LA rolls out of turn on FLH.	0.4
08:29:47	LA power reduction and Vertical Speed Indicator (VSI) show rapid descent to avoid mid-air, MA in right wing down turning into LA.	0.3
08:29:49	LA ROD is 1000 feet per minute.	0.3

²⁶ A "wave off" call is a decision by a pilot to cease the current landing attempt in order to reattempt the landing under better or more safe conditions.

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08:29:50	LA increases power and regains normal approach descent parameters.	0.1
08:29:54	LA continues final approach.	0.0
08:29:57	LA continues final approach.	0.1
08:29:58	LA continues final approach.	0.3
08:30:00	LA continues final approach.	0.4
08:30:02	LA continues final approach.	0.5
08:30:03	LA continues final approach.	0.6

* Time is depicted as retrieved from the LA flight data, approximately 1 hour behind Australian Central Time used throughout the rest of this report.

† Nr is defined as the rotor speed of the MV-22.

117. When asked if any pilot or aircrew saw birds in the objective area, all but one eyewitness stated they saw no birds within the objective area. [Encls (19), (20), (26)]

118. Visibility within the OA was reported as good to unrestricted, with no smoke or atmospheric degradation noted, and the sun was not a factor. No exact visual distance was recorded during interviews. [Encls (26), (19), (20)] (See also figure 3 above for an image depicting visibility.)

119. Winds reported by aircrew within the OA were easterly at 20 KTS. [Encls (19), (20), (26)]

120. Based on the calculated load computation, the safe landing parameters to land the MA with its weight, the atmospheric temperature, and with reported winds for the day of the mishap would be accomplished by landing with the pre-planned and briefed landing heading of 090 degrees. The MA, after turning nearly 180 degrees opposite the planned landing heading and accepting a significant tail wind, incurred an increased power requirement exceeding the planned 95% torque requirement. The added tail wind imposed a 99% power requirement on the aircraft leaving only a 1% torque margin for hovering out of ground effect (HOGE)²⁷. [Encl (116), (117)]

121. While there is no GPS data available for the H-1s or the MA, based on testimonial evidence of the H-1 pilots and the LA aircrew, the H-1s' position was not a factor in the mishap, and they were appropriately deconflicted by altitude. [Encls (19), (20), (21), (24), (26), (57)]

C. Post Mishap Events: Rescue Operations and Role of Controlling and Support Personnel

122. The site of the mishap is an uninhabited, wooded, bush area of Melville Island. [Encls (74), (75)] See figure 8.

²⁷ See ref (d), encl (117). "2. Shore-based vertical takeoff and/or landing shall plan for a 5% Hover Out of Ground Effect (HOGE) torque margin for the specific aircraft in use. Takeoff and landing operations with less the 5% HOGE power margins shall be approved by the CO, XO, OPSO, AMO, or Detachment OIC."

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Figure 8. Still photograph taken by a Northern Territory Police drone on 28 August 2023 at 1620, depicting the crash site and surrounding area.

123. After the MA impacted the ground the cockpit area burst into flames and many concurrent actions occurred. [Encls (22), (23), (26), (57), (24), (25)]

124. Marines in the troop cabin, immediately began evacuating the MA out the rear entry. [Encls (23), (18), (60), (31)]

125. The GFC, seated near the front of the cabin, was the last Marine to exit the aircraft, ensuring no other personnel were in the cabin as he exited. [Encl (18)]

126. The GFC stated that he observed the MA Crew Chief exit the aircraft via the crew door.²⁸ [Encl (18)]

²⁸ During his interview, the GFC speculated that while he initially observed the Crew Chief exit the aircraft, he later concluded his mind was tricking him because he was later informed that the Crew Chief died in the aircraft. Because the two items (that the Crew Chief egressed and that he perished in the aircraft) are not mutually exclusive and additional evidence corroborates the Crew Chief exiting the aircraft his testimony is included here as fact. See enclosure (18).

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127. During the investigation of the crash site, the forward Crew Chief's adjustable tether was found intact and unburnt, and still attached to a cargo tie down, with the structure of the tie down detached from the primary aircraft structure. [Encl (76)]

128. When the GFC exited via the rear of the aircraft, flames had spread from the cockpit into the cabin of the aircraft. [Encl (18)]

129. It took approximately one minute for all PAX to evacuate the cabin after the crash. [Encls (18), (31)]

130. Because of the amount of gear in the center aisle of the aircraft, some Marines crawled along the seats to exit. [Encls (18), (23), (60), (62)]

131. The seats in an MV-22B are designed to "stroke"²⁹ to the deck of the aircraft upon impact. [Ref (k)].

132. At least some of the seats in the MA stroked at least partially. [Encls (31), (76); see also figure 9.]

133. As the Marines exited the MA, the Fire Support Team Leader (FiST Leader) and Passenger 1 (P1) found the AO pinned under debris from the aircraft and they began attempting to free him. [Encl (23)]

134. They disconnected the AO from the aircraft and helped free him from the debris, so he could be moved to the casualty collection point (CCP) the Marines had established, where the Platoon Corpsman rendered aid. [Encl (23)]

135. During evacuation of the MA, the Platoon Corpsman's medical bag was left on the aircraft. Consequently, the only medical supplies available were individual first aid kits (IFAKs). [Encls (18), (23)]

136. The GFC directed that a search party circle the aircraft to find the MA Crew Chief, because he believed he had exited the front crew door. [Encls (18), (23)]

137. The GFC began collecting accountability and directed that the Marines move further from the crash site due to concerns about secondary explosions. [Encls (18), (23)]

138. The AH-1Z pilot assumed the role of on-scene commander (OSC). [Encl (26)]

²⁹ The pilot seats are designed to stroke up to 16 inches during a hard landing or crash up to 14.5 Gs. Each pilot seat has a weight selector for individualized pilot weights that must be appropriately set prior to flight to ensure full crash attenuation is available. All seats in the MV-22 cabin are designed to withstand forces up to 13.5 Gs and will stroke up to 12 inches, except the two seats on the ramp that are designed to stroke up to 10 inches.

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139. The H-1s then orbited the crash site looking for Marines evacuating the MA and for a place to land near the MA as well as making reports. [Encl (57)]

140. Because of how heavily wooded and remote the crash site was, the only place to land was the airfield that was the intended LZ approximately 2km away. [Encl (57)]

141. After gaining accountability of all PAX, the GFC directed another search party to look for the three missing air crew. [Encls (18), (23)]

142. The FiST leader and one other Marine circled the MA getting as close as possible given the post-crash fire and the wind direction. [Encl (23)]

143. The FiST Leader looked into the cockpit and was close enough on the right side to see what he believed was the joystick. [Encl (23)]

144. It appeared to him that the right-side seat was empty. [Encl (23)]

145. Concurrent to these events, the GFC was establishing communications and reporting accountability. [Encl (18), (26)]

146. ADF personnel serving as exercise control (EXCON) at the LZ, saw the MA flying away from the LZ and initially thought it was going to land at another LZ when they lost visual of the MA because of the trees. The senior ADF representative began looking at his map of the area to identify any other potential LZs the MA may have been going to. [Encl (15)]

147. Because of the mishap, the LA did not land as planned but flew an orbit near the crash site. At approximately 0935, the OSC directed the LA to land at the LZ to decongest the air space, and the LA did so. [Encls (19), (20), (26), (24), (25), (57), (16)]

148. At approximately 0940, the OSC directed the UH-1 to land to communicate with EXCON. [Encls (26), (57)]

149. EXCON personnel on the airfield observed smoke rising above the tree line in the vicinity of where the MA was last seen, but assumed it was a brush fire (as is common in the area). [Encl (16)]

150. Upon landing, the UH-1 Crew Chief got out of the aircraft and sprinted to the EXCON ADF representative at the airfield. [Encls (24), (25), (15))]

151. Shortly after the crash, approximately 10 minutes, the GFC established communication with the H-1s. [Encls (18), (26)]

152. The GFC reported accountability for 20 PAX with 3 missing. [Encl (18), (26)]

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153. For those accounted for, the GFC reported 1 urgent casualty (the AO), 3 priority casualties, and the remainder routine. [Encls (18), (26)]

154. The UH-1 Crew Chief reported to the Senior ADF Representative that it was an actual mishap, at which point they immediately began reporting to EXCON and coordinating search efforts. [Encl (15), (24), (25)]

155. Concurrently, the Senior ADF Representative tasked EXCON personnel and role players on hand to begin search and rescue operations. [Encls (15), (24), (25)]

156. At approximately 0957, the first dismounted patrol of ADF personnel departed the airfield to conduct search and rescue. The UH-1 air crew passed a ten-digit grid coordinate to EXCON personnel at the airfield. [Encl (16)]

157. At approximately 1010, a second dismounted patrol of ADF personnel departed the airfield to conduct search and rescue. [Encl (16)]

158. At approximately 1025, ADF personnel arrived at the crash site and began providing aid and conducting area searches for the unaccounted-for air crew. [Encls (18), (15)]

159. At approximately 1040, the second dismounted patrol arrived at the crash site and identified a potential vehicle route to the crash site. Concurrently, additional EXCON personnel arrived at the airfield with a medic G-Wagon Ambulance variant. [Encl (16)]

160. During initial testing of the vehicle route to the crash site, one of the ADF vehicles punctured a fuel tank due to the difficulty negotiating the terrain. [Encl (16)]

161. Between approximately 1015 and 1058, a CareFlight arrived at the crash site and lowered medics by hoist who took over care of the AO from the Platoon Corpsman. [Encls (14), (18)]

162. Initially, the goal was to lift the AO out of the crash site by hoist to a CareFlight, but the medical teams on site determined the hoist extraction was not an option based on the AO's condition and the increasing winds. [Encl (16)]

163. From 1130 to 1430 casualties were ferried by ADF ambulance from the crash site to the airfield based on assessed urgency. [Encl (16)]

164. At an indeterminable start time, but throughout the remainder of the day local doctors and nurses came to the airfield and ran the CCP established there, conducting triage and providing aid to the remaining casualties as they were transported from the crash site. [Encls (18), (15)]

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165. The AO, the urgent casualty, was transported by ground from the mishap site to the airfield in the ADF ambulance. The vehicle had to move very slowly, cautiously traversing numerous small but steep creek lines and difficult terrain. [Encl (16)]

166. Upon arriving at the airfield, the AO was turned over to the MEDEVAC CareFlight that was on-scene. It took approximately 45 minutes for the medical team to stabilize the AO sufficiently for flight when he was subsequently transported via CareFlight to Royal Darwin Hospital and then ultimately to Melbourne. [Encl (23)]

167. Next the priority casualties were ferried by ADF vehicles from the mishap site to the airfield and then evacuated on care flights. [Encls (18), (16)]

168. The remaining casualties and personnel were ferried by ADF vehicles from the mishap site to the airfield and were screened by the CCP discovering multiple additional injuries. [Encl (16)]

169. At approximately 1430, the Northern Territory Police Superintendent with a team of 8-10 Police Headquarters Staff arrived at the airfield by police aircraft. The Superintendent notified the ADF EXCON personnel that as of that moment he had assumed control over the incident site and offered the use of any of the police aircraft to support continued extraction of Marines back to Darwin. [Encl (16)]

170. At approximately 1530 and 1630, two police aircraft flights departed evacuating the remaining Marines involved in the mishap. [Encl (16)]

171. Throughout all post-mishap operations, until approximately 1430, H-1s from VMM-363 (REIN) rotated between the mishap site and RAAF-D, controlling and deconflicting airspace, directing medical aircraft into and out of the airfield. [Encl (26)]

172. Initially after the mishap, there was some confusion regarding which serials (passengers) were aboard the MA because of the last-minute change to the serials (when the bump plan was executed prior to takeoff). [Encls (58), (57), (26)]

173. Because of the remote nature of the mishap site, there was some delay in getting personnel to the mishap site, particularly by ground. [Encls (18), (15)]

174. There was some confusion amongst pilots about whether military aircraft could or should conduct casualty evacuation and land at the Darwin hospital. [Encl (19), (20), (24), (57)]

175. This confusion did not result in any delay of medical treatment as the care flights were in the LZ before any casualties were ready to be evacuated due to the rugged terrain. [Encls (15), (16)]

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176. Amongst the VMM-363 (REIN) pilots at the mishap scene, there was confusion about why they were being directed to return to base because of a concern about a lack of control and support at the crash site if they left. [Encls (57), (19), (20)]

177. The MRF-D CE did not have a command and control (C2) role or function for PREDATOR'S RUN. [Encl (7)]

178. There was minimal MRF-D MAGTF C2 that occurred in the immediate aftermath of the crash, in part because this was an ADF-led and controlled exercise that VMM-363 (REIN) was supporting. [Encl (7)]

179. At an undeterminable time after the crash, but not sooner than 1100, local Australian nationals arrived at the scene with privately owned fire-fighting tenders³⁰ to help prevent the spread of the post-crash fire. [Encls (15), (17)]

180. After making several trips to and from the crash site to refill their water tanks, these local nationals were able to extinguish the post-crash fire and prevent any further spread of the fire. [Encls (15), (17)]

181. The actions of these local nationals significantly contributed to the positive identification of the remains of the missing personnel. [Encls (15), (17)]

182. These private fire-fighting tenders were the only fire-fighting equipment that was able to make it to the crash site. [Encl (17)]

183. The remains of both pilots were recovered from roughly where their seats were located in the cockpit of the aircraft. [Encl (75)]

184. The remains of the forward Crew Chief were also recovered from the cockpit of the aircraft. [Encl (75)]

185. The pilot seats were mostly destroyed in the post-crash fire. [Encl (76)]

186. The MAC's (right seat) rotary buckle was recovered with no restraint tangs inserted. One lap belt tang was recovered away from the rotary buckle. [Encl (76)]

187. MP2's (left seat) rotary buckle was recovered with three tangs in the buckle (two shoulder belt tangs, and one lap belt tang). [Encl (76)]

³⁰ Personally owned pick-up or flat-bed trucks with a 200-liter water tank in the back.

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188. Neither the starboard nor port side cockpit emergency egress severance assemblies³¹ were actuated by the pilots. [Encl (76)]

189. In accordance with reference (a), enclosures (32), (33), and (90) contain a list of all personnel and the injuries they sustained in the mishap and the medical treatment records for those injuries and are incorporated here as a fact. [Encls (32), (33), (90)]

190. The MAC died during the mishap. [Encl (34)]

191. The Medical Examiner concluded that the cause of MAC's death was "multiple injuries due to an aviation mishap. The autopsy examination is limited due to thermal changes caused by the post-crash fire and early decomposition changes. The toxicology screen is positive for ethanol due to decomposition changes. The carboxyhemoglobin saturation of 49% indicated inhalation of combustion products. The manner of death is accident." [Encl (34)]

192. MP2 died during the mishap. [Encl (35)]

193. The Medical Examiner concluded that the cause of MP2's death was "multiple injuries due to an aviation mishap. Autopsy examination showed extensive thermal injuries and blunt force injuries of the spine. Carboxyhemoglobin saturation was 11% demonstrating inhalation of a low level of products of combustion. Toxicology was negative. The manner of death is accident." [Encl (35)]

194. The MA Crew Chief died during the mishap. [Encl (36)]

195. The Medical Examiner noted that injuries could not be determined to be antemortem injuries, postmortem thermal injuries, or a result of recovery efforts and concluded that the cause of his death was "multiple injuries due to aviation mishap. The toxicology screen is positive for ethanol in the liver consistent with postmortem decomposition production. The toxicology is positive for carboxyhemoglobin at 23% saturation demonstrating inhalation of products of combustion. This is supported by the finding of soot deposition throughout the remaining airway. Based on the investigative information and autopsy findings, the manner of death is accident." [Encl (36)]

196. The AO (b) (6) and was transferred to (b) (6)
(b) (6) [Encls (90), (93)]

³¹ "Cockpit emergency escape is provided by jettisonable side windows. The windows are jettisoned by firing a linear shaped explosive charge around the periphery of each window. The explosive charge is ignited by percussion primers. Jettison handles for arming and firing are mounted in the cockpit and externally on both sides of the cockpit. Pulling the handle aft, fires the percussion primer located in the mechanism. A force of approximately 15 lbs. is required to arm the system and 20 to 35 lbs. to fire the primer. A safety pin is inserted in the mechanism to prevent inadvertent operation of the handle while the aircraft is on the ground." See reference (k), paragraph 2.91.1-2.19.1.1.

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197. The force of the impact upon crashing and post-crash fire were significant. [Encl (76)]

198. Due to the extent of the post-crash fire, the MV-22B was a total loss. [Encl (75)]

199. MV-22B seats are designed to stroke at roughly 14 Gs of force in the vertical direction. [Encl (76)]

200. Minor seat stroking was observed on the right-side pilot's seat and the intact troop seat recovered outside the aircraft. [Encl (76)]

201. An M-240 machine gun (typically transported in the troop compartment) was recovered from roughly in between the two pilot seats in the cockpit. [Encl (76)]

202. Enclosure (37) includes list of all GCE equipment lost or destroyed in the course of the mishap and is incorporated here as a fact. [Encl (37)]

D. Background and Experience of Mishap Aircrew

203. All the MA crew were active-duty Marines part of VMM-363 (REIN) assigned on the 27 August 2023 flight schedule signed by the Squadron XO (the MAC) in an Acting capacity.³² [Encls (51), (91), (94)]

204. On 26 August 2023 the XO (MAC) of VMM-363 approved the squadron's flight schedule and signed the Risk Assessment Worksheet (RAW) for each flight event on 27 August 2023, though he did not sign his portion required of the Tiltrotor Aircraft Commander (TAC) for the individual crew and aircraft. The RAW was not signed by the Department of Safety and Standardization (DOSS) for the events on 27 August 2023. [Encl (10), (99)]

205. All pilots and crew members were current on NATOPS and Instrument exams, as applicable. [Encls 38, 39, 40, 41]

206. The MAC background and experience were as follows:

- a. Designated a naval aviator on 28 February 2012. [Encl (38)]

³² "Acting" refers to when an officer succeeds to command during the temporary absence of the commanding officer. The officer who succeeds to command or is the Acting commander has the same authority as the officer whom he or she succeeds. At the time of the mishap, the Squadron CO was embarked aboard the HMAS CANBERRA with a portion of the squadron, and the Squadron XO (the MAC) was designated as the Acting Commander in Darwin. When an officer is Acting during the temporary absence of a commander (as in this case) the Acting Commander's authority and responsibility are limited in accordance with any written instructions (i.e., enclosure (91)) and to carrying out the routine affairs in the usual manner. See references (m), Article 1026, and (n), paragraphs 1006-1007, and enclosure (91).

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- b. Tiltrotor Aircraft Commander (TAC) qualification on 31 October 2014. [Encl (38)]
 - c. MAC flew 40 hours in July through August before the mishap. [Encl (42)]
 - d. Aeromedical waiver Class 1 WG: 02 March 2010. [Encl (38)]
 - e. Flight Physical completed 20230109, expired: 20231231. [Encl (38)]
 - f. Duty Involving Flight Operations (DIFOP) Orders effective 0800, 11 May 2022 to VMM-363. [Encl (38)]
 - g. Designated MV-22 NATOPS Instructor 16 May 2022 from VMM-363. [Encl (38)]
 - h. The MAC was the designated Section Leader for the mishap flight on 27 August 2023. [Encl (99)]
 - i. The MAC was previously involved in a separate Class A Aviation Mishap on 13 December 2016 off the coast of Okinawa, Japan with VMM-265. That mishap did not result in the loss of any life but did result in several injured and in the MAC being placed on a conditional flight status from 28 February 2017 until 24 January 2019. [Encl (38), Ref (g)]
 - j. On 10 December 2018, the CO of Marine Medium Tiltrotor Training Squadron 204 (VMMT-204), the squadron assigned to conduct the MAC's remedial training, concluded that after the successful completion of the remedial training that the MAC be returned to full flight duty status and that no additional remedial training was necessary. [Encl 38]
 - k. On 24 January 2019, the Marine Corps Deputy Commandant for Aviation officially authorized the removal of a conditional flight status for the MAC. On the date of the subject mishap, there were no limitations on the MAC's flight status. [Encl 38]
 - l. Post conditional flight status removal, MAC served as an instructor at VMMT-204 from January 2019 to May 2022 before joining VMM-363 (REIN).
207. MP2 background and experience were as follows:
- a. Designated a naval aviator on 22 October 2021. [Encl (39)]
 - b. MP2 flew 24.6 hours in July through August before the mishap. [Encl (43)]

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- c. Flight Physical completed 15 February 2023, expired: 30 April 2024. [Encl (39)]
- d. DIFOP Orders effective 0800 30 June 2022 to VMM-363. [Encl (39)]
- e. Designated T2P on 12 April 2022 from VMMT-204. [Encl (39)]
- f. MP2 was current and proficient on all codes required to fly the section profile and landing plan, but was being evaluated by MAC for 3140x, Aerial Evacuation, during the mishap flight. Though the schedule reflects the training requirements of MAC and MP2, due to the mishap happening before mission completion, it is undetermined whether the instruction occurred during the mishap event or the planned second wave that ultimately did not occur. [Encl (99)]

208. The MA Crew Chief's background and experience were as follows:

- a. Qualified Crew Chief in the MV-22. Designated Crew Chief on 19 April 2022. [Encl (40)]
- b. MA Crew Chief flew 68.5 hours in July through August before the mishap. [Encl (44)]
- c. Flight orders signed 30 September 2022. [Encl (40)]
- d. Flight Physical 8 February 2023 expired: 30 April 2024. [Encl (40)]
- e. Designated Basic Instructor Crew Chief (BIC) on 8 May 2023. [Encl (40)]

209. The MA AO's background and experience were as follows:

- a. Non-Crewmember (Aerial Observer) flight orders signed (b) (6). [Encl (41)]
- b. Flight Physical completed (b) (6), expiration (b) (6). [Encl (41)]
- c. Day Low Altitude Tactics (LAT) Qualified (b) (6) from VMM-363. [Encl (41)]
- d. MA AO flew (b) (6) hours in July and (b) (6) in August before the mishap. [Encl (45)]

E. VMM-363 (REIN) Risk Management Practices and Training Requirements

210. VMM-363 (REIN) flight schedules consist of monthly, weekly, and daily flight schedules that go through a continuously iterative process. [Encl (6), (72), (117)]

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211. During the schedule-writing process it is reviewed by the Planning Board for Training, the Current Operations Officers, the Squadron Operations Officer, the Aviation Maintenance Officer (AMO), the XO, and the Department for Safety and Standardization before being signed by the CO (or someone in an acting capacity). [Encl (10), (72)]

212. According to reference (d), the flight schedule shall be reviewed and initialed by the Operations Officer, AMO, DOSS, and the XO prior to submission to the CO for signature. Those billets may designate one or more representatives, who are authorized to review and initial the flight schedule in their absence in accordance with squadron policy. [Ref (d)]

213. During the schedule routing and review process, the schedule and accompanying RAW are reviewed for SOP and CNAF compliance, crew rest compliance, and compared against Marine Sierra Hotel Aviation Readiness Program (MSHARP) training data to ensure appropriately qualified pilots or instructors are scheduled. [Encl (6), (65), (117)]

214. VMM-363 (REIN) has multiple pilots trained as Aviation Safety Officers (ASOs). [Encl (72)]

215. Generally, witnesses testified to a strong safety culture in VMM-363 (REIN), though one witness indicated that while the safety culture is “good,” the DOSS Section “can be bullied into bending rules through the high operational tempo. – Example – DOSS initially uncomfortable with a scheduled flight event, but the command signs off on it anyway.” [(58), (71), (101), (20), (22), but *cf.* encl (98)]

216. On 9 August 2023, VMM-363 (REIN) reported a Class E Aviation Mishap when a cracked sponson along the bottom of an MV-22B was discovered during cleaning. [Encl (54)]

217. The VMM-363 (REIN) CO speculated that the damage likely occurred from contact with micro-terrain (e.g., a termite mound or small sapling common in Australia). [Encl (54)]

218. The VMM-363 (REIN) CO assessed this mishap did not warrant a safety standdown and it was undetermined when the damage occurred. [Encl (54)]

219. The Class E mishap was under investigation at the time the subject Class A mishap occurred. [Encl (54)]

220. On 16 August 2023, VMM-363 (REIN) had a Class C Aviation Mishap aboard the HMAS CANBERRA. [Encl (54)]

221. During this Class C mishap event, VMM-363 (REIN) was conducting on-off drills with members of the Armed Forces of the Philippines. Prior to the final on-off drill, the MA refueled. The pilots involved did not recalculate the power margins/load computation after onloading PAX and fuel. During that mishap, an MV-22B launched from the flight deck of the HMAS CANBERRA, moved laterally over the water and quickly lost altitude because the

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aircraft did not have the power available to remain airborne in while carrying a full fuel tank and the number of PAX onboard. Because the aircraft had some forward airspeed, it “skipped off the water” before regaining altitude. Nobody was injured. [Encl (54)]

222. The VMM-363 (REIN) CO described the incident as a case where power required exceeded power available that resulted from poor weight and power planning. [Encl (54)]

223. The VMM-363 (REIN) CO addressed the incident with the embarked pilots but did not direct a squadron-wide safety standdown following the Class C mishap. [Encl (54)]

224. No additional VMM-363 (REIN) flight operations were conducted from the HMAS CANBERRA prior to arrival in the Philippines. Conflicting reasons for this were given, including that the ship would not permit flight operations, and that none were scheduled. [Encl (54), (72)]

225. Neither the Class C mishap nor any lessons learned from it were formally communicated to the remainder of the squadron operating ashore out of RAAF Base Darwin. [Encl (54)]

226. The Class C mishap was under investigation at the time this subject Class A mishap occurred. [Encl (54)]

227. Both the Class C and Class E mishaps were appropriately reported to the MRF-D commander and up the chain of command. [Encl (66)]

228. The MRF-D commander did not direct a safety standdown because he assessed that neither of the Class E or follow-on Class C incidents were safety of flight-related issues. [Encl (66)]

229. The MRF-D commander appropriately reported the Class C and Class A mishaps to higher headquarters (HHQ). [Encl (66)]

F. VMM-363 (REIN) Human Factors Monitoring, Manpower, and Operations

230. No evidence indicates the use of medication or intoxication was a factor in this mishap. [Encls (34), (35), (36), (46)]

231. The Command Individual Risk and Resiliency Assessment System (CIRRAS) is an integrated, web-based tool for commanders to enable proactive identification of risk and resiliency factors for the Marines in their commands. Its use by unit Force Preservation Councils (FPCs) is mandated by references (h) and (i). [Refs (h), (i)]

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232. The purpose of FPCs is to ensure commanders have a wholistic picture of the overall well-being of individual Marines and ensure appropriate risk mitigations are in place to address human factors. [Ref (h)]

233. VMM-363 (REIN) used CIRRAS to conduct each FPC. [Encls (20), (92)]

234. CIRRAS automatically populates some information from other Marine Corps information systems (e.g., MCTFS) and the command (VMM-363 (REIN)) is responsible for entering the rest of the information about a given Marine. CIRRAS has risk information categories including personal details (automated), relationships (mostly command entered), work (partially automated), housing (partially automated), transportation (mostly command entered), social and spiritual (mostly command entered), health and fitness (mostly command entered), financial (mostly command entered), legal (mostly command entered), and training and education (partially automated). [Encl (92)]

235. While VMM-363 (REIN) nominally uses CIRRAS, the only information about the mishap crew entered into CIRRAS is the information that automatically populates from other Marine Corps information systems. No personalized, command-entered information was entered for the mishap crew. [Encl (92)]

236. All members of the mishap crew were categorized as “low risk” in CIRRAS and there was no information in CIRRAS that would raise a human factors concern related to this mishap. [Encl (92)]

237. Like many squadrons, VMM-363 (REIN) runs a Human Factors Council (HFC) separate from its FPC. [Encl (65)]

238. VMM-363 (REIN) does not maintain HFC minutes. [Encl (65)]

239. Significant matters raised at HFC should be incorporated into CIRRAS for FPC purposes. [(72), ref (h)]

240. Both the FPC and HFC meet monthly. [Encl (20)]

241. VMM-363 (REIN) does not enter items from HFC into CIRRAS unless they are also specifically raised at the FPC. [Encl (65)]

242. No witnesses interviewed who attend the FPC or the HFC meetings were aware of any human factors relating to the mishap crew. [Encls (54), (65), (72), (20)]

243. When asked about human factors relating to the MAC, the VMM-363 (REIN) CO cited the fact that while at the air show in Melbourne, MAC visited his wife who had travelled to Melbourne, but indicated that there were not any concerns, and that there were no human factors concerns. [Encl (54)]

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244. When asked about human factors relating to MP2, the VMM-363 (REIN) CO cited the fact that her husband was also an MV-22B pilot in VMM-363 (REIN) but indicated that there had not been any issues.³³ [Encl (54)]

245. At the time of the mishap, MP2's husband was embarked aboard the HMAS CANBERRA. [Encls (54), (94)]

246. No evidence indicates that either their assignment to the same unit (while contrary to custom) or his temporary absence aboard the HMAS CANBERRA was a factor in the mishap. [Encl (54), (98)]

247. When asked about human factors relating to MA Crew Chief and the AO, the VMM-363 (REIN) CO indicated there were no human factors concerns. [Encl (54)]

248. MAC was designated as the "Acting Commander" for the squadron when this mishap occurred. [Encl (91)]

249. MAC was not under undue stress or "task saturated" as the "Acting Commander." [Encls (54), (58)]

250. The mission brief on 26 August was scheduled for 1700 but was delayed until approximately 1715. [Encl (19)]

251. The brief concluded at approximately 1810-1815. [Encls (19), (26), (20), (54)]

252. The pilots and crews departed the workspaces by 1830. [Encl (19)]

253. At approximately 2000, the Acting Operations Officer directed the Command Duty Officer (CDO) to walk through the planning and workspaces to ensure all pilots and crew were observing appropriate crew rest. [Encl (58)]

254. The ODO brief the morning of the mishap was scheduled for 0600. [Encls (20), (19)]

255. The show time the morning of the mishap flight was earlier than normal for non-maintenance personnel in the squadron. [(19), (20), (22), (71), (85)]

³³ While contrary to custom and practice, reference (j) does not affirmatively prohibit the assignment of two married active-duty Marines to the same unit. Reference (j) states that the assignment of two married Marines to the same unit in times of conflict in areas of ongoing hostilities is not prohibited when military requirements necessitate it and doing so would not be contrary to the good order and discipline of the unit. While reference (j) does not address the assignment of married couples to the same unit outside of those circumstances it is not affirmatively prohibited, and generally assignment of married couples to the same O-5 level command is avoided.

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256. The crew was allocated less than 12, but more than 10 hours of crew rest. [Encls (26), (19)]

257. Reference (e), paragraph 8.3.2.1.1, requires a minimum of 8 hours of uninterrupted sleep with time for transportation and meals for crew rest. [Ref (e)]

258. There was confusion across VMM-363 (REIN), and the H-1 detachment, in particular, about which MAW SOP applied for crew rest purposes since VMM-363 is a 1st MAW squadron assigned to a I MEF MAGTF with a 3d MAW H-1 detachment. [Encls (26), (58)]

259. The VMM-363 (REIN) SOP required 12 hours of crew rest. [Encls (26), (65), Ref (d)]

260. While all pilots received crew rest IAW reference (e), they did not receive crew rest in accordance with the VMM-363 (REIN) SOP. [Encl (26)]

261. While not under undue stress, MAC's primary focus prior to PREDATOR'S RUN was on the air show on 17-21 August 2023, not PREDATOR'S RUN. [Encls (53), (54), (85)]

262. MAC returned to Darwin from the air show on 21 August 2023. [Encl (51)]

263. In addition to the air show, MAC was the senior VMM-363 (REIN) representative present when the Commander, U.S. Marine Forces Pacific (COMMARFORPAC), visited RAAF Darwin and consequently he spent a portion of Friday, 25 August 2023, hosting COMMARFORPAC while the detailed planning for the mishap flight was occurring. [Encls (19), (58), (67)]

264. While there is no evidence of any significant distractions or competing military duties, MAC did not participate in the mission planning for the mishap flight, despite being the section lead and the TAC. [Encls (19), (20), (58), (82)]

265. MAC did attend the section brief the night before the mishap and asked questions during that brief. He also attended the ODO brief the morning of the mishap. [Encls (20), (26)]

266. The morning of the mishap flight, MAC's focus was not on the mishap flight. [Encl (85)]

267. After completing their briefs that morning, MAC, MP2, and MP4 decided to go get breakfast. [Encl (20)]

268. The Army and Air Force Canteen (AAFCANS) they went to was closed and they declined to go to the chow hall. [Encl (20)]

269. MP2 and MP4 had a canned coffee prior to manning their aircraft. [Encl (20)]

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270. It is unlikely that MAC, MP2, MP4, or the MA Crew Chief ate anything substantive prior to the flight. [Encl (20)]

271. The SLUI had recently attended the ASO course. [Encl (19)]

272. The MF was the SLUI's second flight after returning from the ASO course. His first flight after returning was on 23 August 2023. [Encls (19), (51)]

273. According to the VMM-363 (REIN) CO, when he took command, the squadron had no Weapons and Tactics Instructors (WTIs). [Encl (54), (87)]

274. According to the VMM-363 (REIN) CO, the squadron was without a WTI for nearly a year prior to the MRF-D deployment [Encl (54)]

275. In the VMM-363 (REIN) CO's assessment, the majority of pilots in the squadron during the time between returning to home station from the 2021 MRF-D rotation until deploying for the 2023 rotation were inexperienced. [Encl (54), (87)]

276. With no WTIs in the squadron, the VMM-363 (REIN) CO assessed that the junior pilots in the squadron struggled to progress through the required syllabi prior to the MRF-D deployment. [Encl (54)]

277. According to the VMM-363 (REIN) CO, this problem was compounded by three factors: (1) the difficulty of training MV-22s in Hawaii; (2) the input quill assembly red-stripe message that occurred in 2023; (3) and pre-deployment agricultural inspections required prior to the MRF-D deployment, all of which reduced opportunity for pilot training and progression. [Encl (54)]

G. MRF-D Training, Operations, and Integration

278. The command relationships (COMREL) of the MRF-D Marine Air Ground Task Force (MAGTF) are non-standard. [Encl (4), (54), (66)]

279. MRF-D is a I MEF mission and all the units assigned to MRF-D except VMM-363 (REIN) come from within I MEF. [Encl (4)]

280. The MRF-D command element (CE) for this rotation was 1st Marine Regiment with enabling personnel augments. [Encl (4)]

281. The MRF-D GCE was 3d Battalion, 1st Marines (3/1). [Encl (4)]

282. The MRF-D logistics combat element (LCE) was Combat Logistics Battalion 1 (CLB-1). [Encl (4)]

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283. The MRF-D ACE was VMM-363 (REIN), a 1st Marine Aircraft Wing (MAW) / III MEF squadron based out of Hawaii. [Encl (4), (54)]

284. Further complicating the COMREL, the H-1s assigned to VMM-363 (REIN) came from a 3d MAW / I MEF squadron based out of Camp Pendleton, California, and did not join VMM-363 (REIN) until approximately halfway through the deployment. [Encl (4), (54), (58), (72)]

285. Unlike a Marine Expeditionary Unit (MEU), the MRF-D MAGTF does not composite as a MAGTF and then conduct a deliberate pre-deployment training program (PTP) prior to deploying. [Encls (54), (66)]

286. Because VMM-363 is a 1st MAW, Hawaii-based squadron there is minimal opportunity to conduct integrated training with any of the other elements of the MRF-D MAGTF prior to deployment. [Encl (54), (66)]

287. Unlike a MEU, the MRF-D MAGTF CE is not a standing MAGTF CE, the task rotates between regimental headquarters that receive several enabling personnel augments prior to deployment. [Encl (54), (66)]

288. The H-1 Detachment assigned to VMM-363 (REIN) indicated there was not an integrated Flight Operations SOP that included H-1s. [Encl (29), (58), (79)]

289. The H-1 Detachment assigned to VMM-363 (REIN) operated off its parent squadron's SOP, attempting to identify points where the VMM-363 Flight Operations SOP was more restrictive. [Encls (58), (72)]

290. The VMM-363 (REIN) Operations Officer was unaware what SOP the H-1 Detachment was operating on. [Encl (72)]

291. Chapter 4 of the VMM-363 (REIN) Flight Operations SOP in effect during the MRF-D deployment addresses "AH-1Z/UH-1Y Operations." [Ref (d)]

H. Mishap Aircraft and VMM-363 (REIN) Maintenance Practices

292. The MA was an MV-22B Osprey, Aircraft 15 BUNO 168616, assigned to VMM-363. [Encl (48)]

293. The MA had 1,846.2 flight hours on the airframe prior to the mishap flight. [Encl (47)]

294. The MA had 165.4 flight hours remaining prior to the next Phase Inspection. [Encl (47)]

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295. The MA was previously flown on 21 August 2023 before the MF for a total of 8.0 hours. [Encl (47)]

296. The MA was released Safe for Flight (SFF) on 27 August 2023 by a Maintenance Control Safe for Flight qualified controller prior to the MF. [Encl (47)]

297. The Maintenance Control Chief (MCC) served as the SFF Controller and was a qualified SFF as of 10 August 2023.³⁴ [Encl (101)]

298. The SFF Controller used a SFF checklist to safe the MA prior to the flight on 27 August 2023. [Encl (101), (100)]

299. There are 44 open Partial Mission Capable³⁵ (PMC) Work Orders (WO) for the MA. 12 WOs are Equipment Operational Capability³⁶ (EOC) Coded. 32 WOs are non-EOC coded. [Encl (47)]

300. An open PMC WO with Maintenance Control Number (MCN) 198H10H / Job Control Number (JCN) GC4194069 for the MA indicated that the lower crew door forward cable was frayed. [Encl (103)]

301. The lower crew door on the MA departed the aircraft during the impact. [Encl (75)]

302. A PMC WO described an engine torque split in the maintenance action form (MAF) listed as MCN 198GSPV / JCN GC4364524. The discrepancy lists: "ENGINE TORQUE SPLIT >5% NOTED AT 100% NR." [Encl (103)]

³⁴ While the MCC was newly qualified at VMM-363 (REIN) and the MA was his first SFF since being qualified, he had previously been qualified at other units and had previously safed many aircraft. [Encl (101)]

³⁵ "Partial Mission Capable" is a material condition of an aircraft or training device indicating that it can perform at least one but not all of its missions. "Full Mission Capable" (FMC) is a material condition an aircraft that can perform all of its missions. "Not Mission Capable" (NMC) is a material condition indicating that the aircraft is not capable of performing an identified mission. COMNAVAIRFORINST 4790.2D CH-1, APPENDIX A.

³⁶ "Equipment Operational Capability (EOC) Codes relate a particular system/subsystem within a Type/Model/Series (T/M/S) of equipment to a specific mission. An EOC code is a three-character alpha numeric code that identifies the degree of degradation to mission capability and the system responsible for the degradation. The EOC code is applicable at the time an aircraft system or subsystem is degraded and impairs the aircraft capability to perform assigned mission. Maintenance Control will assign the appropriate EOC code per the T/M/S aircraft mission essential subsystem matrix (MESM)."

"Notes: When aircraft mission capability is degraded during a maintenance action, a new EOC code is assigned to reflect the change in the capability. A change of mission capability is documented by using the subsystem capability impact reporting (SCIR) change option in the basic work order update in OOMA by selecting the appropriate aircraft status from U (up) or D (down) or P (partial) and entering the revised EOC code in the EOC field." COMNAVAIRFORINST 4790.2D

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303. The WO for MCN 198H1HN / JCN GC4202535 describes the discrepancy as a “RH ENGINE FADEC A LANE DIFF WITH WORD 8/8000 MGT.” This discrepancy indicates a split in the measured gas temperature (MGT) between each engine. [Encl (103)]

304. The WO for MAF listed as MCN 198GUZF / JCN GC4052551 describes the Technical Directive (TD) Code 50 discrepancy as: “Comply with Intrm: Code: 50 Basic No: 0277 Rev Ltr: Amend: Part: Kit No: A1 TO UPDATE TROOP SEAT LOCK PINS TO ENSURE PROPER INSTALLATION. COMPLIANCE BY O-LEVEL IAW PUBLISHED SCHEDULE. NEGLIGIBLE W&B (BUNO# 168616).” [Encl (103)]

305. The target completion date for TD Code 50 Basic No: 0277 had not expired prior to the MF. [Encl (47)]

306. A troop seat in the MA separated from the aircraft during the impact. [Encl (76)]

307. The MIST Report states, “One troop seat was found outside of the aircraft wreckage. This troop seat stroked approximately 1 inch on the right side, and 1.5 inches on the left relative to the seat. There was no thermal damage to the seat and the seat exhibited normal wear and tear. The indications of the seat stroke are emphasized by the red circles below.” [Encl (76)] See figure 9.



Figure 9. Photograph of detached troop seat found outside the aircraft taken from the MIST Report with red circles added to identify seat stroking. The misalignment of the faint red lines encircled in red indicates the amount the seat stroked.

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308. Passenger 2 (P2) was riding in the detached seat shown in Figure 5 during the mishap. [Encl (62)]

309. Upon impact, the seat partially stroked, then detached from the aircraft and P2 described striking his head on the top of the aircraft during the crash. [Encl (62)]

310. After the MA came to a stop, P2 egressed the MA and was not aware that the chair was still attached to him. He was told by another Marine after exiting the aircraft that the chair was still attached to him. [Encl (76)]

311. The detached seat in Figure 9 was positioned in the aircraft as the last passenger seat on the port side of the aircraft. To the P1's immediate right was the Mesh Network Manager (MNM) terminal mounted to the wall of the MA. The MNM at least partially obstructed P1's ability to egress the MA. [Encl (76)]

312. The MA Daily Inspection was completed on 24 August 2023 at 1824 by (b) (6) prior to the mishap flight. [Encl. (47)]

313. The Daily Inspection was received on 24 August 2023 at 1601 and completed by 24 August 2023 at 1824. Documentation indicates 2 hours and 23 minutes to completion. [Encl (47)]

314. The MA Turnaround Inspection was signed complete on 27 August 2023 at 0747 prior to the mishap flight. [Encl (47)]

315. The MA Turnaround Inspection was received in the Naval Aviation Logistics Command Management Information System Optimized Organizational Maintenance Activity (NALCOMIS-OOMA) on 27 August 2023 at 0739 and completed on 27 August 2023 at 0747; indicating, by documentation, a total of 8 minutes to complete. [Encl (47)]

316. The Acceptance Sheet for the MA was signed by the Plane Captain on 27 August 2023. [Encl (47)]

317. The Plane Captain was qualified as of 8 March 2023. [Encl (96)]

318. The Acceptance Sheet for the MA was signed by the MAC as the Pilot in Command on 27 August 2023. [Encl (47)]

319. The Acceptance Sheet for the MA reflected a fuel quantity of 9,500 pounds. [Encl (47)]

320. The Acceptance Sheet for the MA reflected the basic weight of 36,689 pounds. [Encl (47)]

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321. The “Fuel Log & Fuel Quantity” listed on the Safe for Flight Checklist reflects “11.0” and “needs fuel samples”. [Encl (100)]

322. The fuel quantity on the Acceptance Sheet and the OOMA Safe for Flight Check List do not match. [Encl (47), (100)]

323. The MA had 5 open TD WOs when the aircraft was signed SFF. [Encl (47)]

324. Maintenance conducted on the MA complied with V-22 Dynamic Component Bulletin No. 59, Amendment 1 (TD Code 52), Subject: Proprotor Gearbox Assembly and Input Quill Assembly, Inspection of (UNS 6321/6322/632101/632202) replacing the overhauled input quill assembly on both the right and left side of the aircraft on 27 June 2023 and 28 June 2023. [Encl (50)]

325. TD Code 51 with Component Serial Number A-79 had a target completion date of 31 December 2022, before the MF. [Encl (47)]

326. No MAF exists reflecting compliance of TD Code 51 with Component Serial Number A-79 prior to the MF. [Encl (103)]

327. V-22 Dynamic Component Bulletin No. 64, (TD Code 52) TCTO 1V-22(C)B-1151 provides instructions for inspection and replacement of Proprotor Gearbox (PRGB) Assemblies, Part Numbers (P/N) 901-044-001-115 and 901044-002-115, which may be at an increased risk of mast failure due to hydrogen embrittlement. [Encl (104)]

328. A closed Non-Mission Capable (NMC) WO for V-22 Dynamic Component Bulletin No. 64 (TD Code 52) TCTO 1V-22(C)B-1151 lists the completed actions for the TD as “complied with interim” and does not list the actions taken to complete the TD. It lists a single serial number. Two serial numbers representing both prop-rotor gearboxes should have been listed with the maintenance action that occurred to comply with the TD. It is unclear what maintenance action was performed to complete this TD. [Encl (103)]

329. The WO MAF (MCN: 198H2QD) reflecting action taken on V-22 Dynamic Component Bulletin No. 64 (TD Code 52) TCTO 1V-22(C)B-1151 was drafted 25 August 2023. [Encl (103)]

330. The single serial number listed on the listed MAF (MCN: 198H2QD) in FF 333 indicating work was completed for V-22 Dynamic Component Bulletin No. 64, (TD Code 52) TCTO 1V-22(C)B-1151, Ser# BH548455, was not identified on the bulletin or the Amendment 1 of the bulletin as requiring inspection or removal and replacement. [Encl (103), (104)]

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331. The second serial number on the second PRGB was not listed on the MAF, however, both PRGB serial numbers are listed as installed components on the itemized component serial number list for BUNO 168616. [Encl (105)]

332. The serial number for the second PRGB as listed on the itemized component serial number list is not reflected as an identified serial number on V-22 Dynamic Component Bulletin No. 64, (TD Code 52) TCTO 1V-22(C)B-1151 which indicates that a removal and replacement of the PRGB was not required. [Encl (105), (104)]

333. No MAF exists reflecting an inspection was completed of the PRGB in accordance with V-22 Dynamic Component Bulletin No. 64, (TD Code 52) TCTO 1V-22(C)B-1151. [Encl (105)]

334. The PRGB serial numbers for the left and right PRGB listed in the Airframes Logbook are not serial numbers listed in V-22 Dynamic Component Bulletin No. 64, (TD Code 52) TCTO 1V-22(C)B-1151. [Encl (106)]

335. No MAF exists reflecting an inspection was completed to verify the serial number of either PRGB installed on the aircraft did not match a listed serial number to comply with V-22 Dynamic Component Bulletin No. 64, (TD Code 52) TCTO 1V-22(C)B-1151, as required. [Encl (47), (103)]

336. A test flight was not completed for V-22 Dynamic Component Bulletin No. 64, (TD Code 52) TCTO 1V-22(C)B-1151. Serial numbers listed on the bulletin did not match PRGB serial numbers in the itemized component serial number list. Therefore, a remove and replace was not required for this aircraft and a test flight was not required. [Encl (47,103)]

337. V-22 Dynamic Component Bulletin No. 64, (TD Code 52) TCTO 1V-22(C)B-1151 instructs that the compliance of the **TD is to be complete prior to the next flight beginning 21 July 2023**. The MA was flown 10 times after the issuance of V-22 Dynamic Component Bulletin No. 64, (TD Code 52) TCTO 1V-22(C)B-1151 before MAF 198H2QD was drafted indicating compliance with the TD. The drafting of MAF 198H2QD occurred on 25 August 2023, 2 days prior to the MF. [Encl (104)] (Emphasis added.)

338. 11 WOs were signed off between 21 Aug 2023 at 0800 and the MF. MCN 198H2QD, MCN 198H01Z, MCN 198H2DO, MCN 198H2DP, MCN 198H2O5, MCN 198H2OA, MCN 198H2OL, MCN 198H2N4, MCN 198H2N4, MCN 198H2N1, MCN 198H2MY. [Encl (103)]

339. The LH Engine was last serviced on 21 August 2023 with 33 oz. of MIL-PRF-23699. [Encl (103)]

340. The RH Engine was last serviced on 21 August 2023 with 32 oz. Of MIL-PRF-23699. [Encl (103)]

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341. The Fuel Sample Log in the ADB for the MA indicate that fuel samples were complete at 0800 on 27 August 2023 which is after the Safe for Flight was signed in OOMA. [Encl (47)]

342. The MA complied with the Planned Maintenance Interval inspection and 1,319.5 flight hours remained on the MA before the next PMI Inspection. [Encl (47)]

343. The Weight and Balance Book for the MA contained all the required forms including: (a) Record of Weight and Balance Personnel, (b) Chart A, (c) Chart B, (d) Chart C, (e) Forms F, (f) Aircraft Inventory Record, (g) Shortages, (h) Certifications, (i) Second Aircraft Inventory Record. [Encl (49)]

344. The Squadron MMCO is listed as the current Weight and Balance Personnel for the VMM-363 Maintenance Department, was qualified at Whiting Field, Florida on 30 June 2021, and assigned at VMM-363 on 1 August 2022. [Encl (77)]

345. The last Basic Weight Certification for the MA was completed 22 August 2022. [Encl (49)]

346. The Weight and Balance Book for the MA contained a Form F dated 1 June 2023. [Encl (49)]

347. The Weight and Balance Book for the MA also contained a Form F dated 3 December 2022. [Encl (49)]

348. A Form F is dated 1 June 2023 for a basic configuration of the MA and was signed by the MMCO on 7 June 2023. [Encl (49)]

349. The most recent signed Form F in the ADB is dated 3 December 2022 but was signed on 27 August 2023 at 09:58:17 (after the mishap had occurred). [Encl (49)]

350. The center of gravity for all configurations is within limits as listed on the Form F dated 3 December 2022. The Form F dated 3 December 2022 matched the load out for the mishap flight on 27 August 2023. [Encl (49)]

351. The Form F dated 3 December 2022 with the load out that matched the mission load out for the MF flown on 27 August 2023 was digitally signed with a common access card (CAC) by the MMCO on 27 August 2023 at 09:58:17. The signature time stamp was 00:18:17 after the mishap was reported to have occurred. [Encl (49)]

352. The Form F was dated 23 December 2022, which exceeds the 180-day limitation of the currency of the Form F as compared to the MF per reference (1). [Encl (49), (89)]

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353. When conducting the SFF Checklist for the MF, the SFF Controller asked the MMCO if the Form F for the proper configuration of the MA with troops was complete. [Encl (101)]

354. The MMCO told the SFF Controller that he would “take care of it,” referencing the Form F. [Encl (101)]

355. The SFF Controller admitted that he never saw the Form F reflecting the actual configuration of the MA for the MF. [Encl (101)]

356. When asked about why the SFF Controller (a subordinate enlisted Marine) would sign for weight and balance on the SFF checklist when the Form F was not completed until after mishap occurred, the MMCO stated, “because if I, [the MMCO], tell him it’s good, it’s good.” implying there was no need for the SFF Controller to review the Form F to certify the aircraft was SFF, as required by the SFF Checklist. [Encl (85)]

357. There is a 0.5-pound discrepancy from the Chart C basic weight dated 22 August 2022 and the Form F for basic weight of the aircraft dated 1 June 2023. The Chart C basic weight is 36,688.6 and the Form F basic weight is 36,689.1. Per NAVAIR 01-1B-50 the basic weight on the Chart C shall match the basic Weight on the Form F. [Encl (49)]

358. The MAC was listed “As Assigned” in the Pilot Signature block on the one-time use standardized Form F dated 3 December 2012 and was electronically signed by the MMCO with date stamp 27 August 2023 at 09:58:17 after the mishap occurred. [Encl (49)]

359. The H-1 detachment maintenance was being controlled and administered by their own maintenance control on a separate OOMA server, with no oversight from the VMM-363 (REIN) AMO. [Encl (71)]

360. The VMM-363 (REIN) H-1 Detachment OIC stated that the H-1 detachment maintenance was being controlled and administered by their own maintenance control on a separate OOMA server because of the COMREL. [Encl (58)]

361. The AMO attended the Aviation Officer Maintenance Fundamentals Course at the Center for Naval Aviation and Technical Training, Marine Corps Base Kaneohe Bay, Hawaii and completed the course on 30 August 2022. [Encl (113)]

I. Engineering Determinations

362. The MV-22B Fleet Support Team (FST), Naval Air Systems Command conducted the Engineering Investigation (EI) of the MA. [Encls (107), (108), (109), (110), (111)]

363. The EI took approximately 225 days to complete. The MV-22B FST conducted multiple investigations on other aircraft during this time period. The multiple investigations strained the availability of engineers and delayed the completion of the analysis on the MA;

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BUNO 168616. The EI was delivered to the investigation team on 11 April 2024. The EI is found to be comprehensive and thorough. [Encls (107), (108), (109), (110), (111)]

364. The EI contains five parts: Flight Control System Findings, Avionics Findings, Engine Findings, Drive System Findings, and Rotors Findings. [Encls (107), (108), (109), (110), (111)]

365. Flight Control System findings in the EI indicate that only one Flight Control Computer was found in the wreckage and is believed to be from the number 3 position based on the recovered location within the cockpit wreckage. Identification via nameplate was not possible due to the severe mechanical and thermal damage. [Encl (107)]

366. The non-volatile memory for the Flight Control Computer is located in the U225 Programmable Array Logic chip on the A10 Circuit Card Assembly. [Encl (107)]

367. Disassembly of the Flight Control Computer and inspection of the A10 Circuit Card Assembly revealed that the U225 Programmable Array Logic chip was subjected to extensive thermal damage making the recovery on any non-volatile memory data not possible. [Encl (107)]



Figure 10. Still photograph of the MA KVADR.

368. Avionics Findings in the EI describe the KVADR as badly fire damaged with a torn data ribbon cable. The internals of the KVADR were too badly damaged to attempt ribbon cable repair. The KVADR was sent to the manufacturer, General Electric to attempt data recovery and was unsuccessful. [Encl (108)]

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369. The inability to recover data from the KVADR resulted in an inability to analyze avionics components on the MA. [Encl (108)]

370. Engine Findings listed in the EI describe the condition of both the left and right engines. [Encl (109)]

371. The left engine condition was found to have significant external fire damage and most external components with aluminum cases were missing/destroyed. [Encl (109)]

372. The A and B Full Authority Digital Engine Controls (FADEC) for the left engine were destroyed in the post-crash fire and no data was retrievable. [Encl (109)]

373. The right engine condition was found to have significant external fire damage and most external components with aluminum cases were missing/destroyed. [Encl (109)]

374. The A and B FADECs for the right engine were destroyed in the post-crash fire and no data was retrievable. [Encl (109)]

375. The Engine Findings in the EI summarize both the left and right engine's compressor variable geometry (CVG) as closed, indicating the engines were either at low power or shut off. [Encl (109)]

376. The Engine Findings in the EI summarize that there were no observed engine mechanical failures and that both engines were at a similar operational state. [Encl (109)]

377. The Drive System Findings in the EI determined that there are no signs of Hard Clutch Engagement (HCE) on either the left or right input quill or sprag retainer assembly. [Encl (110)]

378. The Drive System Findings in the EI did not describe any inconsistencies in the mechanical installment or operation of the drive system prior to the crash. [Encl (110)]

379. The Rotor System Findings in the EI determined that there is no obvious evidence of rotor functional failure, other than fire/impact damage. [Encl (111)]

OPINIONS

A. MRF-D Man, Train, Equipment

1. The Pre-Deployment Training Program developed for this MRF-D rotation was insufficient to train the MAGTF to their assigned Mission Essential Tasks (METs) prior to deployment and was more focused on Force Design initiatives than on Core/Assigned METs required for proper integration prior to deployment. [FF 278, 279, 280, 281, 282, 283, 284, 285, 286, 287]

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2. Sourcing the primary squadron for the MRF-D ACE from 1st MAW created a lack of integration across the MAGTF due to an inability to conduct any pre-deployment training together, which created unnecessary work and incurred unnecessary risk to achieve integrated operations once deployed. [FF 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290]
3. The sourcing of aircraft from both 1st MAW and 3d MAW to form the ACE for the MRF-D MAGTF created confusion and a lack of integrated operations at the squadron level. While this did not directly contribute to the mishap, it did unnecessarily create an increased workload on the VMM-363 (REIN) personnel in a high operational tempo deployed environment. [FF 283, 284, 286, 288, 289, 290]
4. Neither MRF-D MAGTF or MRF-D ACE Commanders directed any policy to weigh passengers prior to conducting integrated flight operations. Therefore, GCE/ACE planners did not plan for actual weights of passengers within mission load computations. While not always achievable due to time and access to appropriate scales for conducting such procedures, units should, to the maximum extent possible, strive for accurate load weights to be used in mission planning. [FF 27, 28]
5. No data from H-1s within the mishap Objective Area was recovered due to lack of procedures in place within the squadron to gather video tapes, flight data recorder information or other such data after the mishap event and prior to subsequent flights of those aircraft. This lack of procedure resulted in limitations associated with mishap flight reconstruction from all available resources. [FF 17, 67, 73, 74, 77, 114, 121, 138, 258, 288, 290]

B. Causation/Factors Contributing to Mishap

6. The mishap of A/C 15 BUNO 168616 was not a result of a material or mechanical failure of any component on the aircraft. [FF 362, 363, 364, 365, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379]
7. The mishap of A/C 15 BUNO 168616 was not a result of any maintenance action that occurred on the aircraft. [FF 43, 44, 46, 49, 78, 79, 81, 82, 83, 84, 88, 89, 87, 90, 93, 94, 98, 99, 101, 103, 104, 110, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379]
8. This mishap was directly caused by a series of poor decisions and/or miscalculations.
 - a. The failure of the MAC to participate in mission planning, to complete a risk assessment worksheet, to complete a load computation, and to review the Aircraft Discrepancy Book (ADB) prior to flight all contributed to his lack of situational awareness about the state of the aircraft. [FF 12, 15, 43, 44, 49, 54, 55]

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- b. The MF departed approximately 2,000 pounds heavier than planned for the mission. And while performance calculations conducted by LA crew using the aircraft's CMS indicated that a safe landing could be made to a runway environment, these calculations were not completed for attempting a landing with a 20KT tailwind (the conditions existing after the MA executed its right-hand turns). [FF 36, 40, 53, 57, 61, 62, 63, 64, 70, 78, 119, 120]
- c. The LA's poorly flown approach profile, and MP4's decision to reduce power at a non-standard distance and location (relative to the landing zone) without communicating to the MA that he was doing so (i.e., not making a "Sugar Call") led to the MA crew reacting to the LA's maneuvers and likely becoming task saturated. [FF 75, 78, 79, 80, 81, 82, 83, 84, 85, 86, 88, 89, 87, 90, 94, 95]
- d. Due to LA's non-standard approach, the MA would have had to make several adjustments to stay in the correct relative position to the LA. [FF 76, 80, 82, 83, 84, 85, 87, 88, 89, 90]
- e. MAC's willingness to instruct MP2 through a challenging approach situation, combined with his failure to take the controls during earlier stages of the approach or calling for a wave-off due to an overall poor approach profile led to the aircraft being placed in an unrecoverable airspeed, altitude, nacelle, and power setting configuration. [FF 89, 93, 95, 199, 102]
- f. MP2's apparent inability to see/sense closure rates between both aircraft resulted in two near mid-air collisions during this approach. This lack of situational awareness should have been communicated over ICS or resulted in the execution of a wave-off, neither of which occurred. [FF 84, 86, 89, 87, 90, 91, 92, 95, 96, 97]
- g. MP2's apparent task-saturation due to the repeated and otherwise unnecessary adjustments to the MA's position in relation to the LA may have resulted in MP2's failure to maneuver the nacelles further aft than 35-degrees and add power to the aircraft during the approach, placing the MA in a profile to initiate a stall warning. [FF 78, 79, 80, 81, 82, 83, 84, 86, 88, 89, 87, 90, 91, 93, 95, 96, 98, 99, 114]
- h. MP2's inability to see the LA multiple times during the approach without stating so or giving a "Blind"³⁷ call over ICS led to two near mid-air collisions. The first identified by MAC, the second by MP4 in the LA. This lack of communication to MAC possibly caused the MAC's misperception of the MP2's overall awareness. [FF 86, 88, 89, 90, 92, 114; Figure 7]

³⁷ A "Blind Call" per reference (o) "indicates you are not visual with friendly aircraft, ship, or ground position. Opposite of visual."

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i. MAC's grabbing of the cyclic with both hands instead of placing one hand on the Throttle Control Lever (TCL) to attempt to add power prevented any ability to increase rotor lift and fly away. [FF 101, 104]

9. As the instructor, MAC was expected to closely monitor MP3 in the functions of the Section Lead and provide guidance when necessary to MP3 in the conduct of SLUI duties, but he failed to do so. [FF 12, 14, 15, 248, 249, 261, 262, 263, 264, 266]

10. The squadron ODO was not appropriately trained on procedures and consequently was negligent in the performance of his duties as the ODO. As such, the ODO did not require the MAC to deliver a completed/signed Load Computation or RAW prior to taxiing for takeoff. [FF 34, 43, 44, 45, 46, 47]

11. Mission OA deconfliction was in accordance with the ASTACSOP as two forms of deconfliction were established in planning and executed during the MF. [FF 22; Fig. 1]

12. The MF did not encounter any bird activity during flight within the objective area that would have caused the MA to maneuver to avoid and cause an uncontrolled flight parameter. [FF 117]

13. Based on Solar/Lunar Almanac Predictions, the sun was not a factor in MA maneuvers. [FF 118; Fig. 2]

14. Based on visibility forecasted prior to the flight or reported by MF crew within the OA, loss of visual acuity was not a factor in MA maneuvers. [FF 118]

C. VMM-363 (REIN) Maintenance

15. Maintenance documentation for A/C 15 BUNO 168616 is found to have multiple discrepancies. [FF 322, 325, 326, 328, 331, 337, 341, 351, 354, 356]

16. The safe for flight documentation reflects multiple steps in the safe for flight process occurring after the MA was certified in OOMA as safe for flight. [FF 296, 297, 298, 341, 349, 351, 353, 354, 355, 356, 358, 352]

17. Due to the early morning departure of the MF, the maintenance department, which arrived at 0600, was rushing to complete the safe for flight requirements, to include the turnaround inspections, on the two primary aircraft. [FF 314, 315, 316, 341, 349, 351, 352, 353, 354, 355, 356, 352]

18. The Maintenance Control Chief was completing the safe for flight checklist in accordance with the required items on the checklist but certified the aircraft safe for flight without visual confirmation that all items on the safe for flight checklist were complete. [FF 296, 297, 298, 314, 315, 316, 325, 326, 337, 341, 349, 351, 352, 353, 354, 355, 356, 352]

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19. The MA was not administratively safe for flight prior to the MF due to the lack of a Form F reflecting the accurate configuration of the MA with troops on board. [FF 349, 351, 353, 354, 355, 356, 352]

20. The MMCO understood the requirement for completing an accurate Form F for SFF, signed the Form F after the mishap occurred, and placed the signed Form F reflecting the accurate configuration and packs load in the ADB after the mishap occurred. [FF 344, 349, 351, 354, 356, 352]

21. The MAC did not review the ADB prior to departing on the MF. [FF 49, 54, 55, 266, 267, 352]

22. The MAC, after not turning in a load computation form, also did not review the weight and balance Form F prior to departing on the MF and would not have been able to review the Form F because an accurate Form F for the configuration of the aircraft supporting the mission had not been generated by the MMCO prior to the MF. The lack of attention to weight and power for a flight supporting an exercise outside of the continental United States and while carrying troops is concerning. Additionally, the errors in the safe for flight procedures and the weight and balance of the aircraft might have been caught by the MAC with a review of the ADB and Form F. The MAC was not observed screening the ADB or the Form F prior to the MF by any individual. The MAC spoke with the MMCO in the Maintenance Control building prior to departing on the MF instead of thoroughly screening the ADB. The duration and subject being discussed, which did not include the maintenance status of the aircraft, indicates the MAC was not focused on screening the maintenance documentation for accuracy. The lack of attention to detail regarding the configuration of the aircraft with personnel on board, the weight and power requirements, and errors in maintenance documentation reflect a sense of complacency by the MAC regarding the condition of the aircraft. [FF 43, 46, 49, 54, 55, 266, 267, 349, 351, 353, 354, 355, 356, 352]

23. As the MAC, the duty of ensuring that proper procedures are followed includes confirming actions taken by the maintenance department are accurate and in accordance with proper publications. The rushed nature of maintenance the morning of the MF set conditions for cutting corners in safety checks. Had the MAC been more thorough, the errors could have been caught by the MAC. The correction of maintenance documentation errors may have caused a delay in the launch the morning of the MF. The delay caused by ensuring the accuracy of the maintenance documentation prior to the MAC accepting the aircraft as safe for flight may have triggered the flight to execute the briefed straggle plan. If the straggle plan had been executed, the MA would have departed as a single aircraft and may have resulted in a different outcome than a mishap. [FF 43, 46, 49, 54, 55, 266, 267, 296, 297, 298, 314, 315, 316, 325, 326, 337, 341, 349, 351, 352, 353, 354, 355, 356, 352]

24. The lack of attention to detail and failure to comply with proper pre-flight procedures displayed by the MAC prior to the MF, who was also the squadron's XO, may be indicative

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of a squadron culture that does not value strict adherence to procedure. [FF 43, 46, 49, 54, 55, 266, 267, 296, 297, 298, 314, 315, 316, 325, 326, 337, 341, 349, 351, 352, 353, 354, 355, 356, 352]

25. P2's injuries resulting from his seat detaching from the MA during the crash may have been exacerbated by the fact that TD Code 50 Basic No: 0277 had yet to be complied with. [FF 304, 305, 306, 307, 308, 309, 310, 311]

26. While impossible to definitively determine due to the loss of the MA, either the placement of, or installation method used for the MNM into the MA may have compromised the adjacent seat's retention mechanism and interfered with the evacuation of personnel after the mishap. [FF 304, 305, 306, 307, 308, 309, 310, 311]

27. The maintenance department did not adequately account for time required to complete the turnaround inspections of two primary aircraft on the morning of the MF. The compressed timeline resulted in rushed actions by the maintenance department resulting in inaccurate and untimely documentation in the completion of maintenance actions. [FF 314, 315, 316, 341, 349, 351, 352, 353, 354, 355, 356, 352]

28. The AMO had a limited ability to supervise and manage maintenance activities for the H-1 detachment. VMM-363 (REIN) Local Command Procedures (LCP) did not include the H-1 aircraft and the H-1 detachment was running their own maintenance actions on their own maintenance OOMA server. [FF 359, 360, 352]

D. VMM-363 (REIN) Culture

29. While several witnesses said VMM-363 (REIN) had a strong safety culture, several facts demonstrate otherwise and did not bear this out, including the following: the MA was not administratively SFF, the series of mishaps during the month of August, the lack of uniform adherence to maintenance procedures and practices, the fact that the Squadron XO (MAC) failed to complete several standard and required pre-flight procedures. [FF 12, 18, 34, 36, 43, 44, 46, 47, 49, 54, 73, 74, 172, 215, 220, 221, 222, 223, 225, 228, 248, 250, 258, 260, 264, 274, 276, 278, 284, 285, 286, 288, 289, 290, 315, 325, 326, 328, 337, 341, 349, 351, 352, 354, 355, 356, 357, 358, 359, 360, 315, 326, 328, 337, 341, 349, 351, 352, 354, 355, 356, 357]

30. As evidenced by two mishaps (this Class A and the Class C on 16 August 2023) with similar causal factors within mere weeks of each other, the VMM-363 (REIN) CO permitted a culture that disregarded safety of flight procedures, weight and power planning and procedures, and appropriate aviation maintenance procedures throughout the Squadron. Further, the fact that the Class E discovered on 9 August 2023 and Class C did not prompt him to conduct a squadron-wide safety standdown is gravely concerning and directly contributed to the failure to execute required safety of flight and weight and power procedures on 27 August 2023. While the VMM-363 (REIN) CO was temporarily absent

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from Darwin when the mishap occurred, the responsibility of commanders for their commands is absolute—to include for the culture and accepted practices established within that command that contributed to this mishap. [FF 12, 36, 43, 44, 46, 49, 215, 216, 217, 218, 219, 220, 221, 222, 223, 225, 226, 288, 289, 290, 291, 326, 333, 334, 335, 336, 337, 341, 349, 351, 352, 353, 354, 355, 356, 357, 358; refs (m) and (n)]

E. Misconduct

31. The MMCO violated Article 92 (dereliction of duty) and Article 107 (false official statement/record), Uniform Code of Military Justice (UCMJ) when he knowingly signed the Form F after the mishap occurred. [FF 344, 349, 351, 354, 356, 344, 357, 358]

F. Rescue Actions

32. The actions of the ADF personnel and local nationals at the crash site and the LZ, several GCE Marines involved in the mishap, and the OSC were admirable and directly contributed to saving the AO's life. [FF 133, 134, 138, 145, 146, 150, 154, 155, 156, 157, 158, 159, 160, 164, 161, 162, 163, 165, 166]

33. Based on the MAC's location, his restraints were properly secured during the mishap and were unbuckled after the crash either by the MAC or the MA Crew Chief. [FF 183, 186]

34. Despite a sound plan that was ultimately executed, during the conduct of the casualty evacuation there was confusion regarding who had the authority to conduct the casualty evacuation. There was also confusion regarding who had approval authority for authorizing the movement of casualties and by what company, agency, or government. This is noteworthy because the casualty evacuation was conducted by the Australian civilian medical evacuation crew from CareFlight. The confusion regarding the authorities and assignment of the company, agency, or government to conduct the casualty evacuation may have delayed the launch of CareFlight. [FF 161, 174, 176, 177, 178]

35. In the opinion of the IO, upon crashing, the MA Crew Chief, Corporal Collart, egressed through the crew door of the MA and then heroically re-entered the burning cockpit of the aircraft in an attempt to rescue the trapped pilots. He perished during this effort. This opinion is based on the testimony of the GFC who observed the Crew Chief exit the MA; Corporal Collart's tether strap being discovered outside of the aircraft, intact and unburnt; and the autopsy results showing higher levels of combustion product inhalation. [FF 125, 126, 127, 128, 183, 184, 186, 194, 195]

RECOMMENDATIONS

A. MRF-D Command Relationships and Pre-deployment Training

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1. I MEF G-3/G-7, in coordination with 1st MARDIV should develop an appropriate Pre-Deployment Training Plan for MRF-D units prior to deployment properly aligned to the MRF-D MAGTF's Core and Assigned METs.
2. If 1st MAW MV-22 squadrons remain the base squadron for the MRF-D ACE, a plan for an integrated PTP must be developed between I and III MEF in coordination with 1st Marine Division and 1st and 3d MAWs.
3. MAG-24 based VMMs should participate in appropriate PTP events (e.g., Exercise STEEL KNIGHT) prior to deployment as the MRF-D ACE.
4. In order to allow MAG-24 aircraft to support CONUS-based training III MEF and MARFORPAC should plan appropriate POM submissions to ensure funding is available to transport these aircraft via Black Bottom shipping from/to Hawai'i.
5. If the MRF-D ACE continues to be sourced with aircraft from both 1st and 3d MAW, there must be an opportunity to conduct integrated PTP to identify Reinforced ACE SOP requirements.
6. 1st MAW and 3d MAW planners should develop a Reinforced Squadron SOP that supports all T/M/S aviation operations deployed to MRF-D locations. This authority should be delegated no lower than appropriate MAG commanders and reviewed/revised every two years.
7. If no integrated training can be conducted prior to MRF-D MAGTF deployment, I MEF G-7/EOTG personnel should conduct a Performance Evaluation Check List (PECL)-based assessment of the fully integrated MAGTF in Australia prior to the MAGTF being considered certified to conduct operations.

B. Procedural and Safety Practices.

8. Marine Corps aviation units involved either directly (mishap unit) or indirectly (i.e. supporting unit within an objective area, as in this case with H-1s) should secure all relevant flight data storage units and/or voice recordings to ensure the AMB and Command Investigation teams has the most relevant and accurate information available to determine causal factors surrounding a mishap.
9. Squadron commanders should reinforce with ODOs what documentation is required to be on file prior to any flight departing the flightline and communicate what actions are within the ODO's authorities to receive required documentation from aircraft commanders prior to flight.

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10. The MV-22 community needs to reinforce, and MAWTS-1 should incorporate into training, the use of 'blind/visual' calls over ICS to ensure all aircrew are aware of the flying pilot's level of situational awareness.

11. The MV-22 community needs to reinforce, and MAWTS-1 should incorporate into training, that wave-offs are appropriate in all cases.

12. When working in an objective area with multiple types of aircraft flight leads need to plan and brief to situations when a wave-off should/will be called.

13. All VMMs should conduct a safety standdown specifically focusing on this mishap and review: proper weight and power procedures; tactical approach profiles; issues associated with complacency (in and out of the cockpit); overconfidence with senior aircrew members; and SFF procedures.

14. HQMC, Aviation should consider removing pilots associated with any flight-related Class A mishap from flight status during the Field Flight Performance Boards (FFPB) / Flight Status Selection Boards (FSSB) process.

15. When participating in exercises outside of the continental United States, units shall be aware of primary, secondary, and tertiary methods of conducting casualty evacuations. Prior coordination must occur with civilian or government companies and agencies to ensure those companies and agencies are authorized to conduct the casualty evacuation for U.S. military personnel. Units must ensure that they have obtained prior authorization to use foreign government or commercial medical evacuation platforms and ensure those medical evacuation platforms are notified of exercises to prevent unnecessary delay once a service member is declared a casualty.

C. Disciplinary Proceedings

16. I recommend the MMCO be held accountable with appropriate administrative or judicial procedures for violation of Articles 92 (dereliction of duty) and 107 (false official statement), UCMJ.

17. The Maintenance Control Chief should be held accountable with appropriate administrative measures for certifying the MA SFF when it in fact did not meet those criteria.

18. I recommend the AMO be held accountable with appropriate administrative measures for permitting a culture that disregarded aviation maintenance procedures.

19. I recommend the ODO be held accountable with appropriate administrative measures for his failure to fulfill his duties as the ODO and ensure the MAC submitted required SFF documentation prior to departure.

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20. I recommend the VMM-363 (REIN) CO be held accountable with appropriate administrative measures for permitting a culture that disregarded safety of flight and aviation maintenance procedures.

D. Aircraft improvements/reconfigurations

21. All MV-22B aircraft with an MNM installed should be inspected both for impacts to passenger egress and to ensure the retention mechanism of adjacent seats have not been compromised.

DI. Awards and Recognition

22. The following individuals from the ADF should be appropriately recognized for their life-saving efforts immediately following the mishap: (b) (6) and those ADF personnel under their charge who conducted search and rescue operations.

23. The following individuals from the GCE should be appropriately recognized for their life-saving actions following the mishap: the GFC, FiST Leader, P1, and Platoon Corpsman.

24. The following individuals from the VMM-363 (REIN) should be appropriately recognized for their conduct immediately following the mishap: OSC, and, posthumously, the MA Crew Chief for his heroic attempt to save the lives of his fellow crew members at fatal risk to his own life.

(b) (6)



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON CALIFORNIA 92055-5300

IN REPLY REFER TO:
5830
CG
30 Aug 23

From: Commanding General, I Marine Expeditionary Force
To: (b) (6) USMC

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Ref: (a) 10 U.S. Code, Section 2255
(b) JAGINST 5800.7G w/CH 1 (JAGMAN)

1. This letter convenes a Command Investigation (CI) and appoints you, in accordance with the references, to investigate the circumstances surrounding a Class A aviation mishap. You will investigate the cause of the mishap, the resulting injuries to personnel and damages to equipment, and any fault or neglect on the part of any involved person or party. Your investigation shall include inquiry into the Osprey airframe and its mechanical operation and applicable regulations; operator qualifications and competence; operations planning and execution; and any other factor that may have contributed to the mishap. If the conduct or performance of duty of any servicemember in the command is found to be substandard, make recommendations regarding corrective, disciplinary and/or administrative action.

2. You are also directed to complete a line of duty determination Preliminary Inquiry (PI), as appropriate and in compliance with reference (b), for service members involved in this mishap. Chapter II, Appendix A-2-k, and Appendix A-2-n of reference (b) are your governing reference materials. Templates for your PI and CI reports can be found at Appendix A-2-c and A-2-e, respectively.

3. You shall submit your PI and CI reports in writing no later than 14 and 60 calendar days (13 September 2023 and 1 November 2023) from the date of this letter, unless an extension of time is granted. If you require additional time, you shall submit a written extension request to me with detailed justification for the delay. Any request for extension shall be submitted via the I MEF Staff Judge Advocate (SJA). Any request and associated response shall be included in your report.

4. This is your primary duty until your PI and CI reports are completed, unless otherwise relieved of such duty by competent authority. Requests for additional support in your investigative efforts shall be submitted via the I MEF Chief of Staff. You are granted direct liaison authority with the senior member of the Aviation Mishap Board and with Naval Air Systems Command for requests related to this mishap.

5. You shall consult with the I MEF Director of Safety and Standardization and the I MEF SJA on the conduct of your line of duty PI reports and your aviation mishap CI report.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING THE AVIATION MISHAP OF AN MV-22B OF MARINE MEDIUM
TILTROTOR SQUADRON 363 (REIN) ON 27 AUGUST 2023 IN AUSTRALIA

6. Note that there is a concurrent safety investigation being conducted into this mishap. A JAGMAN investigation in accordance with the reference is considered collateral to the safety investigation. You are directed to ensure your investigation does not violate the privileged nature of the safety investigation. Specifically, you are prohibited from using privileged statements provided in conjunction with the safety investigation. No witness will be questioned regarding information provided to the safety investigation team under promise of confidentiality. Finally, you may not use the opinions, analysis, or conclusions of the safety investigation or any subsequent endorsements thereof, in your PI or CI reports.

7. (b) (6) USMC, and (b) (6) USMC, are appointed as Assistant Investigating Officers. Other investigative team members may be added to provide necessary expertise or administrative support, as required. (b) (6) USMC, a judge advocate, is hereby appointed as Legal Advisor. (b) (6) USMC, is appointed as Legal Clerk. You may also seek legal advice from the I Marine Expeditionary Force Office of the Staff Judge Advocate.

8. The point of contact for this matter is the I MEF SJA at i_mef_sja_omb@usmc.mil and (760) 763-2680.


B. J. GERING
Commanding

Copy to:
CO, MRF-D
File



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON CA 92055-5300

IN REPLY REFER TO:
5830
CG
14 Sept 23

FORWARDING ENDORSEMENT on (b) (6) ltr 5830 IO of 13 Sep 23

From: Commanding General, I Marine Expeditionary Force
To: Commandant of the Marine Corps (MMSR-6)

Subj: PRELIMINARY INQUIRY AND LINE OF DUTY RECOMMENDATIONS INTO
THE FACTS AND CIRCUMSTANCES SURROUNDING THE CLASS A AVIATION
MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363
(REIN) ON 27 AUGUST 2023 IN AUSTRALIA

1. I have reviewed this preliminary inquiry and concur with the summary of findings and recommendations of the investigating officer that the deaths and injuries suffered by the Marines and Sailor listed in paragraphs 3.a and 3.b were sustained in the line of duty and not due to their own misconduct.
2. We mourn the loss of Major Lewis, Captain LeBeau, and Corporal Collart. Our heartfelt condolences go out to their families and friends. We hope some solace may be taken in the fact that their lives were given in the service of their country.
3. We also wish a full and fast recovery to (b) (6)
(b) (6)
4. Appropriate service and health record entries will be made pursuant to reference (a). The full Command Investigation will proceed in accordance with reference (a) and enclosure (1).
5. The point of contact for this matter is the I Marine Expeditionary Force Office of the Staff Judge Advocate at (760) 763-2680 or i_mef_sja_omb@usmc.mil.


B. J. GERING
Commanding

Copy to:
Cmdr, MARFORPAC
CG, III MEF
CG, 1st MAW
CG, 1st MarDiv
CO, MAG-24
CO, MRF-D
OJAG (Code 15), Tort Claims Unit
Marine Corps Casualty Office
File



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON, CALIFORNIA 92055-5363

IN REPLY REFER TO:
5830
IO
13 Sep 23

From: (b) (6) 1186525627/8042 USMC
To: Commanding General, I Marine Expeditionary Force

Subj: PRELIMINARY INQUIRY AND LINE OF DUTY RECOMMENDATIONS INTO
THE FACTS AND CIRCUMSTANCES SURROUNDING THE CLASS A AVIATION
MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363
(REIN) ON 27 AUGUST 2023 IN AUSTRALIA

Ref: (a) JAGINST 5800.7G Ch. 1 (JAGMAN)

Encl: (1) CG, I MEF ltr 5830 CG of 30 Aug 23 (Appointing Order)

1. Preliminary Statement. This report completes a line of duty preliminary inquiry (PI) conducted into the Class A aviation mishap of an MV-22B from Marine Medium Tiltrotor Squadron 363 (Reinforced) (VMM-363 (REIN)), Marine Rotational Force, Darwin (MRF-D), in accordance with reference (a) as directed by enclosure (1). The narrow focus of this PI is limited to the required line of duty determinations. A comprehensive command investigation is ongoing, and that report will be submitted as prescribed by enclosure (1) at a later date. Any changes to this report based on new evidence gathered will be specifically noted in the command investigation report.

a. In compliance with 10 U.S.C. § 2255 and reference (a), (b) (6) is qualified to conduct this investigation having extensive tactical aviation experience. (b) (6) USMC, was appointed as an Assistant Investigating Officer and has significant tactical aviation and aviation maintenance experience in both H-1s and MV-22Bs. (b) (6) USMC, was appointed as Assistant Investigating Officer and has significant tactical aviation and aviation safety experience. (b) (6) was appointed as the Legal Advisor in support of this investigation.

b. The following people were contacted as part of this PI:

1. (b) (6), VMM-363 (REIN)
2. (b) (6), MRF-D Command Element (CE)
3. (b) (6), MRF-D CE
4. (b) (6), VMM-363 (REIN)
5. (b) (6), VMM-363 (REIN)
6. (b) (6), VMM-363 (REIN)
7. (b) (6), 3rd Battalion, 1st Marines
8. (b) (6), 3rd Battalion, 1st Marines
9. (b) (6), VMM-363 (REIN)
10. (b) (6), VMM-363 (REIN)

Subj: PRELIMINARY INQUIRY AND LINE OF DUTY DETERMINATIONS INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE CLASS A AVIATION MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363 (REIN) ON 27 AUGUST 2023 IN AUSTRALIA

11. (b) (6) VMM-363 (REIN)
12. (b) (6) VMM-363 (REIN)
13. (b) (6) VMM-363 (REIN)
14. (b) (6) VMM-363 (REIN)
15. (b) (6) VMM-363 (REIN)
16. (b) (6) VMM-363 (REIN)
17. (b) (6) VMM-363 (REIN)
18. (b) (6) MRF-D CE
19. (b) (6) VMM-363 (REIN)
20. (b) (6) 3rd Battalion, 1st Marines
21. (b) (6) 3rd Battalion, 1st Marines
22. (b) (6) 3rd Battalion, 1st Marines
23. (b) (6) VMM-363 (REIN)
24. (b) (6) VMM-363 (REIN)
25. (b) (6) VMM-363 (REIN)
26. (b) (6) VMM-363 (REIN)
27. (b) (6) 3rd Battalion, 1st Marines
28. (b) (6) 3rd Battalion, 1st Marines
29. (b) (6) VMM-363 (REIN)
30. (b) (6) 3rd Battalion, 1st Marines
31. (b) (6) 3rd Battalion, 1st Marines
32. (b) (6) 3rd Battalion, 1st Marines
33. (b) (6) 3rd Battalion, 1st Marines
34. (b) (6) 3rd Battalion, 1st Marines
35. (b) (6) 3rd Battalion, 1st Marines
36. (b) (6) 3rd Battalion, 1st Marines
37. (b) (6) 3rd Battalion, 1st Marine
38. (b) (6) VMM-363 (REIN)
39. (b) (6) VMM-363 (REIN)
40. (b) (6) 3rd Battalion, 1st Marines
41. (b) (6) 3rd Battalion, 1st Marines
42. (b) (6) 3rd Battalion, 1st Marines
43. (b) (6) 3rd Battalion, 1st Marines
44. (b) (6) 3rd Battalion, 1st Marines
45. (b) (6) 3rd Battalion, 1st Marines
46. (b) (6) 3rd Battalion, 1st Marines
47. (b) (6) 3rd Battalion, 1st Marines
48. (b) (6) 3rd Battalion, 1st Marines

(b) (6) the Aerial Observer (AO) from the mishap aircraft remains (b) (6) at the time of this report. Accordingly, he was not contacted.

c. The following documents were reviewed as part of this PI:

Subj: PRELIMINARY INQUIRY AND LINE OF DUTY DETERMINATIONS INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE CLASS A AVIATION MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363 (REIN) ON 27 AUGUST 2023 IN AUSTRALIA

1. MRF-D Exercise Predator's Run Confirmation Brief
2. Mishap Mission AFL/EFL Combined Brief
3. NATOPS Flight Personnel Training/Qualification Jacket ICO Major Lewis
4. NATOPS Flight Personnel Training/Qualification Jacket ICO Captain LeBeau
5. NATOPS Flight Personnel Training/Qualification Jacket ICO Corporal Collart
6. NATOPS Flight Personnel Training/Qualification Jacket ICO (b) (6)
7. Flight Logbook ICO Major Lewis
8. Flight Logbook ICO Captain LeBeau
9. Flight Logbook ICO Corporal Collart
10. Flight Logbook ICO (b) (6)
11. Aircraft Discrepancy Book ICO Aircraft BUNO 168616
12. Aircraft Log Book ICO Aircraft BUNO 168616
13. Aircraft Weight and Balance Handbook ICO Aircraft BUNO 168616
14. Aircraft BUNO 168616 Maintenance Records
15. Mishap Investigation Support Team (MIST) Report for Aircraft BUNO 168616 of 5 Sep 23
16. VMM-363 (REIN) Original and Corrected Flight Schedules for 2 August 2023 through 6 September 2023
17. 27 August 2023 Daily Weather Observations
18. VMM-363 (REIN) 27 August 2023 Risk Assessment Worksheet
19. VMM-363 (REIN) Operations Duty Officer Binder
20. VMM-363 (REIN) Operations Duty Officer Logbook
21. VMM-363 (REIN) Flight Operations Standard Operating Procedure
22. Air Traffic Control Audio Recordings
23. Post-Crash Video Footage taken from MRF-D COMMSTRAT
24. Mishap Flight Lead Aircraft (Callsign: Dump Truck 11) JMPS Mission Profile Data
25. Crash Site Photographs
26. Drone Video Footage of Crash Site
27. Mishap Aircraft (Callsign: Dump Truck 12) Line of Duty Questionnaires
28. Medical Record Excerpts of GCE Marines Involved in the Mishap
29. Medical Record Excerpts of Mishap Aircraft Crew

2. Summary of findings.

a. On 27 August 2023, a section of MV-22B Ospreys from VMM-363 (REIN), MRF-D, departed from Royal Australian Air Force Base Darwin (RAAF-D). "Dump Truck 11" and "Dump Truck 12" were their respective call signs with Dump Truck 11 being the lead aircraft. Dump Truck 12, the mishap aircraft, was crewed by Major Tobin J. Lewis (Aircraft Commander), Captain Eleanor V. LeBeau (Co-Pilot), Corporal Spencer R. Collart (Crew Chief), and (b) (6) (Aerial Observer (AO)). In addition to the crew, Dump Truck 12 had 18 Marines and 1 U.S. Navy Corpsman from Lima Company of the MRF-D Ground Combat Element (GCE) (3rd Battalion, 1st Marines) on board.

Subj: PRELIMINARY INQUIRY AND LINE OF DUTY DETERMINATIONS INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE CLASS A AVIATION MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363 (REIN) ON 27 AUGUST 2023 IN AUSTRALIA

b. The intended plan for Dump Truck 11 and Dump Truck 12 was to insert GCE Marines into an airfield on Melville Island using a right turn, tactical 90-degree approach profile to landing. While executing the maneuver Dump Truck 12 crashed into the forest.

c. The GCE Marines evacuated the passenger cabin of the aircraft out the rear entry. While evacuating, they recovered (b) (6), (b) (6), Lima Company Executive Officer, coordinated evacuation and treatment of casualties and directed Marines to search the Dump Truck 12 aircraft and surrounding area to assess whether there were any other survivors. Because of the speed and intensity of the post-crash fire, they were not able to rescue either of the pilots or the crew chief from the area around the cockpit.

3. Recommendations. Sufficient evidence has been collected and reviewed at this point in the investigation to make the following line of duty recommendations:

a. Major Lewis, Captain LeBeau, and Corporal Collart died because of this mishap. Their deaths occurred in the line of duty and not due to their own misconduct.

b. The following Marines and sailor were injured because of this mishap. Their injuries were sustained in the line of duty and not due to their own misconduct.

1. (b) (6), VMM-363 (REIN)
2. (b) (6) 3rd Battalion, 1st Marines
3. (b) (6) 3rd Battalion, 1st Marines
4. (b) (6) 3rd Battalion, 1st Marines
5. (b) (6) 3rd Battalion, 1st Marines
6. (b) (6) 3rd Battalion, 1st Marines
7. (b) (6) 3rd Battalion, 1st Marines
8. (b) (6) 3rd Battalion, 1st Marines
9. (b) (6) 3rd Battalion, 1st Marines
10. (b) (6) 3rd Battalion, 1st Marines
11. (b) (6) 3rd Battalion, 1st Marines
12. (b) (6) 3rd Battalion, 1st Marines
13. (b) (6) 3rd Battalion, 1st Marines
14. (b) (6) 3rd Battalion, 1st Marines
15. (b) (6) 3rd Battalion, 1st Marines
16. (b) (6) 3rd Battalion, 1st Marines
17. (b) (6) 3rd Battalion, 1st Marines
18. (b) (6) 3rd Battalion, 1st Marines
19. (b) (6) 3rd Battalion, 1st Marines
20. (b) (6) 3rd Battalion, 1st Marines

(b) (6)



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON CALIFORNIA 92055-5300

IN REPLY REFER TO:
5830
CG
30 Aug 23

From: Commanding General, I Marine Expeditionary Force
To: (b) (6) USMC

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING THE AVIATION MISHAP OF AN MV-22B OF MARINE MEDIUM
TILTROTOR SQUADRON 363 (REIN) ON 27 AUGUST 2023 IN AUSTRALIA

Ref: (a) 10 U.S. Code, Section 2255
(b) JAGINST 5800.7G w/CH 1 (JAGMAN)

1. This letter convenes a Command Investigation (CI) and appoints you, in accordance with the references, to investigate the circumstances surrounding a Class A aviation mishap. You will investigate the cause of the mishap, the resulting injuries to personnel and damages to equipment, and any fault or neglect on the part of any involved person or party. Your investigation shall include inquiry into the Osprey airframe and its mechanical operation and applicable regulations; operator qualifications and competence; operations planning and execution; and any other factor that may have contributed to the mishap. If the conduct or performance of duty of any servicemember in the command is found to be substandard, make recommendations regarding corrective, disciplinary and/or administrative action.
2. You are also directed to complete a line of duty determination Preliminary Inquiry (PI), as appropriate and in compliance with reference (b), for service members involved in this mishap. Chapter II, Appendix A-2-k, and Appendix A-2-n of reference (b) are your governing reference materials. Templates for your PI and CI reports can be found at Appendix A-2-c and A-2-e, respectively.
3. You shall submit your PI and CI reports in writing no later than 14 and 60 calendar days (13 September 2023 and 1 November 2023) from the date of this letter, unless an extension of time is granted. If you require additional time, you shall submit a written extension request to me with detailed justification for the delay. Any request for extension shall be submitted via the I MEF Staff Judge Advocate (SJA). Any request and associated response shall be included in your report.
4. This is your primary duty until your PI and CI reports are completed, unless otherwise relieved of such duty by competent authority. Requests for additional support in your investigative efforts shall be submitted via the I MEF Chief of Staff. You are granted direct liaison authority with the senior member of the Aviation Mishap Board and with Naval Air Systems Command for requests related to this mishap.
5. You shall consult with the I MEF Director of Safety and Standardization and the I MEF SJA on the conduct of your line of duty PI reports and your aviation mishap CI report.

Enclosure (1)
Enclosure (2)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING THE AVIATION MISHAP OF AN MV-22B OF MARINE MEDIUM
TILTROTOR SQUADRON 363 (REIN) ON 27 AUGUST 2023 IN AUSTRALIA

6. Note that there is a concurrent safety investigation being conducted into this mishap. A JAGMAN investigation in accordance with the reference is considered collateral to the safety investigation. You are directed to ensure your investigation does not violate the privileged nature of the safety investigation. Specifically, you are prohibited from using privileged statements provided in conjunction with the safety investigation. No witness will be questioned regarding information provided to the safety investigation team under promise of confidentiality. Finally, you may not use the opinions, analysis, or conclusions of the safety investigation or any subsequent endorsements thereof, in your PI or CI reports.

7. (b) (6) USMC, and (b) (6) USMC, are appointed as Assistant Investigating Officers. Other investigative team members may be added to provide necessary expertise or administrative support, as required. (b) (6), USMC, a judge advocate, is hereby appointed as Legal Advisor. (b) (6), USMC, is appointed as Legal Clerk. You may also seek legal advice from the I Marine Expeditionary Force Office of the Staff Judge Advocate.

8. The point of contact for this matter is the I MEF SJA at i_mef_sja_omb@usmc.mil and (760) 763-2680.



B. J. GERING
Commanding

Copy to:
CO, MRF-D
File



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON CA 92055-5300

IN REPLY REFER TO:

5830

CG

27 OCT 2023

FIRST ENDORSEMENT on (b) (6) tr 5800 IO of 13 Oct 23

From: Commanding General, I Marine Expeditionary Force

To: (b) (6) JSMC

Subj: EXTENSION REQUEST IN FOR THE COMMAND INVESTIGATION INTO THE
FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION MISHAP OF
AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363 (REIN) ON 27
AUGUST 2023 IN AUSTRALIA

1. Returned, approved.
2. Submit your report no later than 15 January 2024, unless an additional extension of time is granted.
3. The point of contact for this matter is the I Marine Expeditionary Force Office of the Staff Judge Advocate at (760) 763-2680 or i_mef_sja_omb@usmc.mil.


B. J. CLARK
Acting

Copy to:
SJA, I MEF
File



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON, CALIFORNIA 92055-5363

IN REPLY REFER TO:

5800
IO
13 Oct 23

From: (b) (6) 1186525627/8042 USMC
To: Commanding General, I Marine Expeditionary Force

Subj: EXTENSION REQUEST IN FOR THE COMMAND INVESTIGATION INTO THE
FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION MISHAP OF
AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363 (REIN) ON 27
AUGUST 2023 IN AUSTRALIA

Ref: (a) JAGINST 5800.7G Ch. 1 (JAGMAN)
(b) CG, I MEF ltr 5830 CG of 30 Aug 23 (Appointing Order)

1. Extension request. In accordance with references (a) and (b), I am requesting an extension to complete the subject command investigation until 15 January 2023.

2. Reasons for extension. This request is based on several pending investigative actions beyond the control of the command investigation team. Specifically, (1) the Naval Safety Center's factual engineering report is not complete (without an estimated completion date); (2) U.S. Armed Forces Medical Examiner's reports (requested on 22 September 23) are not expected to be completed until December; and (3) the transcription service is still completing the verbatim transcripts of several key witness interviews. With the possible exception of the engineering report, we anticipate receiving these documents prior to the requested due date, which will enable us to consider this evidence and appropriately include it in the report of investigation.

(b) (6)

Copy to:
I MEF, SJA



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON CA 92055-5300

IN REPLY REFER TO:

5830

CG

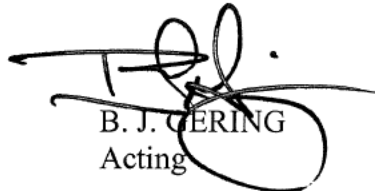
11 JAN 2024

FIRST ENDORSEMENT on (b) (6) ltr 5800 IO of 9 Jan 24

From: Commanding General, I Marine Expeditionary Force
To: (b) (6) USMC

Subj: SECOND EXTENSION REQUEST FOR THE COMMAND INVESTIGATION
INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION
MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363
(REIN) ON 27 AUGUST 2023 IN AUSTRALIA

1. Returned, approved.
2. Submit your report no later than 1 March 2024, unless an additional extension of time is granted.
3. The point of contact for this matter is the I Marine Expeditionary Force Office of the Staff Judge Advocate at (760) 763-2680 or i_mef_sja_omb@usmc.mil.


B. J. GERING
Acting

Copy to:
SJA, I MEF
File



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON, CALIFORNIA 92055-5363

IN REPLY REFER TO:

5800

IO

9 Jan 24

From: (b) (6) USMC
To: Commanding General, I Marine Expeditionary Force

Subj: SECOND EXTENSION REQUEST FOR THE COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363 (REIN) ON 27 AUGUST 2023 IN AUSTRALIA

Ref: (a) JAGINST 5800.7G Ch. 1 (JAGMAN)
(b) CG, I MEF ltr 5830 CG of 30 Aug 23 (Appointing Order)

1. Extension request. In accordance with references (a) and (b), I am requesting an extension to complete the subject command investigation until 1 March 2024.

2. Reasons for extension. Since approval of the first extension request, the investigation team has received the U.S. Armed Forces Medical Examiner's reports and the requested interview transcripts. The Naval Safety Center's factual engineering reports, however, remain incomplete (without an estimated completion date). Accordingly, I am requesting a 45-day extension.

(b) (6)

Copy to:
I MEF, SJA



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON CA 92055-5300

IN REPLY REFER TO:
5830
CG


09 FEB 2024

FIRST ENDORSEMENT on (b) (6) ltr 5800 IO of 6 Feb 24

From: Commanding General, I Marine Expeditionary Force
To: (b) (6) USMC

Subj: THIRD EXTENSION REQUEST FOR THE COMMAND INVESTIGATION
INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION
MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363
(REIN) ON 27 AUGUST 2023 IN AUSTRALIA

1. Returned, approved.
2. Submit your report no later than 1 April 2024, unless an additional extension of time is granted.
3. The point of contact for this matter is the I Marine Expeditionary Force Office of the Staff Judge Advocate at (760) 763-2680 or i_mef_sja_omb@usmc.mil.


B. J. GERING
Acting

Copy to:
SJA, I MEF
File



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON, CALIFORNIA 92055-5363

IN REPLY REFER TO:
5800
IO
6 Feb 24

From: (b) (6) USMC
To: Commanding General, I Marine Expeditionary Force

Subj: THIRD EXTENSION REQUEST FOR THE COMMAND INVESTIGATION INTO
THE FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION MISHAP
OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363 (REIN) ON
27 AUGUST 2023 IN AUSTRALIA

Ref: (a) JAGINST 5800.7G Ch. 1 (JAGMAN)
(b) CG, I MEF ltr 5830 CG of 30 Aug 23 (Appointing Order)

1. Extension request. In accordance with references (a) and (b), I am requesting an extension to complete the subject command investigation until 1 April 2024.

2. Reasons for extension. On 5 February 2024, the Aviation Mishap Board (AMB) notified the command investigation team that the Naval Safety Center will not begin its engineering assessment of the MV-22 involved in this mishap before 2 March 2024. Accordingly, I am requesting an extension until 1 April 2024.

(b) (6)

Copy to:
I MEF, SJA



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON CA 92055-5300

IN REPLY REFER TO:
5830
CG

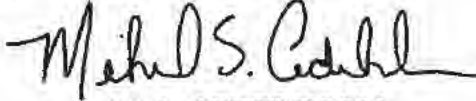
MAR 28 2024

FIRST ENDORSEMENT on (b) (6) ltr 5800 IO of 6 Feb 24

From: Commanding General, I Marine Expeditionary Force
To: (b) (6) USMC

Subj: FOURTH EXTENSION REQUEST FOR THE COMMAND INVESTIGATION
INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION
MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363
(REIN) ON 27 AUGUST 2023 IN AUSTRALIA

1. Returned, approved.
2. Submit your report no later than 1 May 2024, unless an additional extension of time is granted.
3. The point of contact for this matter is the I Marine Expeditionary Force Office of the Staff Judge Advocate at (760) 763-2680 or i_mef_sja_omb@usmc.mil.


M. S. CEDERHOLM

Copy to:
SJA, I MEF
File



UNITED STATES MARINE CORPS
I MARINE EXPEDITIONARY FORCE
BOX 555300
CAMP PENDLETON, CALIFORNIA 92055-5363

IN REPLY REFER TO:
5800
IO
25 Mar 24

From: (b) (6) USMC
To: Commanding General, I Marine Expeditionary Force

Subj: FOURTH EXTENSION REQUEST FOR THE COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION MISHAP OF AN MV-22B OF MARINE MEDIUM TILTROTOR SQUADRON 363 (REIN) ON 27 AUGUST 2023 IN AUSTRALIA

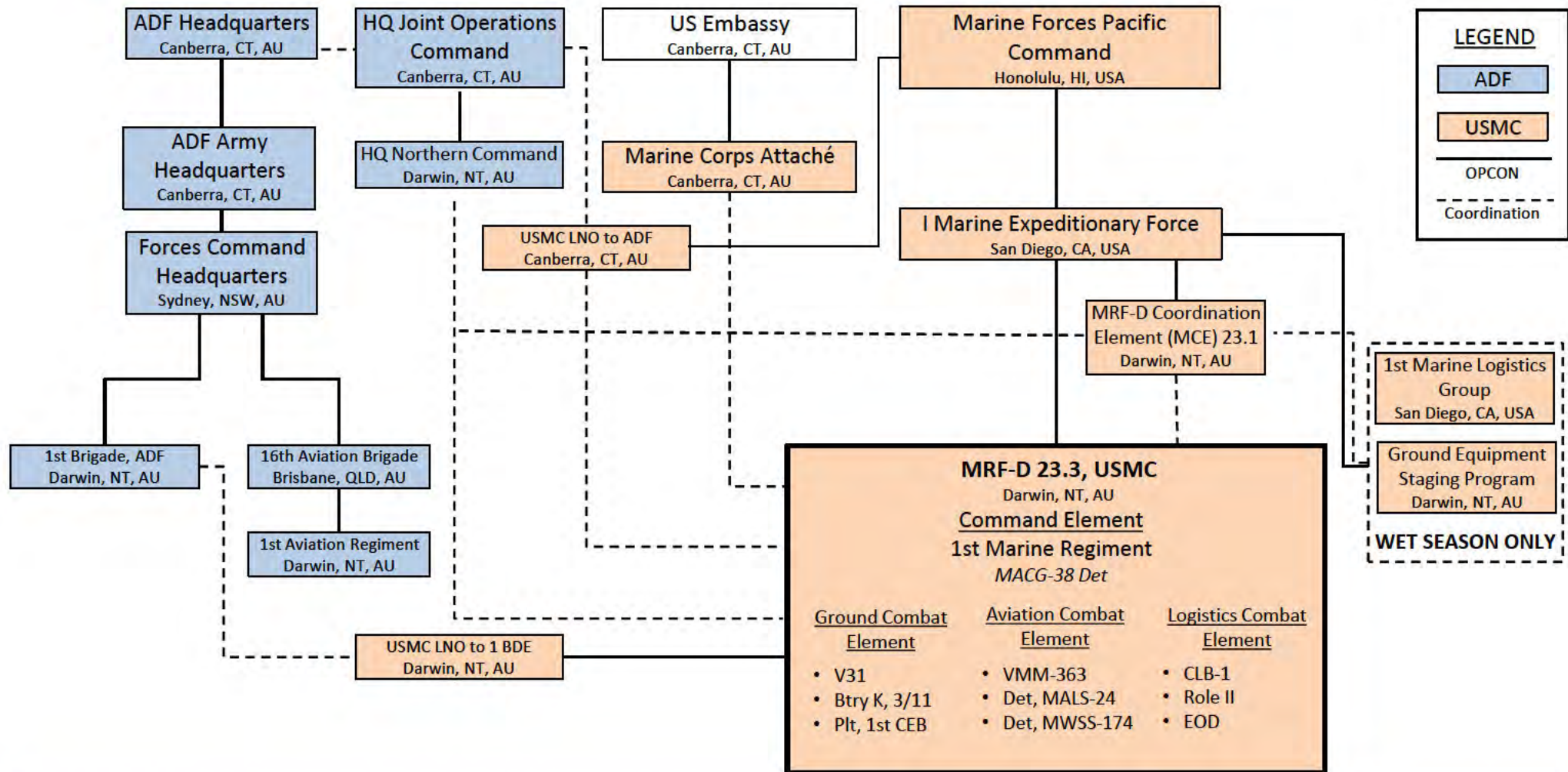
Ref: (a) JAGINST 5800.7G Ch. 1 (JAGMAN)
(b) CG, I MEF ltr 5830 CG of 30 Aug 23 (Appointing Order)

1. Extension request. In accordance with references (a) and (b), I am requesting an extension to complete the subject command investigation until 1 May 2024.
2. Reasons for extension. The Naval Safety Center was scheduled to begin its engineering assessment of the MV-22 involved in this mishap on or about 2 March 2024, but as of this request has not completed the engineering assessment.

(b) (6)

Copy to:
I MEF, SJA

HHQ Command Relationships



MRF-D 23.3 COMREL structure is similar to 22.2 with a few exceptions. The MACG-38 Det will be retained at the CE. The domain and joint force awareness provided by the MAOC is integral to the CE's ability to accomplish maritime fires and sea-denial tasks. The realignment of the MCE is in effect, and the initial impression for the MRF-D MAGTF perspective indicates a positive stream-lining of efforts. MRF-D 23.3 FOPS Cell has already achieved a high level of integration with both HQ NORCOM and 1st Brigade. The MRF-D MAGTF Commander will visit JOC HQ within the first two weeks of his arrival.

VMM-363

Standard Operating Procedures and Local Command Procedures

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1)

Higher Command Policies

2)

Standard Operating Procedures



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
NCBH KANELOE BAY HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO
5100
CO
12 Oct 22

From: Commanding Officer, Marine Medium Tiltrotor Squadron 363
To: All Hands, Marine Medium Tiltrotor Squadron 363

Subj: STANDARD OPERATING PROCEDURE FOR THE FALL PROTECTION PROGRAM

Ref: (a) Department of the Navy Fall Protection Guide (July 2017)
(b) OPNAV M-5100.23 CH-2, Chapter 13, Navy Safety and Occupational Health Manual
(c) VMM-363 LCP for the Maintenance Department
(d) I119 Rev. A MFP9720029, Miller/Honeywell Harnesses and Body Belts Manual
(e) Form: 590326 Rev: G, DBI Sala Energy Absorbing Lanyard Manual
(f) A1-V22B-TIS-000, IETMS

PROPERTY OF VMM-363

Encl: (1) Harness Inspection Log
(2) MV-22 Wing Stand Procedures

COPY: 001

LOCATION: 046

ISSUE DATE: 12 Oct 2022

1. Purpose and Scope

a. The purpose of this Standard Operating Procedure (SOP) is to establish a Fall Protection Program as directed by references (a) and (b), provide policy/requirements for the implementation of the program and establish procedures on fall protection/prevention for the Marines and civilians of Marine Medium Tiltrotor Squadron 363 (VMM-363) working at heights above four feet and exposed to fall hazards while conducting maintenance and inspections. All hands are responsible for ensuring that maintenance actions are performed in a safe manner and in accordance with all applicable manuals and instructions. Specifically, reference (a) will be the guiding source for the VMM-363 Fall Protection Program.

b. This applies to all VMM-363 personnel as well as any other personnel involved in the Fall Protection Program. These safety standards will serve as the minimum requirement. All personnel shall take every reasonable precaution to protect themselves and others during performance of their work.

2. Background

a. Falls from elevation are the leading cause of injuries and fatalities in the work place. Thousands of workers suffer injuries due to falls, resulting in lost time from work. The nature of aircraft maintenance has inherent risks that routinely expose personnel to potential fall hazards. References (a) and (b), direct all commands to establish a Fall Protection Program, which includes identification and elimination of fall hazards, whenever practical, through engineering controls, training of personnel on the proper installation and use of fall protection systems, and required rescue equipment and procedures.

3. Requirements

a. All personnel who are exposed to fall hazards and use fall protection equipment shall adhere to and understand the requirements of this SOP. Additionally, all personnel shall enforce the standards found in the references.

b. All personnel exposed to fall hazards shall comply with the requirements of the references, including being protected from fall hazards when on an elevated walking or working surface with unprotected sides, edges, or floor openings from which there is a possibility to fall four feet or more to a lower level; or where there is a possibility of a fall from any height onto dangerous equipment, into a hazardous environment, or onto an impalement hazard.

SUBJ: STANDARD OPERATING PROCEDURE FOR THE FALL PROTECTION PROGRAM

c. All personnel exposed to fall hazards shall receive training upon checking into VMM-363. Training for Maintenance Department Marines shall be documented initially as lecture OPNAVINST 5100.23 -- FALL PROTECTION with an expiration date entered for one year later and a notification set one month prior to expiration and annually thereafter in the same matter. Work Center Supervisors shall ensure that training for personnel assigned to them is completed within 30 days after check-in. Training for Headquarters Marines shall be scheduled and organized within 30 days after check in and annually thereafter by the Department of Safety and Standardization (DOSS) and documentation maintained by the Ground Safety Officer (GSO).

d. The Commanding Officer will designate in writing a Fall Protection Program Manager via the Monthly Personnel Plan. The Program Manager designation will be granted by the Aircraft Maintenance Officer (AMO) in ASM. The Program Manager will be a Competent Person for Fall Protection, having completed course A-493-0103. Designation as a Competent Person will be in writing, to be maintained in the program file. In the event no personnel have completed the course, a Quality Assurance Representative (QAR) may be designated and enrolled in the course as soon as available. The Program Manager shall complete a Site-Specific Fall Hazard Survey utilizing reference (a) par. 5.5 annually and maintain historical assessments for three years for comparison.

e. The Program Manager shall maintain a program file including:

- (1) Designation Letter
- (2) Base safety points of contact
- (3) Duties and responsibilities
- (4) Current and historical fall hazard surveys
- (5) Fall arrest equipment listing
- (6) Harness inspection schedule and documentation
- (7) Training requirements
- (8) Current and historical audits and evaluations
- (9) Rescue procedures
- (10) Fall mishap reports

4. Equipment and Controls

a. Cranials. Cranials shall be maintained and worn as directed by reference (c) by all personnel.

b. Ladders. Ladders will only be utilized for brief maintenance actions and inspections and in circumstances where using a work stand is not practical. Ladders shall be utilized as designed with all locks engaged. Personnel shall not stand on the top two rungs of a ladder as per reference (a). A spotter/safety observer shall be utilized to support and stabilize the ladder when used in the vicinity of spinning aircraft.

c. Work Stands. Work stands shall be utilized in all circumstances involving extended periods of maintenance whenever possible. All work stands shall be utilized as directed by reference (c).

d. Personal Fall Arrest and Harness Systems

(1) All personnel working on top of aircraft in an area with NORCO lanyard attach fittings available shall have access to an ANSI and/or OSH approved full body harness and lanyard system with shock absorbing device when one or more of the following conditions are met: ice forming on aircraft, during shipboard operations, winds in excess of 25 knots, or when deemed by a Collateral Duty Quality Assurance Representative (CDQAR) or QAR to be in the best interest of safety. The fall arrest system shall be inspected for defects before use, properly fitted to the individual and inspected for defects after each use. The lanyard shall be securely fastened to both the harness and anchor point on the aircraft at all times when worn except during transition across aircraft surfaces. When worn, the lanyard shall be securely fastened to both the harness and anchor point prior to transitioning from a ladder to an aircraft surface and from aircraft to a ladder.

(2) Personal fall arrest and harness systems need not be utilized when personnel are properly using ladders, work stands, and/or when the aforementioned hazardous conditions have not been met. Potential risk or endangerment of the individual performing maintenance evolutions on the aircraft in a position the harness and

SUBJ: STANDARD OPERATING PROCEDURE FOR THE FALL PROTECTION PROGRAM

lanyard system cannot be properly attached shall ensure the maintenance has been briefed to the supervising Collateral Duty Inspector (CDI), CDQAR, or QAR, i.e. hubs, windshields, fuselage walkway. Due to the length of the safety lanyard once the shock absorber is extended, the severity of a fall from the left nacelle maintenance platforms 6LO6 and 6LO7 with aircraft in full stow position could be increased by impacting the ground without being able to employ proper brake fall techniques. Harness and lanyard systems shall not be worn on 6LO6 and 6LO7 platforms when aircraft is stowed.

(3) Harness and lanyard systems will be maintained appropriately by Tool Room and will be available for checkout by all work center personnel. An active inventory of paired harness/lanyard systems shall be maintained for daily checkout. Preoperational inspection of harness shall be performed by the individual checking out the equipment utilizing reference (d) and documented on OPNAV 4790/52. Manufacturer guidance reference (d) is to be used to perform scheduled inspections of harnesses and documentation shall be maintained by the Program Manager utilizing enclosure (1). Preoperational inspection of safety lanyard shall be performed utilizing references (e) and (f) IETMS SSS 15FD for the model part number of the lanyard being checked out and documented on OPNAV 4790/52. All scheduled inspections on lanyards shall be performed utilizing the same references and documented on a Work Order using OOMA NALCOMIS. Personnel designated as a Competent Person for Fall Protection, having attended course A-493-0103, shall perform all other scheduled inspections, i.e. 365 Day Inspection of harness, 52 Week Inspection of safety lanyard. In the event a designated Competent Person is not available, a QAR will conduct scheduled inspections.

e. MV-22 Maintenance Stand, manufactured by Flexible Lifeline Systems

(1) Cranials are not required to be worn on the maintenance stand once properly assembled utilizing enclosure (2). If an individual is between the aircraft and an unprotected edge of the stand without a rail in place or is beyond the forward or aft swing rails above the aircraft fuselage, a cranial must be worn.

(2) Harness/lanyard systems are not required to be worn on the aircraft with the properly assembled maintenance stand surrounding it. If the individual is on the aircraft above a section of the stand that has been removed, a harness/lanyard system shall be worn in compliance with the conditions set above.

5. Rescue Procedures

a. Should a fall occur, it is the responsibility of the first person finding the victim to provide proper aid. Good judgment prevails in any situation. Always report a fall. An investigation will be performed to ensure the incident is not repeated for the safety of all personnel.

b. In the case of a fall, stabilize injured personnel; do not attempt to move them if they are immobile, as this could cause further injury. Only under extreme circumstances shall injured personnel be moved other than under their own power.

c. The following will be considered examples of situations that could be encountered and the appropriate response to each.

(1) INDIVIDUAL FOUND LYING ON THE DECK, CONSCIOUS, IN PAIN, CLAIMING TO HAVE FALLEN FROM THE AIRCRAFT, LADDER, OR MAINTENANCE STAND

- (a) Call 911.
- (b) Notify Maintenance Control, Quality Assurance, and the Squadron Duty Officer (SDO).
- (c) Administer first aid as required until relieved by paramedics.

(2) INDIVIDUAL FOUND LYING ON THE DECK, UNCONSCIOUS

- (a) Call 911.
- (b) Notify Maintenance Control, Quality Assurance, and the SDO.
- (c) Administer first aid/CPR as required until relieved by paramedics.

SUBJ: STANDARD OPERATING PROCEDURE FOR THE FALL PROTECTION PROGRAM

(3) INDIVIDUAL FOUND SUSPENDED IN HARNESS FROM AIRCRAFT

- (a) Call 911 if unconscious.
- (b) Notify Maintenance Control, Quality Assurance, and the SDO.
- (c) Acquire nearest maintenance stand that is adjustable to the appropriate height in which the maintainer is able to have their feet touch when raised.
- (d) Set stand to appropriate height and assist individual with disconnecting harness from lanyard.
- (e) Lower stand and assist individual to the deck as required.
- (f) If the individual was suspended for more than 10 minutes, be sure to keep them in a seated position with legs stretched out in front of them for 30 minutes prior to climbing down off stand. This will significantly mitigate the effects of suspension trauma-reflow syndrome.
- (g) Administer first aid/CPR as required until relieved by paramedics (if contacted).
- (h) Escort injured personnel to base medical during business hours or the hospital after hours if emergency services were not contacted.

d. Ensure a FLASH Report is submitted to the GSO. The GSO will produce any follow-up reports.

6. Revisions

a. Safety is a full time effort for all hands and a practice that must be continuously monitored and adhered to. Any improvements to this policy should be brought to the attention of your Staff Noncommissioned Officer in Charge/Officer in Charge (SNCOIC/OIC) and forwarded to Quality Assurance and the GSO as soon as possible.

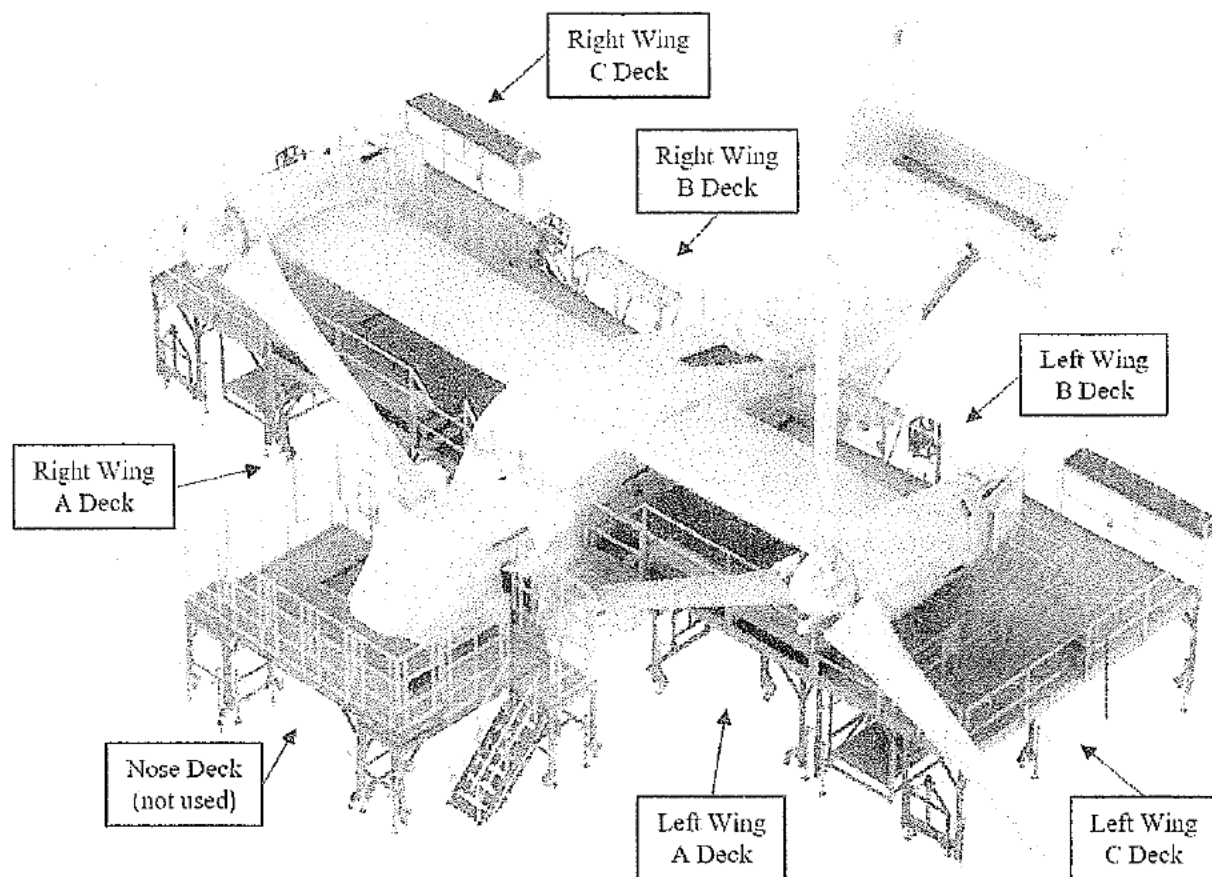
(b) (6)

Procedures for Setup and Movement of MV-22 Maintenance Stand

1. All movement and setup will be performed with a minimum of five personnel; four personnel to move the stand and one spotter/safety observer.
2. The A decks are the first sections to be setup. The V-22 needs to have the nacelles in Flight Ready Configuration to properly attach the A decks. During the setup of the B decks, nacelles can either be Flight Ready or Maintenance Mode configuration. For the setup of the C decks, nacelles must be in Maintenance Mode.
3. Once the stand is permanently staged with the legs lowered and hand rails installed, the senior member of the maintenance team will inspect all yellow drop doors to ensure safety pins are properly engaged and secured along with the hand rails. This will prevent drop doors from falling. Documentation will be made on a pre-op card, OPNAV 4790/52.

Procedures for Using the MV-22 Maintenance Stand

1. Converting the nacelles shall only be done manually without external electric or hydraulic power. All drop doors must be lowered during the process of converting nacelles. Two safety observers are needed to ensure the blades and nacelles are clear of any obstacles.
2. When nacelles are in Flight Ready, the yellow drop doors shall be properly raised to form around the nacelle. This will prevent workers from falling through the platform.





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MASTER COPY

IN REPLY REFER TO:
4790
CO
08 Sep 2022

From: Commanding Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: STANDARD OPERATING PROCEDURES FOR THE RESPIRATORY PROTECTION PROGRAM

Ref: (a) 29 CFR 1910.134
(b) COMNAVAIRFORINST 4790.2D
(c) OPNAV M-5100.23
(d) OPNAVINST 5100.19F

Encl: (1) Respirator Checkout Log
(2) Monthly Inspection Log

PROPERTY OF VMM-363
COPY: 001

LOCATION: 040

ISSUE DATE: 09/29/2022

1. Purpose and Scope

a. The purpose of this Standard Operating Procedure (SOP) is to define and clarify requirements and procedures for the Marine Medium Tiltrotor Squadron 363 (VMM-363) Respiratory Protection Program.

b. This policy applies to all personnel performing any task requiring the use of a respirator as directed by applicable current Industrial Hygienist (IH) surveys.

2. Background

a. Many respiratory risks are commonly associated with aircraft maintenance, including operations involving paints (epoxy polyamide, polyurethane, and zinc chromate), sealants, adhesives, and sanding of any type. This SOP outlines the requirements of the Respiratory Protection Program which is designed to mitigate these risks. The following information and procedures will ensure the safest environment possible when working with or around potential respiratory hazards.

b. Potential hazards include, but are not limited to, exposure to toxic vapors and dust during the performance of maintenance tasks.

c. Filter and cartridge limitations

(1) Organic vapor filters provide no protection against particulate contaminants but filter out toxic vapors.

(2) Particulate filters provide no protection against vapor but filter particulates based on the rating of the filter.

(3) The filters used in this program are not intended for use in environments posing an immediate danger to life or health (IDLH) nor in oxygen deficient environments. These filters are not for use against substances that possess no warning signs or are undetectable by human senses.

(4) Filter cartridges can be used for a total of eight working hours, or 30 total days from date opened.

3. Command Procedure

a. Requirements and Procedures For Use

(1) Users shall obtain the respiratory protection equipment selected by the Respiratory Protection Program Manager (RPPM). Use of any respiratory protection equipment by personnel not identified by the RPPM is prohibited.

(2) Only necessary personnel shall be physically screened and fit tested for respirator use in accordance with reference (c). However, aircraft painters will be required to receive a full isocyanates physical documented using form SECNAV 5100/1, and be screened for the following medical surveillance programs: 133 – Chronic Acid/Chromium VI, 196 – Isocyanates, and 603 – Mixed Solvents (Volatile Organic Compounds).

(3) All respirator use requires personal training and fit-testing prior to use. Instruction must include respirator limitations and filter replacement schedule, and will be documented in Advanced Skill Management (ASM).

(4) All respirators shall be inspected prior to and after each use to ensure they are in proper working condition. All respirators will be checked out through the RPPM, Airframes Collateral Duty Inspector (CDI), or Collateral Duty Quality Assurance Representative (CDQAR) utilizing enclosure (1).

(5) When wearing the respirator, all functional parts must be in place and worn in the appropriate position. All straps must be secure and properly adjusted. Respirators shall not be hung by the straps in order to prevent damaging the equipment.

(6) Modification of any kind to the respirators are not permitted. This includes marking or personalizing.

(7) Respirators shall not be worn by any individual who has facial hair or any other condition that may interfere with the face piece seal or valve function.

(8) Use of a face-let, knitted covering, or any other device attached to the approved respirator voids its effectiveness and is not allowed.

(9) All respirators shall be returned to the respirator locker no later than the end of the workday, or when no longer required, whichever comes first.

(10) When opening new filter cartridges, the date opened along with eight circles shall be written on each filter cartridge. One circle will be filled in for each hour of use. If the filter cartridges are used for a half hour period, one full circle will be filled in.

b. Respirator Care and Storage

(1) All users shall make a reasonable effort to prevent damage to or loss of respirators. Any respirator damage or malfunction shall be reported directly to the RPPM.

(2) All respirators shall be inspected monthly, cleaned as necessary, and documented using enclosure (2) in accordance with reference (c).

(3) The RPPM shall ensure that respirators are being cleaned and disinfected after each use, and after fit testing in accordance with reference (a). Respirator cleaning will be documented utilizing enclosure (1). Respirator cleaning shall be performed in accordance with the following,

Subj: STANDARD OPERATING PROCEDURES FOR THE RESPIRATORY PROTECTION PROGRAM

- (a) Remove filter, cartridges, or canisters. Disassemble face pieces by removing speaking diaphragms, or any components recommended by manufacturer
- (b) Wash components in warm (maximum 110 degrees F) water with a mild detergent or with a cleaner recommended by the manufacturer. A soft bristle (not wire) brush may be used to facilitate removal of dirt.
- (c) Rinse components thoroughly in clean, warm (maximum 110 degree F) preferably running water.
- (d) When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in hypochlorite solution (50 parts per million of chlorine) made by adding approximately one cap-full of laundry bleach to one bucket of warm (maximum 110 degree F) water.
- (e) Components should be hand-dried with a clean lint-free cloth or air-dried.
- (f) Reassemble the face piece.

(4) Respirators shall not be placed in personal lockers or toolboxes.

(5) Respirators shall be stored in a location that prevents damage/deformation, exposure to dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals.

(6) Respirator repair or replacement may only be performed by the RPPM.

(7) A copy of this SOP shall be posted at the respirator issue point.

c. All touch-up painting will be conducted in the hangar area unless hangar space is unavailable. Respirator use when required on the flight line is authorized, but the work site must be contained and cannot create overspray onto an aircraft or the flight line in the vicinity of the work site. The site cannot impact the flight schedule.

d. Maintenance tasks involving sanding and or painting will utilize full-face air purifying respirators with organic vapor/P100 filter cartridges (grey and pink).

e. Emergency Reclamation Team (ERT) operations will utilize full-face air purifying respirators with organic vapor/P100 filter cartridges (grey and pink).

4. Emergency Procedures

(1) Should the filtered air inside the respirator reach an uncomfortably high temperature, the user shall immediately leave the process area to a fresh air environment. High temperatures are a sign that the vapor concentration has become excessive.

(2) Labored breathing while using a particulate filter may indicate that the filter is clogged. The user shall leave the area and replace the filter.

(3) If any of the following symptoms occur, the user shall immediately leave the process area and inform the supervisor:

- (a) Persistent cough
- (b) Nose or throat irritation
- (c) Dizziness or light-headed feeling
- (d) Detection of a leak or break in the respirator seal.
- (e) Increase in the breathing resistance of the respirator.
- (f) Severe discomfort due to an improper fit.
- (g) Any symptoms which indicate possible exposure to toxic substances.
- (h) Any loss of confidence in the respirator to perform in the present environment or under the current conditions.

5. Revisions

- a. The Respiratory Protection Program must be continuously monitored and adhered to. Any improvements to this policy should be brought to the attention of your Staff Noncommissioned Officer in Charge/Officer in Charge (SNCOIC/OIC) and forwarded to the RPPM.

(1) The point of contact for this SOP is (b) (6) RPPM (b) (6)

(b) (6)

Respirator: _____

[illegible]

*****CLEAN RESPIRATORS AFTER EACH USE!**

*****PRE-OP AND POST OP RESPIRATORS BEFORE AND AFTER EACH USE**

*****MARK ALL CARTRIDGES WITH (8) CIRCLES, DATE OPENED, RESPIRATOR NUMBER ONCE OPENED**

[illegible]

3) Local Command Procedures



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
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MASTER COPY

IN REPLY REFER TO:
4790
AMO
30 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363

To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE AIRCRAFT AND SUPPORT EQUIPMENT
CORROSION PREVENTION AND CONTROL PROGRAM

Ref: (a) A1-V22AB-TIS-000
(b) COMNAVAIRFORINST 4790.2
(c) FM3-5/MCWP 3-37.3
(d) NAVAIR 00-80R-20
(e) NAVAIR 00-80T-113
(f) NAVAIR 00-80T-121
(g) NAVAIR 01-1A-509-2
(h) NAVAIR 01-1A-21, Sec X
(i) OPNAVINST 3750.6S
(j) OPNAVINST 5442.2

PROPERTY OF VMM-363
COPY: 001
LOCATION: 040
ISSUE DATE: 09/29/2022

Encl: (1) Emergency Reclamation Procedures
(2) Emergency Reclamation Materials List/Inventory
(3) Aircraft Component Priority Removal/Treatment List
(4) Carbon and/or Graphite Fibers Immediate Action Requirements

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Aircraft and Support Equipment (SE) Corrosion Prevention and Control Program (CPCP).

b. This supplement includes local requirements for the VMM-363 Emergency Reclamation Team (ERT) which is an inherent part of the CPCP as directed by reference (b).

2. Local Command Procedures

a. The Aircraft Maintenance Officer (AMO) shall:

(1) Designate ERT members in writing via the Monthly Personnel Plan (MPP) and Advanced Skills Management (ASM) in accordance with reference (b).

(2) Utilize enclosure (1) in the event of an aircraft mishap.

(3) Retain authority to effect changes to the ERT.

(4) Notify the Commanding Officer and Executive Officer in any situation that demands the ERT.

(5) Make recommendations for the level of preservation of any aircraft that exceeds 30 days without flying.

Subj: LOCAL COMMAND PROCEDURES FOR THE AIRCRAFT AND SUPPORT EQUIPMENT
CORROSION PREVENTION AND CONTROL PROGRAM

b. The Maintenance Material Control Officer (MMCO) shall:

(1) Notify the AMO, Quality Assurance Officer (QAO), Aviation Safety Officer (ASO), and the Corrosion Prevention and Control Program Manager (CPCPM) in any situation that demands the need for the ERT.

(2) Coordinate a monthly review of the Commander, Naval Air forces, U.S. Pacific Fleet (CNAP) Corrosion Abatement Charts with the Quality Assurance Chief, CPCPM, and Division Chiefs. The purpose of the review is to identify actions required to improve corrosion prevention and treatment and implement Focus Area List (FAL) and corrosion areas of concern.

c. The Aviation Safety Officer shall:

(1) Assist in ensuring that adequate safety precautions have been taken to stop the spread of carbon graphite fibers into the environment if the aircraft is impounded for an accident investigation board.

(2) Notify the Industrial Hygienist (IH) to take air samples and monitor any chemical toxicity that may be released from the burning of damaged or crashed aircraft if required.

(3) Coordinate with the MMCO to ensure procedures are promptly initiated when the aircraft is released for reclamation.

d. The Ground Safety Officer (GSO) shall:

(1) Assist the ASO and utilize the Ground Safety Manager as needed.

e. The Corrosion Prevention and Control Program Manager shall:

(1) Ensure that all members assigned to the Corrosion Control work center and ERT have completed basic initial training requirements in accordance per ref (b), and that semi-annual ERT drills are conducted per reference (b) with deficiencies noted and corrected.

(2) Muster all personnel assigned to the ERT when directed by the AMO.

(3) Maintain an Emergency Reclamation turnover folder that contains a current ERT personnel list/recall roster, and this LCP.

(4) Ensure that preservation and salvage operations are conducted in a timely manner.

(5) Ensure all ERT members are familiar with all equipment and material to be used in a reclamation effort utilizing enclosures (1) and (2).

(6) Ensure all ERT members have a current annual medical assessment and are respirator qualified.

(7) Organize all salvage operations and report progress or status to the AMO.

(8) Inspect the mishap site and aircraft for signs of carbon graphite fiber and epoxy resin contamination.

(9) Ensure repairable components requiring reclamation are expeditiously processed to the appropriate Intermediate Maintenance Activity (IMA).

(10) In the event of a mishap, notify the squadron S-4 to ensure that appropriate transportation is available to transport ERT members and equipment to the crash site

Subj: LOCAL COMMAND PROCEDURES FOR THE AIRCRAFT AND SUPPORT EQUIPMENT
CORROSION PREVENTION AND CONTROL PROGRAM

- (11) Ensure all ERT members use correct Personal Protective Equipment (PPE).
- (12) Coordinated the reclamation effort with the AMO and crash fire rescue.
- (13) Prevent the mechanical cutting of fuel hoses, hydraulic lines, oil tubing, or electrical cables to include any other dramatic measures unless directed by the AMO or other designated representative.
- (14) Supervise and direct the actual reclamation work, utilizing enclosures (1) through (4) where applicable.
- (15) Ensure that all references in this LCP are complied with.
- (16) Ensure that the applicable Safety Data Sheets (SDS) are made available to the medical facility and all personnel working the crash site. SDS are centrally located in the hangar.
- (17) Maintain an ERT kit in accordance with reference (g) and enclosure (2).

f. Maintenance Control shall:

- (1) Advise the CPCPM as to the extent of damage to the aircraft and the possibility of the release of carbon graphite fibers into the environment.
- (2) Alert the supporting IMA in the event of a mishap requiring the ERT.
- (3) Appoint one Maintenance Controller to the ERT to perform on-site Maintenance Control duties.
- (4) Brief the Focus Area List (FAL) to Marines conducting maintenance in an area listed on the FAL.
- (5) Ensure all corrosion work orders that exceed 28 days from initiation are documented as a downing discrepancy and hold that aircraft from flight.
- (6) Initiate level 1 preservation Maintenance Action Form (MAF) for aircraft by 45 days since date last flown. These MAFs must be completed no later than 45 days since aircraft last flown

g. Quality Assurance shall:

- (1) If the AMO determines that the aircraft is to be retained for operational purposes, a Collateral Duty Inspector (CDI), Collateral Duty Quality Assurance Representative (CDQAR), or Quality Assurance Representative (QAR) from each work center shall inspect their areas or expertise prior to the next flight, ensuring that all corrosives and/or contaminants have been removed or treated.

h. Work Center Supervisors shall:

- (1) Nominate two Marines from each work center to the ERT. Ensure that personnel nominated for ERT are technically competent in their respective aircraft systems.
- (2) Ensure the CPCPM is notified if an ERT member is replaced.
- (3) Ensure that the correct corrosion documentation is maintained for their work center. Documented monthly by placing either an in-process inspection or by signing off a corrosion work order. Ensure that the CPCPM is given the Material Control Number (MCN).

Subj: LOCAL COMMAND PROCEDURES FOR THE AIRCRAFT AND SUPPORT EQUIPMENT
CORROSION PREVENTION AND CONTROL PROGRAM

i. Maintenance Administration shall:

- (1) Provide administrative assistance in the preparation of logs and records entries.
- (2) Ensure that a logbook entry is made for any preservation and/or damage to the aircraft, and all repairable components removed.
- (2) Make a logbook entry demonstrating that an in-depth corrosion inspection was performed after the incident. Data shall be submitted in the appropriate section of the aircraft logbook, corrosion folder, or other appropriate documents to ensure that they are inspected in the future as corrosion prone areas.
- (3) Make an entry in to aircraft Miscellaneous History Form for any aircraft more than 30 days since last flown.

j. Maintenance Personnel shall:

- (1) Become familiar with the procedures for identification and containment of carbon/graphite fibers as discussed in enclosure (4).
- (2) Utilize the proper PPE as follows:
 - (a) Full Suit: full-face respirator, paper suit with openings around the face and sleeves taped, leather palmed gloves, and steel toe safety boots.
 - (b) Partial Suit: full-face respirator, paper suit, leather palmed gloves, and steel toe safety boots.
 - (c) Minimal Suit: full-face respirator, leather palmed gloves, and steel toe safety boots.
- (3) Ensure medical and respiratory protection qualifications are conducted and documented properly.

k. Focus Area List (FAL)

- (a) The most current FAL is located on the CNAF SharePoint at the following link:
https://cpf.navy.deps.mil/sites/cnap/N42/N422/Corrosion_Class_Desk/SitePages/Home.aspx

(b) (6)

EMERGENCY RECLAMATION PROCEDURES

1. Upon notification of an aircraft accident/incident requiring the ERT, Maintenance Control will notify the Aircraft Maintenance Officer and the Emergency Reclamation Team supervisor to discuss the severity of the situation and what ERT requirements will be necessary

Ensure the following are made aware of aircraft accident/incident:

_____ SDO/ODO	_____ ASO
_____ AMO	_____ Airframes Officer
_____ QAO	_____ CP&C Program Manager
_____ MMCO	_____ Airframes Division Chief
_____ Maintenance Control	

2. When the situation and requirements are clear, the ERT supervisor will muster the ERT members to meet at a set location and brief them on the situation. Once the brief is complete, the ERT members will disperse to check out and return with all required tools/items.
3. If an Aviation Mishap Board (AMB) impounds an aircraft, the Aviation Safety Officer (ASO) will coordinate with the Maintenance Material Control Officer (MMCO) to ensure that Emergency Reclamation Procedures are promptly initiated once the aircraft is released for reclamation.

NOTE

The senior member of the AMB must release the aircraft for emergency reclamation. The aircraft or components shall not be removed until the aircraft is released. Authorization must be received from the AMO or MMCO.

4. Before boarding the aircraft, the ERT must clarify with the ASO that the aircraft is safe for boarding. Follow the procedures below as required:

NOTE

Prior to the start of any reclamation maintenance action, all tools and materials must be accounted for.

_____ ATAF

- a. Ensure all ordnance, explosives, and cartridge activated devices are disarmed and removed by qualified personnel.
 - b. If fuel cells have been ruptured and/or fuel vapors are present, it is imperative that the Fire Chief or the Aircraft Confined Space Program Manager approve it within working limits.
 - c. Ensure all electrical power is disconnected and the aircraft is properly grounded.
 - d. Evaluate the site for hazardous materials/waste that may endanger personal safety. Follow the Safety Data Sheet (SDS) of all known aircraft materials in order to properly select the appropriate personal protective equipment (PPE)
 - e. Should the aircraft contain composite material, ensure that the materials have been treated and are properly contained.
5. If the aircraft is not safe for entering, or if it poses a threat to human life, the ERT shall evacuate to their respective muster destination and let the emergency agencies take control of the situation. However, as soon as the unsafe conditions are corrected, the ERT will re-enter immediately in order to salvage as many items as possible.

6. When an aircraft is involved in saltwater immersion, it shall be assumed that all components in the immersed area, including hollow structural and mechanical members, are contaminated internally. All components shall be protected against further corrosive attack and sent to the Intermediate Maintenance Authority or manufacturer for further inspection as required.
7. All parts and components removed from the aircraft shall be cleaned and tagged with Water, Crash, or Fire damage tags. When parts are packed for shipments, tags will be attached to both the interior and exterior of the packaging. Tags shall remain attached until the units are reworked and completely decontaminated and all traces of corrosion have been removed.

NOTE

After the reclamation is complete, all tools and materials will be accounted for prior to the team securing.

 ATAF

8. When all required/salvageable components are removed and processed, the ERT shall conduct a FOD inspection surrounding the aircraft. Prior to leaving the site, the aircraft must be secured. The ERT will muster to dispose of hazardous material/waste, clean tools and PPE, and conduct a final ATAF. The ERT will then debrief and return to their respective work centers.

NOTE

All HAZMAT shall be disposed of as per local hazardous waste procedures

EMERGENCY RECLAMATION MATERIAL LIST/INVENTORY

** THE FOLLOWING ITEMS ARE LOCATED IN THE HAZARDOUS MATERIALS SITE **

ITEM	QUANTITY	NSN
CLEANING COMPOUND SOLVENT (MIL-PRF-680)	5 GALLONS	6850-01-474
OIL, LUBE, TURBOSHAFT, ENG (MIL-L-23699)	8 CANS	9150-00-985-7099
WATER DISPLACING COMPOUND (MIL-C-81309 TYPE III)	5 CANS	8030-00-546-8637
ISOPROPYL ALCOHOL (TT-1-735 99%)	2 GALLON	6810-00-286-5435
AIRCRAFT CLEANING COMPOUND (MIL-PRF-85570 TYPE II)	5 GALLONS	6850-01-578-4978

CHRIIMP/HAZMAT REP. _____ (QUARTERLY INVENTORY)

THE FOLLOWING ARE LOCATED IN THE AIRFRAMES SHOP

QUANTITY	NOMENCLATURE	INIT.
1 RL	BARRIER MATERIAL	
2	AIRCRAFT WASH STICKS	
1	QUICK INVENTORY SHEET	
1	LARGE TRASH CAN	

BOX 1

QUANTITY	NOMENCLATURE	INIT.
14	FULL FACE RESPIRATORS	

BOX 2

QUANTITY	NOMENCLATURE	INIT.
1 RL	CAUTION TAPE	
3 RL	A/C PRESERVATION TAPE	
4 RL	MASKING TAPE	
1 RL	ALUMINUM A/C TAPE	

BOX 2 (CONT.)

QUANTITY	NOMENCLATURE	INIT.
2 RL	ESD TAPE	
5	LEATHER CHAMOIS	
2 BX	CLEANING/DRYING WIPES(TUFFEST)	
3	SPRAY BOTTLES	
1	SANDING DISK KIT	
10	ABRASIVE MATS	
3 BX	NITRLE EXAMINATION GLOVES	
1 PK	100 GRIT SAND PAPER	
1 PK	RAZOR BLADES	
10	A/C WASH PADS	
1 PK	ZIP TIES	
2 BX	33 GAL TRASH BAGS	
1 BX	INK PENS	
2PK	IDENTIFICATION TAGS (NAVAIR 4035/13 & 3075/1)	
6	SPONGES	
7	LARGE WIRE BRUSHES	
10	SMALL WIRE BRUSHES	
3	SOFT BRISTLES	
2	A/C WASH PAD HOLDER	
1 BX	ACID BRUSHES	
3 PK	12X12 ZIP LOCK BAGS	
12	ESD BAGS	
6PK	6X6 ZIP LOCK BAGS	
1 Bag	LINT FREE RAGS	
2 PAIR	LEATHER PALM GLOVES	
4	HAZWASTE DISPOSAL BAGS	
1	HEAT GUN	
3	AIR HOSES	
1	WATER HOSE	
1	WATER NOZZLE	

BOX 3

QUANTITY	NOMENCLATURE	INIT
25	P100/OV RESPIRATOR CARTRIDGES	
10	CARGO STRAPS	
1	PORTABLE BACKPACK SPRAYER	
5	APRONS	
5	HEAVY DUTY RUBBER GLOVES	
5	CHEMICAL RESISTANT GOGGLES	

BOX 3 (Cont.)

QUANTITY	NOMENCLATURE	INIT.
6 PK	SPONGES	
7	SCUZZ BRUSHES	
5	FACE SHIELDS	
16	DISPOSABLE COVERALLS	

ERT MANAGER SIGNATURE: _____ DATE: _____

Y22 PRIORITY REMOVAL LIST

Note

Follow all applicable Maintenance Instruction Manuals for removal, decontamination, and preservation of all aircraft parts.

****Warning****

Ordnance and CAD removal shall be done prior to the initiation of the reclamation action and will be only completed by designated and qualified personnel.

1. Flight Equipment

- Disarm or deactivate any explosive devices
- Internal Initiator (6)
- External Initiator (6)
- Gas Generator (17)
- Seat Thruster (3)
- Portable Fire bottle (2)
- Engine Fire bottle (2)

2. Avionics

- TSEC/KY-58/ARC-210 (Crypto Gear)
- KIT-1C/TSEC/APX-118 (Crypto Gear)
- Chaff Programmer
- Flight Incident Recorder/CSMU/KVADR
- VHF/UHF Radio (2)
- Mission Computer (2)
- Flight Control Computer (3)
- FADEC (4)
- Battery (2)
- VSLED Computer

3. Flight Line

- Engine (2)
- Oil Cooler Blower (2)
- Oil Cooler (2)
- Midwing Gear Box
- Prop Rotor Head (2)
- Prop Rotor blade (6)
- Tilt Axis Gear Box (2)
- Shaft Driven Compressor
- Auxiliary Power Unit
- Prop Rotor Gear box

4. Airframes

- Flight Control Module (3)
- Hydraulic Pump (3)
- Engine Starter (2)
- Swashplate Actuator (6)
- Conversion Actuator (2)
- Flaperon Actuator (8)

Enclosure (3)

Enclosure (6)

- Elevator Actuator (3)
- Ramp Actuator (2)
- Ramp Door Actuator (2)
- Landing Gear Drag Strut Actuator (3)
- EAPS Blower Motor (4)
- Rotor Brake
- Rotor Brake Manifold
- Hydraulic Parking Brake Valve
- Master Brake Cylinder (4)

5. All Shops

- All remaining salvageable equipment

CARBON AND/OR GRAPHITE FIBERS IMMEDIATE ACTION REQUIREMENTS

- 1) To contain or prevent the release of Carbon (CR) and/or Graphite (G), take the following actions
 - a) Secure other aircraft in the area.
 1. Close canopies and entrances.
 2. Close all access doors and panels.
 3. Install intake/exhaust covers, all other cover seals, and secure all openings that may allow CR/G materials to enter.
 - b) Secure hangar, workspaces, and protect all electrical systems needed to continue operation.
 1. Secure non-essential electrical equipment.
 2. Close windows and doors.
 3. Secure outside air intakes.
 4. Minimize entrance and exit of personnel
 - c) When the release of CR/G is caused by fire, take the following precautions
 1. Allow only firefighting and rescue personnel in the vicinity while the aircraft is smoking or burning.
 2. Keep all unnecessary personnel away from the site upwind.
 3. Once fire is out and wreckage is cool, spray all wreckage with polyacrylic acid (fixant) if polyacrylic acid is not available, use any acrylic floor wax or light machine oil to contain the release of CR/G.

WARNING

OIL MIST IS TOXIC. ENSURE PERSONNEL USE APPROPRIATE PERSONAL PROTECTIVE EQUIPEMENT TO PREVENT INHALATION HAZARDS.

4. After fixant is applied, use of industrial dust mask is sufficient for work at the site unless large amount of CR/G material are agitated.
5. Place CR/G materials not required for investigation in plastic bags, or wrap in plastic and secure with duct tape. Once an analysis of C/G materials is complete, dispose of all waste materials at an approved HAZWASTE site.
6. Treat CR/G Materials required for analysis with fixant and wrap in heavy duty plastic wrap before packing and shipping.
7. Provide a suitable shower facility for personnel going off duty.
- d) When aircraft mishaps occur and CR/G materials are not released by fire, leather palmed gloves offer adequate protection from splinter injuries.



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANE OHE BAY HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO:
4790
AMO
30 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Marines of Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE EGRESS/EXPLOSIVE SYSTEM CHECKOUT PROGRAM

Ref: (a) COMNAVAIRFORINST 4790.2_
(b) NAVAIR 11-100-1.1
(c) A1-V22AB-TIS-000
(d) [HTTPS://CADPAD.NAVAIR.NAVY.MIL](https://cadpad.navair.navy.mil)

PROPERTY OF VMM-363
COPY: 001

LOCATION: 040

ISSUE DATE: 09/29/2022

- Encl: (1) Egress/Explosive System Checkout Program Training Syllabus
(2) Egress/Explosive Checkout Qualification
(3) Egress/Explosive Checkout Mass Qualification
(4) Egress/Explosive Checkout System Instructor Designation

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Egress/Explosives System Checkout Program.

b. All personnel shall receive appropriate training on the requirements set forth in reference (a) regarding the Egress/Explosive System Checkout Training on each type/model/series (T/M/S) providing the knowledge necessary for the safe conduct of aircraft maintenance.

2. Local Command Procedures

a. All personnel shall be familiar with the location, description, and safety precautions for all cartridges actuated devices (CADs) installed on MV-22 aircraft covered by instruction. Training will be conducted in accordance with enclosure (1).

b. Egress/Explosive system training and checkout for all maintenance personnel will be conducted upon reporting aboard and every six months thereafter. All Egress Training must be signed off and routed by the last day of the month in which it is due. If personnel expire, their name will be routed to Maintenance Administration where Special Maintenance Qualifications (SMQs) will be suspended and Optimized Organizational Maintenance Activity (OOMA) accounts will be locked to ensure maintenance is not performed. SMQ's will be reinstated and accounts will be unlocked once Egress Qualification is renewed. Upon return from Temporary Assigned Duty (TAD) of 90 days or more, personnel will check in with Flight Equipment for an initial Egress Checkout Brief.

c. Personnel not assigned to the Maintenance Department, security watch personnel, regardless of rate or Military Occupationally Specialty (MOS), and government services contract personnel providing on site assistance will receive the same Egress Training and follow the same requirements, regardless of checkout training received from other activities. In addition, personnel will fill out the Egress/Explosive System Checkout Certificate per enclosures (2) or (3). Certificates will be maintained in Flight Equipment.

d. Training will be given by an Egress/Explosive System Checkout Instructor. Instructors must complete the Egress Instructor syllabus in Advanced Skills Management (ASM) for initial Egress Instructor Qualification. Instructors shall receive Egress Checkout Training every six months thereafter to remain current. Instructors will be

Subj: LOCAL COMMAND PROCEDURES FOR THE EGRESS/EXPLOSIVE SYSTEM CHECKOUT PROGRAM

designated in ASM by the Aircraft Maintenance Officer (AMO) and in the Monthly Personnel Plan (MPP). Instructors shall complete Interactive Multimedia Instruction (IMI) if applicable to T/M/S on the Virtual Fleet Support (VFS) website via reference (d) and input under formal courses in ASM.

(b) (6)

EGRESS/EXPLOSIVES SYSTEM CHECKOUT PROGRAM TRAINING GUIDE

MV-22

- Explain the purpose of Egress safety.
- Identify the locations of Cartridge Actuated Devices (CADs).
- Explain potential hazards when working around CADs.
- Emphasize that only qualified Aviation Life Support System (ALSS) or Ordnance Personnel are to remove and install any CAD.
- Express the importance of ensuring that continual Egress Safety training is being performed as outlined in the COMNAVAIRFORINST 4790.2__
- Explain who is permitted enter into the cockpit.

1. Egress/Explosive Systems on the MV-22

ENGINE #1 AND #2 FIRE BOTTLE CADs

Nacelle fire extinguisher cartridge (SS66) is used to release a fire extinguishing agent into the area surrounding the aircraft's #1 and #2 engines in the event of a fire. For operating procedures continue to the T-Handle section.

WING FIRE GAS GENERATORS

Fire extinguisher gas generators (SS90, SS91) provides fire suppression capability for the mid-wing area. Fire extinguisher gas generators (SS89, SS92) provides fire suppression capabilities for the left and right wing. If maintenance is being performed around these areas to prevent unintentional discharge of wing fire gas generator system the Wing Fire Protection System (WFPS) Switch needs to be in the "Disable Position" with the red protective cover up and off with the switch in the up/disable position for safe maintenance.

MAIN LANDING GEAR BAY FIRE SUPPRESSION SYSTEM

The MLG Bay Fire Suppression System is a stand-alone system, installed in both the left and right MLG. When a fire is present in the vicinity of the tubing the tubing is designed to melt/burst, the heat will weaken the tube and Monnex will then move out of the extinguisher to the fire.

PILOT/CO-PILOT/CABIN WINDOWS/OVERHEAD ESCAPE EXTERNAL INITIATORS

Operation procedures for external initiators (JL01/JN39) are as followed, press to extend button located on each external initiator for the pilot/co-pilot hatches and four cabin windows grasping the handle and pulling to overcome the detents which will unwind a wire lanyard inside the handle housing. Move away from the aircraft 10ft at a 45 degree angle, turn away from the aircraft and pull to detonate the window. There is a recuse arrow pointing to the initiators and also direction on how to use them if needed.

Enclosure (1)

Enclosure (6)

EGRESS/EXPLOSIVES SYSTEM CHECKOUT PROGRAM TRAINING GUIDE

If maintenance is being performed keep in mind the handle should be sitting with in the housing and not protruding out past the frame of the aircraft, if the handle is found unsafe remove personnel from the aircraft and inform Flight Equipment or Control immediately. Some aircraft, in accordance with Technical Directive AFC-256, do not have overhead escape external initiator.

MAIN CABIN DOOR

There is an internal and external emergency release levers are installed in the upper door. Pulling either lever disengages the aft door rollers from the track, the door lock pin (if engaged), and the door latch pins. The upper door can then be withdrawn into the cabin if the cabin is not pressurized. Do not pull the yellow handle on the door unless an emergency calls for it.

COCKPIT DOOR

The cockpit door separates the cockpit from the cabin. The door latch handles are located at the upper right corner of the door on both sides of the door. An emergency release lever is provided on both side of the door. Lifting the lever disengages the door hinge pins and allows the door to be pushed forward into the cockpit passageway. Entry is not permitted unless approved by the Commanding Officer.

HOIST-WINCH BUTTON

The hoist winch button is located on the forward right-hand side of cabin located on the right of the main cabin door. It is marked with yellow and white stripes and encase with a plastic transparent cover. Ensure safe by making sure selector switch is off and cover is closed. Once depress, the hoist line will shear.

COCKPIT HOIST BUTTON

The cockpit hoist button is located on the overhead console in cockpit area (top left of the panel). It is marked with white and yellow stripes. Once depress, the hoist line will shear.

ENGINE #1 AND #2 EMERGENCY OFF T-HANDLE/ DISCHARGE BUTTON

The T- Handles electronically trigger #1 and #2 engine fire bottles. The T-Handles are located on the Overhead Control Panel in the cockpit with yellow and white stripes. Engine #1 T-Handle is on farthest left side of panel and Engine #2 T-Handle on farthest right side of panel, ensure the handles are safe by observing that they are in "NORM" position. If an Engine Fire Bottle is needed "ARM" the T-Handle needed and press the "Discharge Button" which is found between the two emergency T-handle on the cockpit overhead control panel. Only use in case of emergencies.

Enclosure (1)

Enclosure (6)

EGRESS/EXPLOSIVES SYSTEM CHECKOUT PROGRAM TRAINING GUIDE

PILOT/CO-PILOT/CABIN WINDOWS/OVERHEAD ESCAPE INTERNAL INITIATORS

Operation procedures for internal initiators (JL03) are as followed, ensure to face away from the window/ hatch with visor down (if applicable). If performing maintenance ensure the red "remove before flight" pin are installed to prevent inadvertent operation of initiators, if found unsafe remove personnel from the aircraft and inform Flight Equipment or Control immediately. Some aircraft, in accordance with Technical Directive AFC-256, do not have overhead escape internal initiator.

PILOT/CO-PILOT/CABIN WINDOWS/OVERHEAD ESCAPE SEVERANCE ASSEMBLIES

The Severance assemblies (WB34, WB35, WB36, WB37, WB38, and WB39) are intended to provide an emergency egress path in a post-crash on land or in a water situation. The severance assemblies are intended for use should the main cabin egress path be blocked (doors). The severance assemblies use a flexible linear shaped charge explosive cord, which detonates to provide the cutting mechanism for removing the side windows/hatches. Some aircraft that have had Technical Directive Airframes Change 256 incorporated will have the overhead escape severance assembly (WB39) removed. This would no longer be an egress point.

CARTRIDGE ACTUATED THRUSTER

The cartridge actuated thruster (JL02) is a one-time-use piston device used to actuate the troop seat release mechanism. It's only applicable to the left forward window, left aft window escape, right center window escape.

RESCUE HOIST CAD

The Impulse Cartridge (M514) is an electrically initiated unit used to actuate a hoist cable cutter (JM90) to cut and release a steel hoist.

HOIST SWITCH

The hoist switch is located on left aft side in the cabin next to the ramp door. It is marked with yellow and white stripes with a protective "RED" cover the "SAFE" position is cover closed. "DO NOT GET THIS CONFUSED WITH THE WFPS SWITCH".

2. Survival Items

MK-124

Each aircrew vest has one day/night flares.

LRU-34

Enclosure (1)

Enclosure (6)

EGRESS/EXPLOSIVES SYSTEM CHECKOUT PROGRAM TRAINING GUIDE

Each Aircraft has one 20 man life raft. LRU-34 has 10 MK-124's day/night flare, 2 MK-79's and 2 First Aid Kits.

Portable Fire Extinguishers

Two fire extinguishers exist in the aircraft and used for emergencies in case of fires. One is mounted forward right side of the aircraft. The second one is mounted in the left aft of the aircraft.

Enclosure (1)

Enclosure (6)

EGRESS/EXPLOSIVE SYSTEMS CHECKOUT QUALIFICATION

Name (Last, First, MI)	Rate/Rank	Activity
------------------------	-----------	----------

1. Trainee acknowledgement: I have read and understand Egress/Explosive Systems Checkout Program directives and received training on how to safely perform aircraft maintenance around a canopy, ejection seats, cockpit areas, and installed explosive systems for the (T/M/S) aircraft.

Member's Signature	Date
--------------------	------

2. Instructor certification: The above named individual has received Egress/Explosive Systems Checkout per COMNAVAIRFORINST 4790.2.

INSTRUCTOR (PRINT AND SIGN NAME)	ACTIVITY	DATE COMPLETED	MONTH NEXT DUE

100

Month Next Due

1. Instructor Certification: The below named individuals have received Egress/Explosive Systems Checkout per COMNAVAIRFORINST 4790.2_.

[illegible]

Enclosure (6)



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
P.O. BOX 63059
MCBH KANE OHE BAY, HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO
5100
AMO
30 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: All Pilots, Enlisted Aircrew and Maintenance Marines of Marine Medium Tiltrotor Squadron 363

Subj: EMERGENCY LANDING WITH HUNG LANDING GEAR LOCAL COMMAND
PROCEDURE

Ref: (a) A1-V22AB-TIS-000 (IETM)
(b) A1-V22AB-TIS-000 (NATOPS)
(c) A1-V22AB-NFM-000 (PCL)
(d) 1st MAW Combined Flash Report
(e) Group Read and Initial 8-12
(f) NAVAIR 00-80T-113

Encl: (1) Hung Gear Emergency Key Roles Checklist
(2) Emergency Landing Pad Location

PROPERTY OF VMM-363
COPY: 001

LOCATION: 040

ISSUE DATE: 09/29/2022

1. Purpose and Scope

a. Per the references, the purpose of this Local Command Procedure (LCP) is to define and clarify the emergency landing procedures to be utilized during a hung landing gear event. All procedures will be in accordance with References (a) through (f). These procedures are to be followed utilizing the enclosed checklist but are flexible in the interest of the safe recovery of squadron personnel and assets.

2. Coordination and Control

a. MAINTENANCE- The senior Marine on deck is in command of the evolution, but the senior member of the Quality Assurance (QA) work center will manage the emergency by acting as the Recovery Team Leader. QA will utilize maintenance control as the communications relay and central point of contact for the recovery efforts. A senior crew chief or plane captain will serve as the landing director to facilitate the actual landing evolution. The senior member of the airframes work center will supervise construction of the Emergency Landing Pad (ELP).

b. OPERATIONS DUTY OFFICER (ODO)- The ODO shall be the point of contact for all outside agencies per Reference (d). The ODO will also be responsible for coordinating external support at the request of maintenance control. If the ODO is the first to be notified of a hung gear situation, he shall immediately notify maintenance control.

3. Responsibilities

a. AIRCREW- The final decision to land on the ELP rests with the aircraft commander. When all troubleshooting steps have been exhausted, and the aircrew is not comfortable executing a vertical landing, the aircraft commander may instead choose to land on the ELP. All Interactive Electronic Technical Manual (IETM) troubleshooting steps shall be followed step by step until exhausted. Once QA troubleshooting procedures have been attempted and proven ineffective, aircrew must be prepared to execute LANDING WITH HUNG GEAR as per Reference (c).

b. ODO- The ODO shall maintain communication with the affected aircraft until maintenance control has assumed direct control of the situation. Once the aircraft has committed to landing on the ELP with a hung gear condition and is in direct radio contact with the landing director, the ODO will monitor the squadron frequency only. This will prevent miscommunication and over tasking of the pilot-at-controls. Upon safe landing and shutdown on the ELP, the aircrew will initiate contact and resume communications with the ODO.

NOTE

It is critically important to have only one person on the radio in dialogue with the aircraft commander.

c. MAINTENANCE

(1) Maintenance Control will ensure there are sufficient maintenance personnel available to provide enough tow crews to facilitate the movement of aircraft as required. Flight Line will take charge of assigned tow crew personnel and direct the movement of squadron aircraft. Airframes will designate available maintenance personnel to move, prepare and secure the ELP mattress stacks. Post landing responsibilities will be directed by the airframes work center. QA shall manage, monitor and oversee all evolutions of the situation, providing perspective and direction with concerns for safety of squadron personnel and recovery of squadron aircraft.

4. Landing with Hung Gear Procedures

a. Once the aircrew has verified one or more landing gear are hung and will not extend to the down and locked position, they will begin troubleshooting utilizing Reference (c). The aircrew will declare an emergency with tower and notify the ODO with their intent. If the decision to land on the ELP is made, aircrew shall notify maintenance control of available time on station and desired landing direction. The aircrew will then remain in the local pattern until the ELP is constructed and all nonessential personnel are clear. While waiting, the aircraft will be configured for emergency landing.

NOTE

All emergency extensions shall be conducted over PAD 8 to contain possible TFOA.

b. MAINTENANCE

(1) Assemble the senior Quality Assurance Representative (QAR) and the senior member of airframes in maintenance control. Maintenance control will then execute Enclosure (1), and coordinate the prepositioning of the ELP and required materials identified in Reference (a). Once all troubleshooting procedures have been exhausted, execute hung gear landing on ELP as follows:

(a) Establish communication with landing aircraft utilizing the UHF/VHF handheld radio on UHF frequency as designated by the ODO.

NOTE

In the event direct contact cannot be made with the aircraft, the QAR will relay through maintenance control. If contact cannot be established by radio, hand signals from the aircraft signals NATOPS manual, Reference (f) shall be used.

(b) Position aircraft as required by Reference (e).

(c) Verify ELP is correctly oriented.

(d) Configure aircraft for emergency landing by Reference (c).

CAUTION

Upon completion of emergency landing gear pad configuration, all non-essential personnel will evacuate the area to a safe distance or behind a hard structure.

NOTE

If the main landing gear is in an asymmetrical landing gear configuration, all landing gear must be raised.

(e) Using radio communication, the landing director directs the positioning of the aircraft to align on the ELP mattress stacks. If available, a second landing director will be positioned on the right side of the aircraft in order to clear the Forward Looking Infrared.

Subj:EMERGENCY LANDING WITH HUNG LANDING GEAR LOCAL COMMAND PROCEDURE

(f) Upon safe settling of the aircraft, QA will call for a normal engine shutdown. The rotor brake will not be utilized to prevent possible aircraft shifting. If the aircraft becomes unstable prior to engine shutdown, the aircrew will attempt to become airborne. Once the ELP is stabilized, additional attempts are authorized at the discretion of the aircraft commander.

(g) Once the aircraft is safely settled on the ELP mattress stacks, QA will coordinate the installation of grounding straps and aircraft chains to prevent rollover or shifting.

(h) Upon safe shutdown of the aircraft, QA, airframes and CFR will assess the material condition of the aircraft for Hazardous Material (HAZMAT) response and security.

(i) After receiving authorization from QA, airframes and CFR, both aircraft wing jacks and four twenty five ton jacks will be positioned under the aircraft.

(j) The ODO and the maintenance department will begin the recovery and repair evolution to extend the hung landing gear in accordance with reference (b) and base frequency control will be returned to the ODO.

5. Notification of Higher

a. The ODO is responsible for contacting the Commanding Officer once the initiation of the LCP has occurred. At the completion of the evolution the ODO will prepare and submit a 5 W's to the Executive Officer (XO), and Commanding Officer (CO), for inclusion into reporting requirements per reference (d).

(b) (6)

ELP Key Roles Checklist

ODO

- Notifies Maintenance Control of hung landing gear emergency.
- Notifies RAAF ABCP of hung landing gear emergency.

Maintenance Control

- Notifies maintenance department of hung gear emergency.
- Notifies ODO of all ELP updates.
- Provide Recovery Team vehicle

QA

- Senior member will act as Recovery Team Leader.
- Provide Recovery Vehicle Marking Light and Airfield Radio
- Assist with in-flight troubleshooting.
- Serve as coordinator for movement of equipment and gear to ELP spot.
- Assign senior available aircrew/plane captain duties as landing director.
- Maintain liaison with aircraft for status updates/changes.

Flight Line

- Provide senior aircrew/plane captain to serve as landing director.
- Provide all available personnel to assist in set up of ELP and recovery gear.
- Post-landing, leads movement of squadron aircraft away from ELP.

Airframes

- Provide all available personnel to assist in set up of ELP and recovery of gear.

Avionics

- Provide all available personnel to assist in set up of ELP and recovery gear.

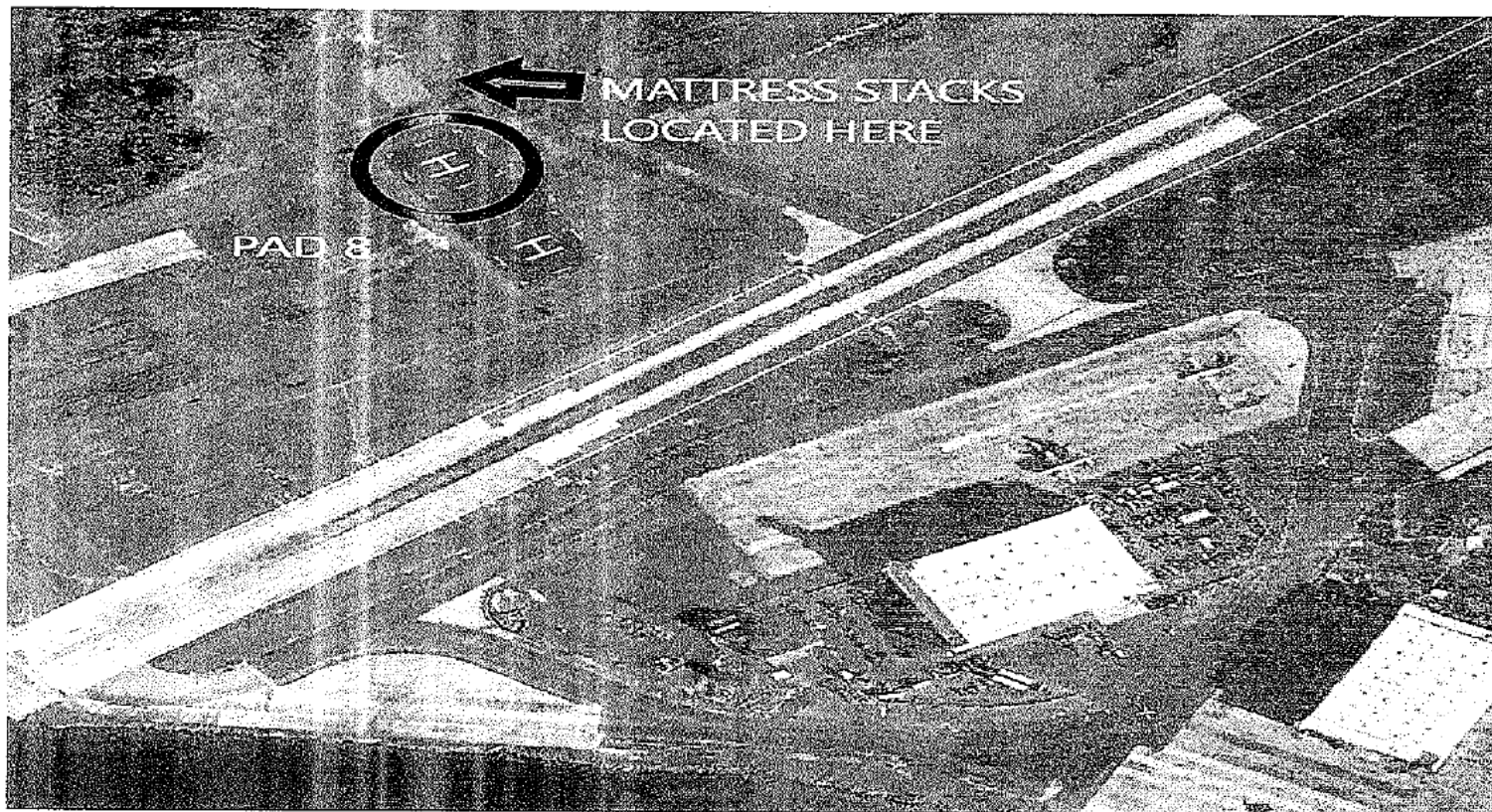
Tool Room

- Provide Tug and towbar for movement of aircraft.
- Provide four 25 ton aircraft jacks.

CFR

- Provide firefighting and rescue personnel and equipment.

EMERGENCY LANDING PAD LOCATION



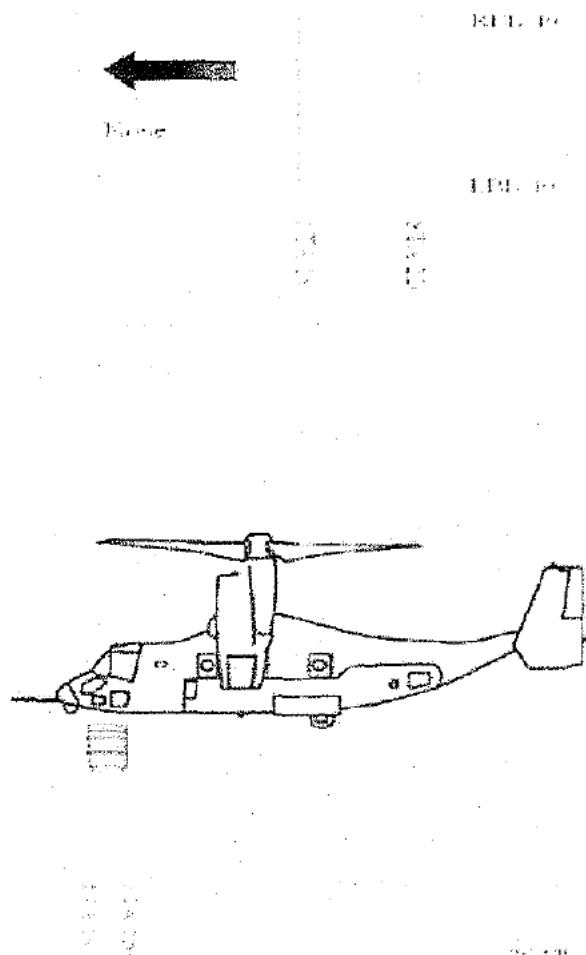
REQUIRED GEAR LIST

GEAR LOCATION	GEAR	NUMBER REQUIRED
HANGAR 6886	MATTRESS STACK-UP	2-5 (AS REQUIRED)
HANGAR 6886	SPILL KIT	1-2 (AS REQUIRED)
VMM-363 TOOL ROOM	25 TON JACKS	4
VMM-363 TOOL ROOM	WING JACKS	2
VMM-363 AIRFRAMES	CARGO STRAPS	20
VMM-363 TOOL ROOM	TIE-DOWN CHAINS (TD-1B)	10
CONTROL/QA/AF	RADIOS	1 (EA)

Enclosure (2)

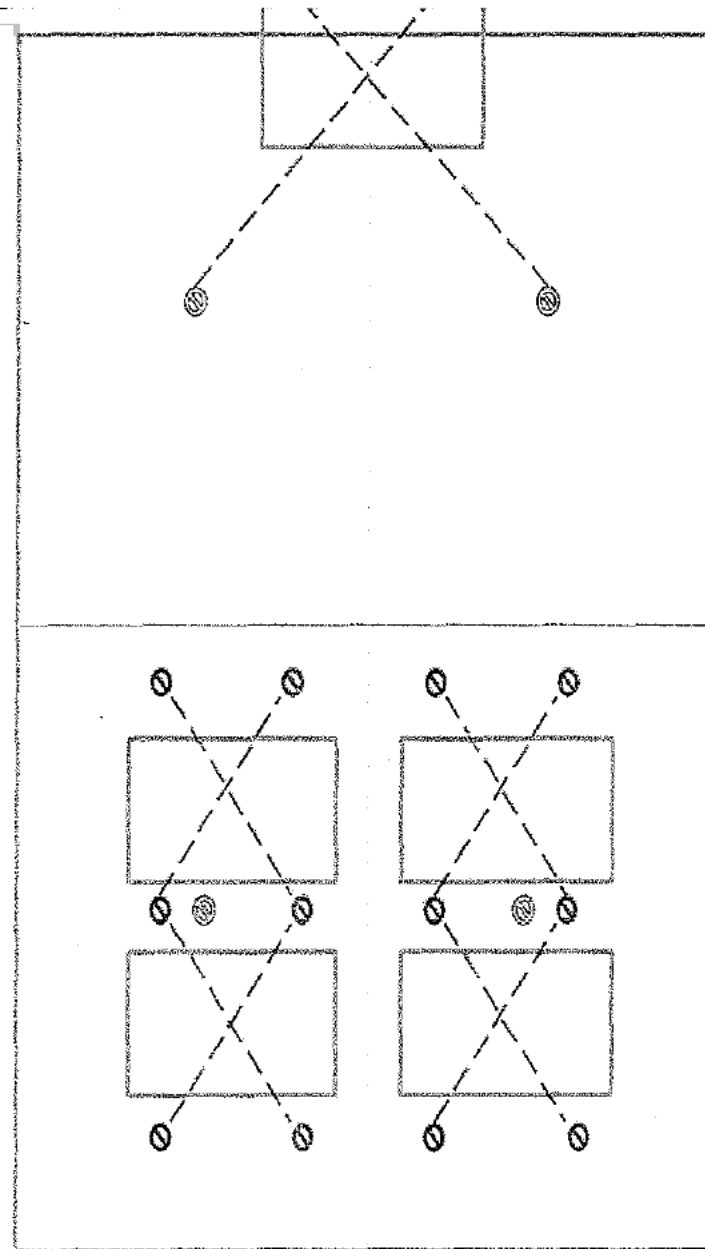
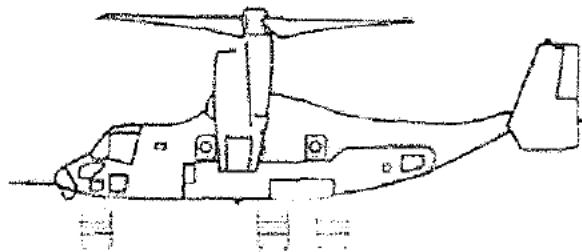
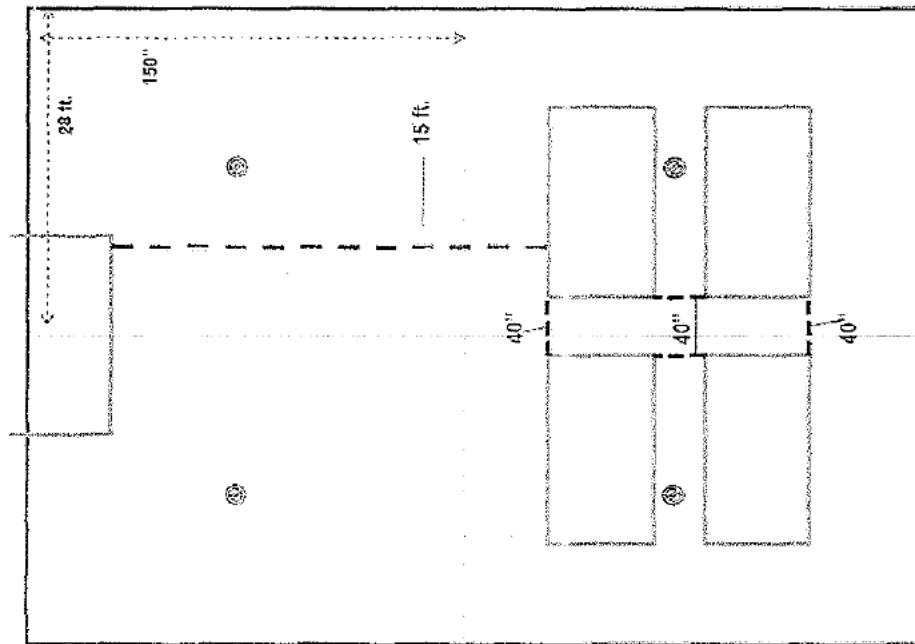
Enclosure (6)

Landing Pad Configuration for Hung Nose Landing Gear



Utilize this if main landing gear are down and nose gear remains retracted. Ensuring the pad is placed perpendicular so when aircraft settles the FLIR rests just forward, but not on top of the landing pad.

Landing Pad Configuration for Hung Nose and Main Landing Gear



For proper security, there should be at least 20 cargo straps on hand to use..

Each stack up should have 2 straps criss-crossing the tops, and 2 straps securing each pallet.

(Only minimal straps are depicted here for simplicity of viewing)



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANEOHE BAY HAWAII 96863-3059

IN REPLY REFER TO:
4790
AMO
26 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363

To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR FUNCTIONAL CHECK FLIGHTS

Ref: (a) COMNAVAIRFORINST 4790.2_
(b) COMNAVAIRFOR M-3710.7
(c) A1-V22AB-NFM-000
(d) A1-V22AB-NFM-700
(e) A1-V22AB-TIS-000
(f) NAVMC 3500.14d
(g) MAG-24 Group Order P9710.3D w/ Ch 1
(h) MAG-24 VMM Flight Operations SOP

Encl: (1) VMM-363 MV-22B QA / FCF Matrix
(2) Functional Check Flight Brief Sheet
(3) Functional Check Pilot Training Syllabus
(4) Functional Check Pilot Open Book Test

MASTER COPY

PROPERTY OF VMM-363

COPY: 001

LOCATION: 040

ISSUE DATE: 26 AUG 22

1. Purpose and Scope

a. This supplement establishes local requirements for conducting Functional Check Flights (FCF) and standardizing training and designation of Functional Check Pilots (FCP). Additionally, it serves to provide standardization of Quality Assurance (QA) required components, panels requiring QA Foreign Object Damage (FOD) free, and QA required specific inspections.

b. This policy applies to all personnel directly involved in the performance of maintenance as well as all pilots trained and designated as FCPs. This includes pilots training to be qualified FCPs.

2. Local Command Procedures

a. The execution of FCFs will be conducted in a logical sequence and in accordance with the references. The sequence and responsibility for an FCF is as follows:

(1) Maintenance Control responsibilities:

(a) Determine if an FCF is required for a particular maintenance action with assistance from QA and using references (a) and (c) and enclosure (1).

(b) Screen the Aircraft Discrepancy Book (ADB) and Optimized Organizational Maintenance Activity (OOMA) upon completion of a maintenance action in accordance with reference (a) to ensure work orders requiring FCF or QA inspection signature are marked appropriately.

(c) Ensure that all maintenance actions requiring FCF, GT, or Next Pilot Perform Check (NPPC) are annotated on the required check page in that aircraft's ADB.

Subj: LOCAL COMMAND PROCEDURES FOR FUNCTIONAL CHECK FLIGHTS

(d) Route the ADB to QA for final screening by a Quality Assurance Representative (QAR).

(e) After notification from QA that the ADB/OOMA screening is complete, notify the Operations Duty Officer (ODO) to inform the FCF crew that the aircraft is signed safe for flight and ready for pilots. Once FCP is available, notify all maintenance work centers to provide qualified representative to Maintenance Control (MC) for FCF brief.

(f) Ensure that pre-flight inspections are completed in accordance with Enclosure (1) prior to performing GT or releasing aircraft for FCF.

(g) Ensure that all work orders requiring QA final inspection listed in enclosure (1) have an In-Process entry signed by either a Collateral Duty Quality Assurance Representative (CDQAR) or QAR stating that QA final inspection is complete to satisfy requirements of reference (a).

(2) Quality Assurance responsibilities:

(a) Confirm MC assessment regarding the requirement of an FCF and determine which FCF profile shall be flown using enclosure (1) and reference (d).

(b) In accordance with reference (a), screen the ADB/OOMA to ensure all maintenance actions are complete, inspected, properly signed off, and annotated on the required checks page.

(c) Brief the FCP and work center representatives on the conduct of the FCF, in accordance with references (c), (d), and (g). Ensure all required check items for the profile are highlighted. Annotate all major component changes and maintenance actions performed on the back cover of the test card. Brief any preplanned exceptions to the test profile.

(d) Ensure the brief is understood and all questions are answered prior to the aircrew's departure for the aircraft and that all parties involved have initialed enclosure (2) for the pre-FCF brief.

(e) Upon completion of the FCF, debrief the work center representatives with the FCF crew in MC. Ensure the FCF Checklist is complete, the required checks page is signed for applicable checks, and enclosure (2) is initialed for post-FCF brief. Completed enclosure (2) shall be retained in the aircraft FCF binder in QA for the duration of one Phase cycle.

(f) If FCF is not complete at the end of the day, debrief with FCF crew and MC for further action.

(3) Flight Line Division responsibilities:

(a) Ensure the FCF Crew Chief attends the QA brief with the pilots to the max extent possible. In the event a situation prevents the Crew Chief from being present at the brief, he/she shall at a minimum, talk to the QAR about the FCF card and requirements for flight.

(b) Ensure the Daily and Turnaround inspections are signed, aircraft preflight is conducted, and properly fueled at the designated brief time.

(4) FCP responsibilities:

(a) Receive and ODO brief, complete a load computation, ensure currency on Flight Operation Read and Initials, conduct a Naval Air Training and Operating Procedures Standardization (NATOPS) brief, and report to MC IAW crew day and sunset to receive the plan of the day.

Subj: LOCAL COMMAND PROCEDURES FOR FUNCTIONAL CHECK FLIGHTS

- (b) Receive an FCF brief from a QAR with MC and work center representatives.
- (c) Execute the procedures outlined in reference (d) for the conduct of the FCF procedures.
- (d) Legibly record appropriate information on the test card using a pencil.
- (e) Ensure QA, MC, and the ODO are debriefed on the progress of the FCF following each flight.
Return the FCF card to QA upon completion of each flight or GT.
- (f) Initiate any required FCF work orders between FCF flights and upon conclusion of the FCF as required.
- (g) Physically check-out/in with the ODO upon leaving/arriving to the squadron spaces. Ensure the ODO has a valid recall number in accordance with reference (h).
- (h) Radio in to the ODO upon departure and return from all flights and GT's.
- (i) Upon completion of the FCF, sign the test card and all related blocks on the required checks page of the ADB for FCF, GT, and NPPC work orders.
- (j) Ensure a signed Naval Flight Record Subsystem (NAVFLIRS) is delivered to the ODO, MC, and Maintenance Administration after the completion of an FCF card.
- (k) To the maximum extent possible, during a rotor track and balance FCF requiring pitch link and/or tip weight adjustments, confer with QA to determine the best blade fold/maintenance mode that will facilitate further maintenance.
- (l) Ensure downloads are valid with QA prior to pressing "Maint Data/VSLED Erase."
- (m) Check-in with MC prior to departing the squadron spaces.
- (n) Debrief with QA following all FCF evolutions.
- (5) Operations Department responsibilities:
 - (a) Coordinate with MC to ensure the appropriate range and depth of FCF crew coverage is maintained.
 - (b) Have a qualified ODO on duty for all briefs and throughout the duration of an FCF.
 - (c) Schedule prospective FCPs to fly with the Quality Assurance Officer (QAO) or Aircraft Maintenance Officer (AMO) for all simulator and aircraft events when appropriate.
- b. FCP training and designation is the responsibility of the QAO. All Tiltrotor Aircraft Commanders (TAC) are expected to progress toward FCP. Any 7532 may start the FCP syllabus, provided the pilot has been recommended for TAC by the Standardization Board.
 - (1) The QAO shall administer FCP training by performing the following:
 - (a) Maintain enclosures (3) and (4)
 - (b) Maintain FCP Read and Initials in the hardcopy maintenance Read and Initial binder.

Subj: LOCAL COMMAND PROCEDURES FOR FUNCTIONAL CHECK FLIGHTS

- (c) Ensure the message board is screened for any pertinent FCF/FCP information and/or procedural changes.
 - (d) Monitor the progress and standardization of all FCP training.
 - (e) Coordinate all FCP training as required.
 - (f) Ensure training syllabus completion for all FCPs prior to final designation as an FCP by the Commanding Officer.
 - (g) Administer FCP evaluation flights.
 - (h) Upon completion of all training requirements, take a copy of the SFCE-6631 Aviation Training Form and the completed FCP Training syllabus to the NATOPS Officer for preparation of the FCP designation letter.
- (2) The AMO shall oversee FCP training by performing the following:
- (a) Maintain responsibility for the overall FCF program.
 - (b) Propose FCP nominations to the Standardization Board and route syllabus completion to S-3 and Safety as required.
- (3) Prospective FCPs shall:
- (a) Be recommended by the Standardization Board.
 - (b) Complete the FCP syllabus and document all progress in accordance with enclosure (3).
 - (c) Ensure the timely return of enclosure (3) and (4) to the QAO.
- c. The AMO or Commanding Officer shall approve any exceptions to and deviations from this LCP.

(b) (6)

VMM-363 MV-22 QA/FCF REQUIRED MATRIX

ACCEPTANCE	QA	GT	FCF Profile	Notes
UPON COMPLETION OF STANDARD REWORK CONDUCTED BY THE REWORK FACILITY	X		A	2
WHEN ACCEPTING A NEWLY ASSIGNED AIRCRAFT	X		A	2,18
WHEN AN AIRCRAFT HAS NOT FLOWN IN 30 OR MORE DAYS AND IS RETURNING TO FLIGHT STATUS	X		C	2,15
ENGINES	QA	GT	FCF Profile	Notes
ACCELERATION BLEED CONTROL VALVE				7,19
ANTI-ICE VALVE				5,7,19
COANDA				6,7,19
COMPRESSOR BLEED VALVE (UPPER/LOWER)				7,19
CVG ACTUATOR	X	X		1,7,26
ENGINE ACCESSORY GEARBOX	X			7,8,19
ENGINE MOUNTS	X	X		1,9,26
ENGINE NP SENSOR		X		1,7,26
ENGINE	X		B	2,7,8
EXCITER BOX		NPPC		10,26
FADEC		X		1,11,26
FPMU	X	X		1,7,26
FUEL NOZZLES		X		1,7,26
IGNITERS		NPPC		10,26
OIL CONDITIONING UNIT				7,8,19
OIL PUMP				7,8,19
OIL TANK				7,8,19
THERMOCOUPLES		NPPC		10,26
TORQUEMETER SHAFT	X		B	2,9
FLIGHT CONTROLS	QA	GT	FCF Profile	Notes
AIR DATA UNIT(S)	X		C	2,12,15
COCKPIT INTERFACE UNIT(S)	X		C	2,15
HYD 1 OR HYD 2 PUMP		X		1,7,8,26
LOCAL SW ISO VALVE		X		1,26
LWINS	X		D	2,15
PITCH LINK(S)/ADJUSTMENTS	X		E	2,9,13
PROPROTOR BLADES	X		E	2,9
PROPROTOR HUB ASSY	X		E	2,9
ROTOR MAST TORQUE SENSOR		X		1,26
RUDDER ACTUATOR(S)	X		C	2,15
SWASHPLATE ACTUATOR(S)	X		C	2,7,13,15
SWASHPLATE ASSY	X		E	2,9
ELEVATOR ACTUATOR(S)	X			
FLAPERON ACTUATOR(S)	X			
HPDU/BACK-UP HPDU	X			
ELEVATOR	X			
RUDDER	X			

Enclosure (1)

Enclosure (6)

VMM-363 MV-22 QA/FCF REQUIRED MATRIX

FLIGHT CONTROLS CONT.	QA	GT	FCF Profile	Notes
BELL CRANK/FLT CONTROL ROD ENDS	X			
FLAPERON	X			
ANTI-DRIVE ASSY	X			
FLIGHT CONTROL RIGGING	X			
NACELLE RESOLVERS	X			
CCFDA	X			
CCTDA	X			
CCPT	X			
TCL	X			
CYCLIC STICK	X			
DRIVE SYSTEMS	QA	GT	FCF Profile	Notes
EMERG LUBE SYS		X		1,8,26
HANGER BEARING TRANSDUCER		X		1,9,26
ICDS DRIVESHAFTS	X	X		1,9,26
ICDS FLEXIBLE COUPLINGS	X	X		1,9,26
MWGB	X	X		1,7,8,9,26
MWGB OIL COOLER ASSY		X		1,7,8,26
NACELLE BLOWER(S)		X		1,9,26
NACELLE BLOWER DRIVESHAFT(S)		X		1,9,26
NACELLE HEAT EXCHANGER		X		1,7,8,26
PRGB	X		C	2,7,8,9
PRGB OIL FILTERS		X		1,7,8,26
PRGB QUILL ASSY	X	X		1,7,8,26
PYLON DRIVESHAFT VIB SENSOR		X		1,9,26
ROTOR BRAKE ASSY		NPPC		26
TAGB	X		C	2,7,8,9
TAGB OIL FILTER(S)		X		1,7,8,26
AVIONICS/ELECTRICAL	QA	GT	FCF Profile	Notes
AVSS		NPPC		26
CONNECTOR PIN TO PIN CHECKS				16
FLAPPING SENSOR(S)		X		1,26
WIA'S 56/57		X		1,3,26
GENERATOR(S)		X		1,3,7,26
STANDBY FLT DISPLAY OR SFI		NPPC		26
STANDBY MAGNETIC COMPASS		NPPC		4,26
SLIPRING ASSY/AZIMUTH SENSOR	X	X		1,21,26
EGRESS	QA	GT	FCF Profile	Notes
CABIN/COCKPIT ESCAPE HATCH CAD's	X			
SUBSYSTEMS	QA	GT	FCF Profile	Notes
LANDING GEAR CONTROL UNIT				14
MLG SHOCK AND DRAG STRUT				14
NLG SHOCK AND DRAG STRUT				14
MLG AND NLG DOORS/RIGGING				14
10 FLT HR RECURRING DRAG PIN/TRANS ADAPTER	X			AS REQ

VMM-363 MV-22 QA/FCF REQUIRED MATRIX NOTES:

- 1) GT to be done in accordance with IETMS. If a time limit for GT is not specified, then a run of 15 minutes total will be conducted (starting with 50% Nr, then up to 100%, back to 75% finish remaining time at 100%) Time in each Nr will be at Pilots discretion unless otherwise briefed. All GT evolutions require a Turnaround inspection to be conducted by a qualified P/C prior to execution. D&T's are required for aircraft that had "long-term downers," multiple downers, flight control adjustments, and/or aircraft that were worked on by contract maintenance personnel.
- 2) A CDQAR/QAR will conduct all QA required in-process and final inspections of the maintenance task.
- 3) Cross tie checks will be conducted prior to releasing the aircraft as an "UP" aircraft for operational flights.
- 4) Wing un-stowed, INS system NAV ready, aircraft pointing N, S, E, W on MFD. Record both aircraft INS and Standby Magnetic Compass heading (+/- 5°). Procedure may be conducted by towing, taxiing or flying. Also may be used in lieu of any requirement for a compass rose swing, unless 364 Day Inspection is exceeded.
- 5) Record rise in MGT during Post Engine Start.
- 6) Utilize FLIR or walk-around to verify exhaust deflection.
- 7) A leak check will be conducted upon completion of event prior to releasing the aircraft as an "UP" aircraft for operational flights.
- 8) Service levels will be checked (via CAMEO for engines or GRDP for all else) post GT, ELPR or FCF to ensure correct servicing prior to releasing the aircraft as an "UP" aircraft for operational flights. Personnel will be available to service engines upon receiving inputs from QA.
- 9) Download verification will be conducted upon completion of GT or FCF to verify vibe levels and correction of discrepancy prior to releasing the aircraft as an "UP" aircraft for operational flights.
- 10) Check normal start parameters in accordance with FCF checklist for "No. # ECL - START" Engine Start checklist item. (When not a B-card. The same will be conducted upon shutdown.)
- 11) Engine start and shutdown to be conducted on the FADEC that was replaced or reinstalled. During GT, switch FADEC control halfway through and then switch back for shutdown. A T-Handle shutdown will be conducted after switching FADEC control halfway through and switching back for shutdown.
- 12) Required only if Air Data Test Set is unavailable. Fly to a minimum of 220 KCAS.
- 13) If one end of a pitch link or swashplate actuator rod end is disconnected to FOM and then reconnected without any adjustment, then FCF is not required.

VMM-363 MV-22 QA/FCF REQUIRED MATRIX NOTES CONT:

- 14) A landing gear jack and cycle is required to sign off this maintenance action. The jack and cycle will be documented by an IP on the work order if multiple supervisors are used to complete the task.
- 15) As per the A1-V22AB-NFM-000, this FCF may be combined with an operational flight, provided the operational portion of the flight is not conducted before the FCF Card is satisfied
- 16) Upon installation of 2 or more extracted pins from any connector, end to end meter checks will be verified by a CDI. Flight Control and Engine meter checks will be verified by a CDQAR/QAR
- 17) This will be a minimum 5 minute ground turn. During this ground turn the anti-ice valve will be opened.
- 18) If at all possible cross-tie checks will be conducted at the end of last flight before 70 hour is due. If cross-tie checks are not accomplished during last flight then a ground turn will be required.
- 19) An Engine Low Power Run (ELPR) can be performed to verify proper operation of the system.
- 20) Torque Checks can be conducted by a qualified CDI. If torque check fails, a CDQAR/QAR will complete the corrective maintenance.
- 21) Final inspection of the Slip ring and verifying key to keyway alignment (step 16) requires a CDQAR/QAR in-process inspection.
- 22) Any panels or components removed during a maintenance evolution shall be documented by an in process inspection by the qualified CDI, CDQ, or QAR supervising the maintenance evolution.
- 23) In-process for inspection of bushing bolt gap is required by a CDQAR/QAR.
- 24) Mast nut safety wire that has been installed after torque check of the mast nut bolts shall be inspected by a Flight Line CDQAR/QAR.
- 25) In-process for inspection of retention lock ring gap is required by a CDQAR/QAR.
- 26) Turn-around required.

INSPECTION	TASK	CDI	QA	NOTES
7 Day	Aircraft Lubrication & Cleaning (Afloat)	X		
7 Day	Inspect Landing Gear Tire Assemblies	X		
56 Day	Aircraft Lubrication & Cleaning (Ashore)	X		
56 Day	External Initiator Inspection	X		
56 Day	L/R Nacelle Internal Structures Cleaning	X		
56 Day	PCA Back-Up Drive, friction test & purge/lube	X		
56 Day	Inspect & Clean Aft Wing Cove (Afloat)	X		
56 Day	Inspect & Clean Nacelle Wiring Components (Afloat)	X		
91 Day	Aircraft Rudder Lubrication (Afloat)	X		
91 Day	Inspect Aircraft for Corrosion	X		
91 Day	Inspect Crew Chief/Troop Seat Installation	X		
91 Day	Inspect L/R Nacelle Breather Assy	X		
91 Day	Inspect MWGB Breather Desiccant for Color Change	X		
91 Day	Gearbox (ALL) Oil Sampling for Water Content	X		
91 Day	Service Cargo winch oil level	X		
91 Day	Inspect & Clean Nacelle Wiring Components	X		
182 Day	Inspect Cabin Emergency Equipment	X		
182 Day	Corrosion Inspection	X		
360 Day	L/R Proprotor Hub Inspection for Corrosion	X		
364 Day	Inspect Aircraft for Corrosion	X		
364 Day	Inspect Cabin Emergency Equipment	X		
364 Day	Underwater Acoustic Beacon Test	X		
900 Day	COR-BAN 35 Inspection & Corrosion Inspection	X		
900 Day	Inspection Frame Station 724.0 Bulkhead for Corrosion	X		
900 Day	Inspect Wing Leading Edge for Corrosion	X		
5 Year	Cargo Winch Oil Change	X		
5 Year	Cargo Winch Limit Switch Operation	X		
3 Hour	Three operating hour clean & inspect rescue hoist	X		
10 Hour	L/R Transmission Adapter Drag Pin & Retainer Insp		X	
35 Hour	Power assurance check encountering austere/fine particle		X	
35 Hour	Check L/R Hand Mast Nut Bolts Torque	X		20,24
35 Hour	Inspect L/R Proprotor Blades	X		
35 Hour	L/R PCA Soft Stop Check (Afloat)	X		
70 Hour	Clean L/R Rotating Controls	X		
70 Hour	Engine Power Assurance Check		X	
70 Hour	Inspect Aircraft For Corrosion (AFLOAT)	X		
70 Hour	Inspect L/R Engine	X		
70 Hour	Inspect ECU Barrier Filter	X		
70 Hour	Inspect Glide Slope Antenna Fairing 1CT1	X		
70 Hour	Inspect L/R Pitch Horn Bushing Bolts	X		20,23
70 Hour	Inspect L/R Proprotor Blade Roots for Cracks	X		
70 Hour	Inspect Belly Door 6LB2/6RB2	X		
70 Hour	Inspect Inboard Latches 6LI1B/6RI1B	X		
70 Hour	Inspect Outboard Latches 6LO1B/6RO1B	X		
70 Hour	Inspect Upper Outboard Doors (6LO2, 6LO3, 6RO2, 6RO3)	X		
70 Hour	Inspection on CFG & VFG	X		
70 Hour	Inspect L/R Transmission Drag Pin Retainer	X		
70 Hour	PCA Ballscrew Wear Test VMS 00264+	X		
70 Hour	Test Flight Control System MBIT	X		
70 Hour	Inspect LH/RH Nacelle Blower	X		

INSPECTION	TASK	CDI	QA	NOTES
70 Hour	Inspect LH/RH CDD/BDD Harnesses and Brackets	X		
70 Hour	Aircraft cleaning (Austere Conditions)	X		
140 Hour	ACM Barrier Filter Inspection	X		
140 Hour	ECU Cabin Return Filter Inspection	X		
140 Hour	Desert Operation Servicing for NLG Shock Strut	X		
140 Hour	Inspect L/R Nacelle Upper Fuel Hose/Swivels	X		
140 Hour	L/R Engine 1 st Stage Compressor Inspection		X	
140 Hour	Inspect L/R Nacelle Eng Compartment Fire Door/Act	X		
140 Hour	Inspect L/R Rudder Assy Vertical Play	X		
140 Hour	Inspect Main Landing Gear Running Clearance	X		
140 Hour	Inspect 901-333-307-101 Nacelle Access Door Strut	X		
140 Hour	Test Fire Protection System and Engine Shutoff Function	X		
140 Hour	Inspect L/R Hub Inner Member	X		
140 Hour	Inspect L/R Pillow Block Drive Pins	X		
140 Hour	Inspect L/R MLG Door Strut Interfaces	X		
140 Hour	Inspect Swivel & Hose Assembly	X		
210 Hour	Flight Control Conversion Actuator Soft Stop Test	X		
210 Hour	Evaluate L/R Swashplate Assembly Drive Spline Insert		X	
210 Hour	L/R Inspect Anti-Drive Assembly	X		
210 Hour	L/R Inspect Gimbal Elastomeric Bearing	X		
210 Hour	L/R Proprotor Hub Bolt Torque	X		20
210 Hour	L/R Inspect Proprotor Hub Yoke Assembly	X		
210 Hour	L/R Service Swashplate Triplex Bearing	X		
210 Hour	Recurring Drive Tube Inspection	NDI	NDI	
420 Hour	L/R Swashplate Gimbal Bolt Torque	X		20
4315 Hour	L/R Engine Inspection		X	
4480 Hour	Initial Eddy Current Insp of NLG Actuator Support	NDI	NDI	
5000 Hour	Inspect L/R Aft/fwd Proprotor Gearbox link bracket	X		
5000 Hour	Inspect L/R FWD Nacelle Thrust Fitting Assy	X		
5000 Hour	Inspect L/R center/ib/ob cowl attach fitting assembly at FS 367.6/400	X		
5000 Hour	Inspect L/R Upper Center Beam Link Attach fitting	X		
5,10,25,100,500,1K	Adjust Wing Rotation Cable Tension	X		
500 Landing	Inspect Nose Landing Gear Steering Collar Key Slot	X		
1000 Landing	Inspect Deck Attach Angle (FS 309) For Cracks	NDI	NDI	
1500 Cycles	Inspect cargo winch cable	X		

INSPECTION	TASK	CDI	QA	NOTES
PHASE A,B,C,D	AAR-47/CMD5 Interface Test Procedures	X		
PHASE A,B,C,D	Countermeasures Dispensing System OP Check	X		
PHASE A,B,C,D	Grease Pack MLG Wheel Bearings	X		
PHASE A,B,C,D	Grease Pack NLG Wheel Bearings	X		
PHASE A,B,C,D	Inspect 901-083-741-101 RH Upper Nacelle Sys 2 Heat Exchanger Tube from LOC	X		
PHASE A,B,C,D	Inspect Aft Walkway Skin Panel, Frame, Beam, Brackets FS 505-559	X		
PHASE A,B,C,D	Inspect Aircraft for Corrosion	X		
PHASE A,B,C,D	Inspect APU Mag Plug Chip Collector/Elec Chip Detector	X		

PHASE A,B,C,D	Inspect Crown Skin Fasteners	X		
PHASE A,B,C,D	Inspect Engine	X		
PHASE A,B,C,D	Inspect L/R Engine Gimbal Ring Expandable Bolts	X		20,25
INSPECTION	TASK	CDI	QA	NOTES
PHASE A,B,C,D	Inspect ICDS Curvic Coupling Interface Hardware Torque	X		20
PHASE A,B,C,D	Inspect Inboard Beam Retainer Set Torque	X		20
PHASE A,B,C,D	Inspect Infrared Suppressor Components	X		
PHASE A,B,C,D	Inspect L/R Rotor, Hub, & Pendulum		X	
PHASE A,B,C,D	Inspect L/R Engine Fire Extinguisher Bottle Brackets	X		
PHASE A,B,C,D	Inspect L/R FADEC A Mount Bracket	X		
PHASE A,B,C,D	Inspect L/R Forward Nacelle Strut	X		
PHASE A,B,C,D	Inspect L/R FS 400 I/B Nacelle Attach Link	X		
PHASE A,B,C,D	Inspect L/R I/B & O/B Swashplate Actuator Attach Bolt		X	
PHASE A,B,C,D	Inspect L/R FS 367.60 I/B Nacelle Attach Link	X		
PHASE A,B,C,D	Inspect L/R I/B Forward Nacelle Vertical Support Strut	X		
PHASE A,B,C,D	Inspect L/R FS 400 O/B Nacelle Attach Link	X		
PHASE A,B,C,D	Inspect L/R FS 367.60 O/B Nacelle Attach Link	X		
PHASE A,B,C,D	Inspect L/R O/B Forward Nacelle Vertical Support Strut	X		
PHASE A,B,C,D	Inspect L/R PRGB Chip Collector/Strainer Assy	X		
PHASE A,B,C,D	Inspect L/R PRGB Oil Passages	NDI	NDI	
PHASE A,B,C,D	Inspect L/R Rotating Controls	X		
PHASE A,B,C,D	Inspect L/R Rotor Blade Tangs	NDI	NDI	
PHASE A,B,C,D	Inspect L/R Swashplate Clamp Ring Bolts Torque	X		20
PHASE A,B,C,D	Inspect L/R TAGB Debris Sensor Assemblies	X		
PHASE A,B,C,D	Inspect L/R Upper Swashplate Actuator Attach Bolt		X	
PHASE A,B,C,D	Inspect MWGB Debris Sensor Assy	X		
PHASE A,B,C,D	Inspect NO. 1 (PD) Area & NO. 1 (C/B) PANEL	X		
PHASE A,B,C,D	Inspect NLG Torque Tube	X		
PHASE A,B,C,D	Inspect Proprotor Blades	X		
PHASE A,B,C,D	Inspect Rotor Brake Wear Pins	X		
PHASE A,B,C,D	Inspect Safety Belt/Harness/Inertia Reel/Webbing	X		
PHASE A,B,C,D	Inspect Selected Cockpit Control Position Transducers		X	
PHASE A,B,C,D	Inspect Swashplate Actuators		X	
PHASE A,B,C,D	Inspect Wing Flaperon Seal Rollers	X		
PHASE A,B,C,D	Inspect Wingfold for Security/Leakage	X		
PHASE A,B,C,D	Remove/Open & Install/Close Access Panels	X	X	
PHASE A,B,C,D	Landing Gear Control Unit (LGCU) Inspection	X		
PHASE A,B,C,D	Phase Lubrication	X		
PHASE A,B,C,D	Missile Warning System Functional & Sensitivity Check	X		
PHASE A,B,C,D	No. 3 Hydraulic System Reservoir Module IBIT/MBIT	X		
PHASE A,B,C,D	Refuel Probe Leak/Transfer Check	X		
PHASE A,B,C,D	Replace Sys 1/2/3 Hyd Press/Return Filters	X		
PHASE A,B,C,D	Swashplate Actuator Trunnion Bearing Looseness Insp	X		
PHASE A,B,C,D	Test Empennage Static Discharger Base Bond	X		
PHASE A,B,C,D	Test Radar Detection Function	X		
PHASE A,C	Clean ECU Primary/Secondary Heat Exchanger Assy	X		
PHASE A,C	Inspect Aircraft for Corrosion COR-BAN 35 Coating	X		
PHASE A,C	Inspect ECU Pri/Secondary Heat Exchanger for Cracks	X		
PHASE A,C	Lube Cyclic, CPT & Lat Mass Rod End Bearings	X		
PHASE A,C	Lube TCL & CPT Rod End Bearings	X		

PHASE A,C	Lube Yaw Link & CPT Rod End Bearings	X		
PHASE B,D	Change SDC Air Filter	X		
PHASE B,D	Change SDC Oil & Filter	X		
PHASE B,C,D	Inspect Shaft Driven Compressor Separator	X		

INSPECTION	TASK	CDI	QA	NOTES
PHASE B,D	Emergency Oxygen System Check	X		
PHASE B,D	FADEC And Flight Controls Automated Wiring Test (Non-Deployment Use Only)	X		
PHASE B,D	Inspect Left/Right TAGB Coupling Assemblies	X		
PHASE B,D	Inspect L/R TAGB Spindle Mounting Hardware Torque	X		20
PHASE B,D	Inspect Nitrogen Distribution/Fuel Feed Vent System	X		
PHASE B,D	Inspect Optical Detectors & Brackets	X		
PHASE B,D	Inspect of Crew Seat Assemblies, Energy Absorbers & Support Structures for Damage	X		
PHASE B,D	Test FCS Elevator Actuator Piston Seal/Force Fight MBIT	X		
PHASE B,D	Test FCS Flaperon Actuator Piston Seal/Force Fight MBIT	X		
PHASE B,D	Test Fuel Dump/Jettison Function	X		
PHASE B,D	Test Landing Gear Emergency Extend	X		
PHASE B,D	Test L/R Aft Nacelle Upper/Lower Static Discharge Base Bond Resistance	X		
PHASE B,D	Test Sponson Boost/Jettison Pump	X		
PHASE D	Change APU Oil & Filter	X		
PHASE D	Change Emergency Lubrication System Oil	X		
PHASE D	Change L/R PRGB Oil & Filters	X		
PHASE D	Change L/R TAGB Oil & Filter	X		
PHASE D	Change MWGB Oil & Filter	X		
PHASE D	Eddy Current Insp of NLG Actuator Support Fitting Assy	NDI	NDI	
PHASE D	Inspect Fire Suppression Support Brackets (901-032-703)	X		
PHASE D	Inspect Insulation Sleeves on Purge Line and Duct Assy	X		
PHASE D	Inspect L/R Air Inlet Coupling Assys		X	
PHASE D	Inspect L/R Conversion Actuator Spindle Attach Hardware	X		
PHASE D	Inspect L/R Swashplate Actuators		X	
PHASE D	Inspect L/R Flame Barrier Aft Web	X		
PHASE D	Inspect L/R Flame Barrier Inboard Web	X		
PHASE D	Inspect L/R Flame Barrier Outboard Web	X		
PHASE D	Inspect L/R Horizontal Firewall Assy & Support Link Boot	X		
PHASE D	Inspect L/R Horizontal Firewall Pan	X		
PHASE D	Inspect L/R Upper Forward Flame Barrier	X		
PHASE D	Inspect Restraint/Seat Assy, 2 Outlet Check Valve & Insulation Shrouds	X		
PHASE D	Lubricate L/R Conversion Act Spindle I/B Bearing	X		
PHASE D	Pilot/Copilot Oxygen Distro Outlet Check Valve to Shrouds Leak Check	X		

QA FOD FREE REQUIRED PANELS

ZONE A

ALB1,ALB2,ALB3,ALSC,ALS3 ,ALS8,ARS4,ARB2,ARB I ,ACB 1 ,ACS 1,ALS5,ARS5,ARB3

ZONE B

NONE

ZONE 1

1LS2,1RS2

ZONE 2 AND 3

NONE

ZONE 4

4L14,4R14,4CT1

ZONE 5

5LT3 ,5LT4,5LT5,5LT6,5LT7,5CT2,5CT3,5CT4,5RT3 ,5RT4,5RT5,5RT6,5RT7
5LB 1,5LB2,5LB3,5LB4,5LB5,5LB6, 5LB7,5RB1,5RB2,5RB3 ,5RB4,5RB5,5RB6,5RB7

ZONE 6

LH/RH Lower Intake, LH/RH Intake Centerbody

*6L09, 6R09, 6L19, and 6R19 do not require a QA FOD free if the lower intake was not removed. If maintenance was conducted requiring the opening of these panels then an In-process is required stating the lower intake was not removed.

ZONE 7

7LT1,7RT1

VMM-363 FUNCTIONAL CHECK PILOT TRAINING SYLLABUS

Name:		Rank:	
Start Date:		Complete Date:	

1. Introduction. This syllabus is provided to ensure all personnel designated as a Functional Check Pilot (FCP) receive standardized training in MV-22B functional check procedures and shall be complete prior to the SFCF-6631 CHECK event.

2. Qualifications. The prospective FCP needs to meet the following requirements.

a. Designated Tiltrotor Aircraft Commander. Date designated: _____

b. Recommended by the Squadron Standardization Board. Date recommended: _____

3. Required Reading. All prospective FCPs will complete the following reading list.

Reading	Initials	Date
1. COMNAVAIRFORINST 4790.2D, para 5.I.1.5 Functional Check Flights (FCFs)		
2. COMNAVAIRFOR 3710.7, para 3.10 Functional Check Flights		
3. NAVAIR A1-V22AB-NFM-000		
a. Ch 2 Aircraft Systems		
b. Ch 10 Functional Checkflight Procedures		
4. NAVAIR A1-V22AB-NFM-700 NATOPS Functional Check Flight Checklist (see QA)		
5. VMM-363 MV-22 QA/FCF Requirements SOP (see QA)		
6. VMM-363 Emergency Landing with Hung Landing Gear LCP (see QA)		
7. MX Read and Initials		
8. VMM-363 IFS Testing and Operation SOP (see QA)		

4. ACAD-6610 Functional Check Flight QA Lecture. The prospective FCP shall receive work center briefings from the following work centers on the following topics as they pertain to FCFs according to COMNAVAIRFORINST 4790.2D, COMNAVAIRFOR 3710.7, MV-22 NATOPS Manual, Interactive Electronic Technical Manual (IETMS), and Maintenance SOP for FCF. Special emphasis should be placed on additional requirements that differ from a normal flight operations. Instructors shall initial next to each item.

a. Maintenance Control Procedures (M/C Chief):

(1) ADB preparation. _____

(2) Daily and Turnaround Cards.

(3) Use of CAMEO Ground Station.

(4) Use of OOMA.

(5) Turnover of ADB to QA.

b. QA Procedures (QAR)

(1) Screening of ADB.

(2) Briefing of ADB.

(3) Briefing of test card.

(4) Pilot debrief.

(5) Aircraft logbook.

(6) Turnover to Maintenance Control

c. Maintenance Procedures (QAR):

(1) Use of CAMEO.

(2) Use of VLSED.

(3) Use of IETMS.

d. Rotor Track and Balance Procedures:

(1) Level I and level II vibration criteria.

(2) VSLED.

(3) Stop Vibe High.

(4) Moves Made.

Enclosure (3)

Enclosure (6)

(5) Adjustments: _____

(a) Pitch links vice tip weights.

(b) Time required.

(6) Use of optical sensors. _____

a. Phase (QAR or Phase Crew SNCOIC):

(1) Types of phases. _____

(2) Frequency of phases. _____

(3) Difference between phases. _____

(4) Time to complete a phase. _____

5. Testing requirements. QA will issue and administer to the prospective FCP an open book FCF test.

NAME	DATE	GRADE

6. Flight Training. The prospective FCP shall demonstrate a working knowledge of all required readings and Functional Check Flight procedures. All events will be instructed by the AMO, QAO, or specifically designated FCP. Evaluator shall complete ATFs and place in SNM's APR:

EVENT	EVENT DATE	ATF COMPLETE	NAME
ACAD-6610			
SFCF-6630 RT&B (S/A)			
SFCF-6631 CHECK (S/A)			

7. Acknowledgement. I hereby acknowledge that I have read, completed, and understand all items required by this syllabus.

Pilot under training signature: _____ Date: _____

FUNCTIONAL CHECK FLIGHT PILOT OPEN BOOK TEST

Name _____

Rank _____

Date _____

Score (80% minimum) _____

1. (3 pts) FCFs shall be conducted with the _____ crew to the maximum extent possible, but the _____ may waive the requirement for a _____.

Ref: NATOPS: _____

2. (5 pts) FCFs should be conducted during _____ within the _____ area in _____. Unit commanders may authorize functional check flights under conditions other than the above if in their opinion the flight can be conducted with an _____ margin of safety under the existing conditions. This authority _____ not be delegated.

Ref: NATOPS: _____

3. (2 pts) Why are Functional check-flights required?

Ref: COMNAVAIRFORINST 4790.2D: _____

4. (10 pts) State the conditions requiring functional check-flights (exact verbiage not required, but list the specifics):

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

Ref: COMNAVAIRFORINST 4790.2D: _____

5. (2 pts) At the discretion of the _____, FCFs may be flown in combination with operational flights provided the _____

6. (2 pts) The functional check-flight shall be conducted with the _____ crew necessary to accomplish the check flight objectives.

Ref: COMNAVAIRFORINST 4790.2D: _____

7. (2 pts) The Pilot and any other crew members will annotate the FCF checklist and debrief _____, _____, and _____.

Ref: COMNAVAIRFORINST 4790.2D: _____

8. (1 pts) What makes a PFCS RESET switch illuminate?

Ref: NATOPS: _____

9. (1 pts) Abort start if no oil pressure is indicated after _____ seconds.

Ref: NATOPS: _____

10. (2 pts) Avoid continuous operation between _____ and _____ % Np due to turbine shaft harmonics.

Ref: NATOPS: _____



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MARINE AIRCRAFT GROUP 24
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MASTER COPY

IN REPLY REFER TO:
4790
AMO
29 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE FOREIGN OBJECT DAMAGE PREVENTION PROGRAM

Ref: (a) COMNAVAIRFORINST 4790.2_

PROPERTY OF VMM-363

COPY: 001

Encl: (1) Missing Fastener Report
(2) Consumable Checkout Log
(3) Aircraft Parts Tags
(4) FOD Walk Diagram

LOCATION: 040

ISSUE DATE: 09/29/2022

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Foreign Object Damage (FOD) Prevention Program.

2. Local Command Procedures

a. All hands shall:

(1) As available, report to FOD Walk in the hangar bay as scheduled per the daily flight schedule. FOD walk will begin promptly at the scheduled time.

(2) Ensure all pockets are free of potential FOD prior to the commencement of FOD Walk, to include personal electronic devices.

(3) Ensure the proper personal protective equipment (PPE) is checked out and utilized.

(4) In the event personnel are late for the commencement of FOD walk, they may join the line already in progress.

b. The Aircraft Maintenance Officer (AMO) shall:

(1) Ensure that a fastener control program is implemented and maintained.

(2) On discovery of a missing fastener, restrict the affected aircraft from flight until personally satisfied that the fastener is not misplaced on the aircraft.

(3) Release the aircraft for flight by signing section E of the Missing Fastener Report (MFR), enclosure (1).

c. The Assistant Aircraft Maintenance Officer (AAMO) shall act as the direct representative of the AMO in their absence.

Subj: LOCAL COMMAND PROCEDURES FOR THE FOREIGN OBJECT DAMAGE PREVENTION PROGRAM

d. The Maintenance Material Control Officer (MMCO) shall:

- (1) Provide a centralized location for all fastener containers.

e. The Maintenance/Material Control Chief (MMCC) shall:

- (1) Once notified of a missing fastener, flag the Aircraft Discrepancy Book (ADB) and Optimized Organizational Maintenance Activity (OOMA) of the affected aircraft as down until the investigation is complete.

- (2) Utilizing the Missing Fastener Report enclosure (1), assign personnel to investigate missing fasteners and forward the report to Quality Assurance for a control number.

- (3) Maintain the fastener containers in a centralized location to control the issue of fasteners and all other items that are potential FOD hazards. Fasteners are defined as screw, locknuts, nuts, bolts, washer, cotter keys, and other fastening or retaining devices used on the aircraft (safety wire is not a controlled fastener).

- (4) Ensure all fasteners are issued on a one for one basis or a MFR is initiated to account for the fastener.

f. The Work Center Supervisor shall:

- (1) Utilizing Aircraft Parts Tags enclosure (3), ensure personnel are accounting for all fasteners prior to going into work and during all work stoppages.

- (2) Ensure personnel verify that all fasteners are stored properly utilizing enclosure (3) in the proper storage bin.

- (3) Ensure that fasteners removed from a component or panel are stored in a Maintenance Action Form (MAF) bag, marked with the date removed, nomenclature, work center, printed "Removed By", printed and signed Collateral Duty Inspector (CDI), Job Control Number (JCN) and aircraft number. Verify MAF bag is placed in the proper storage bin in the work center. If fasteners are discarded, a note will be written on the tag with the appropriate JCN and DDSN of parts.

- (4) Immediately report all missing fasteners to Maintenance Control utilizing enclosure (1).

- (5) Ensure no unauthorized fasteners are stored in the work center.

- (6) Ensure the holes from missing or uninstalled fasteners on aircraft and ground support equipment (GSE) are identified with a "red circle" utilizing a grease pen, marker, or other means or high visibility marking. When the fastener is replaced, the "red circle" must be removed.

- (7) Maintain an inventory of supplies in the work center consumable locker.

- (8) Utilize Consumable Checkout Log, enclosure (2), to track the use of consumables on the aircraft or in the work center.

g. All pilots and maintenance personnel shall:

- (1) Initiate a work order for the fasteners discovered missing during daily, turnaround, preflight, and in-process inspection. Ensure a copy of enclosure (1) is filled out and routed.

- (2) Continue the inspection that was in process when the fastener was found missing.

- (3) Not ground turn, taxi, or fly any aircraft until the appropriate people have released them safe for flight.

Subj: LOCAL COMMAND PROCEDURES FOR THE FOREIGN OBJECT DAMAGE PREVENTION PROGRAM

(4) In order to allow pilots the opportunity to check intakes for FOD prior to engine start and to mitigate Things Falling Off Aircraft (TFOA), the following procedures are in effect:

(a) Plane Captains who are involved in getting aircraft up to engine start shall leave the aircraft in a maintenance mode with covers removed in order to allow pilots the opportunity to inspect the engine intake area for FOD and potential TFOA components. Particular attention should be given to the hub area and blade fairings.

(b) Pilots shall check the intake area to ensure covers are removed, the area is FOD free, and that all panels are secured correctly.

(c) Prior to Auxiliary Power Unit (APU) shutdown after the last flight of the day, aircrew shall roll nacelles down to a maintenance mode and ensure covers are properly installed. This will allow aircrew to conduct a thorough post-flight inspection for potential TFOAs.

h. Quality Assurance shall:

(1) Assign a control number to each initiated copy of enclosure (1) and forward in order to have an investigator assigned.

(2) Ensure sections A, B, and C are complete on enclosure (1) and then investigate the cause of the missing fastener(s) and take immediate action to correct or eliminate the cause. Complete section D and forward to the AMO for signature.

(3) Maintain a file of all enclosure (1) forms that have been completed for one year.

(b) (6)

MISSING FASTENER REPORT

Report Control Number _____ Date _____ Time _____

A. Originator _____ Work Center _____

Rank Last Name, First Name

Insp JCN _____ NOMEN _____ BUNO/SERNO _____ TEC _____

Missing/Loose Part Description _____

When Discovered/Circumstances _____

Work Center Supervisor _____

Rank Last Name, First Name Signature

B. Maintenance Control

Aircraft, Component, or SE placed in a NMC status? Discrepancy JCN _____

Item(s) replaced from PEB? Yes/No Replacement item(s) ordered? Yes/No Doc # _____

Maintenance Controller _____

Rank Last Name, First Name Signature

C. Quality Assurance comments/recommendation _____

Date/Time _____

Rank Last Name, First Name Signature

D. Quality Assurance Officer comments/recommendation _____

Date/Time _____

Rank Last Name, First Name Signature

E. MO/AAMO comments/recommendation _____


Aircraft, Component, or SE is released from investigation and is safe for flight/operation.


/ _____


Date/Time Rank Last Name, First Name Signature


Enclosure (6)


AIRCRAFT PARTS TAGS


	DATE:
	A/C:
	MCN:
	NOMEN:
	REMOVED BY:
GC4-____	CDI:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:

	DATE:
	A/C:
	MCN:
	NOMEN:
	REMOVED BY:
GC4-____	CDI:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:

	DATE:
	A/C:
	MCN:
	NOMEN:
	REMOVED BY:
GC4-____	CDI:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:

	DATE:
	A/C:
	MCN:
	NOMEN:
	REMOVED BY:
GC4-____	CDI:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:

	DATE:
	A/C:
	MCN:
	NOMEN:
	REMOVED BY:
GC4-____	CDI:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:

	DATE:
	A/C:
	MCN:
	NOMEN:
	REMOVED BY:
GC4-____	CDI:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:
QTY:	PART:

HANGAR

GSE	1.	2.	3.	4.	5.	6.

QA REPRESENTATIVE: _____

DATE: _____

ID	SOURCE/QTY/NOMENCLATURE
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

A= AIRCRAFT HARDWARE
F= FACILITY DEBRIS

CODE/IDENTIFICATION
M= MAINTENANCE DEBRIS
N= NON-AIRCRAFT (GSE)

SNCO'S=____ O'S=____ E5 AND BELOW F/L=____ F/E=____ AVI=____
M/C=____ M/A=____ QA=____ PHZ=____ A/F=____ ORD=____
S-SHOPS=____ T/R=____

PROGRAM MANAGER _____

Enclosure (4)

Enclosure (6)

Diagram showing a rack structure with 12 slots. Slots 1, 2, and 3 are at the bottom, and slots 4 through 12 are in two rows of six above a horizontal bar.

QA REPRESENTATIVE: _____

DATE: _____

ID	SOURCE/QTY/NOMENCLATURE
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

CODE	IDENTIFICATION
A	AIRCRAFT HARDWARE
M	MAINTENANCE DEBRIS
F	FACILITY DEBRIS
N	NON-AIRCRAFT (GSE)



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MASTER COPY

IN REPLY REFER TO:
4790
AMO
22 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE FUEL SURVEILLANCE PROGRAM

PROPERTY OF VMM-363

Ref: (a) COMNAVAIRFORINST 4790.2_

COPY: 001

Encl: (1) Fuel Sample Log
(2) Fuel Sample Bottle Cleaning

LOCATION: 040

ISSUE DATE: 09/29/2022

1. Purpose and scope

b. This supplement provides additional local requirements for the VMM-363 Fuel Surveillance Program.

2. Local Command Procedures.

a. Maintenance Control shall:

- (1) Maintain a minimum 30 days of historical fuel sample logs enclosure (1) for tracking purposes.
- (2) Annotate alternative fuels used from aircrew returning from cross-country flights on the Part A of that flight.
- (3) Issue work order for fuel cells to be sampled every 30 days that the fuel system has been inactive.
- (4) Immediately issue a downing discrepancy work order and notify Quality Assurance (QA) to conduct an investigation whenever fuel contamination is reported.

b. Quality Assurance shall:

(1) Immediately conduct an investigation of the source of fuel contamination. If contamination is suspected to have come from a refueling source, immediately notify station or ship Fuels Officer and provide them a sample for analysis per MIL-HDBK-844B.

c. Fuel Surveillance qualified personnel shall:

- (1) Perform fuel sampling procedures as outlined in COMNAVAIRFORINST 4790.2_ and Type/Model/Series technical manuals.
- (2) Inspectors shall wear PPE if handling fuel sample jar while inspecting the sample.
- (3) Document all fuel samples taken utilizing enclosure (1).
- (4) Perform fuel sample bottle cleaning in accordance with enclosure (2).

(b) (6)

Enclosure (6)

Fuel Sample Bottle Cleaning

Required Equipment

3 5-gallon buckets

Lint free rags

Alconox

Measuring cup

Personal Protective Equipment

1. Application.

a. Personnel conducting fuel sample bottle cleaning shall be knowledgeable in the appropriate personal protective equipment (PPE) for the handling of aircraft fuels and the use of Alconox.

2. Procedures.

a. Conduct a "Double Drain" and "Wipe" of used fuel sample jars.

(1) Pour sampled fuel into 5 gallon bucket.

(2) Allow sample bottle to rest upright for 3 minutes and then re-drain.

(3) Wipe fuel sample jar using lint free rag. One lint free rag can be used to clean six 800ml glass jars.

(4) Using two 5-gallon buckets, fill buckets with 4 gallons of water. The first bucket is mixed with 150ml of Alconox.

(5) Dip and wash fuel sample bottles and attaching components in Alconox solution first.

(6) Rinse in the remaining bucket.

(7) Allow rinsed bottles to air dry.

3. Disposal.

a. Dispose of the bucket of water in to the sink connected to the sanitary sewer.

b. Dispose of sampled fuels per local HAZWASTE procedures.

c. Dispose of lint free rags per local HAZWASTE procedures.

Enclosure (2)

Enclosure (6)



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MASTER COPY

IN REPLY REFER TO:
4790
AMO
24 Jun 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE HAZARDOUS MATERIAL CONTROL AND
MANAGEMENT PROGRAM **PROPERTY OF VMM-363**

Ref: (a) COMNAVAIRFORINST 4790.2D
(b) OPNAVINST 5090.1C
(c) NAVSUP Publication 722 (CHIMP)
(d) OPNAVINST 5100.19F
(e) OPNAV M-5100.23
(f) MCO P5090.2
(g) Marine Corps Base Hawaii Hazardous Waste Management Plan, dtd September 2019

COPY: 001

LOCATION: 040

ISSUE DATE: 09/29/2022

Encl: (1) Spot Check Log
(2) PMU Fill Log
(3) HAZMAT Checkout Log
(4) MCBH Spill Response Notification Form
(5) MCBH Spill Response Matrix

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Hazardous Material Control and Management (HMC&M) Program.

b. All personnel stationed at VMM-363 require Hazardous Communication (HAZCOM) standard training within 30 days of reporting and annually thereafter per reference (a).

2. Local Command Procedures

a. HMC&M Program Monitor:

(1) Perform all duties as outlined in reference (a).

(2) Ensure the HMC&M Program Manager, Supervisor, and Coordinators adherence to all relevant publications.

(3) Review and conduct Weekly Spot Checks utilizing enclosure (1).

b. HMC&M Program Manager:

(1) Perform all duties as outlined in reference (a).

(2) Ensure all hazardous material (HAZMAT) on the Command's Authorized Use List (AUL) is in compliance with the Aviation Hazardous Material List (AHML).

(3) Ensure HAZMAT storage and hazardous waste (HAZWASTE) procedures are conducted in accordance with reference (b).

Subj: LOCAL COMMAND PROCEDURES FOR THE HAZARDOUS MATERIAL CONTROL AND MANAGEMENT PROGRAM

c. HMC&M Program Supervisor:

- (1) Perform all duties as outlined in reference (a).
- (2) Ensure all HAZMAT utilized by the squadron is reflected on the Command's AUL.
- (3) Utilize and update enclosure (1) to reflect weekly spot checks conducted in accordance with reference (a).

d. Work Center Supervisors and Division Officers shall:

- (1) Perform all duties as outlined in reference (a).
- (2) Assign and ensure completion of the HAZCOM Non-Supervisor task list in Advanced Skills Management (ASM) within 30 days of reporting. This "Right to Know" training will inform the Marine of the hazards associated within the workplace, effects of the hazards, and how to protect themselves through the use of personnel protective equipment (PPE). As training is completed, the HMC&M Manager will sign the individual's NAMP Indoctrination and HAZCOM Non-Supervisor task lists in ASM.
- (3) All Work Center Supervisors and work center HAZMAT coordinators must complete HAZMAT storage and handling training provided by the station HAZMINCEN or HMC&M Supervisor within 30 days of assignment per reference (a).
- (4) Utilizing enclosure (2), ensure Pump and Metering Units (PMU) are filled under the supervision of either the Work Center Supervisor, a Collateral Duty Inspector (CDI), or the Work Center HAZMAT Coordinator.

(5) Ensure HAZMAT is not maintained in the work spaces while not actively being used.

(6) Review and conduct Weekly Spot Checks utilizing enclosure (1).

e. Work Center HAZMAT Coordinators shall:

- (1) Perform all duties as outlined in reference (a).
- (2) Utilizing enclosure (2), assist the Work Center Supervisor in ensuring Pump and Metering Units (PMU) are filled under the supervision of either the Work Center Supervisor, a Collateral Duty Inspector (CDI), or the Work Center HAZMAT Coordinator.
- (3) Assist the Work Center Supervisors to ensure HAZMAT is not maintained in the work spaces while not actively being used.

f. Hazardous Material and Environmental Compliance Publications

- (1) All work centers will have access to all required publications to ensure compliance with Naval, federal, and local regulations regarding HAZMAT, HAZWASTE, and environmental impacts and mitigation.
- (2) All publications listed as applicable references in reference (a), Chapter 10, par. 10.19.2 and 10.19.3.1, will be maintained on each work center's Portable Electronic Maintenance Assistants (PEMAs) for access by all hands.
- (3) Publications will be added by the Central Technical Publication Librarian (CTPL) to the PEMAs, and monitored for updates, revision, and cancellations in conjunction with the weekly Technical Directive and Interim Rapid Action Change (TD/IRAC) screening.

g. Safety Data Sheets

- (1) Safety Data Sheets (SDS) are to be maintained in a binder with a unique identifier (UID) assigned to enable all personnel to locate the correct SDS in a timely and efficient manner in case of emergency per reference

Subj: LOCAL COMMAND PROCEDURES FOR THE HAZARDOUS MATERIAL CONTROL AND
MANAGEMENT PROGRAM

(b). The UID will be placed on the side of all HAZMAT containers to aid in the expedient location of its SDS. The main SDS binder is located centerline of the hangar.

h. Command Authorized Usage List

(1) The Command's AUL includes all chemicals used by any personnel of the command. It is available to all hands as a source of information about the chemicals they may come in contact with on a daily basis. It includes the HAZMAT'S name, the National Stock Number (NSN), and UID per references (a) and (e).

(2) Work Center Supervisors shall ensure that only items on the AUL are used. HAZMAT not on the AUL will not be brought into the Maintenance Department from any outside source, to include ServMart, without proper SDS training on that material.

i. HAZMAT Checkout Procedures

(1) HAZMAT will be checked out with a tool tag for each item utilizing enclosure (3). Entries made into the check out log shall utilize the Command's AUL for verbiage to ensure standardization. PPE shall be worn while handling HAZMAT, to include checkout and check-in. Upon completion of the job, the tool tag will be returned for each item after the HAZMAT container is inspected for cleanliness, the amount used is annotated, and any waste has been properly disposed of.

(2) Workers will verify the correct UID and a HAZMINCEN sticker is affixed to each HAZMAT container, is legible, and not past the printed expiration date. Any expired HAZMAT shall be brought to the attention of the Collateral Duty Inspector (CDI) checking out the material.

(3) HAZMAT shall not be maintained in the work spaces while not actively being used.

j. Shop Rag Procedures

(1) Once per week, a representative from MALS Supply will arrive to collect the shop rags (red rags) at 1100L on Wednesday. After collection, said representative will wash and return the shop rags for further use.

(2) Clean shop rags will be held and signed out from the shop rag locker in Airframes.

(3) Dirty rags will be returned and held for pickup in the HAZMAT accumulation site outside of the hangar.

(4) Any red rags utilized to clean hazardous materials (hazmat) will be disposed of through normal disposal procedures.

k. Aircraft and Engine Washing Procedures

(1) It is Marine Corps Base Hawaii (MCBH) regulations that there shall be no unauthorized washing of aircraft, vehicles, equipment, buildings, or pavement in unauthorized areas where runoff can enter the storm drain system.

(2) Engine washes may be performed on the flight line using all precautions to contain the waste and prevent spillage into storm drains.

l. HAZMAT Spill Response

(1) A spill is defined as: "to cause or allow, especially accidentally or unintentionally, to fall, flow, or run out, so as to be lost or wasted."

Subj: LOCAL COMMAND PROCEDURES FOR THE HAZARDOUS MATERIAL CONTROL AND
MANAGEMENT PROGRAM

(2) A small spill is considered to be 24 gallons or less. Large spills are considered 25 gallons or more.

(3) All spills or releases of materials classified as toxic, corrosive, reactive, oxidizer, or ignitable with a flash point less than 140 degrees Fahrenheit, regardless of quantity must be reported immediately utilizing enclosure (4). Classification of materials can be found on the SDS.

(4) When the release of hazardous chemicals occurs, the Squadron HAZMAT/Hazardous Waste (HAZWASTE) work center must be notified immediately. If the HAZMAT/HAZWASTE Officer, Staff Noncommissioned Officer (SNCO), or Quality Assurance (QA) personnel are not available, contact MCBH HAZMAT/HAZWASTE Management Unit directly at (808) 257-0770, or 911 if urgent.

m. HAZMAT Contingency Spill Plan

(1) Aboard MCBH, all spills regardless of size are reportable and will require the Spill Report, located in Airframes during normal working hours and the Squadron Duty Officer (SDO) binder after hours, to be completed and submitted to the HMC&C Supervisor.

(2) In cases of small incidental spills contact Maintenance Control, who will notify all work centers and the HMC&C Supervisor. Dike, dam, and divert the spill with shop rags and materials contained in the spill contingency kits located in the HAZMAT locker and in the hangar. All materials used to contain a spill are considered HAZWASTE and must be disposed of promptly and properly.

(3) In cases of large spills, uncontrollable spills into the environment, or any HAZMAT emergency, refer to the Emergency Response Procedures found in enclosure (5).

(4) Keep all unnecessary personnel a safe distance from the spill to avoid exposure and inadvertently spreading the spill. Immediately contain the release of a spill utilizing materials found inside the spill kits. Prevent release from reaching storm drains or surfaces where it might leak into sewage systems, irrigation drains, or soil. Spill kits are located in the hangar and in the HAZMAT/HAZWASTE site. All spill kits include absorbent pads, booms, pillows, and disposal containers.

(5) Contact appropriate personnel/entities at the following:

Maintenance Control	(808) 257-3997 / Radio
SDO/ODO	(808) 257-4024
HMC&M Manger	(808) 257-4027
HMC&M Supervisor	(808) 257-4018
HMC&M Monitor/QA	(808) 257-4014
Fire Department (ARFF)	(808) 257-7118
MCBH Environmental	(808) 257-2860
MCBH Oil Spill Contractor	(808) 257-7133
Medical	(808) 257-1371

(b) (6)

HAZARDOUS MATERIAL WEEKLY INSPECTION CHECKLIST

ACTIVITY:

Date:

INSPECTED BY:

CHECKLIST	(Circle one)	Remarks / Corrective Action
1. Are all containers in good condition? Check for dirt or grease covering the labels.	Yes / No	
2. Are the containers kept closed except when hazardous material is being added or removed?	Yes / No	
3. Are the containers labeled, tagged, or marked with the identity of the chemical, hazard warnings, and the name and address of the manufacturer or other responsible party?	Yes / No	
4. Are spaces/lockers for using and storing paints, solvents, and other combustible hazardous materials fire resistant and ventilated?	Yes / No	
5. Are SDSs for each hazardous material used and available at a centralized location within a division? Are they in some organized sequence where they can be readily obtained in case of an emergency or spill?	Yes / No	
6. Is a hazardous material log maintained to identify material issued, used, retained for reuse, and disposed of as hazardous waste?	Yes / No	
7. Are all hazardous material containers properly labeled with Unique Identifier, segregated, and free of major corrosion or leakage?	Yes / No	
8. Is an inventory listing of all hazardous material current and up-to-date and is it kept on the outside/inside of the storage spaces/locker(s) and are all items checked to ensure that the shelf life has not expired?	Yes / No	
9. Is an eyewash station (plumbed or portable) located near the hazardous material storage space/locker(s) and is it working properly? Verify that the plumbed eyewash station is flushed on a weekly basis for at least three (3) minutes and that the portable eyewash station is drained and flushed quarterly, or per manufacturer's directions if an antibacterial agent is used.	Yes / No	
10. Is a fire extinguisher available and inspected monthly? Verify that the fire extinguisher's inspection record is up-to-date and that the proper fire extinguisher is available for the hazardous material being stored at the site.	Yes / No	
11. Does a periodic walk through of work centers reveal all HAZMAT used is approved for use on AUL, PPE is utilized, and material is not expired?	Yes / No	
Work Center inspected: _____		

Division Officer of inspected Work Center (Sign): _____

HMC&M Program Manager or Supervisor (Sign): _____

HMC&M Program Monitor (Sign): _____

PMU I

Enclosure: (2)

[illegible]

Enclosure (6)

[illegible]

Enclosure (6)
Enclosure: (3)

Spill Incident Report Form

Marine Corps Unit: _____

Your Name: _____ Phone: _____ Email: _____

ECC Name: _____ Phone: _____ Email: _____

OIC Name: _____ Phone: _____ Email: _____

Date of the Spill: _____ Time: _____

Source of the Spill: _____

What was Spilled: _____ Amount Spilled: _____ gallons

Duration of the Release: _____ Hours _____ Minutes

Location of the Spill: _____

Latitude: _____ Longitude: _____

What caused the Spill: _____

How did you clean it up: _____

Total Resources Committed:

Number of Personnel: _____ Time on scene: _____ Hours _____ Minutes

Materials: _____ Equipment: _____

Cost of resources used: \$ _____ How much was recovered: _____ gallons

Potential Impacts:

Waterways affected: Yes No Entered Storm Drain: Yes No

Natural Resources affected: _____

Facilities or Equipment damaged: _____

REPORT ALL SPILL to the Environmental Division Spill Response Coordinator:

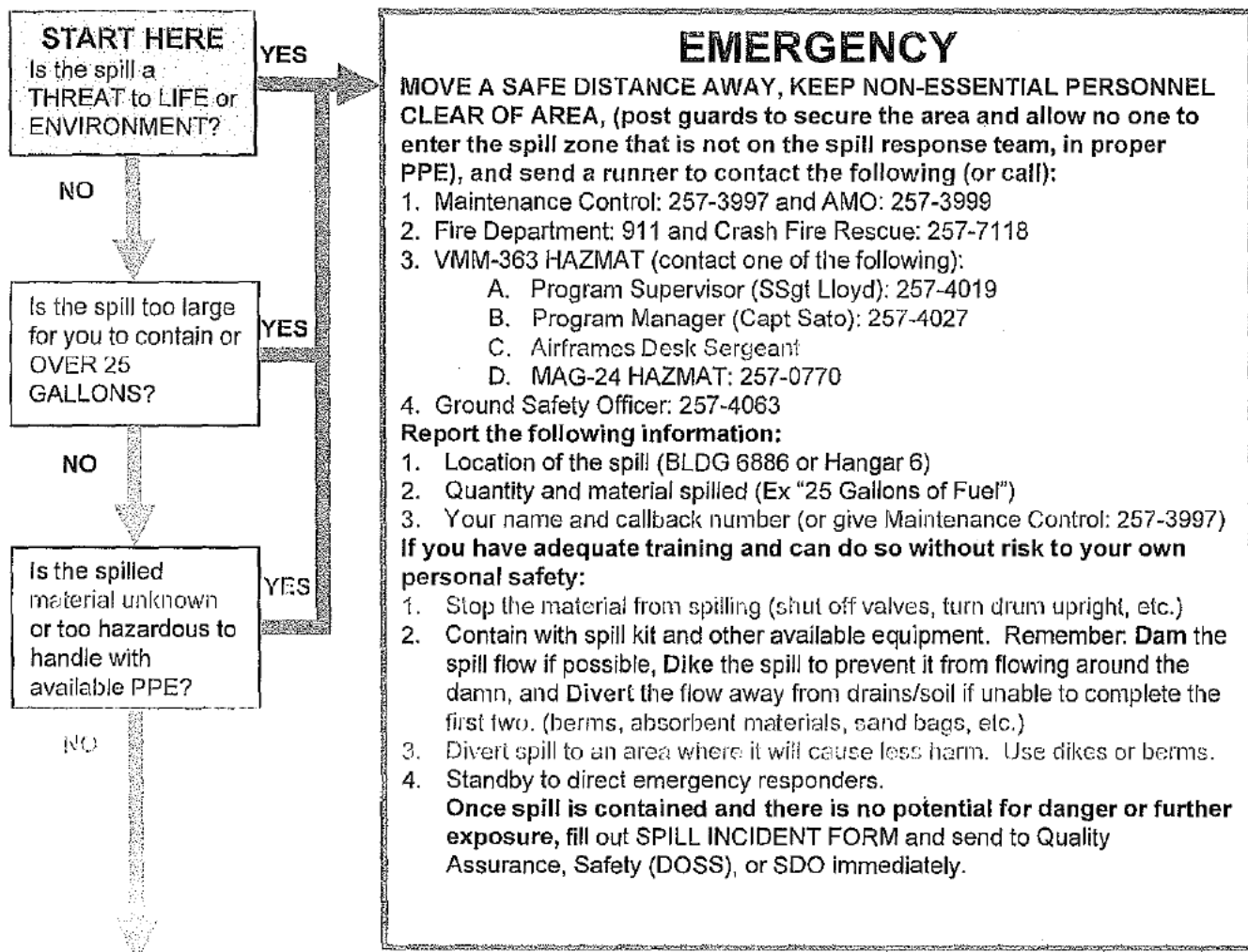
Rusty Nall or Rocky Owens at: Email: roger.nall@usmc.mil Phone: (808) 630-8246

NRC case # _____ State of Hawaii HEER case # _____

Enclosure (4)

Enclosure (6)

HAWAII HAZMAT SPILL RESPONSE MATRIX (ver 2021.10.29)



NON-EMERGENCY

If spill is less than 25 gallons and has not reached open water, a storm drain, or contaminated a large amount of soil then perform the following:

1. Send a runner to retrieve nearest spill kit.
2. Send a runner to notify Maintenance Control with location, quantity, and type of material.
3. Send a runner to notify a HAZMAT representative in Airframes, if none present, notify Airframes CDI.
4. Send a runner to obtain the SDS for the material and don appropriate PPE.
5. Deploy the spill kit and remember:
 1. **Dam** the spill flow if possible.
 2. **Dike** the spill to prevent it from flowing around the dam.
 3. **Divert** the flow away from drains/soil if unable to complete the first two.
6. Collect all spilled material and contaminated, disposable absorbents in a properly labeled and approved hazardous waste container.
7. Clean all surfaces or objects that have been contaminated by the spilled material.
8. Provide VMM-363 HAZMAT Program Manager, Program Supervisor, or an Airframes CDI with:
 - A. Location, quantity, and type of material spilled (flammable, corrosive, toxic, etc.)
 - B. Other personnel involved with cleanup
 - C. Your contact information
9. Fill out a Spill Incident Report.

Note: these instructions are intended to give general guidance only, the situation may dictate additional or different actions.

Enclosure (5)

Enclosure (6)



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANEHOE BAY HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO:
4790
AMO
1 Sep 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE HYDRAULIC CONTAMINATION CONTROL PROGRAM

Ref: (a) COMNAVAIRFORINST 4790.2_
(b) NAVIAR 01-1A-17
(c) A1-V22AB-TIS-000

Encl: (1) Hydraulic Samples Log
(2) Sample Bottle Label

PROPERTY OF VMM-363
COPY: 001
LOCATION: 040
ISSUE DATE: 09/29/2022

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Hydraulic Contamination Control Program.

2. Local Command Procedures

a. All hydraulic samples analyzed by Portable Oil Diagnostic System (PODS) will be logged utilizing enclosure (1). Three months of historical sampling data will be maintained at all times. Sample bottles will be labeled utilizing enclosure (2) directly after hydraulic samples have been taken from an aircraft or Support Equipment (SE) system.

c. All hydraulic samples performed on aircraft will be documented in the appropriate aircraft log in Quality Assurance for the system sampled, and sampling technician will ensure that a Hydraulic Contamination Control qualified Quality Assurance Representative (QAR) signs prior to departure. All SE samples will be documented in the Hydraulic Contamination Trend log in QA following the same guidelines.

d. Ensure that any time the integrity of a hydraulic system is broken, hydraulic samples are performed and documented on the appropriate hydraulic system or systems. Broken integrity will be considered depressurizing an aircraft system for maintenance or opening the reservoir of SE for servicing. Quick disconnect type fittings on aircraft and SE will not require hydraulic fluid sampling when disconnected unless additional maintenance is performed involving broken integrity of another fitting.

e. All work orders requiring one or multiple hydraulic samples shall remain active until all required hydraulic system samples are performed and documented as per reference (a). In the event a work order or multiple work orders are open with all maintenance complete except performance of the hydraulic fluid samples, a BLOC work order may be initiated or samples may be referred to a single work order provided the following criteria is met:

- (1) All work orders to be signed off correctly and completely document all specific hydraulic lines and components must have signed In-Process (IP) inspections for cleaning, torque, line clearances, mounting hardware, and clamps as appropriate.

Subj: LOCAL COMMAND PROCEDURES FOR THE HYDRAULIC CONTAMINATION CONTROL PROGRAM

- (2) A signed IP must be entered on all work orders to be signed off specifying the referral of hydraulic samples, and what work order they are referred to, and if the sample is to be performed on auxiliary power unit (APU) or ground turn (GT), i.e. "Hydraulic system 1, 2, and 3 samples on APU referred to MCN 198xxxx JCN GC4xxxxxx for R IB SPA replacement."
 - (3) The discrepancy block of the work order samples are being referred to must include specific hydraulic components and or lines the samples are for if the work order is a new one time (OX) BLOC work order when it is initiated. If the work order samples are being referred to is an existing work order, the discrepancy block must be updated to include specific hydraulic components and or lines the samples are for, i.e. "***Update – Hydraulic systems 1, 2, and 3 on APU referred for R IB SPA replacement."
 - (4) The work order samples are being referred to shall have a signed IP entered specifying what system samples are referred, what components or hydraulic lines the samples are referred for, and what work order the samples are referred from, i.e. "Hydraulic systems 1, 2, and 3 samples on APU are referred from MCN 198xxxx JCN GC4xxxxxx for R IB SPA replacement."
 - (5) The specific use of line and tube part numbers or component serial numbers in IPs is not required but is encouraged when possible in referrals.
- f. Aircraft requiring Ground Turn (GT) for leak check and hydraulic system sampling will perform GT and await proper documentation of sample analysis prior to taxiing for flight. Aircraft components requiring GT are listed by name in reference (c).

(b) (6)

VMM-363 HYDRAULIC SAMPLES LOGBOOK

[illegible]

Enclosure (1)

Enclosure (6)

NAME	
DATE/TIME	
SN/BUNO	
SYSTEM	
UNIT	VMM-363
JCN	GC4
PHONE #	(808)257-4019

NAME	
DATE/TIME	
SN/BUNO	
SYSTEM	
UNIT	VMM-363
JCN	GC4
PHONE #	(808)257-4019

NAME	
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JCN	GC4
PHONE #	(808)257-4019

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NAME	
DATE/TIME	
SN/BUNO	
SYSTEM	
UNIT	VMM-363
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PHONE#	(808)257-4019

Enclosure (2)

Enclosure (6)



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANE OHE BAY HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO:
4790
AMO
30 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE MAINTENANCE DEPARTMENT

Ref: (a) COMNAVAIRFORINST 4790.2
(b) A1-V22AB-TIS-000
(c) A1-V22AB-TIS-500
(d) A1-V22AB-TIS-000, S/S/S 0900
(e) VMM-363 Fall Protection SOP

PROPERTY OF VMM-363
COPY: 001
LOCATION: 040
ISSUE DATE: 09/29/2022

Encl: (1) Hangar Deck Checklist
(2) Static Display Checklist

1. Purpose and Scope

a. The purpose of the Local Command Procedure (LCP) is to define and clarify the standard procedures for performance of maintenance tasks on VMM-363 aircraft in accordance with references (a) through (e). Individual divisions may prescribe more restrictive measures than those contained within this LCP, but less restrictive deviations must be approved by the Aircraft Maintenance Officer (AMO). Quality Assurance (QA) retains primary responsibility for monitoring compliance, but all hands are responsible for ensuring maintenance actions are performed in a safe manner and in accordance with all applicable manuals and instructions.

2. Local Command Procedures

a. Contractor Maintenance

(1) Contractors will be briefed by QA and Egress training will be verified prior to commencing maintenance. All contractor tools will be accounted for by QA before and after the performance of any maintenance.

b. Making the Aircraft Safe for Maintenance

(1) All hands are responsible for ensuring the aircraft are safe for maintenance prior to the performance of any task. Aircraft state and configurations will be made in accordance with references (b) and (c). Aircraft not safe for maintenance using electrical or hydraulic power shall be marked accordingly with a placard indicating the applicable restriction (NO HYD POWER, NO ELECTRICAL POWER, or PRGB LOCKOUT TOOL INSTALLED). The placard will be put in place by the Collateral Duty Inspector (CDI) of the job requiring the restriction. This placard shall be checked out and displayed prominently in the cockpit of the affected aircraft.

c. Auxiliary Power Unit (APU)

(1) During APU operations, an observer shall be positioned in front of the aircraft manning a fire bottle. The observer shall be on intercommunications system (ICS) to the maximum extent possible.

(2) While the APU is operating, the FUEL STAT page shall be monitored for fuel status and to prevent the possibility of a fuel cell overflow. In the event that a FEED TANK OVERFILL caution is displayed, follow the steps listed in reference (c).

d. Blade Fold Wing Stow (BFWS) Operations

(1) An observer shall be positioned in front of the aircraft monitoring ICS during BFWS operations to the max extent possible. ICS shall be used for all operations to or from Full Stow configuration. Under no circumstances will BFWS operations be conducted without an observer to provide hand and arm signals in the event of an emergency.

(2) During BFWS operations, the operator in the cockpit shall monitor the BFWS SENSOR STAT, BFWS SEQUENCE, and FCS HYD STAT pages and be prepared to secure HYD 3 in event of an un-commanded movement

(3) BFWS qualified maintainers may "RETRY" interrupted BFWS sequence steps with a white or yellow "halt" displayed a maximum of three times. In the event that it does not continue to the desired state, Quality Assurance Representative (QAR) or Collateral Duty Quality Assurance Representative (CDQAR) assistance is required.

(4) A BFWS qualified CDQAR or QAR shall directly supervise BFWS operations where a "SKIP" or "OVERRIDE" step is required, or where a BFWS sequence is interrupted with a "red halt" displayed. Additionally, anytime the aircraft posts SWSHPLT OVERTILT, QA will be notified and take over the BFWS event before any other action is taken.

e. Aircraft Towing

(1) A tow crew will consist of a Tow Director, Tow Driver, Brake Rider, wing walkers and a tail walker. Tow Directors, Tow Drivers, and Brake Riders will be qualified in Advanced Skills Management (ASM) before performing the duties as such, unless they are performing on the job training (OJT) as prescribed by the training syllabus.

(2) Prior to an aircraft movement evolution, at minimum the following shall occur:

(a) Maintenance Control will brief the qualified Tow Director and Tow Driver of the aircraft to be moved, where it is being moved to, and the configuration it is to be left in.

(b) If the aircraft is to be towed in a configuration other than Flight Ready, Full Stow, or any blades folded configuration, QA shall be consulted for approval prior to movement. If towing in maintenance mode, a walker will be assigned to each blade on the left and right sides, and tail, adding to a total of (5) walkers. When towing in maintenance mode, walkers will be briefed to continuously check their assigned blade for clearance from the deck. QA approval is also required if any panels listed in reference (d) are not installed. At no point will a towing evolution to the wash rack located behind the squadron be conducted with the aircraft in maintenance mode.

(c) Following the brief from Maintenance Control, the Tow Director will brief the remaining tow crew members of the scheme of maneuver for the evolution.

(3) After the evolution the Tow Director is responsible to ensure parking brake is set, chocks are placed, back-up brake is turned off and circuit breaker pulled, intake and exhaust covers, APU plug, all egress handle pins, and all landing gear pins are properly installed.

Subj: LOCAL COMMAND PROCEDURES FOR THE MAINTENANCE DEPARTMENT

(a) In addition, if the aircraft is parked in the hangar, enclosure (1) will be completed and visibly placed forward of the crew door.

(b) If an aircraft is towed from the hangar to the flight line, the hangar deck checklist will be removed prior to leaving the hangar to prevent potential Foreign Object Damage (FOD) on the line. Checklists are not required to be retained once removed.

f. Troubleshooting Turning Aircraft

(1) While performing leak checks or any type of nacelle troubleshooting of a turning aircraft, the nacelle angle will be modulated to 75 degrees, the Engine Control Levers (ECL) will be at 75 rotor rpm (Nr), the exhaust deflectors will be set to OFF. If these conditions will not suffice for operation or leak check requirements, QA will be notified for risk mitigation decisions.

(2) Proper personal protective equipment (PPE) during leak checks of a turning aircraft will include: gloves, cranial, eye protection, and sleeves rolled down. Goggles or safety glasses may be worn for eye protection. Eye protection must be compliant with U.S. MIL SPEC MIL-DTL-43511D.

(3) Unless cleared by QA, no maintainer will conduct any inspection in the nacelle at 100% Nr and 90 degree nacelle angle.

g. Nacelle Control Disable Switch

(1) Both disable switches shall be activated whenever hydraulic power is applied to the aircraft and personnel are working within the conversion actuator areas, when performing the Swashplate Piston Seal Maintenance Built-in Test (MBIT) 5060 during post flight daily and turnaround inspections, or when conducting leak check/troubleshooting evolutions on the nacelles. This is used as a safety feature in order to prevent further damage to aircraft or injury to personnel.

h. Maintenance in the Midwing Area

(1) In the event that maintenance is required within the midwing cove or interior of the wing per reference (b), maintainers shall ensure the Wing Fire Suppression System is disabled prior to opening or removing any panels for maintenance. This is to prevent the inadvertent discharge of the gas generators located in the midwing and wing cove areas from natural or artificial light.

i. Maintenance in Flight Ready

(1) In the event that maintenance is required on or near the rotating controls when the aircraft is configured in flight ready, intakes covers will be installed to avoid potential FOD hazards.

j. Motorized Vehicles

(1) Completion of Recreational Off-Highway Vehicle Basic Drivers Course is required to operate an maintenance Gator, Cushman LUV, and recreational off-highway vehicles.

k. Static Display Configuration

(1) Once Operations has identified the need for a Static Display aircraft, they will contact Maintenance Control. If determined that personnel that are not egress qualified or considered as pax will be entering the aircraft, Maintenance Control will identify an aircraft, initiate a work order for Flight Equipment to ensure the aircraft is

Subj: LOCAL COMMAND PROCEDURES FOR THE MAINTENANCE DEPARTMENT

prepared for static display utilizing enclosure (2). Aircraft used to conduct on/off drills or identified as a static viewing do not require a work order.

I. Work Stands

(1) Work stands shall be set up as required, with ram locks and/or safety pins engaged and wheels locked and chocked prior to use. Work stands shall not be moved while personnel are on them. An observer shall be posted when raising a work stand to ensure the stand does not come in contact with aircraft or surrounding objects. Maximum weight capacity shall not be exceeded. The Phase Maintenance Stand does not require a cranial to be worn while performing maintenance, provided that the stand is properly assembled with platforms and all rails in place. Cranials are required to be donned if the maintainer leaves the stand and transitions to any aircraft surface.

m. Tire and Wheel Safety

(1) The emergency tire deflator will be maintained by and located in Airframes work center. It is available to all personnel in the event of a hot brake condition, bulging tire, or other emergency situations when deflating the tire manually is deemed unsafe.

(2) In the event the emergency tire deflated is needed, the discovering individual will notify Airframes, Maintenance Control, and QA. The tire deflator will be laid in front of the applicable tire and aircraft will be towed/taxied over it as required. All unnecessary personnel will keep clear of the aircraft until the tire(s) have been deemed safe by Airframes or QA.

(3) In the event of a hot brake condition, immediately clear the area around the aircraft and Maintenance Control notify Crash Fire and Rescue.

(4) An aircraft on jacks shall be roped off and signs posted stating "Aircraft on Jacks". "Aircraft on Jacks" signs will only be used in the hangar to avoid potential FOD hazards on the flight line. Movement in and on the aircraft should be limited and extreme caution used when climbing on top of the aircraft is required.

n. Personal Protective Equipment

(1) All maintenance personnel shall utilize PPE in the following manner:

a. Cranials will be assembled, properly marked, and serviceable. All personnel must wear and strap cranials when standing on the sponson or higher and any time their feet leave the ground on a ladder or maintenance stand. In the event the cranial inhibits access to a required area, the maintainer may remove it at that location and don it again immediately after that access is no longer required prior to moving from that location.

b. Eye protection shall be worn whenever eye hazards are present. This includes working with hazardous materials, connecting/disconnecting fuel or hydraulic fittings or quick disconnects, performing leak checks, and when working around other shop hazards. Additionally, eye protection shall be worn under the following conditions:

(1) Within 200 feet of any turning aircraft not blocked by one or more stationary aircraft.

(2) While troubleshooting or other operations around turning aircraft.

(3) While operating or riding on a tow tractor without a windshield.

Subj: LOCAL COMMAND PROCEDURES FOR THE MAINTENANCE DEPARTMENT

c. Hearing protection shall be worn at all times during hazardous noise evolutions, working inside the hangar near the main doors with aircraft turning on the closest two parking spots, and when within 200 feet of an operating aircraft on the flight line.

d. Personal Fall Arrest and Harness systems shall be utilized as directed in reference (e).

o. Maintenance Action Form Documentation

- (1) When performing maintenance, if a panel will be "4-pointed" to avoid continuous removals and installations, a signed in-process inspection will be documented on the Maintenance Action Form (MAF) the panel was removed on stating the panel is 4-pointed. "4-pointing" a panel consists of complete installation of 10% of the hardware associated with the panel. Once the panel is fully installed, a signed in-process inspection will be documented on the MAF.
- (2) All maintenance tasks that require Quality Assurance steps will have a signed in-process inspection for the appropriate step inspected by the qualification on the task, regardless if there was only one qualification that inspected the entire maintenance evolution.

(b) (6)

VMM-363 Static Display Checklist

#	PROCEDURE	YES	NO	REASON
1	Ensure chocks are installed at either left or right Main Landing Gear			
2	Ensure Nose and Main Landing Gear pins are installed			
3	Ensure parking brake is set			
4	Ensure aircraft battery is disconnected			
5	Ensure ALE-47 safety pin is installed			
6	Ensure all egress hatch pins are installed			
7	Ensure CAD handles/buttons are taped or zip-tied			
8	Ensure all access panes are secured			
9	Ensure the ramp and floorboards are clean and dry			
10	Ensure cargo roller rails are installed facing down or removed			
11	Ensure intake and exhaust covers, and APU plug are installed			

TAC's Name (print)

BUNO

/ _____
MODEX

TAC's Signature

Crew Chief Signature

Enclosure (2)

Enclosure (6)



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANEOHE BAY HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO:
4790
AMO
30 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE NAMP COMPLIANCE AUDITING PROGRAM

Ref: (a) COMNAVAIRFORINST 4790.2

PROPERTY OF VMM-363
COPY: 001

Encl: (1) Audit Routing Sheet
(2) SMQ Authorization

LOCATION: 040

ISSUE DATE: 09/29/2022

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Naval Aviation Maintenance Program (NAMP) Compliance Auditing Program and is applicable to all Maintenance Department work centers.

2. Local Command Procedures

a. The Commanding Officer shall designate Marines as Collateral Duty Inspectors (CDI), Collateral Duty Quality Assurance Representatives (CDQAR), and Quality Assurance Representatives (QAR) following the Quality Assurance (QA) interview and endorsement of both the Quality Assurance Officer (QAO) and Aircraft Maintenance Officer (AMO).

b. The Quality Assurance Officer shall:

(1) Screen and interview all candidates prior to assignment as CDI/CDQAR/QARs.

(2) Screen, provide recommendations, and forward all audits generated by the NAMP Compliance Auditing Program Manager utilizing enclosure (1).

c. The Quality Assurance Chief (QAC) shall:

(1) Review, provide recommendations, and forward all audits to respective Division Chiefs and/or Program Managers utilizing enclosure (1).

(2) Ensure all candidates are properly screened utilizing Advanced Skills Management (ASM) prior to assignment as CDI/CDQAR/QARs.

d. Quality Assurance Representatives shall:

(1) Provide CDI training encompassing applicable areas of testing, troubleshooting and quality control methods. QARs shall conduct group CDI training on a monthly basis per the Monthly Maintenance Plan (MMP).

(2) Conduct program, division, and work center audits as assigned by the QAC. Notify the NAMP Compliance Program Manager when corrective actions are not performed by Program Managers, Division Officers, and/or Work Center Supervisors.

(3) Ensure all audit discrepancies are entered into the Computerized Self-Evaluation Checklist (CSEC) database in a timely manner. Discrepancies will be routed to the appropriate work center utilizing Enclosure (1). All audits have 10 working days to have all discrepancies corrected and returned to the QA Division.

Subj: LOCAL COMMAND PROCEDURES FOR THE NAMP COMPLIANCE AUDITING PROGRAM

(4) Ensure all CDI/CDQAR/QARs ASM record is up to date with current required qualifications and certifications. Input deviation letters (if required) and periodic monitoring audits for CDIs directly into the individual's syllabus/designation in ASM.

a. Ensure appropriate Duties and Billets are assigned and active for all CDI/CDQAR/QARs.

(5) Screen all CDI/CDQAR/QAR candidates for completed prerequisites in ASM prior to testing.

(6) Ensure CDI/CDQAR/QARs are granted the appropriate SMQs in Optimized Organizational Maintenance Activity (OOMA) utilizing enclosure (2).

(7) Ensure compliance with all requirements and guidelines in this LCP.

e. Division Officers/Chiefs shall:

(1) Assist the QAO/QAC in staffing the QA Division with appropriately experienced and qualified personnel.

(2) Assist the QAO/QAC, utilizing CDQARs, when requested in the auditing and inspection process.

(3) Screen CDI/CDQAR candidates to ensure they possess the maturity and technical expertise to perform as a representative of QA. Ensure CDI/CDQAR candidates possess all prerequisite certifications, qualifications, and documentation in ASM.

(4) Perform routine spot checks to ensure monthly CDI training is being accomplished and documented in ASM.

(5) Ensure audit corrective actions documented by Program Managers or Work Center Supervisors are complete, correct, and returned to QA within the prescribed time frame.

(6) Ensure the appropriate OOMA SMQs are requested for CDI/CDQARs within their division utilizing enclosure (2).

f. Program Managers shall:

(1) Complete an initial assessment of their assigned program utilizing the applicable CSEC for the current quarter, and enter the completed audit to the CSEC database within 60 days of designation as Program Manager.

(2) Complete and enter to the CSEC database, all subsequent annual program self-assessments as directed by the schedule produced by QA and published in the MMP within the assigned month, not to exceed 30 days.

(b) (6)



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANEOHE BAY HAWAII 96863-3059

IN REPLY REFER TO:
4790
QAO
DD Mmm YY

From: Quality Assurance Officer
To: Choose an item.

Subj: Choose an item.

Ref: COMNAVAIRFORINST 4790.2_

Encl: Computerized Self Evaluation Checklist (CSEC) audit

1. Per the reference, a Choose an item. was performed on 26 May 21.
2. Audit due back no later than 9 Jun 21
3. Audit tracking number is Choose an item. - Choose an item.

Program Manager

Comments: _____

Date

Program Manager

Division Chief/Supervisor

Comments: _____

Date

Division Chief/Supervisor

Division Officer

Comments: _____

Date

Division Officer

Program Monitor

Comments: _____

Date

Program Monitor

Enclosure (1)
Enclosure (6)

Quality Assurance Chief

Quality Assurance conducted follow-up inspection to ensure that corrective action has been taken.

Comments: _____

Date

Quality Assurance Chief

Quality Assurance Officer

_____ Audit completed satisfactorily

_____ A Special audit will be conducted on _____.

Comments: _____

Date

Quality Assurance Officer

Maintenance Chief

Comments: _____

Date

Maintenance Chief

From: Aircraft Maintenance Officer

Comments: _____

Date

Aircraft Maintenance Officer

Acknowledgement:

I have read and understand all comments and guidance enclosed.

Date

Program Manager

NALCOMIS USER REQUEST

NAME: (LAST, FI MI)	RANK	SHIFT	TYPE	DATE
			M= MAINT A=AIRCREW B= BOTH	

LOG IN ID							
FI FIRST 7 LETTERS OF LAST NAME PASSWORD IS THE SAME ON INITIAL LOG IN							

010 AMO	021 TD	050 MC (EXP)	130 FE (MAINT)	200 AVI	OPS
01A AAMO	02N SA	05C IMRL	13A FE	230 ORD	
011 MMCO	030 MDS	120 AF	13B SEAT	310 FL	
020 MC	040 QA	12C CC	140 PHASE	330 SE	

1. The following is a list of SMQ's. Quality Assurance will mark required SMQ (s).

1EXP	EXPEDITOR	YCDI	CDI WORKER
1MA	MAINTENANCE ADMINISTRATION	YCDQ	CDQ WORKER
1PCPT	PLANE CAPTAIN	YFOG	BASIC (FLIGHT E, ORD, GSE)
1PILT	PILOT	YMC	MC NOT SFF
1QASO	QASO	YWKR	WORKER
1TD	TD COORDINATOR	CM	CONFIGURATION MANAGEMENT
1MPOF	MAINTENANCE ADMIN	MMCO	MAINTENANCE/MATERIAL CONTROL OFFICER
XFOG	ADVANCE (FLIGHT E, ORD, GSE)	OPS	OPERATIONS
XMC	MC SFF		

2. By signing this document you are agreeing to the following stipulations:

- (a) Responsibility to insure password security (i.e. not giving out password to anyone or logging off computer when not in use.)
- (b) Informing the System Administrator if any security violation occurs or if any of the assets become damaged.

SNM Signature: _____

Quality Assurance Print/ Signature: _____/_____

System Administrator Print Signature: _____/_____



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANEOHE BAY HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO:
4790
AMO
22 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE NAVY OIL ANALYSIS AND CONSUMPTION
MONITORING PROGRAM

Ref: (a) COMNAVAIRFORINST 4790.2_
(b) 01-V22AB-TIS-000, S/S/S 1210

Encl: (1) Engine Oil Consumption Record

PROPERTY OF VMM-363
COPY: 001
LOCATION: 040
ISSUE DATE: 09/29/2022

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Oil Analysis and Consumption Monitoring Program.

2. Local Command Procedures

a. Oil Consumption rates shall be calculated utilizing enclosure (1). Operating hours used for calculation shall be obtained from the most recent Naval Aircraft Flight Record (NAVELIR).

b. In the event that an aircraft engine oil consumption rate exceeds the authorized limit, the following actions shall be performed.

(1) The excessive oil consumption value shall be recalculated utilizing the actual engine operating hours/run time. This information shall be obtained from Quality Assurance via the Comprehensive Automated Maintenance Environment Optimized ground station. If the recalculated value is within authorized limits, no further action is required.

(2) If the recalculated value remains above the authorized limit, a work order shall be initiated for a visual inspection of the affected engine. If no defects are noted during the visual inspection, a work order shall be initiated to baseline the affected engine's oil quantity and monitor oil consumption for the next 20 engine operating hours. Maintenance Control will initiate the work order, including the current operating hours of the affected engine to ensure a full 20 hours have elapsed. Upon completion of 20 operation hours, oil consumption shall be recalculated for the entire monitoring period by dividing the total ounces of oil added by the total engine operating time.

(3) At the end of the monitoring period, engines remaining within oil consumption limits will be returned to standard oil consumption monitoring procedures. Engines indicating excessive oil consumption during this monitoring period will be referred to the Fleet Support Representative (FSR) for further corrective action.

(b) (6)

ENGINE OIL CONSUMPTION RECORD

BUNO: _____ Engine S/N: _____ Engine Position (P/S): _____.

Maximum Oil Consumption: Engine is 10.24 oz. per operating hour.

(Engine/Gearbox)	(Quantity)

[illegible]

CONSUMPTION RATE CALCULATION: OZ. CONSUMED ÷ FLIGHT HOURS = OZ. PER F/H

EXCESSIVE OIL CONSUMPTION SHALL BE RECALCULATED UTILIZING THE ENGINE RUN TIME COMPLETED RECORDS TO BE FILED IN AESR MANILA ENVELOPE.

ENCLOSURE (1)



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANELOHE BAY, HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO:
4790
AMO
22 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363

To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE SUPPORT EQUIPMENT MAINTENANCE PROGRAM

Ref: (a) COMNAVAIRFORINST 4790.2_
(b) NAVAIR 17-1-125

PROPERTY OF VMM-363

COPY: 001

Encl: (1) SEPMS Screening Checklist
(2) Preservation Checklist
(3) Preservation Placard
(4) Preservation Integrity Inspection Checklist
(5) De-preservation Checklist
(6) Level III Dynamic Dehumidification Preservation Weekly Inspection Log

LOCATION: 040

ISSUE DATE: 09/29/2022

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Support Equipment Maintenance Program.

2. Local Command Procedures

a. The Program Manager shall:

(1) Ensure enclosure (1) is completed for each Support Equipment (SE) asset received from Marine Aviation Logistics Squadron (MALS) or the supply system.

(2) Ensure enclosure (2) is utilized during the preservation process of any applicable asset. Ensure enclosure (3) is completed and attached to each asset after it has been preserved.

(3) Ensure enclosure (4) is utilized during performance of preservation integrity inspections.

(4) Ensure enclosure (5) is utilized during the de-preservation process.

(5) Ensure weekly inspections of assets in Level III Preservation Dynamic Dehumidification status are performed and documented using enclosure (6).

(6) Ensure completed checklists are filed in the appropriate SE record jacket and ensure all preservation, de-preservation, and preservation integrity inspection work orders are completed in Optimized Organizational Maintenance Activity (OOMA).

(b) (6)

VMM-363 SEPMS SCREENING CHECKLIST

Nomenclature: _____ TEC: _____

Serial No: _____ Part No: _____

Screening Representative (Print): _____ Date: _____

Remarks: _____

TOOLS FOR SUCCESS SHALL BE REVIEWED AND USED DURING SCREENING

TECHNICAL DIRECTIVES SECTION:

ANY TD WORK ORDERS ARE TO BE RETAINED FOR 6 MONTHS

- VERIFY B&D NAT02 SHEETS ARE CURRENT, PROPERLY LABELED, HIGHLIGHTED, AND SIGNED
- VERIFY B&D NAT02 AGAINST SECTION IV OF CNAF 4790/51 CARD
- VERIFY B&D NAT02 ENTRY IS ANNOTATED IN SECTION VI OF CNAF 4790/51 CARD
- OOMA LOGSET EXPLORER: VERIFY NAT02 ENTRY IN MISC HISTORY TAB

ACCEPTANCE/TRANSFER SECTION:

CHECKLISTS & WORK ORDERS SHALL BE RETAINED UNTIL THE NEXT LIKE INSPECTION

SE RECEIVED FROM ANOTHER COMMAND SHOULD COME WITH A TRANSFER CHECKLIST

- VERIFY NO SPACES ARE BLANK
- VERIFY "IMRL MANAGER/SE ASSET MANAGER" SECTION ON ACCEPTANCE/TRANSFER CHECKLIST MATCHES SECTION 1 OF CNAF 4790/51 CARD
- VERIFY COMPLETED WORK ORDER
- OOMA LOGSET EXPLORER: VERIFY ACCEPTANCE/TRANSFER INSPECTION ENTRY IN THE INSPECTION TAB.

PRES/DEPRES SECTION:

ONE COMPLETE PRESERVATION CYCLE IS TO BE MAINTAINED IN THE RECORD JACKET.

- VERIFY PRES/DEPRES CHECKLIST & WORK ORDERS MATCH ENTRIES LISTED IN SECTION III OF CNAF 4790/51 CARD
- OOMA LOGSET EXPLORER: VERIFY PRES/DEPRES ENTRY IN THE PRESERVATION TAB
- OOMA INVENTORY EXPLORER: VERIFY THE APPROPRIATE TASK STATUS FOR PRESERVATION, DEPRESERVATION, AND 182 DAY PRESERVATION INTEGRITY TASKS
- OOMA INVENTORY EXPLORER: VERIFY 182 DAY PRESERVATION INTEGRITY INSPECTION TASK DUE DATE (IF APPLICABLE)

UNSCHEDULED MAINTENANCE SECTION:

WORK ORDERS WILL BE MAINTAINED FOR 6 MONTHS, AT WHICH TIME THEY ARE TO BE PURGED

- VERIFY WORK ORDERS ARE FILED IN JCN ORDER WITH THE NEWEST ON TOP

SCHEDULED MAINTENANCE SECTION:

ALL PMs AND SUPPORTING DOCUMENTATION ARE FILED IN THIS SECTION

RETAIN THE LAST INSPECTION COMPLETED FOR EACH INSPECTION REQUIRED BY THE MRC

ANY ACCOMPANYING NDI/LOAD TEST/PAINT/STRIP WORK ORDERS WILL ACCOMPANY THE ORIGINAL PM WORK ORDER IN THIS SECTION AS SUPPORTING DOCUMENTATION

- VERIFY NDI/PROOFLOAD TEST/BRAKE TEST/CO TEST AND SPECIFIC HOURLY INSPECTIONS ARE DOCUMENTED IN SECTION V OF CNAF 4790/51 CARD
- OOMA INVENTORY EXPLORER: VERIFY PM TASKS ARE ASSIGNED TO THE APPROPRIATE STATUS UNDER THE TASKS TAB

ENCLOSURE (1)

Enclosure (6)

SCHEDULED MAINTENANCE SECTION CONT:

- o OOMA INVENTORY EXPLORER: VERIFY EACH PM'S TASK DEADLINE DUE DATE AGAINST THE DATE THE PM WORK ORDER WAS INITIATED AND PRESERVATION CYCLE (IF APPLICABLE)
- o OOMA LOGSET EXPLORER: VERIFY PROOFLOAD TEST ARE CORRECTLY ENTERED IN THE INSPECTION TAB (IF APPLICABLE)
- o OOMA LOGSET EXPLORER: VERIFY PMs ARE CORRECTLY ENTERED IN THE INSPECTION TAB (IF APPLICABLE)

OPNAV 4790/51 SECTION:

*SECTION I:

- o VERIFY "(NEW)" IS ANNOTATED IN BLOCK E. REMARKS IF ITEM WAS RECEIVED NEW FROM MANUFACTURE
- o VERIFY BLOCK F. RECEIVED DATE CORRESPONDS WITH THE ACCEPTANCE INSPECTION MAF COMPLETION DATE

*SECTION III:

182 DAY PRES CHECK DATE ARE PENCIL ENTRIES

DATE DE-PRES SECTION WILL BE LEFT BLANK UNTIL DEPRESERVATION IS COMPLETED

*SECTION IV:

NINC IS A PENCIL ENTRY

N/A TDs RECEIVE NO DATE

INSERT KIT NUMBERS FOR ALL TDs, IF NONE LISTED YOU MUST PUT 00

IAW NAMP (10.17.4.1.3) ALL TDs THAT APPLY TO THE GEAR'S TEC/ASSEMBLY CODE (IF DIFFERENT) MUST BE ANNOTATED, INCLUDING NA TDs

FOR CONSOLIDATION REFER TO MAINTENANCE ADMINISTRATION MARINES

*SECTION V:

- o VERIFY ERRONEOUS ENTRIES ARE ONE LINED AND INITIALED
- o VERIFY MISTAKES HAVE A SINGLE LINE DRAWN THROUGH IT AND ARE INITIALED. IF A CORRECTION IS REQUIRED IT IS DIRECTLY ABOVE OR BELOW THE MISTAKE AND IS INITIALED

*SECTION VI:

HYDROSTATIC TEST AND HOSE FORCE REMOVAL DATE INFO SHOULD BE PLACED IN THE LOWER PORTION OF THE RIGHT HAND COLUMN

RECORD HYDRAULIC SAMPLING IN THIS SECTION (IF APPLICABLE)

ALL SERNO'S OF LOTTED ASSETS SHOULD BE PLACED IN THE LOWER PORTION OF THE RIGHT HAND COLUMN

DATES AND SERIAL NUMBERS ARE ANNOTATED IN PENCIL

- o VERIFY ALL ENTRIES IN THIS SECTION HAVE A SIGNATURE

OPNAV 4790/52:

- o VERIFY OPNAV 4790/52 CARD IS IN APPROPRIATE LOCATION (IF APPLICABLE)

SCREENING REPRESENTATIVE (SIGNATURE): _____

ENCLOSURE (1)

Enclosure (6)

VMM-363 PRESERVATION CHECKLIST

REF: NAVAIR 17-1-125, and applicable MIM/MRC

NOMENCLATURE: _____ SERIAL NUMBER: _____

TEC: _____ TYPE PRES: _____ DATE PRES: _____

JCN/MCN: _____ REASON FOR PRES: _____

The following steps shall be complied with for Level II and Level III preservation:

1. Verify calibration, hydrostatic dates, load test, or any other special inspections.

INITIALS: _____

2. Comply with safety precautions in accordance with the applicable MIM's.

INITIALS: _____

3. Perform inventory of the equipment to be preserved to ensure that all parts/pieces are accounted for.

INITIALS: _____

4. If applicable wash the equipment's interior and exterior to ensure it is free of corrosive agents such as salt spray, bird droppings, and dirt.

INITIALS: _____

5. Perform a preoperational inspection in accordance with applicable MIM's to the equipment to the extent that the material condition allows.

INITIALS: _____

6. Ensure all systems are serviced to the maximum fluid capacity in accordance with the applicable MIM/MRC.

INITIALS: _____

7. If applicable, inspect hinges, latches, and lift handles for proper operation and evidence of binding, corrosion, and deterioration. Lubricate hinges, moving parts, and all bare metal with a thin coat of corrosion prevention compound.

INITIALS: _____

8. If applicable wrap sharp objects and corners that could protrude through or damage the barrier material with appropriate packing material (cardboard, foam, padding, etc.).

INITIALS: _____

9. If applicable inspect tire and wheel assemblies to ensure that they are clean, free of dirt, lubricants, and corrosive substances. Ensure that tires are not damaged and tire pressure is at the specified service pressure IAW MIM/MRC.

INITIALS: _____

Enclosure (2)

Enclosure (6)

10. If applicable ensure sufficient amount of desiccant is present within the preservation barrier. Use a minimum of one 16 unit bag of desiccant per 2 cubic feet of volume to be dehumidified reference NA 17-1-125 page 11-9 paragraph 11-16.4.1.

INITIALS: _____

11. If applicable create a shell of heat sealed material fully encompassing around the unit.

Note: DO NOT USE any adhesive tape to seal on Level III Static Preservation.

INITIALS: _____

12. If applicable cut and remove a small piece of barrier material that will be sufficient to install a humidity indicator that can be viewed externally. Use approved materials A-A-3174 type 1 class 1 at least 0.5 inches larger than the cut-out, reference NA 17-1-125 page 119, 11-16.4.3. Material will be used as a clear window for the paper humidity indicator for Level II and use NIIN: 006181822 metal humidity indicator plug for Level III Static Preservation.

INITIALS: _____

13. If applicable, create a small opening to remove trapped air with a vacuum cleaner or vacuum pump. Seal the opening and check for major leaks.

INITIALS: _____

14. Place a completed placard in accordance with enclosure (4), in a clear MAF bag (NSN 8105-00-334-4120) to ensure all required information is readily visible. Ensure that placard is legible and written in pen or typed. Attach the MAF bag with the placard inside to the barrier enclosure.

INITIALS: _____

15. Move equipment to appropriate preservation storage location.
(I.e., Blockhouse, 900 Division Preservation Warehouse)

INITIALS: _____

16. Forward this form to SEPMS Coordinator for inclusion into the appropriate SE history record.

INITIALS: _____

Note: During normal level II and level III preservation the PM clock stops and it is started from that point again upon depreservation.

Preservation completed by: _____

Print

Sign

Date

Preservation CDI'd by: _____

Print

Sign

Date

Logs and Records entry by: _____

Print

Sign

Date

VMM-363 PRESERVATION PLACARD

WORK CENTER: _____

****For Use ONLY on items with a PM Cycle****

Nomenclature: _____

Type Equipment Code: _____

Serial Number: _____

Type/Model: _____

Part Number: _____

Cage: _____

Type Preservation: _____

Date Preserved: _____

Represervation Due Date: _____

Integrity Inspection Due Date: _____

Reason For Preservation: _____

Status - RFI / NRFI: _____

*****EXAMPLE*** Check SESS for accuracy**WORK CENTER: 330****For Use ONLY on items with a PM Cycle****

Nomenclature: _____

TOW TRACTOR, AIRCRAFTType Equipment Code: GPMKSerial Number: AS0184Type/Model: A/S32A-45Part Number: 10-10-001Cage: 345K3Type Preservation: LEVEL IIIDate Preserved: 150101(YYMMDD)

Represervation Due Date: _____

Indefinite YYMMDD Integrity Check: 150701YYMMDD Date from SEPMS Coordinator

Reason For Preservation: _____

(NON-USE EXCESS) OR (AWAITING TRANSFER)

Status - RFI / NRFI: _____

RFI (READY FOR ISSUE)/ NRFI (NOT READY FOR ISSUE)

Enclosure (3)

Enclosure (6)

VMM-363 PRESERVATION INTEGRITY INSPECTION CHECKLIST

REF: NAVAIR 17-1-125, and applicable MIM/MRC

NOMENCLATURE: _____

TEC: _____ SERIAL NUMBER: _____

JCN/MCN: _____

The following steps shall be complied with for all preservations integrity inspections:

1. Comply with safety precautions in accordance with the applicable MIM/MRC.

INITIALS: _____

2. Verify preservation material condition. (I.e. integrity of barrier paper, humidity indicator coloring,).

INITIALS: _____

3. Inventory SE end item and its components/parts to control unauthorized cannibalization.

INITIALS: _____

4. If applicable immediately rectify any discrepancies noted.

INITIALS: _____

Note: If gear is not scheduled to be placed back into preservation within 14 days, ensure it is placed back on its appropriate PM cycle and adjust next due dates as necessary.

Preservation Integrity Inspection completed by: _____
Print Sign Date

Preservation Integrity Inspection CDI'd by: _____
Print Sign Date

Logs and Records entry by: _____
Print Sign Date

VMM-363 DEPRESERVATION CHECKLIST

REF: NAVAIR 17-1-125, and applicable MIM/MRC

NOMENCLATURE: _____ SERIAL NUMBER: _____

TEC: _____ DATE DEPRES: _____ JCN/MCN: _____

The following steps shall be complied with for all depreservations:

1. Comply with safety precautions in accordance with the applicable MIM/MRC.

INITIALS: _____

2. If applicable remove and properly dispose of all preservation barrier material.

INITIALS: _____

3. Verify calibration, hydrostatic, load test, or any other special inspections.

INITIALS: _____

4. Check all systems for maximum fluid capacity and perform a preoperational inspection in accordance with applicable MIM/MRC's and make appropriate entries on OPNAV 4790/52 card. Initiate a VIDS/MAF for any discrepancies noted.

INITIALS: _____

5. Forward this form to the SEPMS Coordinator for inclusion into appropriate SE history record.

INITIALS: _____

Note: If gear is not scheduled to be placed back into preservation within 14 days, ensure it is placed back on its appropriate PM cycle and adjust next due dates as necessary.

Depreservation completed by: _____
Print Sign Date

Depreservation CDI'd by: _____
Print Sign Date

Logs and Records entry by: _____
Print Sign Date

Enclosure (5)

Enclosure (6)

WEEKLY CHECK:

OBSERVE FOR SIGNS OF CORROSION, INVENTORY COUNT, HUMIDITY LEVEL 30-40%

[illegible][illegible]



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANEOHE BAY, HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO:
4790
AMO
22 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE SUPPORT EQUIPMENT OPERATOR TRAINING AND
LICENSING PROGRAM

PROPERTY OF VMM-363

Ref: (a) COMNAVAIRFORINST 4790.2_
(b) NAVAIR 00-80T-119

COPY: 001

LOCATION: 040

Encl: (1) Crane Operating Log

ISSUE DATE: 09/29/2022

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Support Equipment (SE) Operator Training and Licensing Program.

2. Local Command Procedures

a. Advanced Skills Management (ASM) will be utilized for documentation of all SE training actions for Phase I and II qualifications when available. Paper SE License Certification Phase I and II forms shall be utilized for SE not available in ASM and civilian personnel without an ASM profile.

b. Work Center Supervisors shall assign the appropriate license syllabus in ASM to personnel prior to attending Phase I training, and ensure completion of Phase II training in a timely manner following signature by the Phase I Training Officer.

c. All 4790/102 "Yellow License" forms shall be created by the individual with the qualification and signed off by the Aircraft Maintenance Officer (AMO) or the Assistant Aircraft Maintenance Officer (AAMO).

d. Personnel who fail their initial licensing written test twice are required to re-attend Phase I training in addition to receiving additional OJT prior to being retested.

e. Weight Handling Equipment (WHE)

(1) All trainees shall bring a copy of the WHE Operator Physical exam to Phase I training, and upload to ASM.

(2) All trainees shall complete the prerequisite NCC-GCS-04.1 and NCC-RP-05 on Navy eLearning site prior to attending Phase I training.

(2) In accordance with references (a) and (b), all self-propelled crane operators shall record all crane operations and proficiency training as On the Job Training (OJT) within ASM. Trainees will begin the OJT portion of the training syllabus within 30 days of Phase I completion, and shall be OJT complete within 60 days in accordance with reference (b). Trainees and qualified personnel shall ensure crane operator OJT is recorded in ASM.

Subj: LOCAL COMMAND PROCEDURES FOR THE SUPPORT EQUIPMENT OPERATOR TRAINING AND LICENSING PROGRAM

(3) All self-propelled crane operators will utilize enclosure (1) to record all crane operations and proficiency training and file in the back of the "GSE LICENSES" binder in Tool Room. This will serve as a means of documenting past crane operations in the event ASM is not functioning.

(b) (6)

CRANE OPERATING LOG

Operator's Name: _____ Type/Model Crane: _____

Date certified/licensed: _____ Date due recertification : _____

Date of last physical examination: _____

<u>Description of Operation</u>	<u>Length of Operation</u>	<u>Director's Signature/Date</u>
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____
11. _____	_____	_____
12. _____	_____	_____
13. _____	_____	_____
14. _____	_____	_____
15. _____	_____	_____

Enclosure (1)

Enclosure (6)



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCBH KANEOME BAY, HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO:
4790
AMO
22 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE TIRE AND WHEEL MAINTENANCE SAFETY PROGRAM

Ref: (a) COMNAVAIRFORINST 4790.2_
(b) NAVAIR 04-10-506
(c) NAVAIR 01-1A-503
(d) A1-V22AB-TIS-000

PROPERTY OF VMM-363
COPY: 001
LOCATION: 040
ISSUE DATE: 09/29/2022

Encl: (1) Aircraft Tire Pressure Log

1. Purpose and Scope

a. This supplement provides additional local requirements for the VMM-363 Tire and Wheel Maintenance Safety Program.

2. Local Command Procedures

a. Maintenance Control shall:

(1) Upon assignment of a new Expediter, notify the Tire and Wheel Maintenance Safety Program Manager (PM) to ensure prompt training in the safe handling of inflated tire and wheel assemblies in accordance with reference (a). Training will be documented in Advanced Skills Management (ASM) using the "Aircraft Tire/Wheel Handler Certification (TECOM)(MC)" syllabus. Training only required for personnel not already qualified to perform tire and wheel maintenance.

(2) Initiate a work order to perform and document "7 Day Inspect Landing Gear Tire Assemblies" against all aircraft in Out Of Reporting status and any aircraft that has not moved for the previous 7 days.

b. The Phase Coordinator shall:

(1) Initiate a work order to perform and document "7 Day Inspect Landing Gear Tire Assemblies" against any aircraft currently undergoing Phase Inspection.

c. The Program Manager shall:

(1) Upon notification from Maintenance Control of a newly assigned Expediter, conduct and complete "Aircraft Tire/Wheel Handler Certification (TECOM)(MC)" syllabus if not previously qualified to perform tire and wheel maintenance.

(2) Ensure that tire pressures are checked and documented utilizing enclosure (1) daily on all aircraft in active aircraft without a 7 day inspection being conducted.

Subj: LOCAL COMMAND PROCEDURES FOR THE TIRE AND WHEEL MAINTENANCE SAFETY PROGRAM

d. The Airframes work center shall:

- (1) Maintain, and make available to all personnel, emergency tire deflators in accordance with reference (b).
- (2) Conduct daily tire pressure checks on all active aircraft and 7 day inspection on applicable aircraft as required.

e. Maintenance personnel shall:

- (1) Anytime an aircraft is on jacks, rope off the area around the aircraft and post "Aircraft on Jacks" signs.
- (2) Limit movement in and on jacked aircraft and use extreme caution when climbing on top of the aircraft is required.
- (3) In the event the emergency tire deflated is needed, the discovering individual will notify Airframes, Maintenance Control, and Quality Assurance (QA). The tire deflator will be laid in front of the applicable tire and aircraft will be towed/taxied over it as required. All unnecessary personnel will keep clear of the aircraft until the tire(s) have been deemed safe by Airframes or QA.

(b) (6)

AIRCRAFT _____
MONTH _____

VMM-363
Year_____

Active & in-Active Tire Pressures Tracker During (Daily Inspections and NLT 7 Days)

[illegible]

MV-22 T/M/S Tracker

- * input current tire pressure taken and tire pressure after servicing (if servicing is required).
- * If servicing was not required, use NSR in lieu of tire pressure.
- * For inactive aircraft, tire pressure will be taken NLT every 7 days.



UNITED STATES MARINE CORPS
MARINE MEDIUM TILTROTOR SQUADRON 363
MARINE AIRCRAFT GROUP 24
BOX 63059
MCB H KANE OHE BAY, HAWAII 96863-3059

MASTER COPY

IN REPLY REFER TO:
4790
AMO
22 Aug 22

From: Aircraft Maintenance Officer, Marine Medium Tiltrotor Squadron 363
To: Maintenance Department, Marine Medium Tiltrotor Squadron 363

Subj: LOCAL COMMAND PROCEDURES FOR THE TOOL CONTROL PROGRAM

Ref: (a) COMNAVAIRFORINST 4790.2_
(b) NAVAIR 13-1-6.7-3
(c) NAVAIR 17-1V22-1

Encl: (1) BOS/EOS ATAF Log
(2) Work Center Tool Checkout Log
(3) Tool Room Checkout Log
(4) Missing Tool Report
(5) Broken/Worn Tool Report

PROPERTY OF VMM-363
COPY: 001

LOCATION: 040

ISSUE DATE: 09/29/2022

1. Purpose and Scope

- a. This supplement provides additional local requirements for the VMM-363 Tool Control Program (TCP).

2. Local Command Procedures

- a. Division Officers/Chiefs shall:

- (1) Ensure the Work Center Supervisor or shift supervisor is performing and documenting the beginning and end of shift All Tool Accounted For (ATAF) inventories utilizing enclosure (1).

- (2) Assign work center Primary and Alternate Tool Control Representatives (TCR) in Advanced Skills Management (ASM) to be responsible to the TCP Coordinator and TCP Manager and ensure the work center is in compliance with all requirements outlined in the references.

- b. Work Center Supervisors and shift supervisors shall:

- (1) Ensure all tools are tracked in a checkout log utilizing enclosure (2) with at least 30 days of historical logs. Tool Room shall utilize enclosure (3).

- (2) Ensure the beginning and end of shift inventories of all tools and Personal Protective Equipment (PPE) assets is performed daily.

- c. TCP Implementation

- (1) Specific Maglite flashlights issued to work centers shall have the rubber on/off button cover removed due to potential Foreign Object Damage (FOD) hazard unless the cover is required for normal use of the flashlight. If the cover is retained it will be included in the overall piece count of that tool.

- (2) All drill bits will be considered unsuitable to etch due to their size, material, and wear around the base of the bit. An asterisk will be placed on the left side of the inventory list to indicate them as such per reference (a).

- (3) All cranials shall be inspected before and after each use in accordance with reference (b) and recorded as "Pre-Op/Post-Op" in the remarks column of the checkout log.

Subj: LOCAL COMMAND PROCEDURES FOR THE TOOL CONTROL PROGRAM

(4) All cranials with "C" type clips, volume knobs, microphone covers, and any other non-essential pieces shall be removed for FOD prevention and annotated on the shortage sheet.

d. The TCP Coordinator shall:

(1) Perform semi-annual tool container inventories with the work center TCR. After completion of the first semi-annual inventory, inventories are to be conducted according to the following schedule:

- (a) January/July – Airframes and Ordnance
- (b) February/August – Flight Line
- (c) March/September – Flight Equipment
- (d) April/October – Avionics
- (e) May/November – Maintenance Control, Maintenance Administration, and Quality Assurance

(2) Provide work center TCRs with an updated copy of the Master Tool Inventory sheet upon completion of each inventory.

(3) Instruct when tools with multiple pieces are unsuitable to etch, they shall be identified on the Inventory List with an asterisk in accordance with reference (a). If sufficient room is not provided, a separate sheet will be added into the inventory list.

(4) Utilize enclosure (6) for IMRL gear and/or cases with missing or broken pieces accordingly.

(5) Utilize enclosure (4) or (5) for all tool boxes with damaged and/or missing hardware, i.e. broken clips, missing screws or worn handles.

(6) At the end of each shift, tools still being utilized will be carried over to a division's tool check out log for the next shift.

(b) (6)

BOS/EOS ATAF LOG

SHOP:	DATE:				
ITEMS	D/C BOS	D/C EOS	N/C BOS	N/C EOS	REMARKS
KEY BOX					
BOXES					
GC4-XXX					
GC4-XXX					
GC4-XXX					
GC4-XXX					
PPE					
CRANIALS QTY: XX					
GC4-XXX					
GC4-XXX					
PEMA'S					
XXXX					
XXXX					
XXXX					
XXXX					
XXXX					
OTHER					
XXXX					
XXXX					
XXXX					
XXXX					
XXXX					
XXXX					

DAY CREW BOS PRINT/SIGN (MMP APPOINTED OR TEMPORARY APPOINTED WORK CENTER SUPERVISOR)

DAY CREW EOS PRINT/SIGN (MMP APPOINTED OR TEMPORARY APPOINTED WORK CENTER SUPERVISOR)

NIGHT CREW BOS PRINT/SIGN (MMP APPOINTED OR TEMPORARY APPOINTED WORK CENTER SUPERVISOR)

NIGHT CREW EOS PRINT/SIGN (MMP APPOINTED OR TEMPORARY APPOINTED WORK CENTER SUPERVISOR)

VMM-363 WORK CENTER TOOL CHECKOUT LOG

ENSURE PROPER BEGINNING OF SHIFT ATAF HAS BEEN CONDUCTED PRIOR TO TDDL CHECK OUT.

DATE _____ SHIFT _____

LOG INITIATED BY: _____

[illegible]

ENSURE PROPER BEGINNING OF SHIFT ATAF HAS BEEN CONDUCTED PRIOR TO TOOL CHECK OUT

DAY CREW/NIGHT CREW

[illegible]

MISSING TOOL REPORT

Date _____ Time _____

Report Originator _____ Signature _____

Work Center _____

Tool Nomenclature and Serial Number _____

Inventory Item Number _____

Aircraft BUNO/Equipment SERNO Tool was used on _____

Circumstances: _____

Work Center Supervisor _____ Signature _____

Maintenance/Production Control

1. Notify: MO ___ AMO ___ MMCO ___ QA ___ Air Wing MO (afloat) ___

Flight Deck/Hangar Deck Control (afloat) _____

2. O-level: Initiate a downing WO for affected aircraft, place in the ADB, and update aircraft status to "Down" in OOMA.

I-level: Flag the work center status board and stop production for the job involved.

WO/MAF MCN _____

Remarks: _____

MC/PC _____ Signature _____

Date _____ Time _____

Quality Assurance

Report Number _____

Investigator Assigned _____

Investigation Results:

a. Tool was found/not found.

b. Details and recommendations: _____

Investigator Signature _____ Date _____ Time _____

Quality Assurance Officer Recommendations: _____

QA Officer _____ Signature _____

Date _____ Time _____

Maintenance Officer

Aircraft/Equipment released for flight/use: Yes ___ No ___

Direction: _____

Maintenance Officer _____ Signature _____

Tool Control Coordinator

Missing Tool replaced from spare? Yes ___ No ___

Placed on order? Yes ___ No ___

Requisition Number or SERVMART/Open Purchase Date _____

Replacement tool issued to: _____ Date: _____

ENCLOSURE 4

15 Feb 2022

Broken/Worn Tool Report

Report Number _____

Date/Time _____

Report Originator _____ Signature _____

Work Center _____

Tool Nomenclature _____

Container Number _____

Inventory Item Number _____

Damage: _____

Are all broken pieces accounted for? Yes _____ No _____

NOTE: If all pieces are not accounted for, file a Missing Tool Report.

Work Center Supervisor _____ Signature _____

Quality Assurance

All pieces sighted.

QAR _____ Signature _____ Date _____ Time _____

Recommendation: _____
_____**Tool Control Coordinator**

Broken/Worn Tool Received. Signature _____ Date _____

Replaced from spare? Yes _____ No _____

Placed on order? Yes _____ No _____

Requisition Number or SERVMART/Open Purchase Date: _____

Replacement tool issued to: Name: _____ Date: _____

Figure 10.12-5: Broken/Worn Tool Report (Example)

10-189

ENCLOSURE 5

Enclosure (6)

NRFI IMRL FORM

Date: _____

Work Center: _____

Nomenclature: _____

Part Number: _____

Serial Number: _____

Discrepancy *answer in detail*:

Steps taken to fix it *answer in detail*:

Doc number (if parts have been ordered): _____

Status code updated on LAMS WORKING COPY report in shop "IMRL" Binder? YES / NO

*****DO NOT TURN ASSET IN TO TOOL ROOM IF WORK CENTER CAN ORDER AND REPLACE THE PARTS TO FIX THE ASSET. RETURN THIS TO AN IMRL MANAGER. FEEL FREE TO ASK ANY QUESTIONS*****

If turned into tool room, is location updated on LAMS WORKING COPY report? YES / NO

Report Originator: _____
Rank Name Signature

ENCLOSURE (6)
Enclosure (6)



Marine Rotational Force – Darwin 23.3 Predator's Run Confirmation Brief



Postured | Partnered | Combat-Credible
10 August 2023

Overall Classification: CUI
Date/version: 20 July 23
(b) (6)
of slides: 25



Exercise Objectives (GCE)



OBJECTIVE 1.B. BY 2023, DEMONSTRATE THE ABILITY TO INTEGRATE AND BATTLE TRACK A USMC COMPANY WITH AN ADF HIGHER HEADQUARTERS (HHQ). DESIRED LEVEL OF INTEROPERABILITY: 2 (COMPATIBLE).

- **COMPLETED:** ACHIEVED DURING PW23 WITH LONESTAR AND 5RAR AS HHQ. ACHIEVED WITH CTC AS HHQ FOR SJ23 WFX.
- **AIM TO ACHIEVE AT BN LEVEL WITH 1 BDE AS HHQ**
- **MCH VIA HF FOR JOINT COP BETWEEN V31 AND 5 RAR**



OBJECTIVE 6.B. BY 2024, DEMONSTRATE AND MAINTAIN THE ABILITY TO DEPLOY MRF-D CAPABILITIES VIA RAAF C130J, C17, AND C27 ASSETS. DESIRED LEVEL OF INTEROPERABILITY: 3 (INTEGRATED).

- **COMPLETED:** ACHIEVED DURING DEPLOYMENT TO TULLY. REPEATED WITH DEPLOYMENT TO AND FROM TOWNSVILLE.
- **GOAL IS TO REPEAT WITH C-27 INSERT INTO MELVILLE ISLAND**

OBJECTIVE 7. ESTABLISH THE ABILITY TO GENERATE KINETIC FIRES USING “ANY AUS/US SENSOR, BEST SHOOTER.” DESIRED LEVEL OF INTEROPERABILITY: 3 (INTEGRATED).

- **COMPLETED:** ACHIEVED DURING TW23 WITH KODIAK, 103 BTRY, AND ANGLICO UTILIZING A PUMA. ACHIEVED WITH 1 REGT AND SHADOW UAS DURING SJ23 LFX.

OBJECTIVE 7.A. BY 2023, NORMALIZE COMBINED FIXED/ROTARY WING CALLS FOR FIRE FROM BOTH AUSTRALIAN AND US SENSOR CAPABILITIES USING BOTH AUSTRALIAN AND US AIRCRAFT MAINTAINING THIS ABILITY AS NEW SYSTEMS ENTER SERVICE.

IN WORK: LOOK TO ACCOMPLISH DURING PR23 CALFEX





Proposed Exercise Objectives Cont (GCE)



OBJECTIVE 7.E. BY 2023, DEVELOP TARGETING CHAIN FOR SURFACE FIRES THAT ENABLES TARGET INFORMATION DISTRIBUTION FROM AS OR US AGENCIES FOR PROSECUTION. DESIRED LEVEL OF INTEROPERABILITY: 3 (INTEGRATED).

- **COMPLETED:** ACHIEVED DURING TW23 WITH KODIAK, 103 BTRY, AND 8TH/12TH REGIMENT AS HHQ/JFECC. REPEATED WITH 1 REGT BTRYS DURING SJ23 LFX.

OBJECTIVE 7.F. DEVELOP AND MAINTAIN THE ABILITY TO INTEGRATE FIRES USING AFATDS. DESIRED LEVEL OF INTEROPERABILITY: 3 (INTEGRATED).

- **COMPLETED:** ACHIEVED DURING TW23 WITH KODIAK/103 BTRY, FST/JFT, AND FSCC/JFECC UTILIZING AFATDS. REPEATED WITH 1 REGT AFATDS DURING SJ23 LFX. CONTINUED WITH CALFX.

OBJECTIVE 7.G. BY 2023, VALIDATE THAT FIRES PROCESSES DEVELOPED BETWEEN MRF-D AND 8/12 CAN BE UTILIZED WITH OTHER RAA REGIMENTS. DESIRED LEVEL OF INTEROPERABILITY: 2 (COMPATIBLE).

- **COMPLETED:** ACCOMPLISHED DURING SJ23 LFX.
- **REPEATABILITY TESTED DURING PR23**

OBJECTIVE 7.I. FROM 2022-2027, EXPLORE POTENTIAL FOR INTEGRATION AND INTEROPERABILITY REQUIREMENTS OF USMC DEPLOYED CAPABILITY INTO/WITH PLANNED-PROCUREMENT ADF FIRES PLATFORMS AS THEY ENTER SERVICE.

IN WORK: LOOK TO ACCOMPLISH DURING PR23 CALFEX



Proposed Exercise Objectives Cont (LCE)



OBJECTIVE 8. INTEGRATE MARINE CORPS AND AUSTRALIAN LOGISTICS AT THE TACTICAL LEVEL.

COMPLETED: ACHIEVED DURING CR23 WITH INTEGRATION WITH HQNORCOM S-4, AS WELL AS 1CER SUPPORT SQUADRON. PLAN TO CONTINUE THIS WITH 1 CSSB AT PR23.

OBJECTIVE 8.D. BY 2023, DEMONSTRATE THE ABILITY TO EMBED PERSONNEL IN THE OTHER NATION'S REFUELING CAPABILITIES AT EXPEDITIONARY/FORWARD LOCATIONS.

COMPLETED: ACHIEVED DURING CR23 WITH INTEGRATION WITH 1CER REFUELING CAPABILITIES THROUGHOUT MBTA. PLAN TO CONTINUE THIS WITH 1 CSSB AT PR23.

OBJECTIVE 8.E. BY 2024, DEMONSTRATE THE ABILITY TO CONDUCT FIELD LEVEL MAINTENANCE ON SHARED CAPABILITIES.

COMPLETED: ACHIEVED FIELD LEVEL MAINTENANCE CAPABILITY WITH SECREP/CL IX BLOCK AT SJ23.

OBJECTIVE 9. IMPROVE THE COMBINED LOGISTICS SUSTAINMENT CAPABILITY OF THE US AND AUSTRALIA.

IN WORK: CONTINUED INTERGRATION WITH ADF LOGISTICS UNITS WILL LEAD TO JOINT SOP/TTP FOR FUTURE TRAINING EVOLUTIONS. PLANNED INTEGRATED AERIAL DELIVERY WITH 17th SUSTAINMENT BDE AND POG/BOG OPERATIONS ISO 1 BDE ABOARD MELVILLE ISLANDS AND DARWIN.





Proposed Exercise Objectives Cont (ACE)



OBJECTIVE 9. IMPROVE THE COMBINED LOGISTICS SUSTAINMENT CAPABILITY OF THE U.S. AND AUSTRALIA.

COMPLETED: ALL EXERCISES HAVE SEEN SIGNIFICANT GROWTH IN THIS OBJECTIVE. CULMINATION WILL BE DURING IPE.

OBJECTIVE 13. DEVELOP AN INTEROPERABLE BILATERAL ROLE I/II HEALTH SERVICE SUPPORT (HSS) CAPABILITY.

COMPLETED: THE FLIGHT SURGEON ASSISTED WITH ALL ELEMENTS AND SERVICES IN SJ23 AND TS 23.

OBJECTIVE 13.C. NORMALIZE THE ABILITY TO EMBED PERSONNEL IN THE OTHER NATION'S ROLE I/ II MEDICAL CAPABILITIES.

COMPLETED: THE ACE WORKED ALONGSIDE ADF IN BOTH SJ23 AND WITH THE ROLE II IN VARIOUS EXERCISES AT TS23.

ALLIES AND PARTNERS OBJECTIVE: ENHANCE RELATIONSHIPS WITH 1BDE.

COMPLETED: THE ACE ESTABLISHED A STRONG RELATIONSHIP WITH THEIR ADF COUNTERPARTS, SPECIFICALLY 5AVN DURING SJ23.

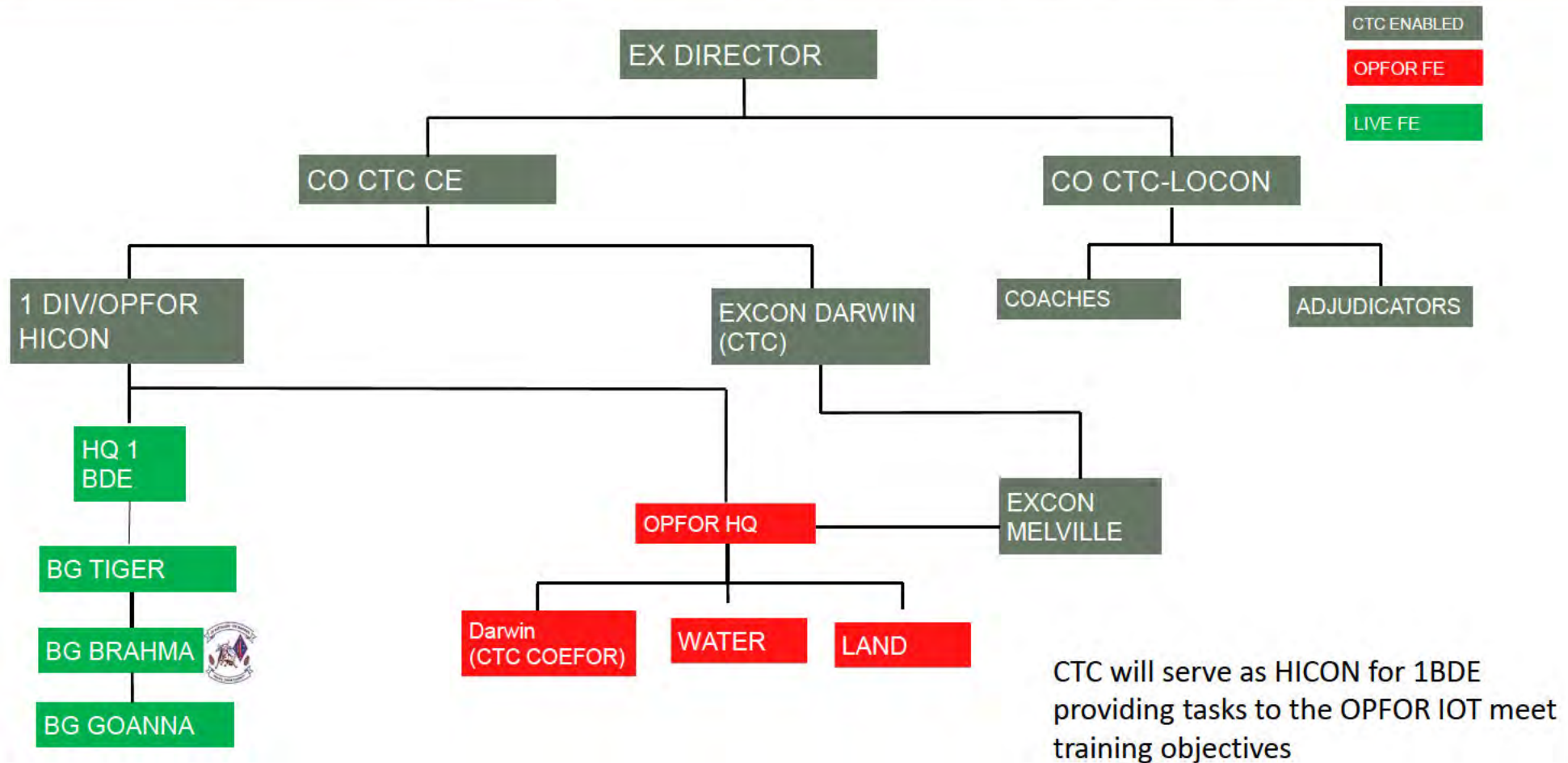
THE GOAL IS TO CONTINUE TO EXPAND THIS WITH H-1 T/M/S USING A NEW CAPABILITY TO THE MAGTF.



POSTURE OBJECTIVE: DEVELOP AND EXECUTE C2, MEDICAL, AND SUSTAINMENT EXPERIMENTAL OBJECTIVES.

COMPLETED: IN BOTH SJ23 AND TS23, THE ACE EXECUTED MEDICAL OBJECTIVES AND SUSTAINMENT OBJECTIVES WORKING WITH THE ELEMENTS OF THE MAGTF.

Exercise Architecture



EXCON



LEGEND	
FILLED – GREEN / BLACK	
Named but NOT confirmed	
MUST FILL VACANCIES	
VACANCIES	

1 BDE HQ COACHING TEAM	
COMD	(b) (6)
BDE RSM	(b) (6)
BM COACH	
S2 COACH	
DQ COACH	
DA JOR (CUOPS)	
DB JOR (FUOPS)	
S6 COACH	
M&S COACH	
JFECC COACH	
Littoral Coach	
1 CER Coach	(b) (6)
LEAD	(b) (6)
1X ADMIN COORD	(b) (6)

COACH / ADJ SPT TEAM	
Coach Coord	(b) (6)
Coach Coord	(b) (6)
Fusion Cell	(b) (6)
Fusion Cell	

BG TIGER	
CO	(b) (6)
RSM	VACANT
OPSO	(b) (6)
BG LEAD	(b) (6)
BG Admin	(b) (6)

BG KHAN	
CO	
RSM	VACANT
BG LEAD	(b) (6)
BG Admin	(b) (6)

BG BRAHMA (MRF-D)	
CO	VACANT
BG LEAD	(b) (6)
Admin	(b) (6)

CSSB COACHING TEAM	
CO	
CSSB Lead	(b) (6)
CSSB Admin	(b) (6)

ADJ TEAMS (sequential)	
ADJ Team 1 (MI)	(b) (6)
ADJ 1	VACANT
ADJ Team 2 (MI)	(b) (6)
ADJ 2	VACANT
ADJ Team 3 (MI)	VACANT
ADJ 3	VACANT
ADJ Team 4 (DAR)	(b) (6)
ADJ 4	VACANT (Fill)
ADJ Team 5 (DAR)	(b) (6)
ADJ 5	VACANT
ADJ Team 6 (DAR)	VACANT
ADJ 6	VACANT

OPFOR	
OPFOR ELEMENT	LO
NORFORCE	
CTC COEFOR (MI)	(b) (6)
CTC COEFOR (DAR)	(b) (6)



Exercise Admin – Coach and Adjudicators



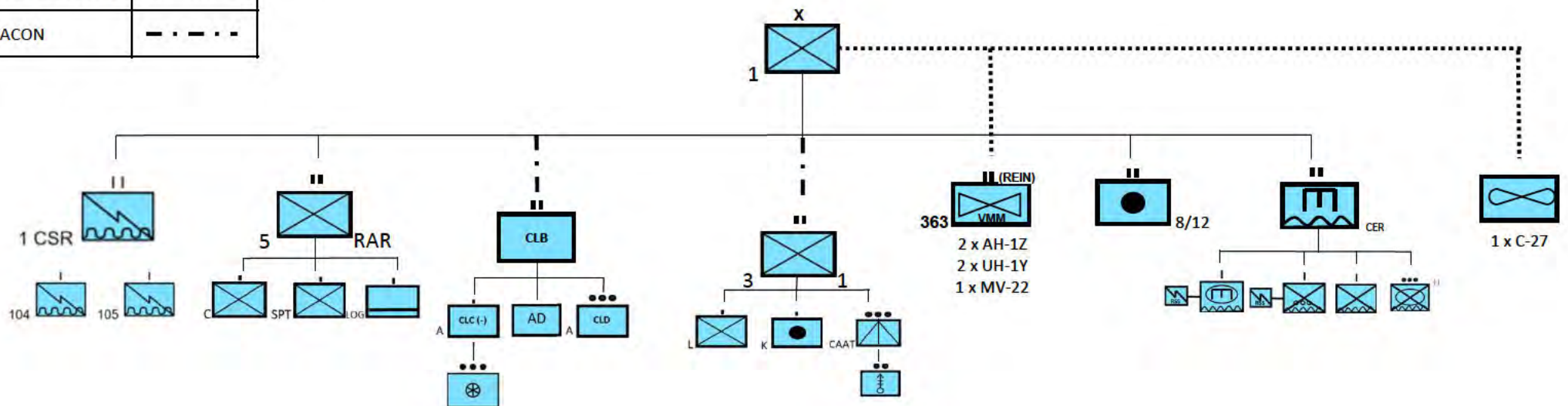
- Coaches
 - 1x Coach team of 3 pax / BG
 - 1X HQ – OA, OB, OD
 - BG Goanna
 - BG Tiger
 - BG Brahma (MRF-D)
 - CSSB
- Adjudicators
 - Adjudicator Teams of 1-2
 - 5 teams total
 - 3 teams MI (BLS, Tiwi Collage, Yapilika)
 - 2 teams Darwin (Fuel, East Point/Channel Island)



Task Organization



Attached	_____
General Support
TACON	- - - - -



~280 PAX



Exercise Execution Timeline



Ph. 0 – Prep for Combat (Now– 25 Aug)

BW: Receipt of 1 BDE Order
EW: Est of TAA
CE: Orders Issue, ROC, TT Load

Ph. 1 – Recon (25-26 Aug)

BW: BHO to Brahma FWD
EW: Recon of Objectives Complete
CE: ISR of Obj 1 & 2, Maritime Escort, CAAT
Security ISO TAA, DV Visit

Ph. 2 – Embarkation (27-28 Aug)

BW: ADF Movement to BSG
EW: All Units Embarked
CE: ADF Load Barges

Ph. 3 – Seizure of APODs (27 Aug- 1 Sep)

BW: Co L Movement to PZ
EW: 5 RAR RIP Co L
CE: Co L W/U, Co L W/D, Obj 1 & 2 Seized,
H-1s Screen ISO RIP, CAAT CLEAR MBTA,
Obj 3 Seized

Ph. 4 - STABOPS (1-5 Sep)

BW: BHO to Brahma Main
EW: Retrograde CALFEX
CE: KLE, VAP, CALFEX

Mon	Tue	Wed	Thu	Fri	Sat	Sun
Aug 7	8	9	10	11	12	13
Prep For Combat						
			1BDE Orders Release	V31 Orders WG		
14	15	16	17	18	19	20
Prep For Combat						
				1BDE Orders		
21	22	23	24	25	26	27
Prep For Combat						
	V31 ROC			Phase 1 Recon		Phase 2 Embarkation
					DV Visit	Phase 3
28	29	30	31	Sep 1	2	3
			Retrograde (V31/LCE)			
Phase 2 Embarkation					CALFX	
Phase 3 Seizure of APODS				Phase 4		
4	5	6	7	8	9	10
CALFX						
Phase 4 STABOPS		Retrograde (ADF)				

CUI

Mission and Intent





1 BDE Mission and Intent



- **EXERCISE DESIGN:** 1 Bde will conduct Exercise Predators Run 23 (EX PR23) OTP 21 Aug – 10 Sep 23 in Darwin local areas and Melville Island under a CTC run WFX. EX PR23 will focus on 1 Bde FE conducting littoral manoeuvre serials in support of 1 Bde LOE (Persistent Presence, A2AD, as well as setting conditions for follow on forces).
- **PROPOSED MISSION** – 1 Bde is to conduct Ex PREDATOR's RUN 23 in the Darwin region during Aug-Sep 2023 IOT rehearse littoral manoeuvre under a CTC led WFX.
- **PURPOSE** – Enable 1 Bde to advance its baseline littoral manoeuvre capability
- **METHOD** – HQ 1 Bde will achieve the following objectives during EX PR23:
 - Test and evaluate C2 of a Bde HQ as it plans and functions afloat (Ex SP23 and EX PR23)
 - All 1 Bde DCUs achieve up to ATL5 directed training within WFX framework
 - 1 Bde advances its littoral manoeuvre skills (C2, Combat Support and CSS)
 - 1 Bde rehearses its future CONEMP (Emplace A2AD in the region)(EX PR23)
 - 1 Bde rehearses SASO in Darwin CBD and local area
- **ENDSTATE** – All elements of 1 Bde have been exposed/tested in littoral manoeuvre, achieved their directed FORGEN / SECCOP tasks and tactical planning.



Mission Statement

From 21 August to 08 September, MRF-D 23.3 MAGTF conducts combined non-live fire training with the ADF, TNI, and PMC forces and a live-fire FSCEX with the ADF in order to increase unit readiness and advance interoperability objectives with allies and partners.



Proposed Commander's Intent



PURPOSE:

TO INCREASE MRF-D 23.3 MAGTF'S OVERALL READINESS, WHILE ADVANCING JOINT AND COMBINED INTEROPERABILITY FOR CRISIS AND/OR CONTINGENCY OPERATIONS.

METHOD:

WE INCREASE UNIT READINESS BY, WITH, AND THROUGH TRAINING OPPORTUNITIES PROVIDED DURING 1BDE'S WARFIGHTING EXERCISE (EX PR23). ELEMENTS FROM ACROSS THE MRF-D 23.3 MAGTF, LED BY THE GCE, CONDUCT COMBINED NON-LIVE FIRE FORCE-ON-FORCE AND A COMBINED LIVE-FIRE FSCEX, ALONGSIDE A KNOWN ADF PARTNER AND UNFAMILIAR TNI AND PMC PARTNERS.

ENDSTATE:

MRF-D 23.3 MAGTF ADVANCES OPERATIONAL READINESS AND DEMONSTRATES INTEROPERABILITY PROCESSES AND PROCEDURES DEVELOPED WITH ADF, TNI, AND PMC.

CUI

Orientation



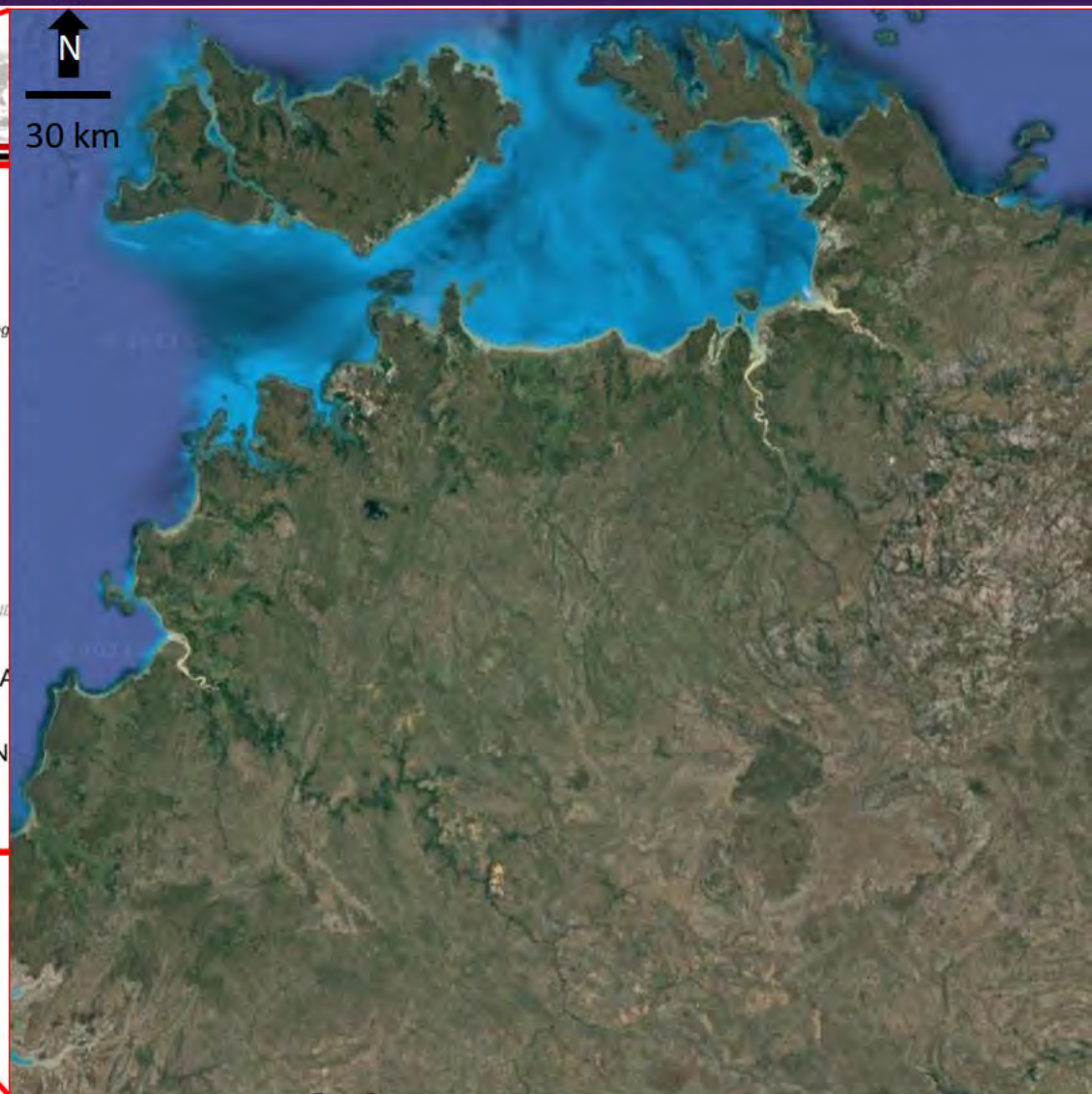
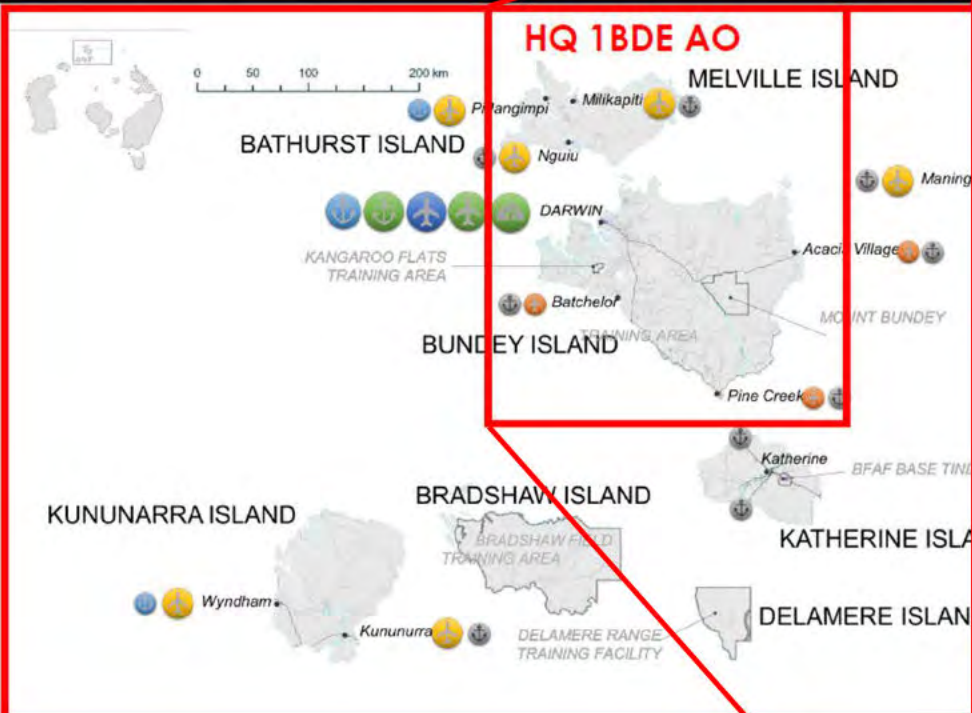


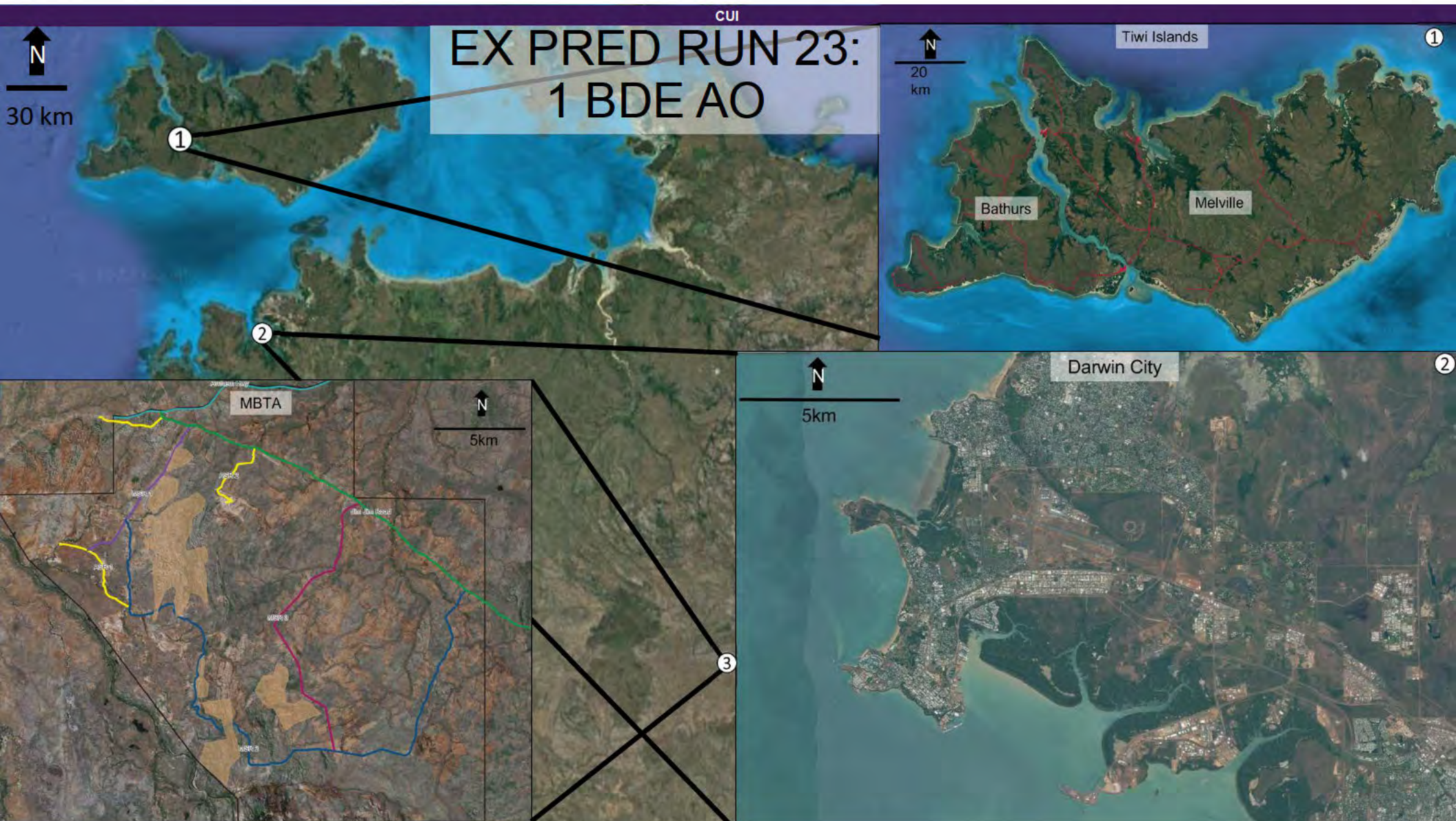
EX PRED

CUI



30 km





CUI



1 BDE AO





1 BDE ISR Actions and Tasking Diagram

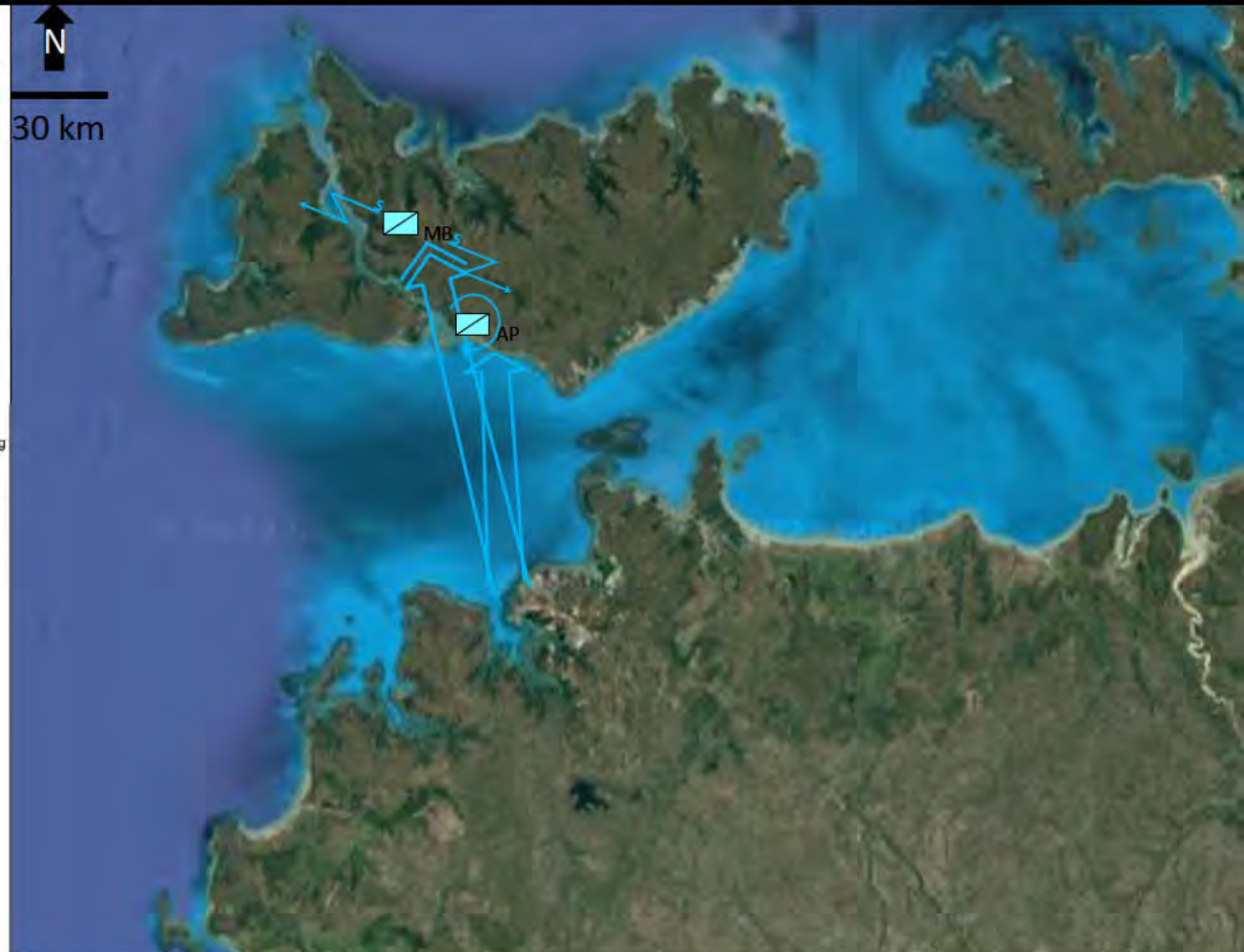
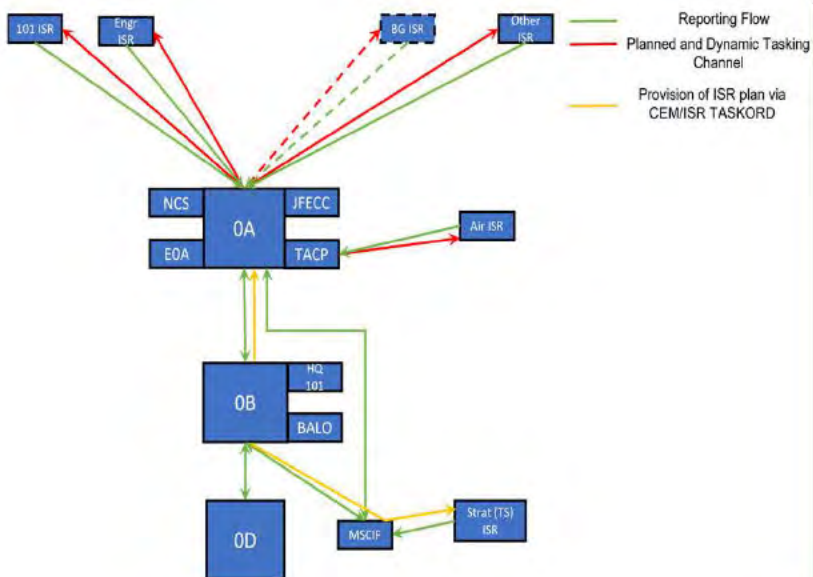


ISR Actions

- 8/12 Recon inserts in Adv Party via zodiac to secure BLS for follow-on recon force.
- 8/12 Recon Main inserts via CMV, deploys elements into MI.
- Conducts covert recon on MI. Screening up to North of AO, confirming viability of MSRs, APODs, SPODs, and identifying ADFOR.

ISR Tasking Diagram

- ISR feeds will run through the OA first, then through the OB/OD for analysis.
- OA retains dynamic re-tasking authority
- MSCIF and OD receive higher level reporting and pass to OA and OB.





PR23-MLCOA-SPF Spt to Lodgement



Mission: Set conditions for ATG lodgement IOT secure key APOD/SPODs for subsequent seizure of the Bunday Island Group.

Ph. 0: Preparation (D-75 to D-60)

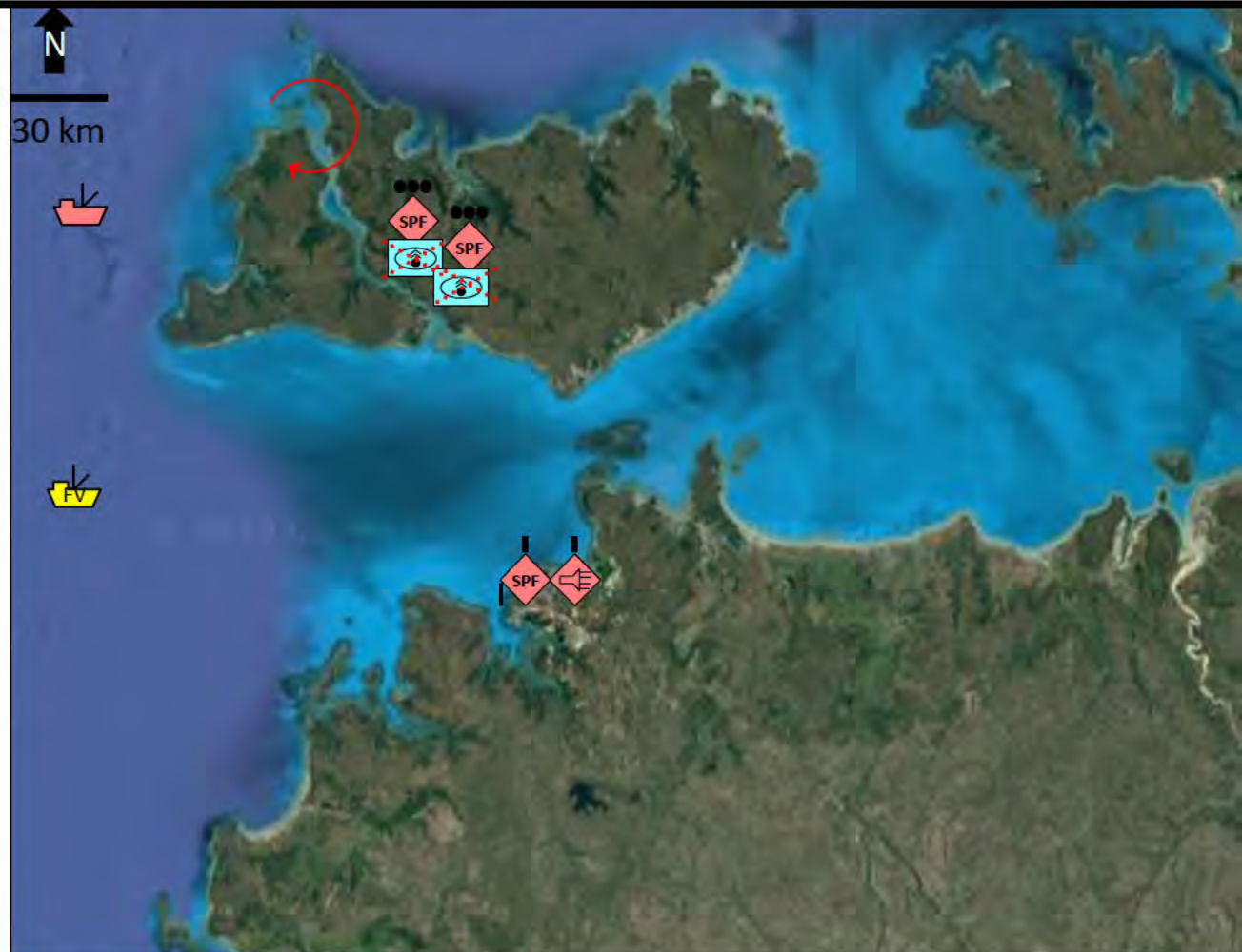
- IW Co: Conduct IO campaign legitimizing OLV to CIVPOP
- SPF HQ: Est. local sustainment via proxies
- SPF Plts: Conduct KLE, embed with CIVPOP

Ph. 1: Shaping (D-60 to D-20)

- IW Co: Conduct IO campaigns to degrade BFDF's legitimacy and increase OLV's
- SPF HQ: Reinforce proxies, undermining BFDF
- SPF Plts: Reinforce CIVPOP relations/ID KT for CJTF & OLV forces' use

Ph. 2: Degrade (D-20 to D+7)

- IW Co: IO campaign focuses on degrading CJTF and BFDF legitimacy
- SPF HQ: Relay intel on CJTF ops to HHQ/encourage proxies to direct action
- SPF Plts: Est. OPs to provide FOs to target CJTF A2AD assets/disrupt CJTF MSR usage
- Maritime Vessels: Conduct maritime ISR and ID CJTF lodgement/disrupt CJTF operations





PR23-MDCOA-SPF Spt to Lodgement



Mission: Set conditions for ATG lodgement IOT secure key APOD/SPODs for subsequent seizure of the Bundey Island Group.

Ph. 0: Preparation (D-75 to D-60)

- IW Co: Conduct IO campaign legitimizing OLV to CIVPOP
- SPF HQ: Est. local sustainment via proxies
- SPF Plts: Conduct KLE, embed with CIVPOP

Ph. 1: Shaping (D-60 to D-20) *(Assesses IO campaign to win favor of CIVPOP unsuccessful)*

- IW Co: Conduct IO campaign to degrade CIVPOP trust in CJTF and incite lethal actions against BFDF
- SPF HQ: Reinforce support to proxies/undermine BFDF
- SPF Plts: Reinforce CIVPOP relations/ID KT for CJTF & OLV forces' use

Ph. 2: Degrade (D-20 to D+7)

- IW Co: ID CJTF force build-ups and HVT movement via SOCMED
- SPF HQ: Relay intel on CJTF ops to HHQ/coord. proxies' DA
- SPF Plts: Est. OPs to provide FOs to target CJTF A2AD assets/disrupt CJTF MSR usage
- Maritime Vessels: Conduct maritime ISR and ID CJTF lodgement/disrupt CJTF operations

Ph. 3: Secure (D+7 to D+10)

- IW Co: No change
- SPF HQ: No change
- Maritime Vessels: No change
- SPF Patrols: Maintain OPs. Seucure BLS/ports ISO proxies to allow for ATG lodgement.
- ATG: Displace from AOA to CJTF AO for disembarkation.

Ph. 4: Occupation: (D+10 to D+17)

- IW Co: No change
- SPF HQ: No change
- Maritime Vessels: No change
- SPF Patrols: No change
- ATG: Conduct disembarkation



CUI

Concept of Operations: WFX





Phase 0: Prep For Combat



Phase 0: Prep for Combat

Begins with: Receipt of 1 BDE Order

Ends with: Est of TAA

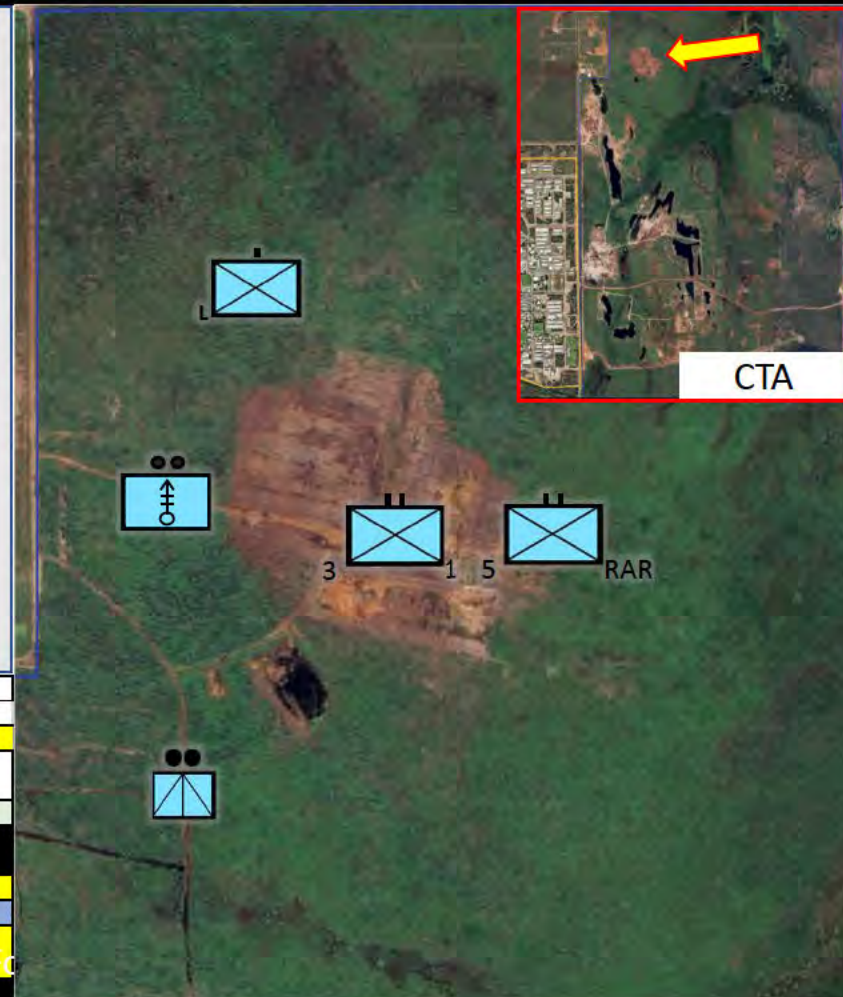
Critical Events:

- Orders Issue
- ROC
- CAAT Est BLOCK POS ISO TAA
- 81 defensive fires
- Co L Staged TAA
- Brahma FWD Staged TAA

Exercise Critical Events:

- Integrated Planning with 1BDE and Subordinate Units

Day	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
Phase	0) Prep For Combat				1) Recon		2) Embark		3) Seizure of APODs			4) STABOPs			
Special					*CG VISIT		**COMMUNITY DAY								
C2	Main				*FWD				Main	FWD		Main			
Co L	Pre-Combat Actions, Orders, RxLs				Occupy CTA	TAA	BDE Obj 1 & 2			RIP TNI/ADF		Retrograde			
CAAT							CLR BDE Obj 3			VAP					
81s					LOG ISO BDE										
CLC					ISR	Maritime Escort	Aerial Escort	**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR	Maint Day	CALFEX		
H-1s												Avail			Avail
MV-22s															



Phase 1: Recon



Phase 1: Recon

Begins with: BHO to Brahma FWD

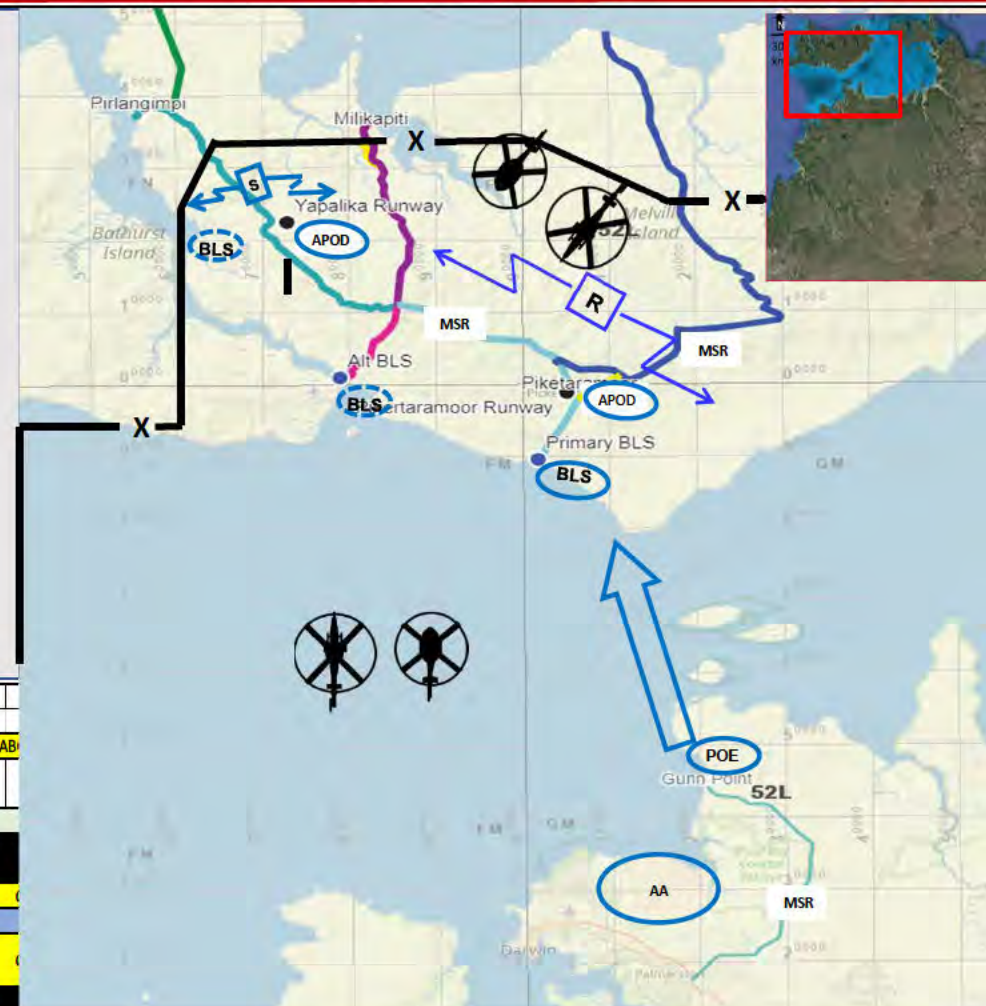
Ends with: Recon of Objectives Complete

Critical Events:

- ISR of Obj 1 & 2
- Maritime Escort ISO 8/12 Recon
- CAAT Security ISO BDE TAA

Exercise Critical Events:

- DV Visit



Day	21	22	23	24	25	26	27	28	29	30	31	1	2
Phase	0) Prep For Combat				1) Recon	2) Embark	3) Seizure of APODs				4) STAB		
Special					*CG VISIT		**COMMUNITY DAY						
C2	Main				*FWD				Main	FWD	Main		
Co L	Pre-Combat Actions, Orders, RxLs				Occupy CTA	TAA	BDE Obj 1 & 2				RIP TNI/ADF	Retrograde	
CAAT							CLR BDE Obj 3				VAP		
81s													
CLC							LOG ISO BDE						
H-1s					ISR	Maritime Escort	Aerial Escort	**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR	Maint Day	
MV-22s									Avail				



Phase 2: Embarkation



Phase 2: Embarkation

Begins with: ADF Movement to BSG

Ends with: All Units Embarked

Critical Events:

- CAAT/81s vehicles staged at Matilda Lines wash racks
- L Co staged at RAAF-D for insert
- 26 Aug: CAAT/81s/LCE TT onload & receipt at MBTA
- O/A 26 Aug: L Co bus mvmt from CTA to RAAF-D
- COLT established QRF in ROBO
- 31 Aug: Kodiak TT onload & receipt at MBTA

Exercise Critical Events:

- TT Onload/Offload



Day	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
Phase	0) Prep For Combat				1) Recon		2) Embark	3) Seizure of APODs			4) STABOPs				
Special						*CG VISIT		**COMMUNITY DAY							
C2	Main						*FWD		Main	FWD	Main				
Co L	Pre-Combat Actions, Orders, RxLs				Occupy CTA	TAA	BD Obj 1 & 2		RIP TNI/ADF		Retrograde				
CAAT							CLUBDE Obj 3		VAP						
81s							LOG ISO BDE								
CLC							ISR	Maritime Escort	Aerial Escort	**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR	Maint Day	CALFEX
H-1s									Avail			Avail			
MV-22s															



Phase 3: Seizure of APODS



Phase 3: Seizure of APODS

Begins with: Co L Movement to PZ

Ends with: 5 RAR RIP Co L

Critical Events:

- Co L PZ established
- Co L W/U
- OBJ 1 Seized
- OBJ 2 Seized
- H-1s Screen ISO RIP

Capabilities (Available):

2x Cmd Nodes (8)

1x FiST (6)

2x MG Squads (13)

1x 60mm Section (9)

1x Engineer Squad (14)

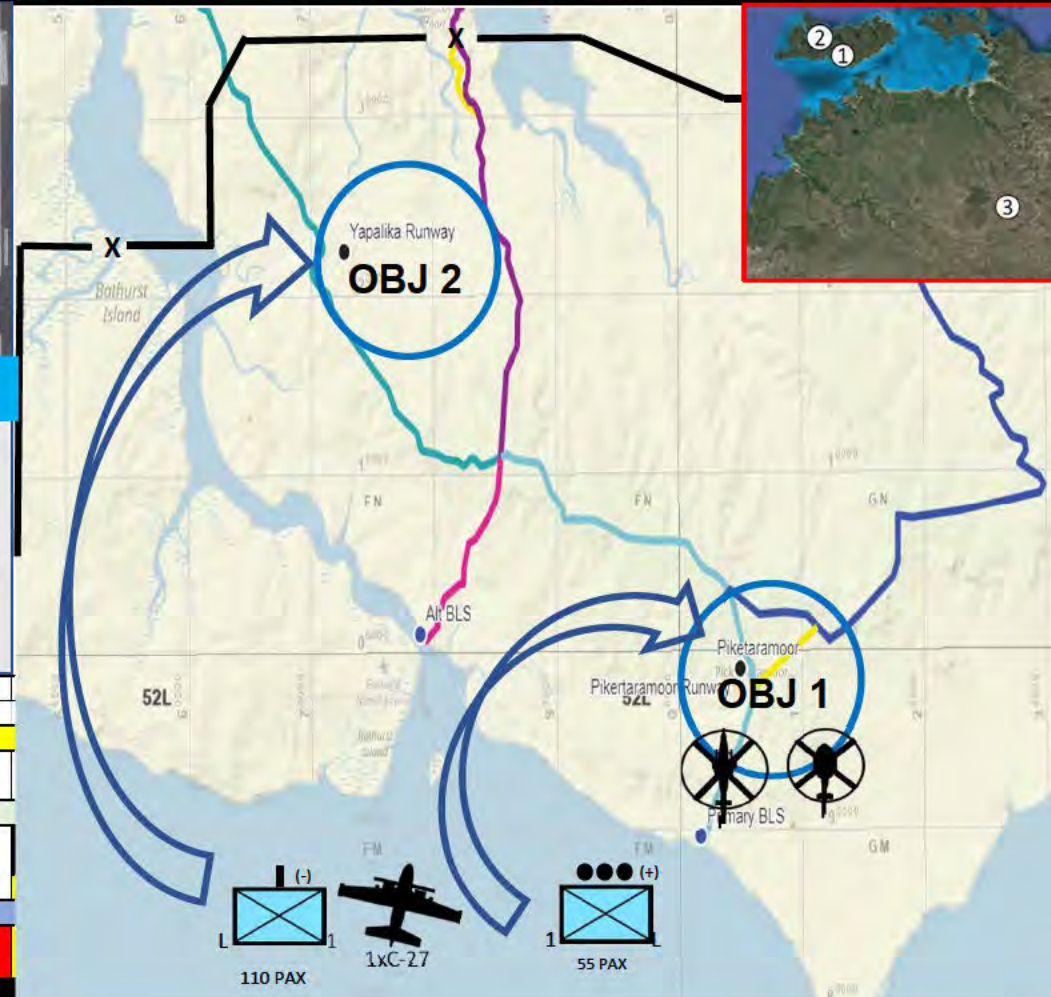
3x Rifle Platoons (35, 34, 34)

2x Hateful PZ Nodes



PZ: RAAF Darwin (C-27)

Day	21	22	23	24	25	26	27	28	29	30	31	1
Phase	0) Prep For Combat				1) Recon		2) Embark	3) Seizure of APODS				
Special						*CG VISIT		**COMMUNITY DAY				
C2	Main						FWD	Main	FWD			
Co L							BDE Obj 1 & 2		RIP TNI/ADF			
CAAT							CLR BDE Obj 3		VAP			
81s												
CLC	Pre-Combat Actions, Orders, RxLs								LOG I O BDE			
H-1s						ISR	Maritime Escor	Aerial Escort	**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR
MV-22s										Avail		Maint Day





Phase 3 Stage A: Actions on Obj 1



Phase 3 Stage A: Actions on Obj 1

Begins with: MV-22 PZ Established

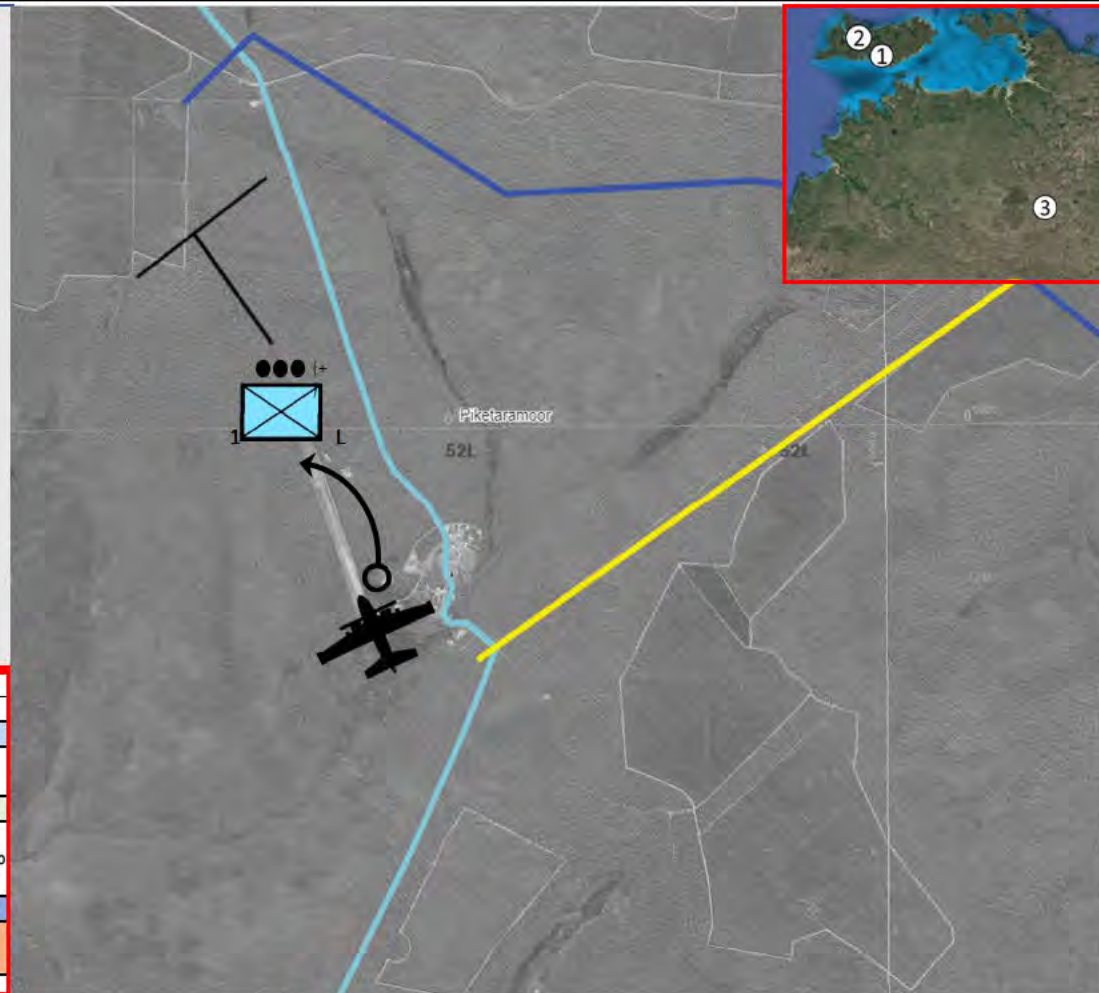
Ends with: 5 RAR RIP Co L

Critical Events:

- MACO accountability and reporting
- LZ Ice
- LZ secured
- Platoon Obj's seized
- Consolidation
- BP established

Concept of Operations:

"X" insert one platoon reinforced in 3x waves via 1x MV-22. Seize airfield, retain airfield, and set conditions for a relief in place with 5 RAR. Command and control provided by Lone Star Bravo Cmd



Day	21	22	23	24	25	26	27	28	29	30	31
Phase	0) Prep For Combat				1) Recon	2) Embark	3) Seizure of APODs				
Special					*CG VISIT		**COMMUNITY DAY				
C2	Main					*WD	Main	FWD			
Co L	Pre-Combat Actions, Orders, RxLs						BDE Obj 1 & 2	RIP TNI/ADF			
CAAT					Occupy CTA	TAA	CLR BDE Obj 3	VAP			Retro
81s							LOG ISO BDE				
CLC											
H-1s					ISR	Maritime Escort	Aerial Escort	**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR
MV-22s									Avail		Avail



Phase 3 Stage B: Actions on Obj 2



Phase 3 Stage B: Actions on Obj 2

Begins with: C-27 PZ Established

Ends with: 5 RAR RIP Co L

Critical Events:

- MACO accountability and reporting
- LZ Ice
- LZ Secured
- Co Obj's Seized
- Consolidation
- BP Established

Concept of Operations:

"X" insert Co L reduced in 4 waves via 1x C27. Seize the airfield, retain the airfield, and set conditions for a relief in place with 5 RAR. Command and control provided by Lone Star Alpha Cmd

Day	21	22	23	24	25	26	27	28	29	30	31
Phase	0) Prep For Combat			1) Recon		2) Embark		3) Seizure of APODs			
Special					*CG VISIT		**COMMUNITY DAY				
C2	Main				*VD		Main	FWD			
Co L	Pre-Combat Actions, Orders, RxLs				BDE Obj 1 & 2		RIP TNI/ADF		Retr		
CAAT					CLR BDE Obj 3		VAP				
81s											
CLC											
H-1s											
MV-22s											
					ISR	Maritime Escort	Aerial Escort	**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR
									Avail		Avail





Phase 3 Stage C: Actions On Obj 3



Phase 3 Stage C: Actions on Obj 3

Begins with: Movement to MBTA

Ends with: UOTF Seized

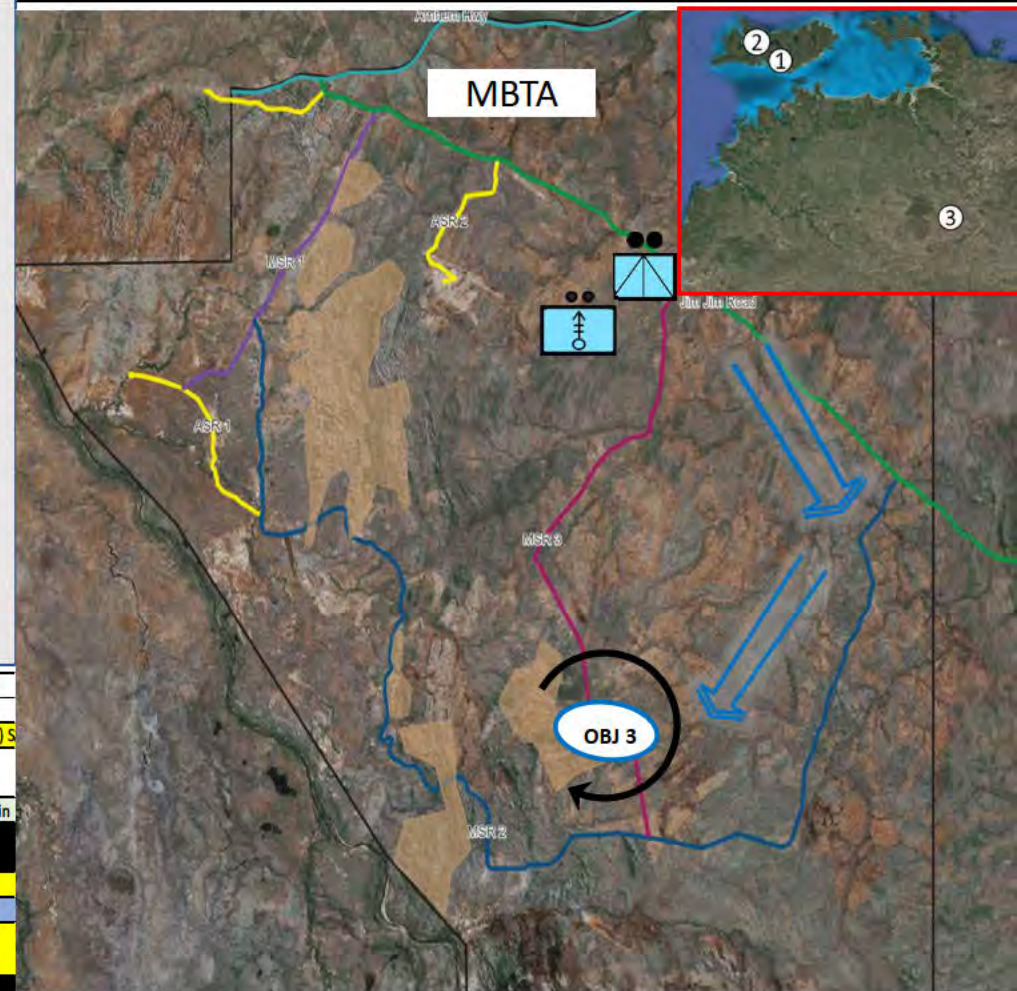
Critical Events:

- Route Clearance through Wildman Sector
- Actions on UOTF
- Sustainment/Resupply

Exercise Critical Events:

- TT Offload/Onload

Day	21	22	23	24	25	26	27	28	29	30	31	1	2
Phase	0) Prep For Combat			1) Recon		2) Embark		3) Seizure of APODs					4) S
Special						*CG VISIT		**COMMUNITY DAY					
C2	Main			*WD			Main	FWD				Main	
Co L	Pre-Combat Actions, Orders, RxLs			BDE Obj 1 & 2			RIP TNI/ADF			Retrograde			
CAAT				CLR BDE Obj 3			VAP						
81s				LOG ISO BDE									
CLC													
H-1s				Aerial Escort			**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR	Maint Day		
MV-22s							Avail			Avail			





Phase 4: SASO IVO Darwin City



Phase 4: SASO IVO Darwin City

Begins with: BHO to Brahma Main

Ends with: Retrograde CALFEX

Critical Events:

-KLE (1 BDE)

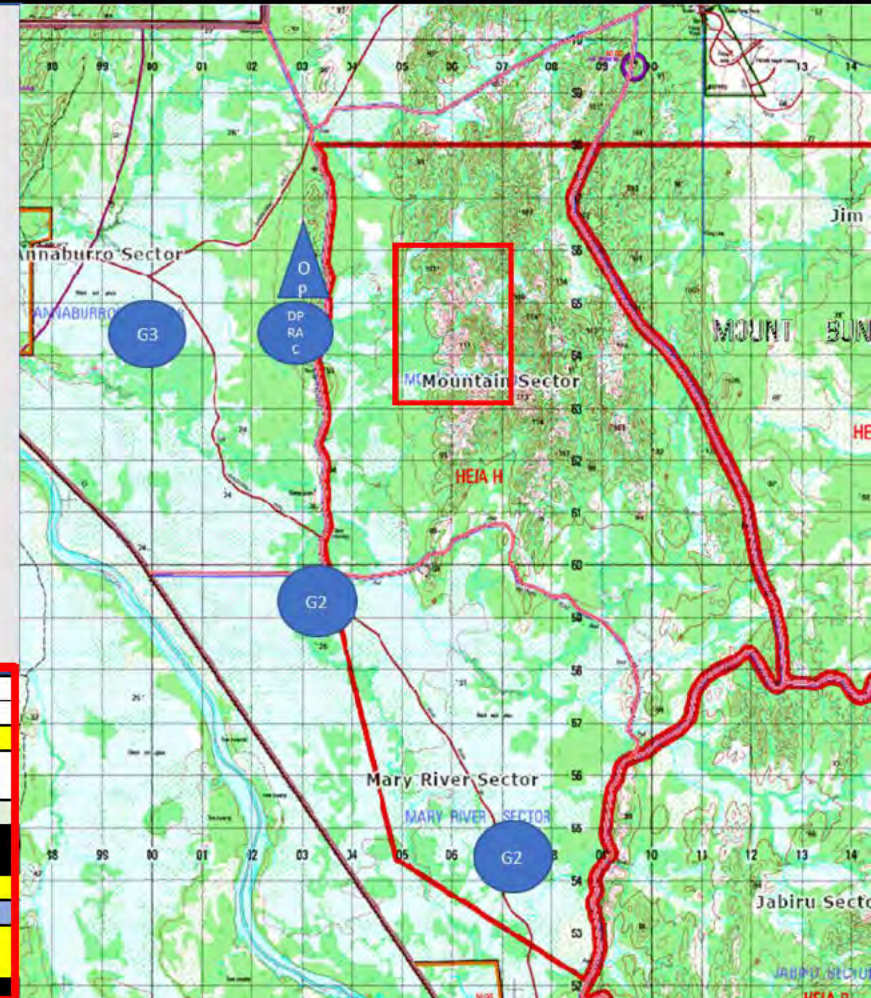
-VAP (1 BDE)

Exercise Critical Events:

-H-1s Maintenance Day

-CALFEX (V31, 8/12, H-1s)

-Retrograde personnel and materiel



Day	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
Phase	0) Prep For Combat				1) Recon		2) Embark		3) Seizure of APODs			4) STABOPs			
Special						*CG VISIT			**COMMUNITY DAY						
C2	Main				*FWD				Main		FWD		Main		
Co L	Pre-Combat Actions, Orders, RxLs				Occupy CTA	TAA	BDE Obj 1 & 2			RIP TNI/ADF		Retrograde	CALFEX		
CAAT							CLR BDE Obj 3			VAP					
81s							LOG ISO BDE								
CLC					ISR	Maritime Escort	Aerial Escort	**Actions ISO Obj		Maint Day	Screen ISO RIP	Recon EPR	Maint Day		
H-1s													Avail		
MV-22s															



Phase 4 Stage A: Retrograde Melville Island & MBTA



Phase IV Stage A: Retrograde Melville Island and MBTA

Begins with:

-Lima Co departure from Melville Island via 1 x C-27J and 1 x MV-22

Ends with:

- Delivery of Kodiak vehicles at MBTA for CALFEX
- Receipt of Cougar vehicles at ROBO
- Lima Co RTB

Critical Events:

- 31 Aug: Kodiak TT onload at MBTA & receipt at ROBO
- CAAT Weed/Seed & Wash downs
- 31 Aug: CAAT TT onload at MBTA & receipt at ROBO

Exercise Critical Events:

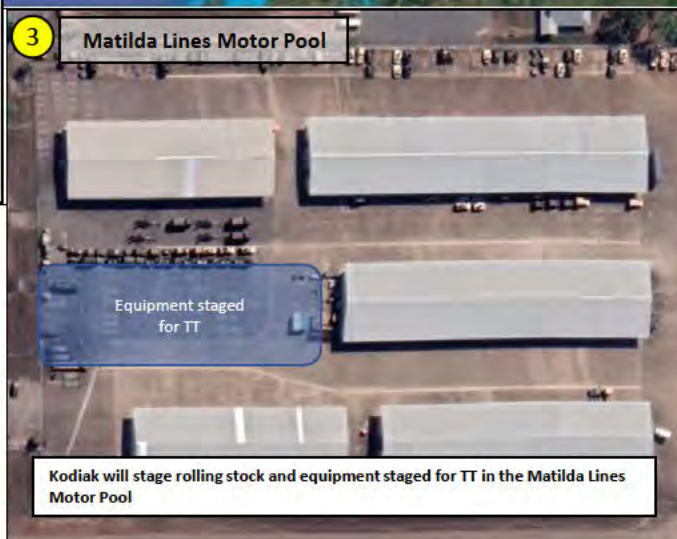
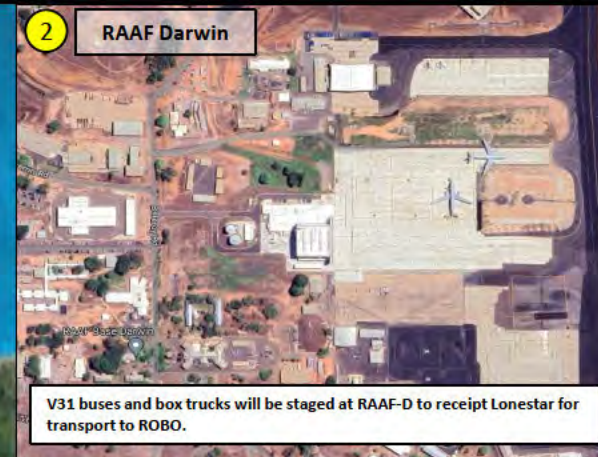
- CALFEX
- Retrograde personnel and materiel

(a) ME: 1 Bde complete retrograde from Melville

(b) SE 1: BG GOANNA SASO Darwin City

(c) SE 2: BG TIGER prep SECCOP LFX

(d) SE 3: CALFX MBTA.



Concept of Operations: CALFEX





CALFEX Task Org/Ammo



Ammunition Breakdown

102 Battery:

-600 HE (Offense)
-24 HE (Defence).

103 Battery:

-600 HE (Offense)
-32 HE (Defence)

Kodiak:

-2,400 7.62mm
-3,800 .50 cal
-21 HE
-90 WP
-16 (AUS) HE

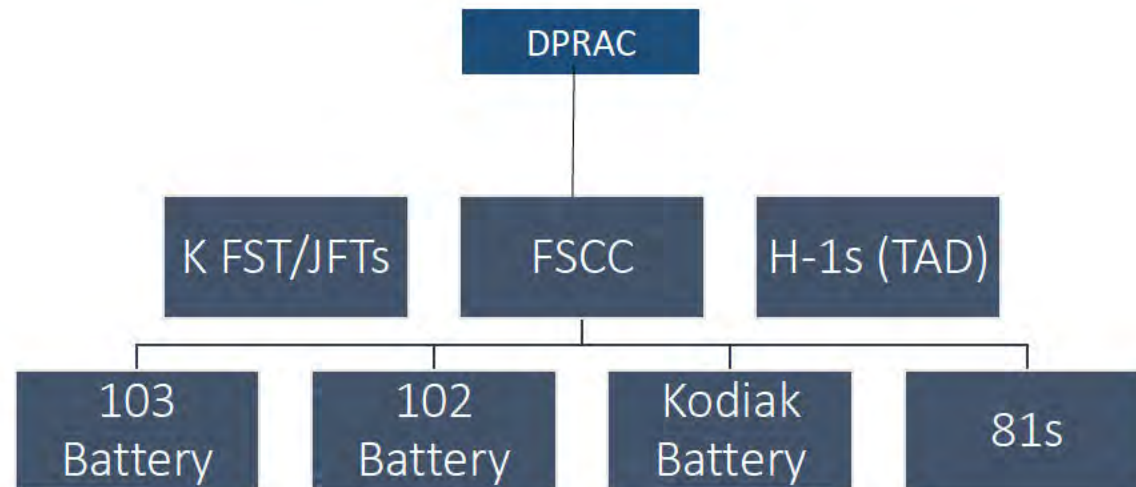


81's:

-66 HE

Air:

-Rockets and Guns
-Mixed sections of AH-1Z/UH-1Y)



- All missions will be routed using CENTRALIZED mission routing with POSITIVE approval.
- ADF will provide FSCC with liaisons.
- FSCC will retain clearance over all air missions.
- 8/12 has ALL DPRAC responsibilities, they will provide OIC/RSO.
- Stalker will be used to observe fires during CALFEX



CALFEX: Occupation and Day 1 Execution



Day I: 1-3 Sept

Begins with: Range Occupation on 1 Sept

Ends with: Offense Fire Plans complete 3 Sept

Critical Events:

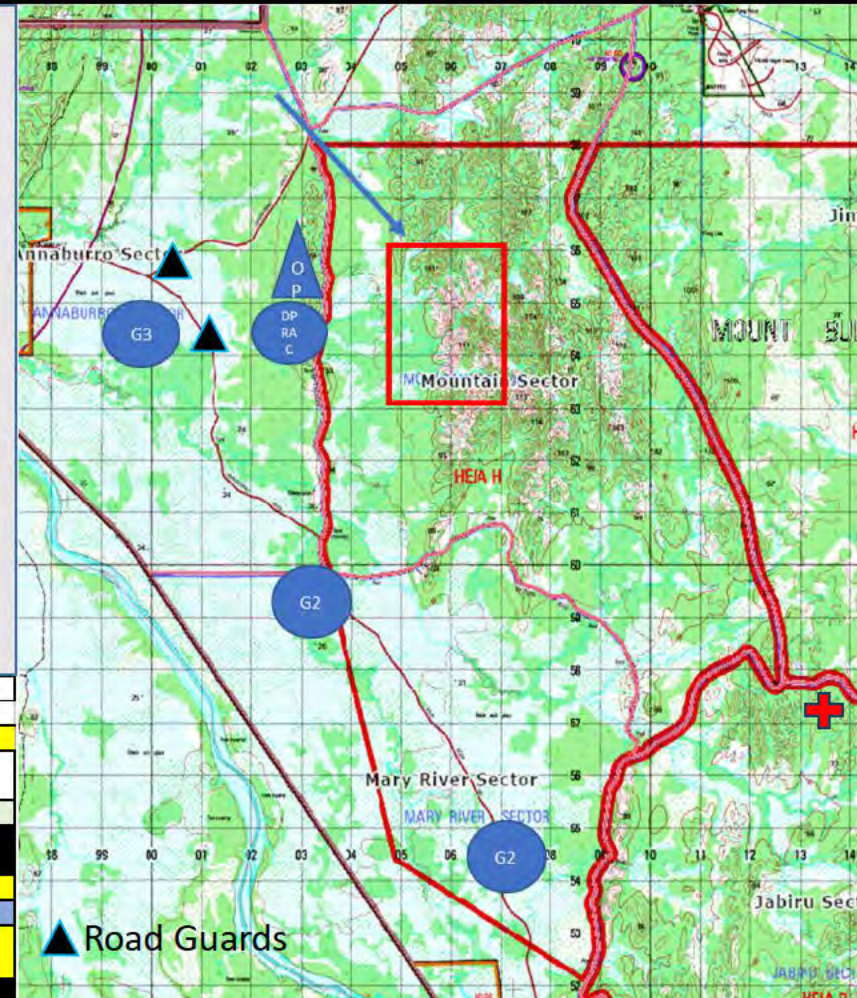
- DPRAC establish by 8/12 CO
- Gun Position set up
- COMMEX/Rehearsals 2 Sept
- Arty and Air Traces Open/Close

Other:

- FSCC assumes role of BG JFECC w/centralized mission routing
- 103 Battery guns controlled by Kodiak FDC
- Kodiak co-located with G3
- FSCC co-located with DPRAC
- 4x JFTs and 1x FST
- H1 support

Scenario:

Coalition forces are tasked with a S to N clear of the mountain sector of MBTA. This is to be achieved with indirect fires and a notional ground force.



Day	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
Phase	0) Prep For Combat				1) Recon			3) Seizure of APODs				4) STABOPs			
Special						*CG VISIT		**COMMUNITY DAY							
C2	Main				*FWD				Main	FWD	Main				
Co L	Pre-Combat Actions, Orders, RxLs				Occupy CTA	TAA	BDE Obj 1 & 2			RIP TNI/ADF		Retrograde			
CAAT							CLR BDE Obj 3			VAP					
81s												CALFEX			
CLC							LOG ISO BDE								
H-1s					ISR	Maritime Escort	Aerial Escort	**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR	Maint Day	CALFEX		
MV-22s									Avail			Avail			

CALFEX: Day 2 Execution



Day II: 4 Sept

Begins with: Arty, Mortar, Air Traces Open, Range Hot

Ends with: Arty, Mortar, Air Traces Open, Range Cold

Critical Events:

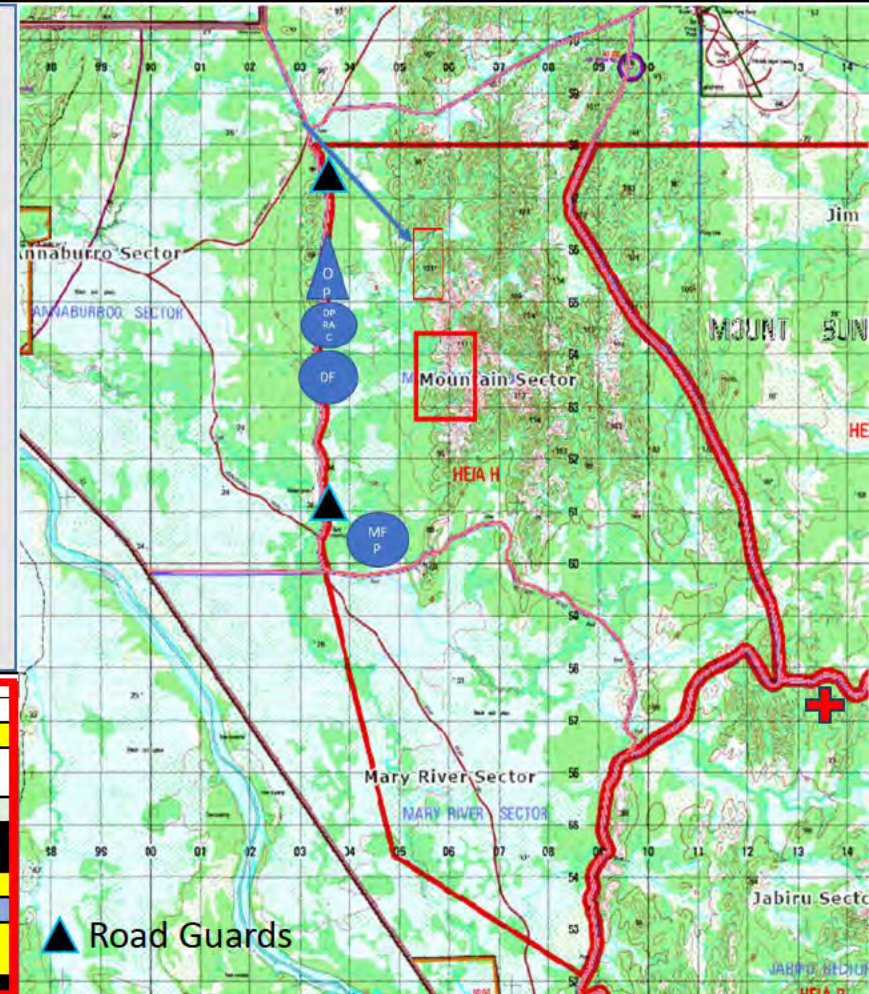
- Defensive fire plans ISO scenario
- Air integration with live arty and 81s
- Direct fire of M777s and crew served weapons ISO defense of the gunline

Other:

- FSCC assumes role of BG JFECC
- 103 Battery guns controlled by Kodiak FDC
- (2) M777s at a time for direct fire shooting
- 8/12 CO responsible for DPRAC

Scenario:

Coalition forces have successfully cleared the Mountain Sector but have overextended their lines. They must now consolidate in a defence of the battery position and repel the enemy's counterattack using direct fire from M777s, 81mm mortars, and close air support.



Day	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
Phase	0) Prep For Combat				1) Recon			3) Seizure of APODs				4) STABOPs			
Special						*CG VISIT		**COMMUNITY DAY							
C2	Main				*FWD				Main	FWD	Main				
Co L	Pre-Combat Actions, Orders, RxLs				Occupy CTA	TAA	BDE Obj 1 & 2			RIP TNI/ADF		Retrograde			
CLR BDE Obj 3							VAP								
CAAT															
81s											CALFEX				
CLC											LOG ISO BDE				
H-1s					ISR	Maritime Escort	Aerial Escort	**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR	Maint Day	CALFEX		
MV-22s									Avail		Avail				



CALFEX CASEVAC



Routine:

-Treated by on-site corpsman or ADF medic and assessed if able to continue training. If no, then the Marine / sailor will be transported to Scale-A facility for follow-on care.

Priority / Urgent:

-Treated by on-site corpsman or ADF medic
Range control and Scale-A notified by OIC.
-Operating with 2 internal safety vehicles enabling ground transportation to the Scale A or LZ. In case of an urgent casualty requiring an air evacuation LZ 10 and 12 will serve as the primary pickup points dependent on the battery location. Local security chief will proof LZ prior to bird arrival as part of cherry picker drills

Care Flight: AME contracted out for duration of CALFX.

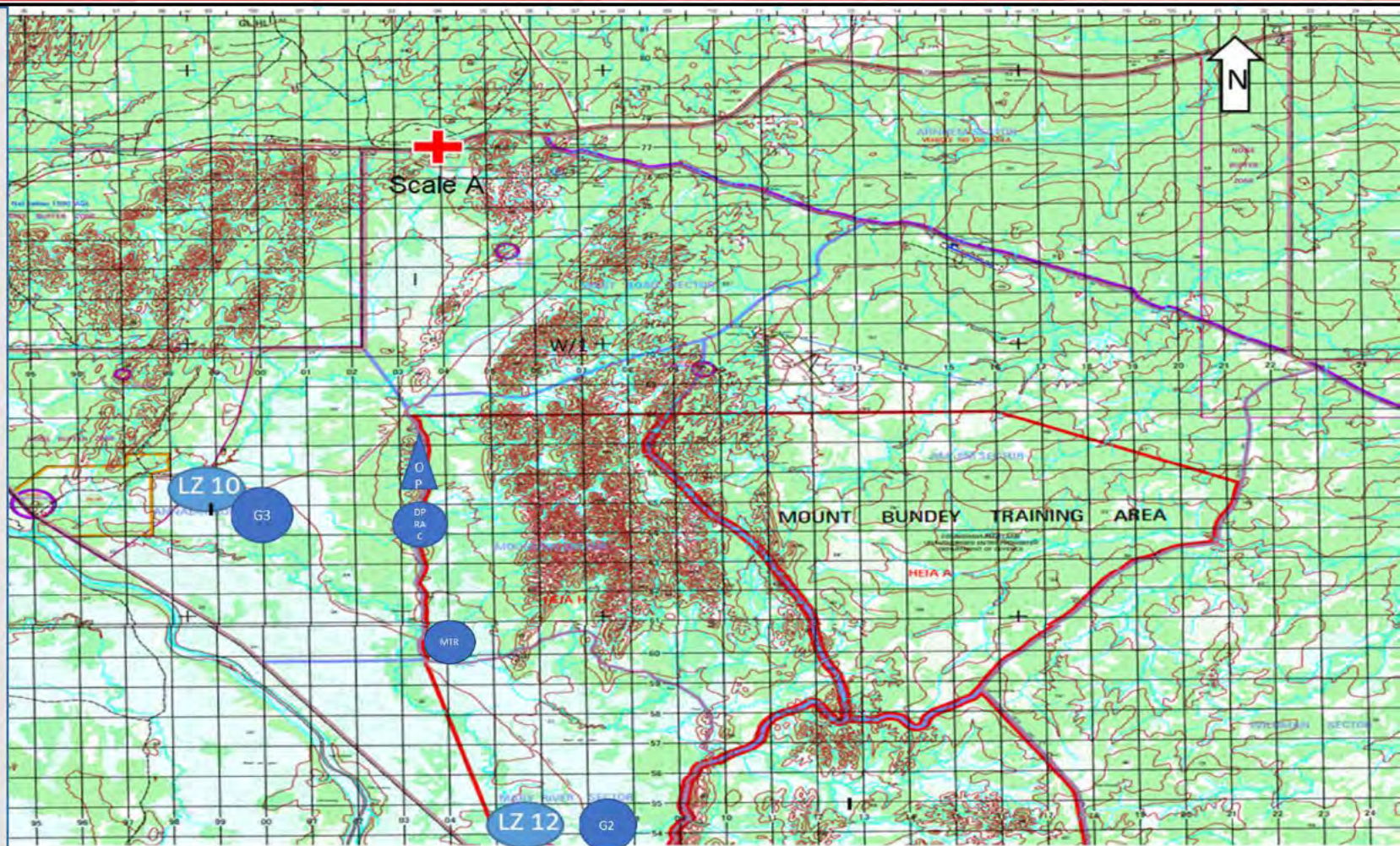
Route: LZ 10 is located 800m from the NW sector of G3/Kodiak Pos. LZ 12 is located 800m W from G2 **Ground and air based cherry picker drills will be conducted upon occupation of each new position prior to live-fire training**

Scale A: 52L HL 06551 76215

LZ 10: 52L HL 00000 66000

LZ 12: 52L HL 07300 52000

MBTA Airfield: 52L HL 15645 73240





Phase 4 Stage B: Retrograde CALFEX



Phase 4 Stage B: Retrograde CALFEX

Begins with:

-Kodiak/Eagle/LCE TT onload at Scale A, MBTA

Ends with:

- Receipt of Kodiak vehicles at ROBO
- Receipt of Cougar vehicles at ROBO
- Lima Co RTB

Critical Events:

- 5 Sep: Weed/Seed & Wash downs
- 5 Sep: Line-out and dunnage turn-in
- 5 Sep: Kodiak/81s/LCE CLC TT onload at MBTA & receipt at ROBO

Exercise Critical Events:

- Retrograde personnel and materiel

Day	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5
Phase	0) Prep For Combat				1) Recon		3) Seizure of APODs					4) STABOPs				
Special						*CG VISIT		**COMMUNITY DAY								
C2	Main				*FWD				Main	FWD	Main					
Co L	Pre-Combat Actions, Orders, RxLs				Occupy CTA	TAA	BDE Obj 1 & 2			RIP TNI/ADF		Retrograde				
CAAT							CLR BDE Obj 3			VAP						CALFEX
81s					LOG ISO BDE											
CLC					ISR	Maritime Escort	Aerial Escort	**Actions ISO Obj	Maint Day	Screen ISO RIP	Recon EPR	Maint Day	CALFEX			
H-1s																
MV-22s					AAsit											



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Concept of Air Support



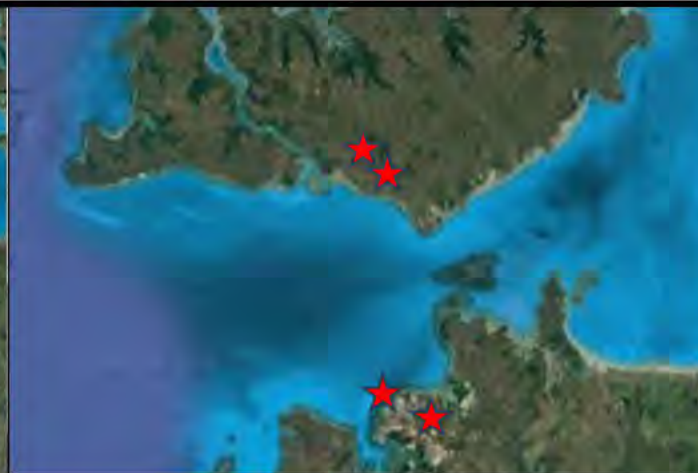


Concept of Air Support



Phase 1

- 2 x sections of H-1's providing ISR, DAS, Escort, and CAS. (Airborne C2)
- 1 x C-27 providing Assault Support to Obj 2.



Phase 3

- 2 x sections of H-1's providing CAS, Community Engagement IVO Mellville, and Raid support IVO East Point.
- 1 x MV-22 providing Assault Support to/from RAAF Darwin.
- 1 x C-27 providing Assault Support to RAAF Darwin and Community Engagement IVO Mellville.



CLFX

- 2 x sections of H-1's providing CAS ISO Offensive and Defensive fire plans.
- 1 x FARP "Arbys" IVO the scrape.

Day	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
Phase	0) Prep For Combat				1) Recon				3) Seizure of APODs				4) STABOPS		
Special						*CG VISIT		**COMMUNITY DAY							
C2	Main				*FWD				Main	FWD			Main		
Co L									BDE Obj 1 & 2				RIP TM/ADF		
CAAT					Occupy CTA				CLR BDE Obj 3				VAP		
BSs					TAA								Retrograde		
CLC	Pre-Combat Actions, Orders, Rals								LOG ISO BDE				CALFEX		
H-1s					ISR				*Actions ISO Obj				Main Day		
MV-22s					Maritime Escort				Aerial Escort				Recon EPR		

Day	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
Phase	0) Prep For Combat				1) Recon				3) Seizure of APODs				4) STABOPS		
Special						*CG VISIT		**COMMUNITY DAY							
C2	Main				*FWD				Main	FWD			Main		
Co L									BDE Obj 1 & 2				RIP TM/ADF		
CAAT					Occupy CTA				CLR BDE Obj 3				VAP		
BSs					TAA								Retrograde		
CLC	Pre-Combat Actions, Orders, Rals								LOG ISO BDE				CALFEX		
H-1s					ISR				*Actions ISO Obj				Main Day		
MV-22s					Maritime Escort				Aerial Escort				Recon EPR		

Day	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
Phase	0) Prep For Combat				1) Recon				3) Seizure of APODs				4) STABOPS		
Special						*CG VISIT		**COMMUNITY DAY							
C2	Main				*FWD				Main	FWD			Main		
Co L									BDE Obj 1 & 2				RIP TM/ADF		
CAAT					Occupy CTA				CLR BDE Obj 3				VAP		
BSs					TAA								Retrograde		
CLC	Pre-Combat Actions, Orders, Rals								LOG ISO BDE				CALFEX		
H-1s					ISR				*Actions ISO Obj				Main Day		
MV-22s					Maritime Escort				Aerial Escort				Recon EPR		

Concept of Logistics





Concept of Logistics (HUB)



Total Pax (Projected): 280 PAX

- BG Brahma JMP (CTA): 12 PAX
- MT CLP (CTA): 6 PAX
- L Co (AASLT): 165 PAX
- Cougar (MBTA): 32 PAX
- Eagle (MBTA): 17 PAX
- LCE CLC (MBTA): 35 PAX

Rolling Stock / Equipment:

BG Brahma Jump (CTA)

- (4) JLTV HB

MT MCT (CTA)

- (1) MTRV
- (1) JLTV GP
- (1) JLTV HB
- (1) WB

Cougar (CTA > MBTA)

- (4) JLTV Gun Truck
- (4) HMMWV SABER

Eagle (CTA > MBTA)

- (3) HMMWV HB
- (2) 81mm Mortars

LCE CLC (CTA > MBTA)

- (1) FRC
- (2) JLTV GT
- (1) Wrecker
- (1) LVSR
- (2) JLTV HB
- (6) MTRV
- (2) HMMWV
- (2) WB

BLUF: (29) pieces of GCE rolling stock and (2) M777s will be turned over to the GESP 7-15 Sep

CTA Logistics Requirements:

Total Pax: 18 pax
Dates: 26-31 Aug

CL I Water: 1 gal TOT required
Bulk Water: 400gal

CL I Ratios: 3 DOS per Marine (14 cases)

- BG Brahma JMP: 9 cases
- MT CLP: 5 cases

CL III Fuel: 971 gal JP8 TOT

Recovery: Self > National Recovery > ROBO

Resupply Dates:

- H2O: 28 Aug / 3 DOS / 14 MRE cases
- Fuel: 28 Aug / 3 DOS / 486 gal JP8

Method:

Pri: 1x MT MCT
Alt: LCE MT CLP or 1BDE

CL V Ammunition Allocation:

Draw Locations:

- CTA
- Classification Range, MBTA (CALFEX)

Melville Island:

Lonestar:
(A080) 5.56mm Blank: 4,950

MBTA:

Cougar:
(A080) 5.56mm Blank: 960
Eagle:
(A080) 5.56mm Blank: 170
LCE CLC:
(A080) 5.56mm Blank: 350

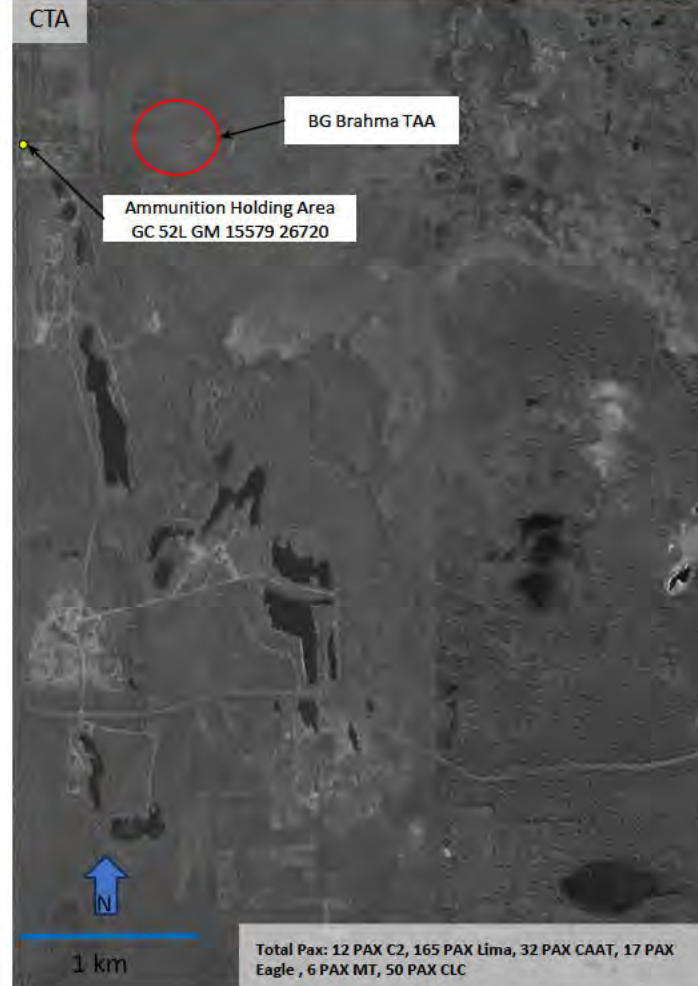
Submitted request to decrease A080 allocation from 10,260 to 6,430

CALFEX:

Eagle:
(C869) 81mm HE: 66
Kodiak:
(A131) 7.62mm 4 Ball/1 Tracer: 2,400
(A576) .50 Cal 4 API/ 1 API-T: 3,800
(DA12) Prop Charge M231: 222
(D529) 155mm HE M795: 3
(DA54) 155mm HE IMX-101: 18
(D550) 155mm WP: 90
(N340) Fuze, PD M739: 73
(N523) Primer, Percussion M82: 200
(NA15) Fuze, ET M767A1: 70

ADF Ammo Allocations:

(D529) PROJECTILE 155MM HE M795: 16
(NA15) FUZE 155MM ET M767A1: 16
(DA12) CHARGE PROPELLING 155MM MACS: 32
(N523) PRIMER PERCUSSION 155MM: 18





Concept of Logistics Support (Spokes)



LCE AD Resupply Plan:

Obj 1 – Picatamoor
CL I Rations: 3 DOS (42 cases MREs)
CL I H2O: 2 DOS (1,441 GAL H2O)
CLII: (55) Main packs

Obj 2 – Yapilika
CL I Rations: 3 DOS (83 cases MREs)
CL I H2O: 2 DOS (2,882 GAL H2O)
CLII: (110) Main packs

Method:

Pri: CDS door bundles
Alt: BG Tiger transport on CMV for ground delivery via 1CSSB to Lone Star 28 Aug/0215
Emergency: White Cell CL I delivery

Resupply Days:

Obj 1: 28 Aug (Chow), 29 Aug (Water)
Obj2: 28 Aug (Chow), 29 Aug (Water)

LCE AD Pit: 4 Pax
Door Bundles (Seabags)
CDS Bundles (Palletized)
Need to be prepped and stage ahead of exercise

Lone Star (26-29 Aug):
Obj 1 – Picatamoor (55 PAX)
CL I Water: 2635 GAL TOT
CLI Rations: 1 DOS (3x MREs) / Marine

Obj 2 – Yapilika (110 PAX)
CL I Water: 9185 GAL TOT
CLI Rations: 1 DOS (3x MREs) / Marine

CL V Ammunition:
-(A080) 5.56mm Blank: depicted on previous slide

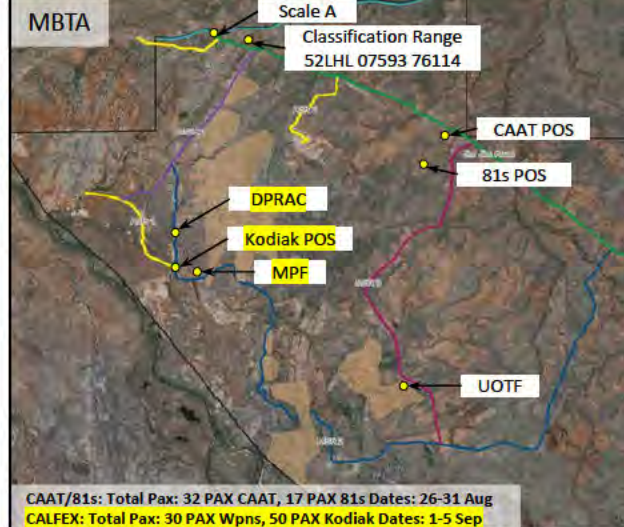
Transportation:

Insert (27 Aug):
1. V31 Bus transport to RAAF-D
2. Insert C-27J or MV-22 to Pickatamoor and Yapilika

Porta-loos/Trash:

10 x PAL delivered to the Yapilika Forestry centre
5x PAL Tiwi College

Resupply: CDS door bundles CL I (LCE AD support)



LCE Resupply Plan (26 Aug-1 Sep):

CL I Bulk Water: TOT
CL III Bulk Fuel: FRC (2500gal) or 2x Sixcon w/ pump (1600 gal) TOT

Maintenance Capabilities: Maintenance Contact Team (Focused on JLTV, HMMWV)

Recovery Capabilities:

Pri: LVSR Wrecker, Towbars, Chains
Alt: National Recovery Plan

Resupply Days:

- H2O: 28Aug/30Aug (Cougar), 28Aug/30Aug/1Sep
- Fuel: 28Aug/30Aug (Cougar), 28Aug/30Aug/1Sep

LCE CLC: 35 Pax

(1) FRC	(2) JLTV HB
(2) JLTV GT	(4) MTVR
(1) Wrecker	(2) HMMWV
(1) LVSR	(2) WB

CAAT/81s (26-31 Aug):

CL I Water: 3852 GAL TOT
CL I Rations: 6 DOS per Marine (74 cases MREs)
CL III Fuel: 1,019 GAL JP8 TOT
Transportation:
Contracted TT:
Cougar: (4) JLTV Gun Truck, (4) HMMWV SABER
Eagle: (3) HMMWV HB, (2) 81mm Mortars

CALFEX (1-5 Sep):

CL I Water:
- 4 DOS per Marine (3,668 GAL H2O TOT)
- Bulk Water: 1x WB (400gal)
CLI Rations: 6 DOS per Marine (105 cases MREs)
CL III Fuel: 3,383 GAL JP8 TOT
Jerry Can Fuel: XX TOT
CL V Ammunition: depicted on previous slide

Porta-loos/Trash:

10 x PAL delivered CAAT pos
5x PAL delivered to UOTF

Transportation:

Contracted TT:
Kodiak: (2) M777 Howitzers, (6) MTVR,
(3) JLTV HB, (3) M1102 trailers, (2) Mk593 trailers, (1) Waterbull, (1) Quadcon
FSCC: (1) JLTV HB
Eagle: (3) HMMWV HB, (2) 81mm Mortars

Recovery:

Pri- Self > Scale A > 18DE/LCE > ROBO
Alt- Self > Scale A > National Recovery > ROBO

Legend:

CALFEX positions/equipment



Movement Plan



Date		Event
21-Aug	Prep	Stage rolling stock/equipment for PredRun
23-Aug		Trip out all rolling stock for PredRun
		Outfit all vehicles with LIS at WONCO Facility (ROBO)
25-Aug		MRF-D load CTA Box
26-Aug	PREDRUN	MRF-D load CTA Box
		Cougar/Eagle/LCE TT movement ROBO > MBTA (Scale A)
		32 PAX Cougar, 17 PAX Eagle, 50 PAX LCE bus ROBO > MBTA
		165 PAX Lonestar load V31 bus CTA > RAAF-D
		25 PAX Lonestar Wave 1 insert > Melville Island Airfield #1
		30 PAX Lonestar Wave 2 insert > Melville Island Airfield #2
27-Aug		25 PAX Lonestar Wave 3 insert > Melville Island Airfield #3
		30 PAX Lonestar Wave 4 insert > Melville Island Airfield #4
		25 PAX Lonestar Wave 1 insert > Melville Island Airfield #5
		30 PAX Lonestar Wave 2 insert > Melville Island Airfield #6
28-Aug		CL I H2O, CL III resupply mission (LCE) [MBTA]
		CL I Rations resupply mission (LCE) [Melville Obj 1,2]
		CL I H2O resupply mission (LCE) [Melville Obj 1,2]

Date		Event
	PREDRUN	165 PAX Lonestar staged for extract Melville > RAAF-D
		25 PAX Lonestar Wave 1 extract > Melville Island Airfield #1
		25 PAX Lonestar mvmt RAAF-D > ROBO (V31 bus)
		30 PAX Lonestar Wave 2 extract > Melville Island Airfield #1
		30 PAX Lonestar mvmt RAAF-D > ROBO (V31 bus)
		25 PAX Lonestar Wave 3 extract > Melville Island Airfield #2
		25 PAX Lonestar mvmt RAAF-D > ROBO (V31 bus)
29-Aug		30 PAX Lonestar Wave 4 extract > Melville Island Airfield #2
		30 PAX Lonestar mvmt RAAF-D > ROBO (V31 bus)
		25 PAX Lonestar Wave 5 extract > Melville Island Airfield #2
	PREP	25 PAX Lonestar mvmt RAAF-D > ROBO (V31 bus)
		30 PAX Lonestar Wave 6 extract > Melville Island Airfield #2
		30 PAX Lonestar mvmt RAAF-D > ROBO (V31 bus)
		165 PAX Lonestar RTB
30-Aug		CLI Rations/H2O, CL III resupply mission (LCE) [MBTA]
		Stage rolling stock/equipment for CALFEX
		Trip out all rolling stock for PredRun
		Load rolling stock and equipment for CALFEX
		Brahma FWD RTB
		32 PAX Cougar load V31 Bus MBTA > ROBO
31-Aug	CALFEX	53 PAX Kodiak/FSCC load V31 Bus ROBO > MBTA
		Cougar/LCE vehicles TT MBTA (Scale A) > ROBO
		Kodiak/FSCC/MT CLP vehicles TT ROBO > MBTA (Scale A)
1-Sep		CL I H2O, CL III resupply mission (MT CLP) [MBTA]
2-Sep		
3-Sep		CLI Rations/H2O, CL III resupply mission (MT CLP) [MBTA]
	CALFEX	ENDEX
		Dunnage Turn-in
4-Sep		Vehicle washdowns & weed/seed
		S-4 Embark/MT Tm mvmt to MBTA to assist with equipment load
		Kodiak/Eagle/FSCC/LCE conduct weed/seed and washdowns at Scale A
5-Sep	CALFEX	Kodiak/Eagle/FSCC/LCE vehicle TT ROBO > MBTA (Scale A)
		46 PAX Kodiak, 17 PAX Eagle, 7 PAX FSCC, 20 PAX MT MBTA (Scale A) > ROBO

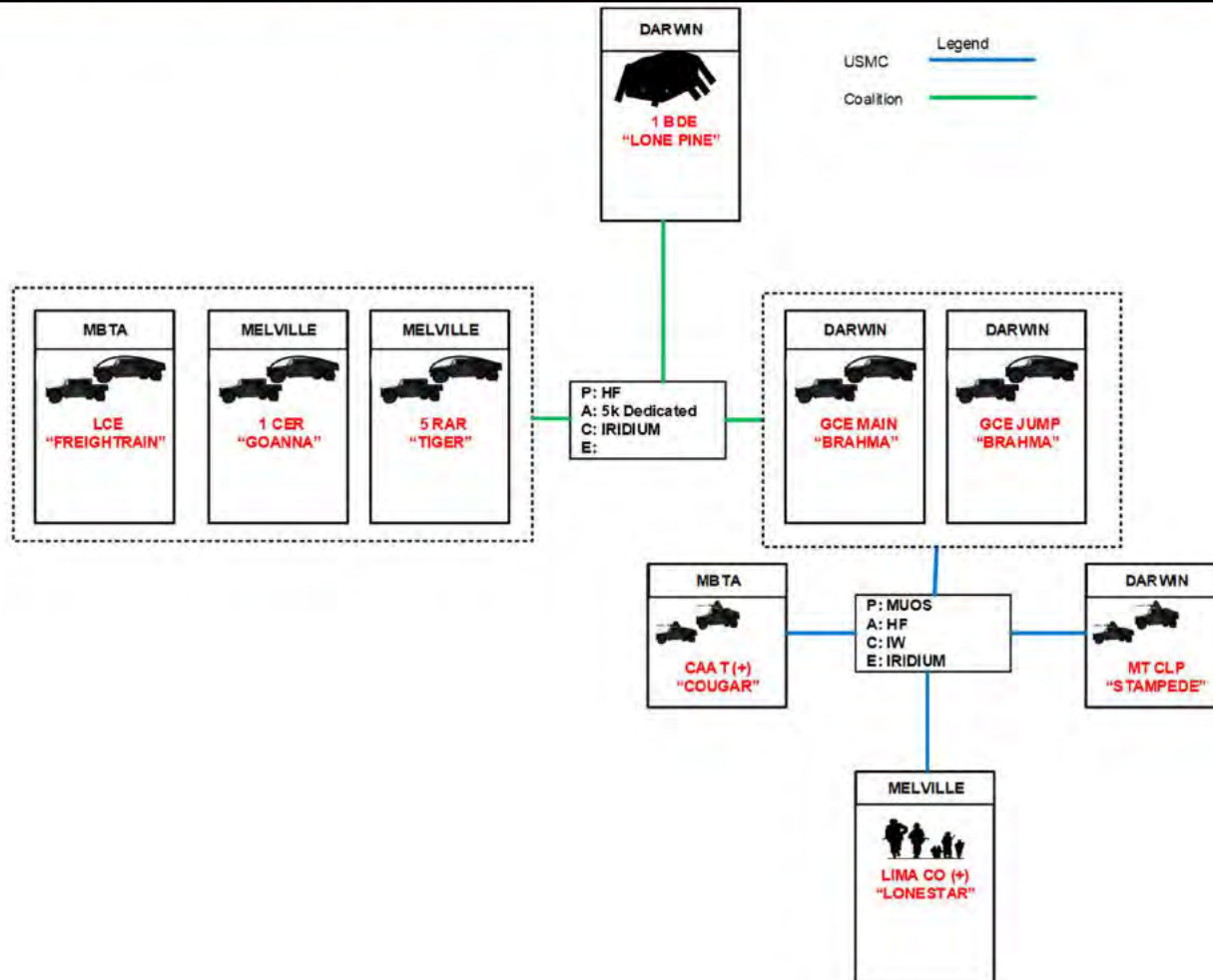
Air Movement
Ground Movement

Concept of Communications



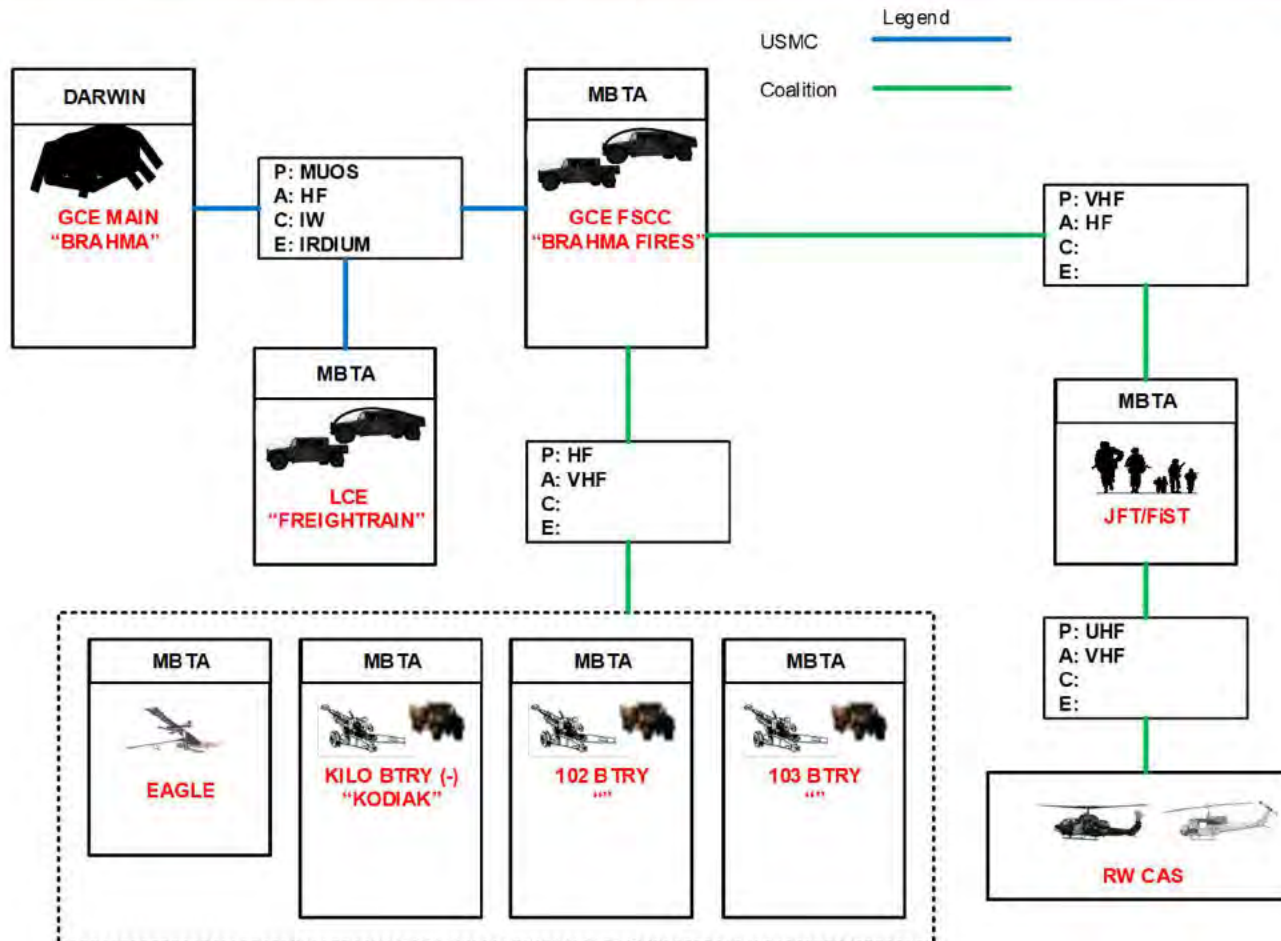


WFX Concept of Communications





CALFEX Concept of Communications

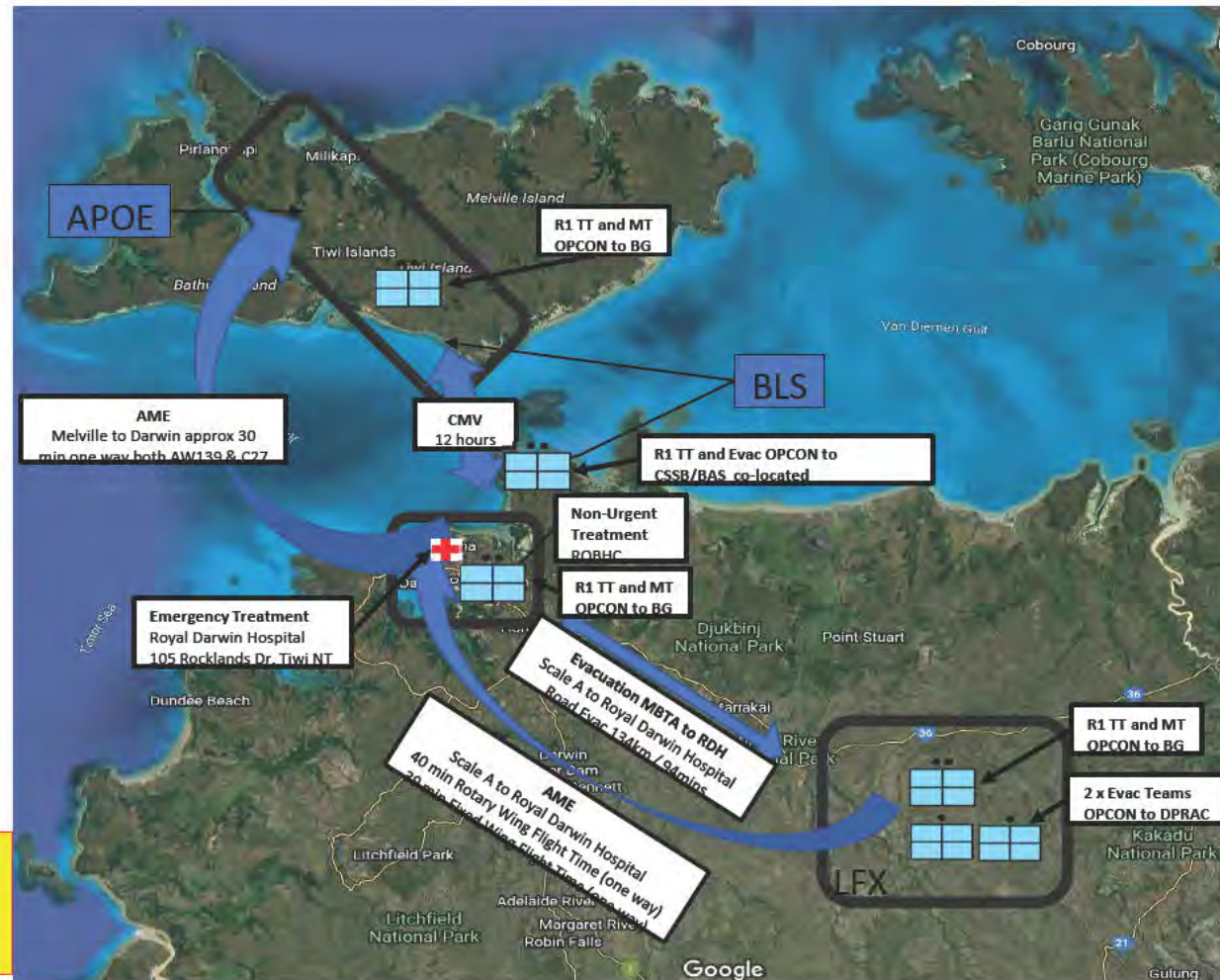
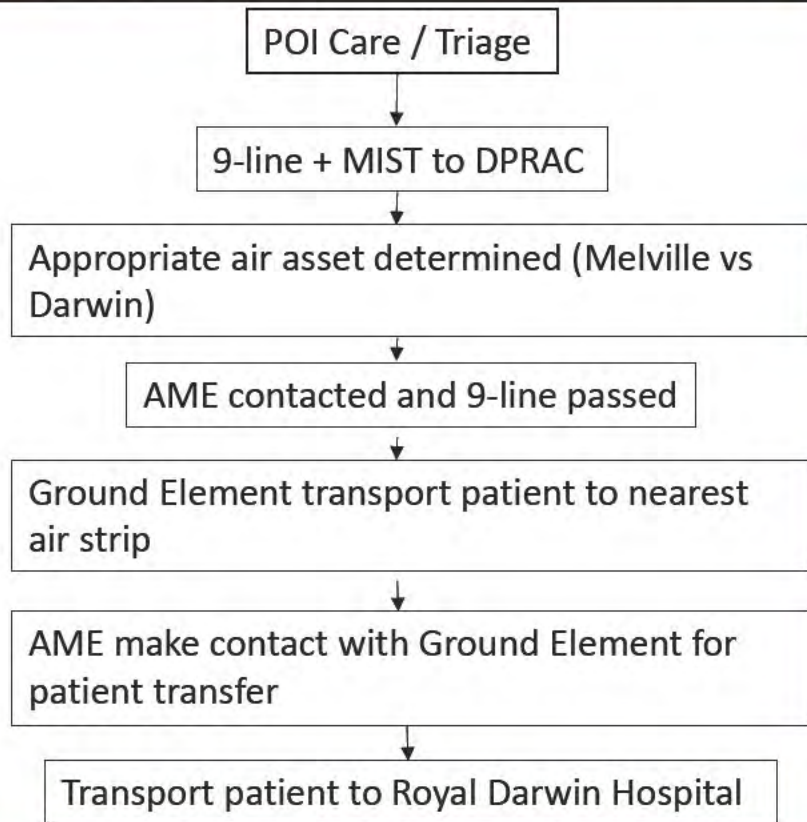


Concept of Medical Support





Medical Concept of Support



Note

1. HQ 1 Bde to submit PRED RUN ACMS request for all of 1 Bde med spt
2. BG COMDs/staff responsible for sync of OPCON med elements movts
3. C2 of evac beyond BG through HQ 1 Bde 0A



CMST Support

Messages:

Posture - The ability of Marine Rotational Force – Darwin to conduct combined-arms, live-fire training evolutions, side-by-side the Australian Defence Force is a testament to the ability of the combined force to execute maneuver warfare efficiently and accurately in support of crisis and contingency throughout the region.

- Talking Point 1: Contribution to FD2030 modernization objectives, demonstrating execution of lightweight, mobile, lethal units alongside allies.
- Talking Point 2: Ability to cross utilize kinetic fire platforms.

Interoperability - Integrating MRF-D/ADF warfighting tactics and operating procedures increases combined lethality by enabling the forces to maneuver as one on the battlefield.

- Talking Point 1: Ability to deploy MRF-D assets via RAAF C27 during insert to Melville Island.
- Talking Point 2: MRF-D infantry company operating under command of ADF higher headquarters

Allies and partners - Every opportunity to engage with our Allies and partners throughout the region paves the way for enhanced security and stability. Together MRF-D and ADF are building relationships with Allies and partners throughout the region to increase strength through partnership.

- Talking Point 1: This exercise represents the larger enduring relationship between forces.
- Talking Point 2: Increases in combined lethality provides the Indo-Pacific region with a ready and capable fighting force.

Key Publics:

1. Australian Defence Force personnel
2. Australian domestic public
3. U.S. domestic public
4. Elected officials for regional Allies and partners
5. Regional competitors

Personnel:

MRF-D PAO: (b) (6)
 SNCOIC: (b) (6)
 Photographer: (b) (6)
 ADF PAO: (b) (6)

Shot list:

- 1) Air assault
- 2) Reconnaissance patrols
- 3) AUS/US sensor best shooter kinetic fire
- 4) Higher ADF Command
- 5) C27 insert Melville Island

Media Embed: Tentative

Outlet: Agence France Presse (AFP), 3 PAX

Duration: 24 hours

Date: TBD, window between 30 AUG – 5 Sept

Interest: MRF-D/NORFORCE training, Growing U.S. investment in NT



Commander Comments/ Guidance





Overall Classification:
UNCLASSIFIED//FOUO



PHASE 1

YPDN PZ to Objective Area Ingress

PHASE 2

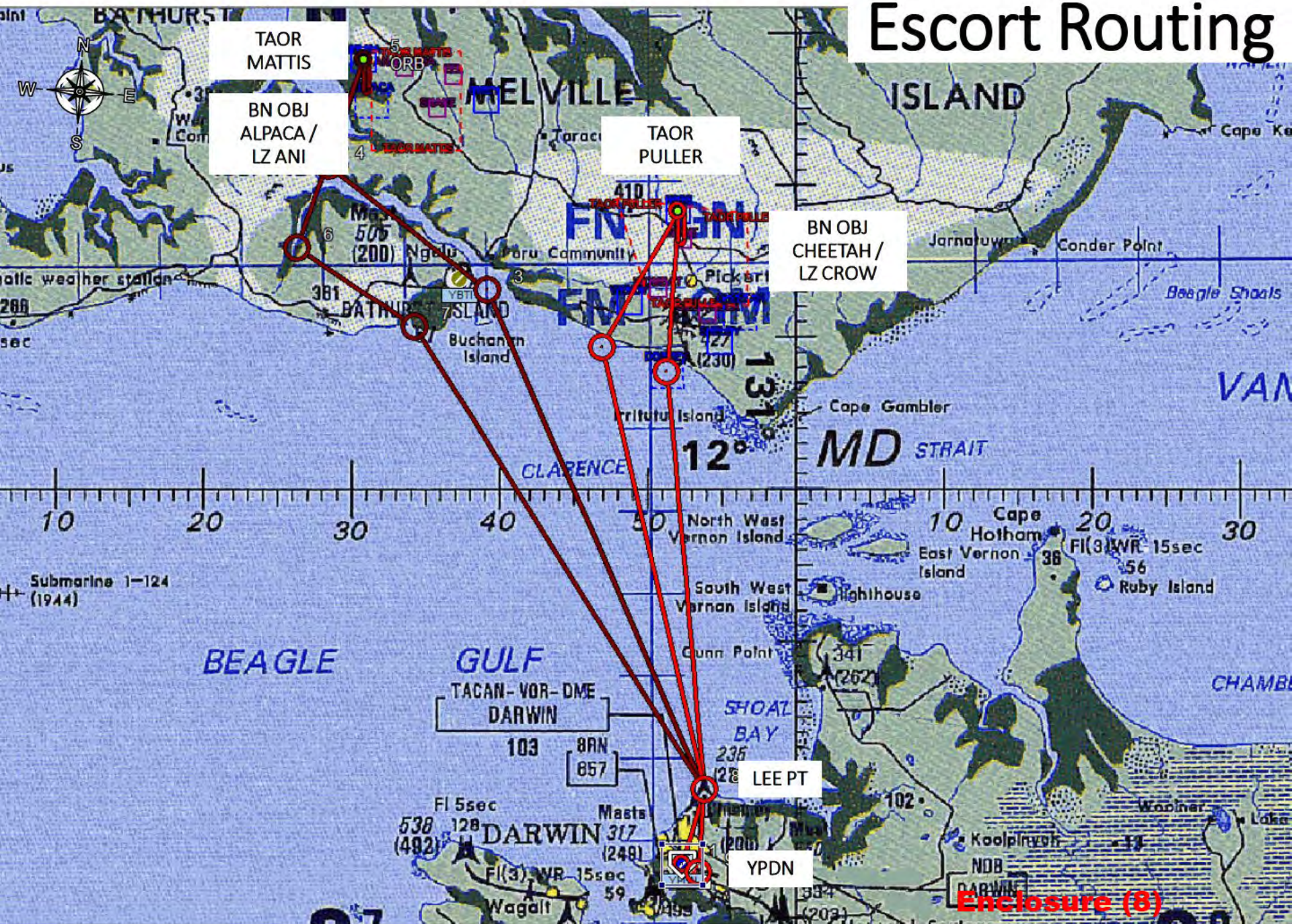
Insert through Objective Area Operations

PHASE 3

Egress Objective Area to YPDN

Enclosure (8)

Escort Routing



Assault Routing



Enclosure (8)

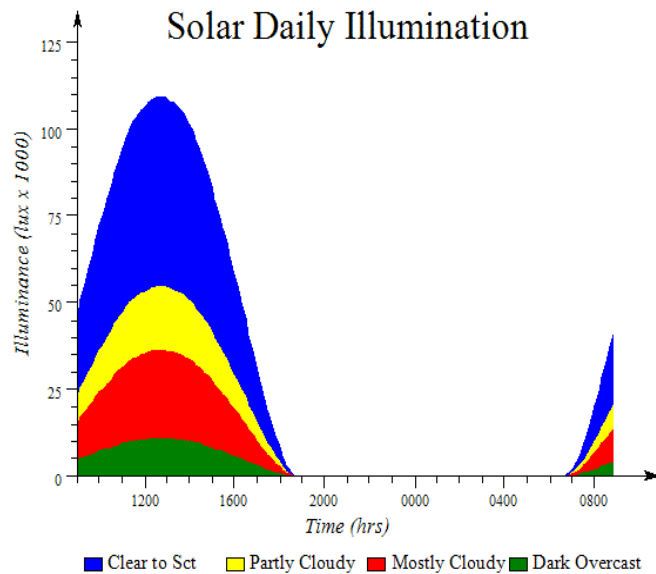


Operations Brief

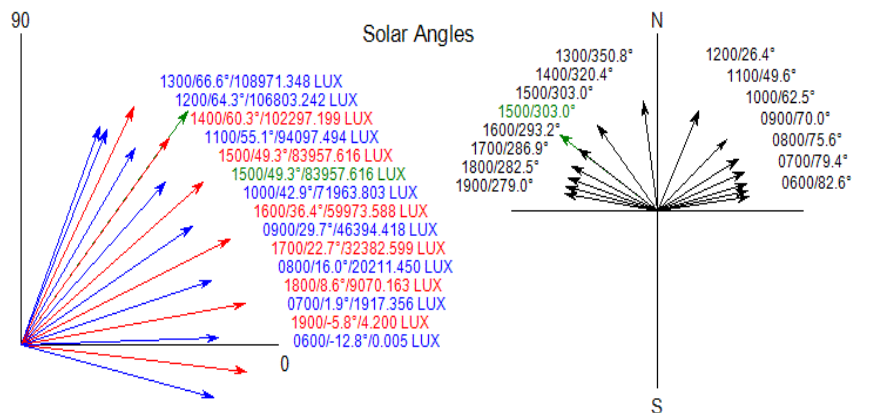
Smartpack Inventory (Assaults)

Smartpack Inventory (Escorts)

Solar Daily Illumination

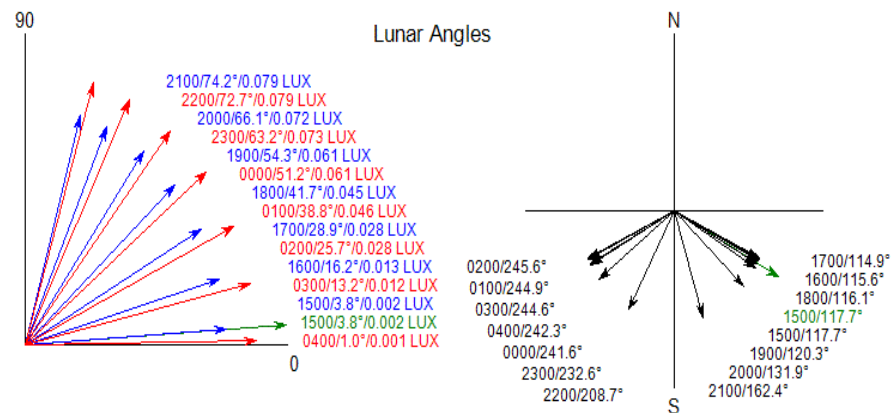


Solar Angles



Location: MELVILLE ISLAND	Moonset: 0303	Time	ALT	AZ	LUX
Latitude: S 12 58.9900	BMNT: 0604	1500	49	303	8.396
Longitude: E 131 53.5870	Sunrise: 0650	900	29	70	4.639
Date: 27 August 2023	Moonrise: 1437	1000	42	62	7.196
Time Offset: +0930	Sunset: 1838	1100	55	49	9.410
	EENT: 1925	1200	64	26	10.680
		1300	66	350	10.897

Lunar Angles



Location: MELVILLE ISLAND	Moonset: 0303	Time	ALT	AZ	LUX
Latitude: S 12 58.9900	BMNT: 0604	1500	3	117	0.002
Longitude: E 131 53.5870	Sunrise: 0650	900	-49	176	0.000
Date: 27 August 2023	Moonrise: 1437	1000	-46	158	0.000
Time Offset: +0930	Sunset: 1838	1100	-40	144	0.000
	EENT: 1925	1200	-30	133	0.000
		1300	-20	126	0.000

Enclosure (8)

UNCLASSIFIED



Enemy Situation 27 AUG 2023

Overall Classification: **CONTROLLED UNCLASSIFIED INFORMATION // EXERCISE**
EXERCISE EXERCISE

Derived from: Multiple Sources

Classified by: VMM-363 (REIN) S-2

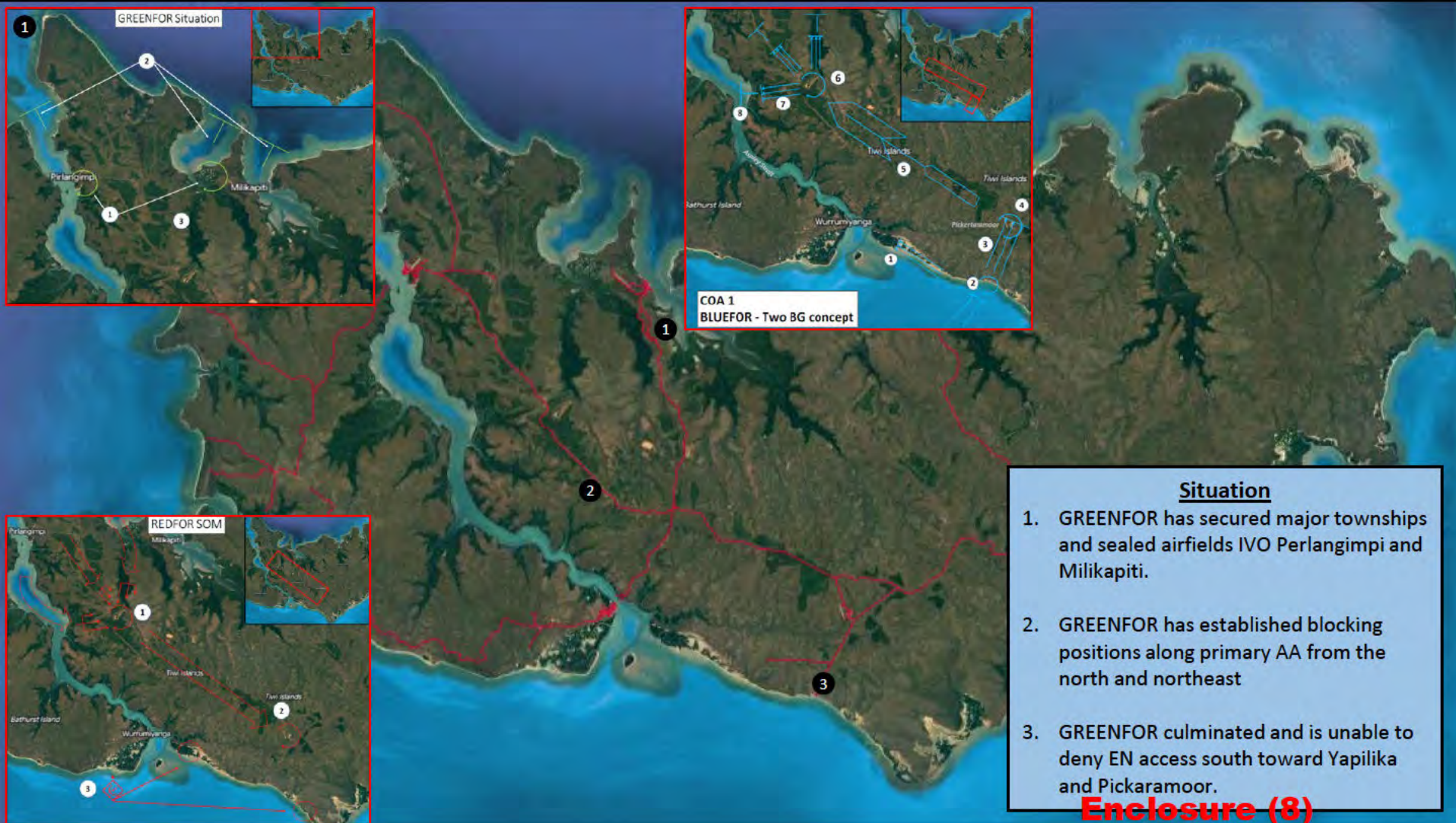
Declassify date: N/A

Enclosure (8)

UNCLASSIFIED



General Situation



Situation

1. GREENFOR has secured major townships and sealed airfields IVO Perlangimpi and Milikapiti.
2. GREENFOR has established blocking positions along primary AA from the north and northeast
3. GREENFOR culminated and is unable to deny EN access south toward Yapilika and Pickaramoor.

Enclosure (8)



CONTROLLED UNCLASSIFIED INFORMATION



Area of Operations

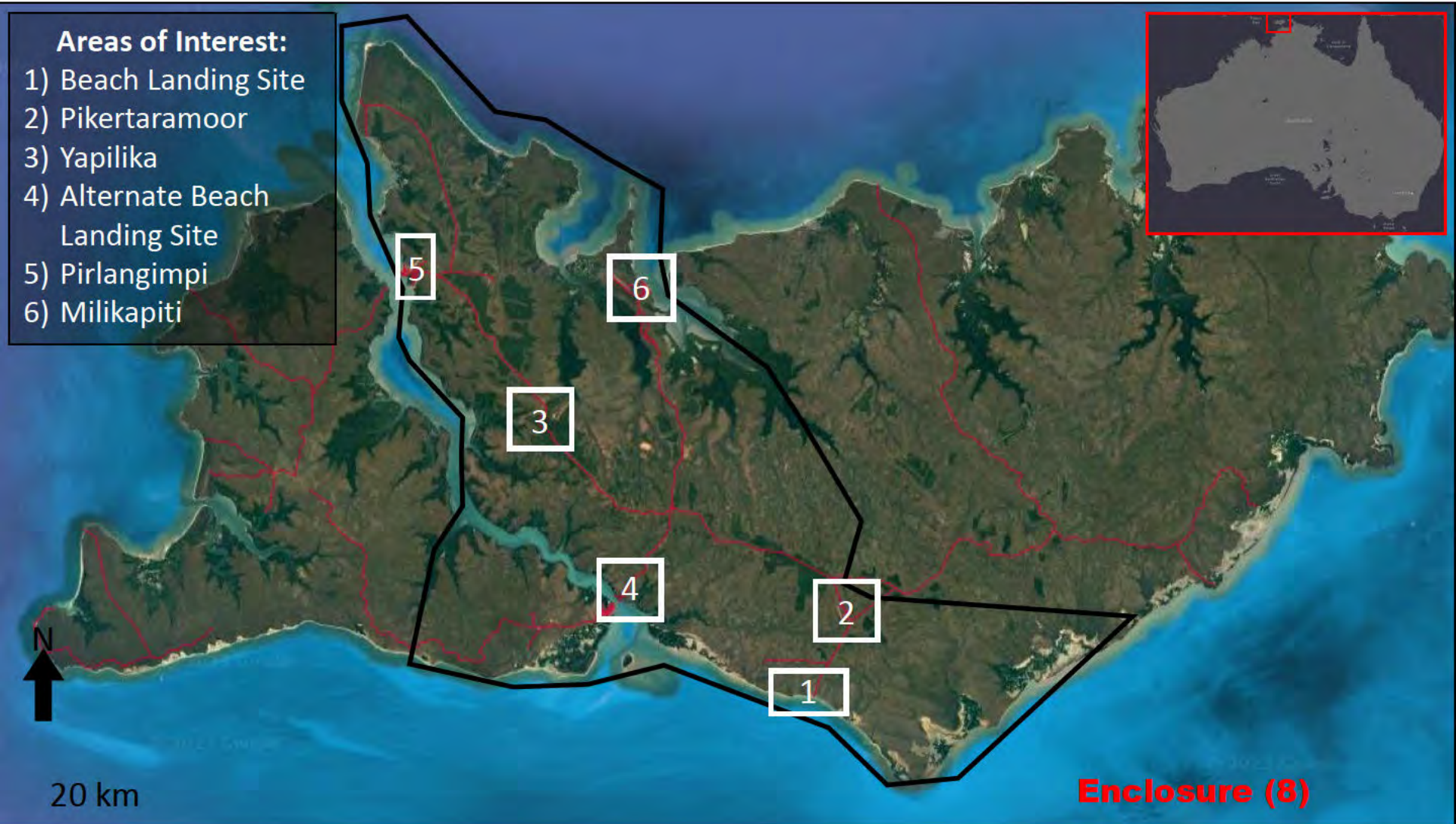




Areas of Interest

Areas of Interest:

- 1) Beach Landing Site
- 2) Pikertaramoor
- 3) Yapilika
- 4) Alternate Beach Landing Site
- 5) Pirlangimpi
- 6) Milikapiti

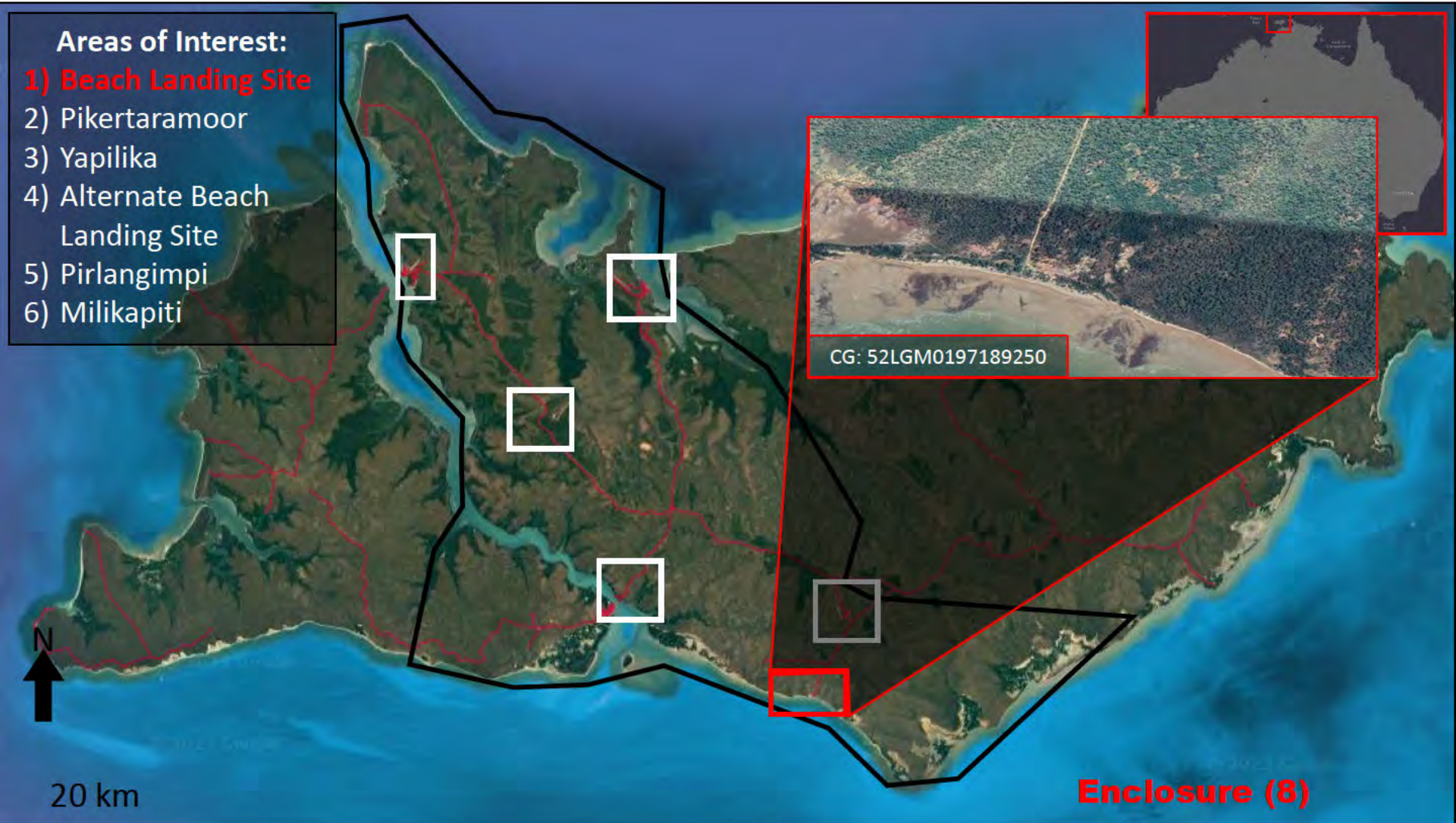




Areas of Interest

Areas of Interest:

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- 2) Pikertaramoor
- 3) Yapilika
- 4) Alternate Beach Landing Site
- 5) Pirlangimpi
- 6) Milikapiti



CG: 52LGM0197189250

Enclosure (8)



Areas of Interest

Areas of Interest:

- 1) Beach Landing Site
- 2) **Pikertaramoor**
- 3) Yapilika
- 4) Alternate Beach Landing Site
- 5) Pirlangimpi
- 6) Milikapiti



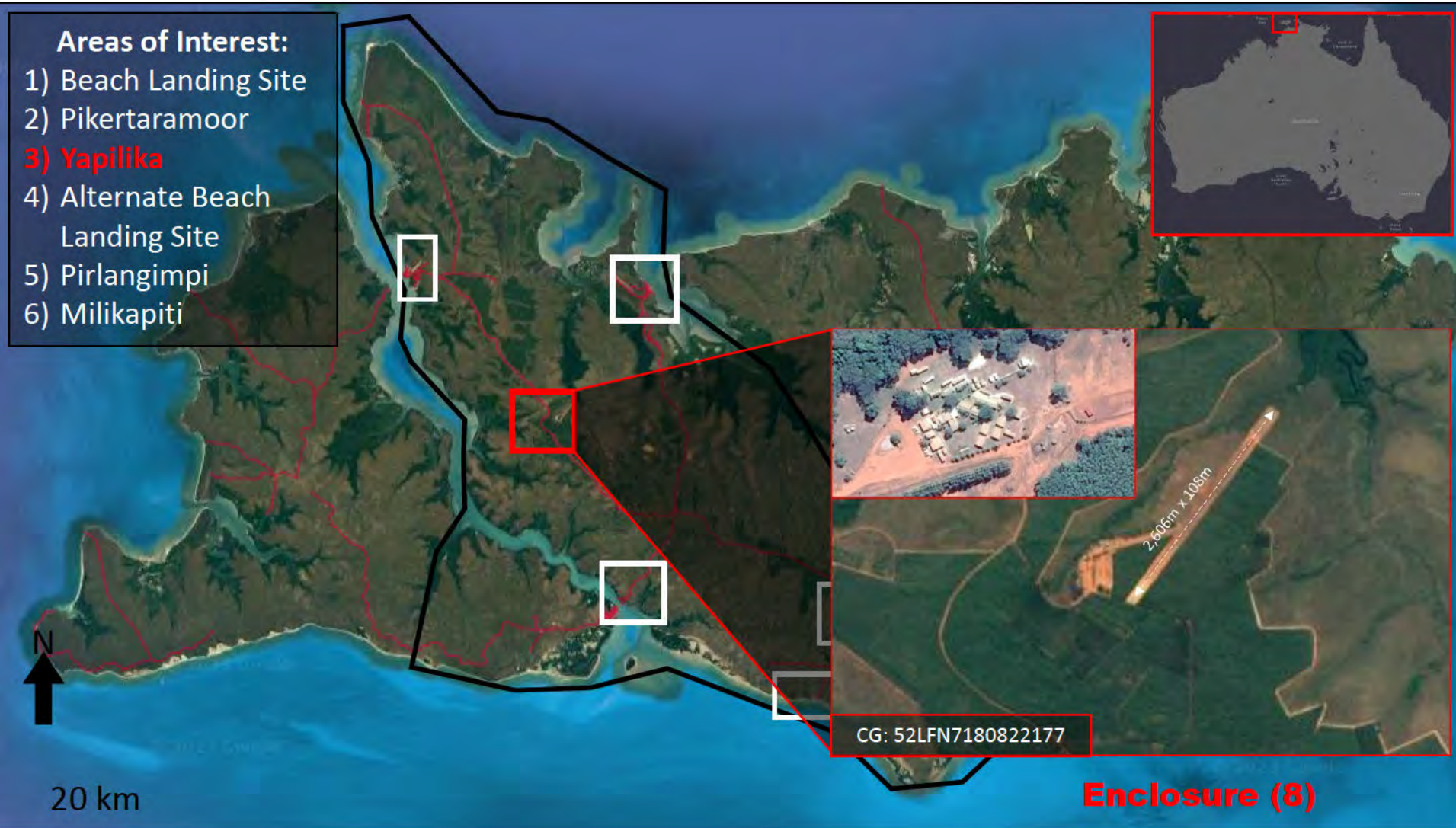
Enclosure (8)



Areas of Interest

Areas of Interest:

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- 2) Pikertaramoor
- 3) **Yapilika**
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- 5) Pirlangimpi
- 6) Milikapiti



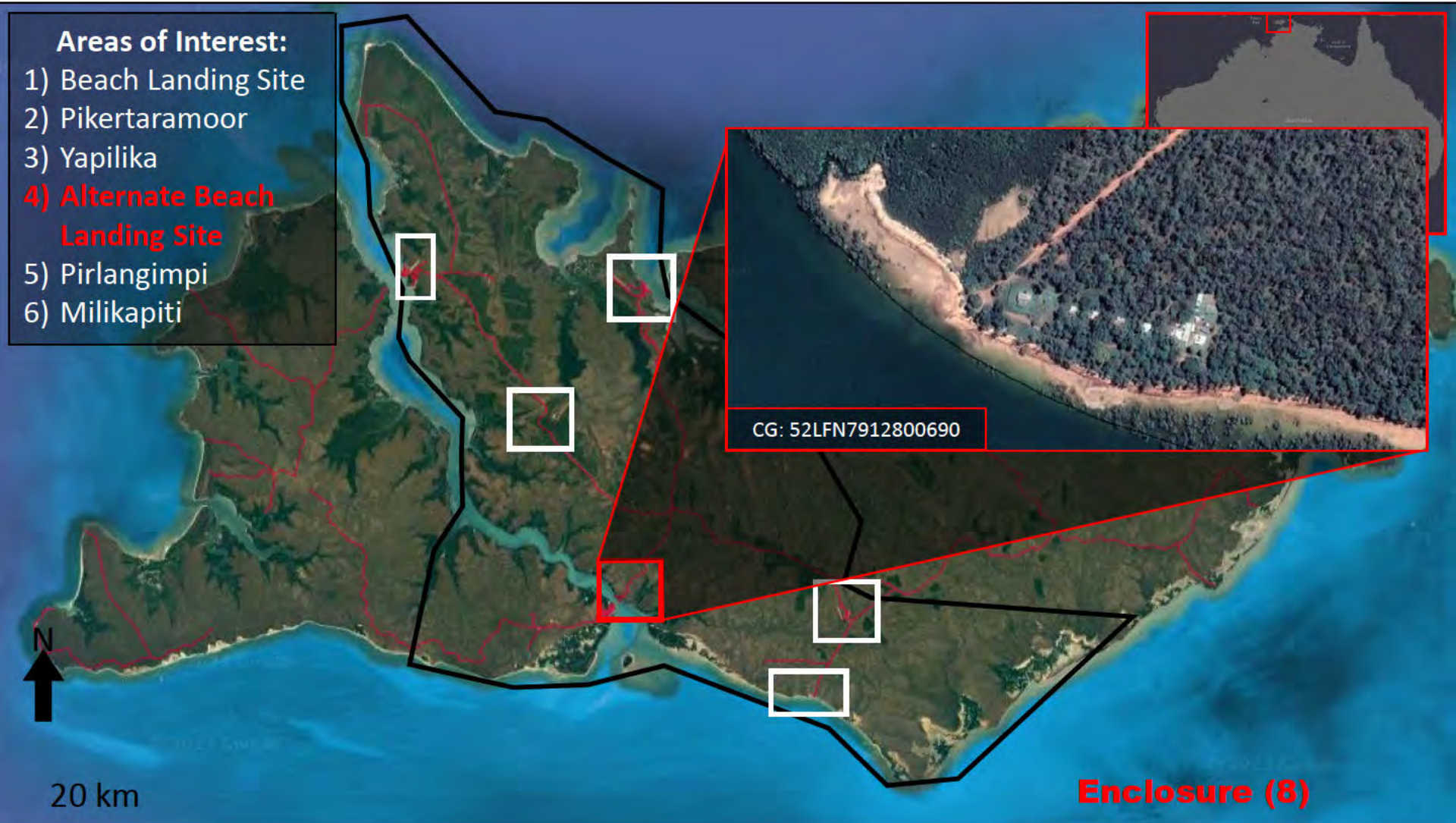
Enclosure (8)



Areas of Interest

Areas of Interest:

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- 6) Milikapiti



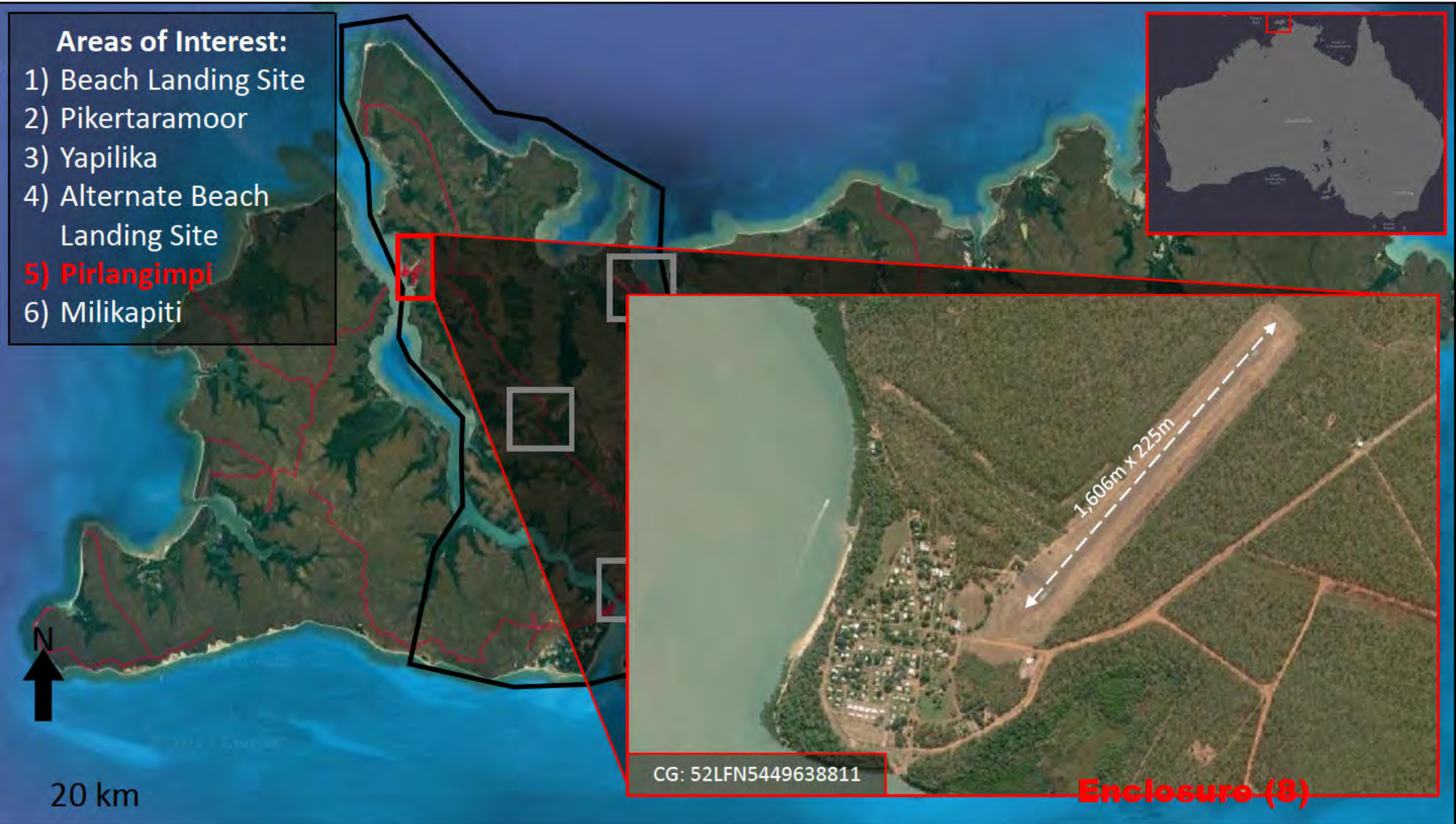
Enclosure (8)



Areas of Interest

Areas of Interest:

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- 2) Pikertaramoor
- 3) Yapilika
- 4) Alternate Beach Landing Site
- 5) **Pirlangimpi**
- 6) Milikapiti

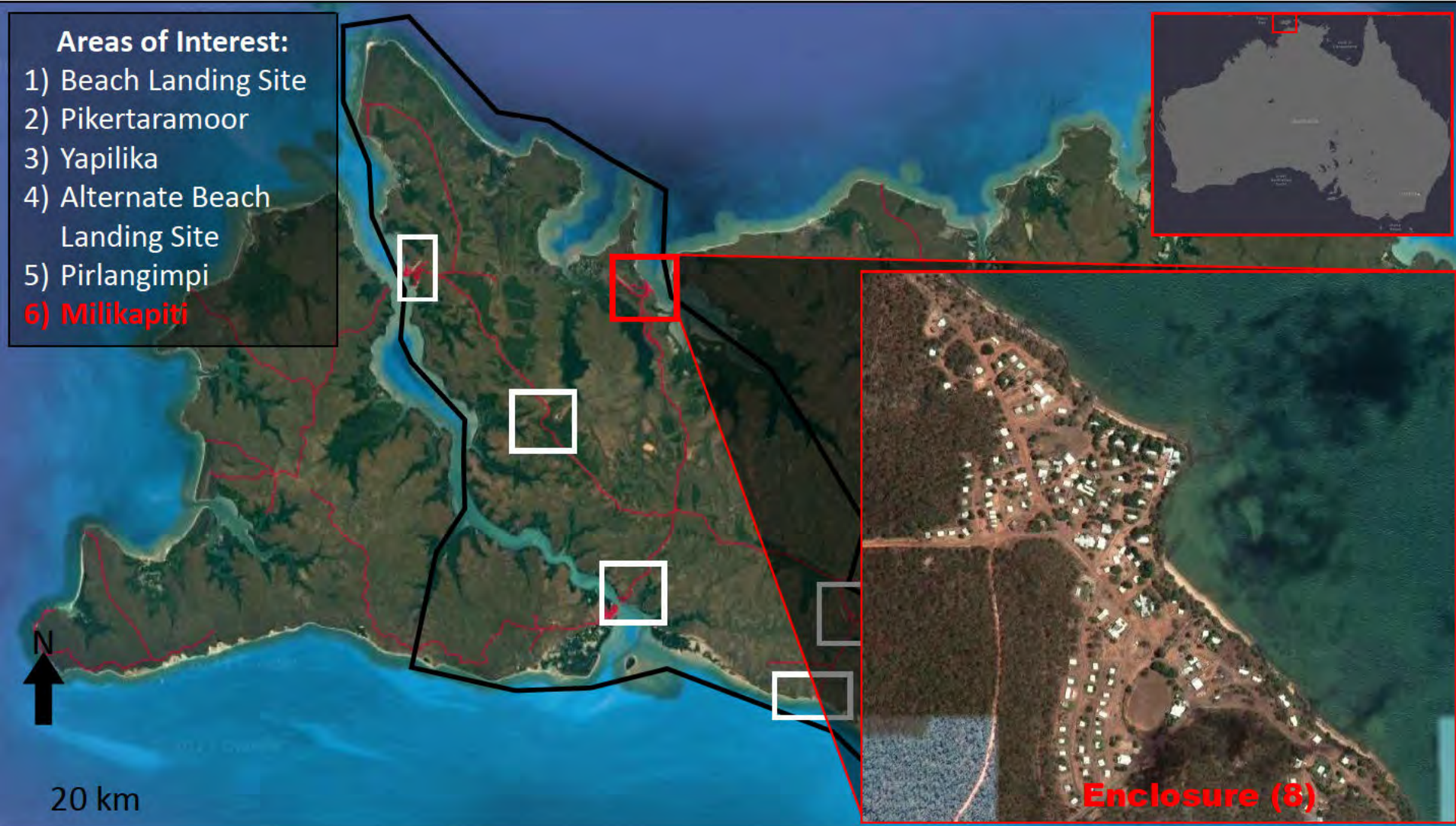




Areas of Interest

Areas of Interest:

- 1) Beach Landing Site
- 2) Pikertaramoor
- 3) Yapilika
- 4) Alternate Beach Landing Site
- 5) Pirlangimpi
- 6) **Millikapiti**



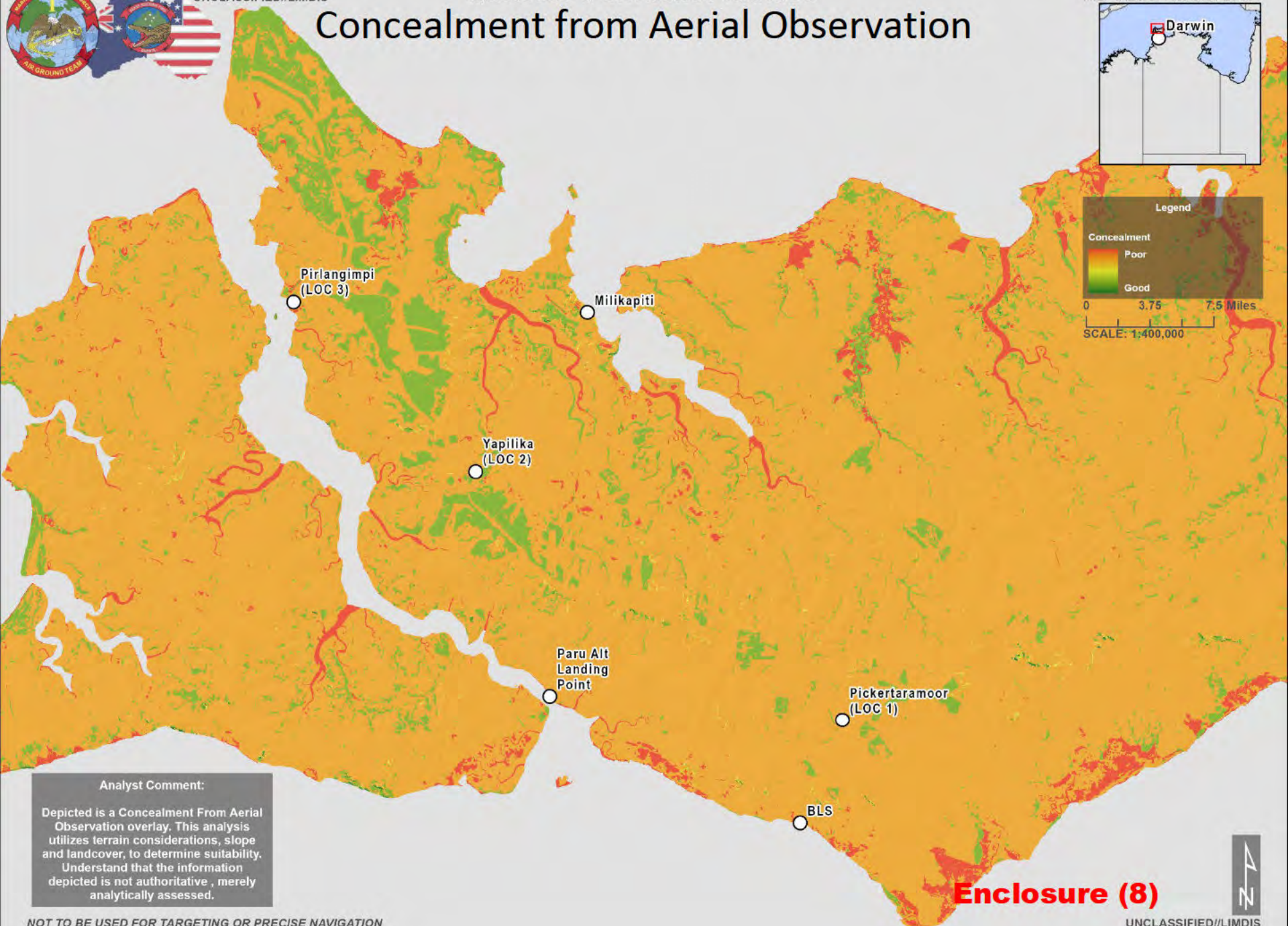
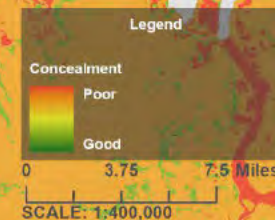
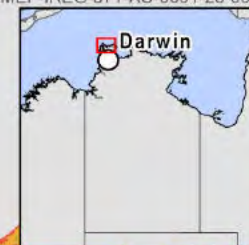


UNCLASSIFIED//LIMDIS

MELVILLE & BATHURST ISLANDS

IMEF-IREG-571-AU-0001-23-001

Concealment from Aerial Observation



Analyst Comment:

Depicted is a Concealment From Aerial Observation overlay. This analysis utilizes terrain considerations, slope and landcover, to determine suitability. Understand that the information depicted is not authoritative, merely analytically assessed.

NOT TO BE USED FOR TARGETING OR PRECISE NAVIGATION

Enclosure (8)

UNCLASSIFIED//LIMDIS





Courses of Action

MLCOA:

EN Recon (SPF/IW) forces are likely attempting to establish a hasty HQ in the AO.

- Likely at the town of Pikertaramoor

EN forces are still assessed to be in phases 1 & 2, attempting to sway the civilian populace support to support Olvanans.

EN is most likely seeking to avoid conflict with BF A/C in the AO IOT maintain their foothold in the AO and complete their mission of gaining civilian support and waiting for a larger force before engaging in offensive operations.

EN is likely using small vessels to conduct ISR against friendly movement in the AO, as well as deter FF from entering the AO.

MDCOA:

EN forces are providing intelligence of BF movement to local proxy forces, attempting to have proxy forces support Olvanan operations.

- Proxy forces may attempt to engage BF A/C with MANPADS and/or technical vehicles if they enter the WEZ and are deemed a threat.



Enclosure (8)



TTAO



Entire table is:

CUI

This product is intended for training purposes only.

C4I

GCI Reliance

Low Med High

Engagement Authority

Decentralized (SOC level)

<5 min 5-10 >10 min

Comm

HF, VHF, Handheld

NVD Use

None Limited High

RF/IR SAMs

MANPADS

SYSTEM	MRIR (NM)	GEN	UNK	1	2	3
-	-					
SYSTEMS						
-						
RKTs/ATGMs						
-						

ADA

<u>CAL</u>	7.62	HMG	LT	MED	HVY
SYSTEMS	SMARMS				
GUIDANCE	Enclosure (8) Optical				

CAPABILITY: FAC/FIAC Vessels, Maritime fishing vessels.

INTENT: EN will most likely attempt to blend in with civilian vessels IOT avoid contact with FR RW A/C.

			Very High	INTENT
			High	
			Moderate	
			Low	
			Very Low	
Low	Moderate	High	TTAO: LOW	
CAPABILITY				



Intelligence Section Points of Contact

S-2 OIC: (b) (6)

Email: (b) (6)

S-2 SNCO: (b) (6)

Email: (b) (6)

S-2 Analysts:

(b) (6)

Email: (b) (6)

(b) (6)

Email: (b) (6)

(b) (6)

Email: (b) (6)

Enclosure (8)

UNCLASSIFIED



Enclosure (8)

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UNCLASSIFIED



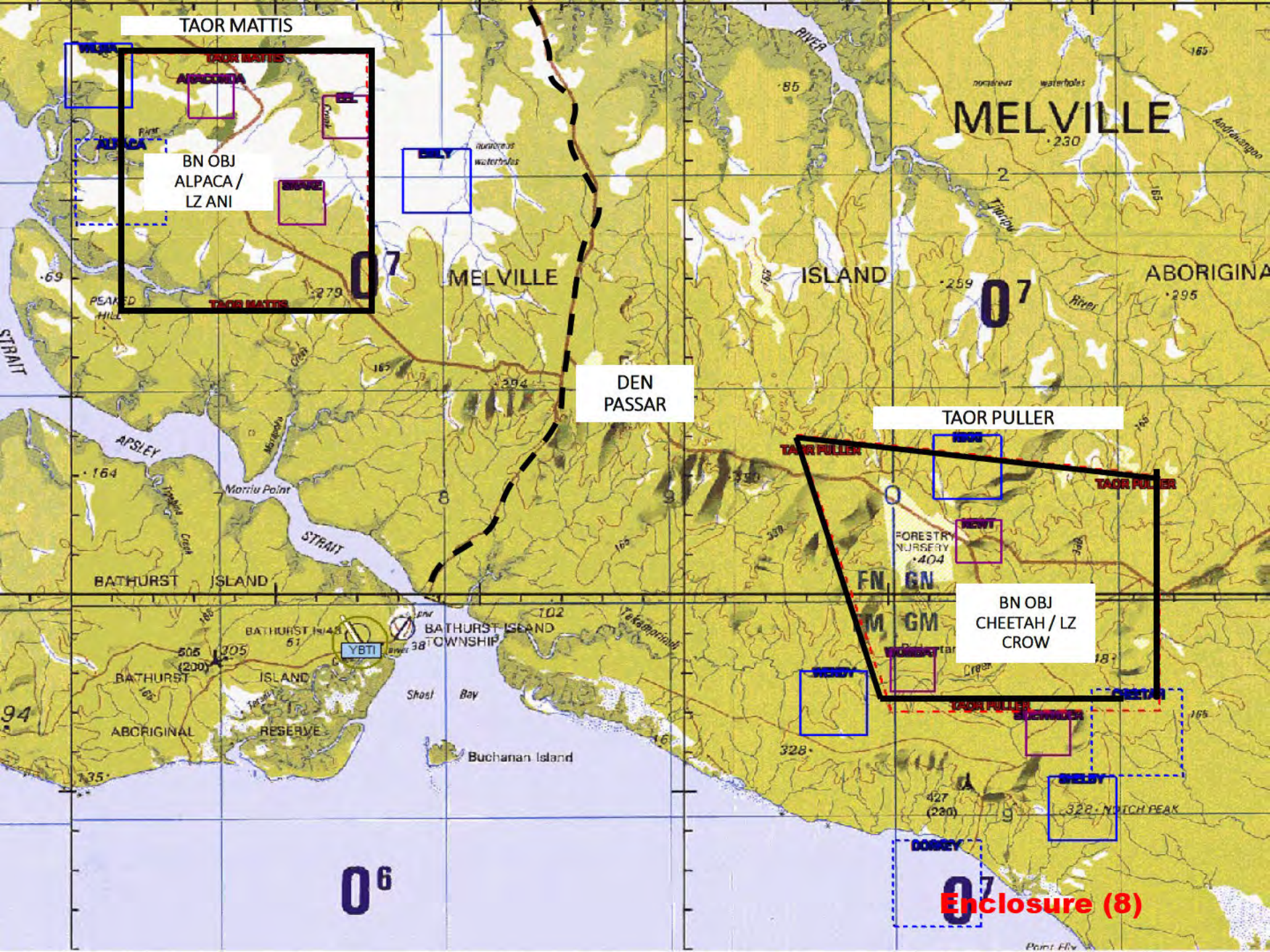
GCE

Enclosure (8)

UNCLASSIFIED

GCE Mission

- Add statement
 - SPECIFIED
 - IMPLIED
 - ESSENTIAL
- L-Hour: 0920L
- Mission precedence: priority
- BPT:
- GO:
- NO GO:
- MIN WEATHER:
 - MV-22:
 - H-1: 1400/5
- End state / mission success criteria
- Commander's Intent:



TAOR MATTIS

TAOR MATTIS

ALPACA

BN OBJ
ALPACA /
LZ ANI

TAOR MATTIS

DEN
PASSAR

MELVILLE

ISLAND

TAOR PULLER

ABORIGINAL

FORESTRY
NURSERY
404

BN OBJ
CHEETAH / LZ
CROW

Enclosure (8)

**LONESTAR LOCATIONS/FREQ
NEED CLEANED UP**

Friendly SOM: Obj Alpaca



Concept of Operations

Scheme of Maneuver: The SOM consists of 5 Stages; Shaping, Insert, Actions on Objectives, RIP, Retrograde

Stage A: Shaping

- BW: ROC Walk
- EW: PZ established
- CE: Leaders recon, Armory draw, internal comm checks, movement to RAAF, Hateful link up, launch authority approved
- CS: PZ comm established with FWD, escort launch confirmed, manifest/serial confirmation

Stage B: Insert

- BW: Wheels up wave 1
- EW: All forces inserted Objectives Alpaca and Cheetah
- CE: Escort ice Alpaca/ISR ice Cheetah, minimum boots OD inserted, landing points secured, DAS to CAS transition, consolidation
- CS: Comm established with FWD

Stage C: Actions On

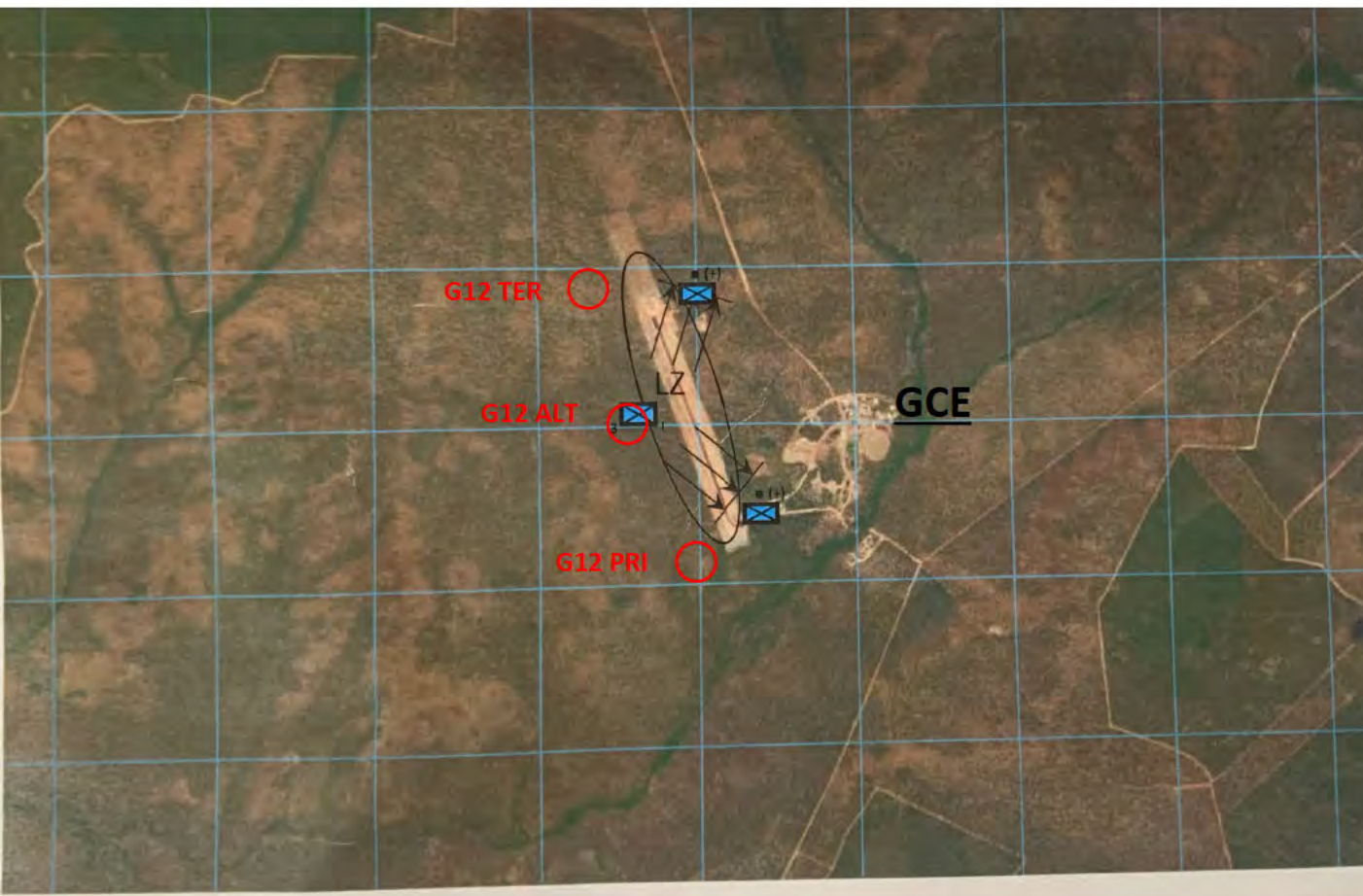
- BW: Plt's clear in sector
- EW: Link up with Tiger elements
- CE: BP/VCP/ECP's established on AOA and entrances, interdiction in sector, positions establish defensive perimeter
- CS: Physical or radio linkup confirmation of passage of lines confirmed with C Coy and India 23, communicated across assault forces

Stage D: Relief and Retrograde

- BW: FRAGOs of RIP plan
- EW: All personnel recovered to Robertson Barracks
- CE: C27 on load off load, marshalling and guide plan executed, V-22 extract, movement RAAF to ROBO

Enclosure (8)

Friendly SOM: Obj Cheetah



Concept of Operations

Scheme of Maneuver: The SOM consists of 5 Stages; Shaping, Insert, Actions on Objectives, RIP, Retrograde

Stage A: Shaping

- BW: ROC Walk
- EW: PZ established
- CE: Leaders recon, Armory draw, internal comm checks, movement to RAAF, Hateful link up, launch authority approved
- CS: PZ comm established with FWD, escort launch confirmed, manifest/serial confirmation

Stage B: Insert

- BW: Wheels up wave 1
- EW: All forces inserted Objectives Alpaca and Cheetah
- CE: Escort ice Alpaca/ISR ice Cheetah, minimum boots OD inserted, landing points secured, DAS to CAS transition, consolidation
- CS: Comm established with FWD

Stage C: Actions On

- BW: Plt's clear in sector
- EW: Link up with Tiger elements
- CE: BP/VCP/ECP's established on AOA and entrances, interdiction in sector, positions establish defensive perimeter
- CS: Physical or radio linkup confirmation of passage of lines confirmed with C Coy and India 23, communicated across assault forces

Stage D: Relief and Retrograde

- BW: FRAGOs of RIP plan
- EW: All personnel recovered to Robertson Barracks
- CE: C27 on load off load, marshalling and guide plan executed, V-22 extract, movement RAAF to ROBO

Enclosure (8)

UNCLASSIFIED



ACE

Enclosure (8)

UNCLASSIFIED

ACE Mission

- At 2330Z on 26 Aug 2023, MRF-D ACE conducts air assault on Melville Island IOT facilitate securing 1 BDE Obj 1 and 2.
 - SPECIFIED: DAS, CAS, ESCORT, CAT
 - IMPLIED: MIR
 - ESSENTIAL: DAS, CAT
- L-Hour: 0920L
- Mission precedence: Priority
- BPT: CASEVAC, Immediate Re-embark
- GO:
 - MIN BOOTS: 18 PER OBJ
 - H-1 TBD
 - 1xMV22
- NO GO: TBD
- MIN WEATHER:
 - MV-22: 1000/5
 - H-1: 1400/5
- End state / mission success criteria: 1 BDE forces successfully inserted into Obj 1 and 2 and ACE assets postured for future operations.
- Commander's Intent:
 - Purpose: Insert 1 BDE forces into Obj 1 and 2
 - Method: Via assault support aircraft
 - Endstate: Aircraft postured for future operations.
- ROE – Weapons HOLD

Enclosure (8)



PHASE 1- EFL YPDN PZ to Objective Area Ingress

Enclosure (8)

Execution

Add timeline

Escort Routing

The map displays the following locations and features:

- Islands:** MELVILLE ISLAND, BATHURST ISLAND, Buchanan Island, North West Vernon Island, South West Vernon Island, Cape Gambler, Cape Hotham, East Vernon Island, Ruby Island, Woolner Island.
- Water Bodies:** BEAGLE GULF, CLARENCE MD STRAIT, SHOAL BAY, CHAMBERLAIN BAY.
- Coastal Features:** Cape Keir, Jarnaluwun, Conder Point, Beagle Shoals, Cape Gambler, Cape Hotham, East Vernon Island, Ruby Island, Woolner Island.
- Navigation Aids:** Buoy 505 (200), Buoy 381, Buoy 427 (230), Buoy 341 (262), Buoy 336 (236), Buoy 102, Buoy 103, Buoy 857, Buoy 538 (492), Buoy 128, Buoy 317 (248), Buoy 59, Buoy 394 (203), Buoy 11, Buoy 13, Buoy 15, Buoy 16, Buoy 17, Buoy 18, Buoy 19, Buoy 20, Buoy 21, Buoy 22, Buoy 23, Buoy 24, Buoy 25, Buoy 26, Buoy 27, Buoy 28, Buoy 29, Buoy 30, Buoy 31, Buoy 32, Buoy 33, Buoy 34, Buoy 35, Buoy 36, Buoy 37, Buoy 38, Buoy 39, Buoy 40, Buoy 41, Buoy 42, Buoy 43, Buoy 44, Buoy 45, Buoy 46, Buoy 47, Buoy 48, Buoy 49, Buoy 50, Buoy 51, Buoy 52, Buoy 53, Buoy 54, Buoy 55, Buoy 56, Buoy 57, Buoy 58, Buoy 59, Buoy 60, Buoy 61, Buoy 62, Buoy 63, Buoy 64, Buoy 65, Buoy 66, Buoy 67, Buoy 68, Buoy 69, Buoy 70, Buoy 71, Buoy 72, Buoy 73, Buoy 74, Buoy 75, Buoy 76, Buoy 77, Buoy 78, Buoy 79, Buoy 80, Buoy 81, Buoy 82, Buoy 83, Buoy 84, Buoy 85, Buoy 86, Buoy 87, Buoy 88, Buoy 89, Buoy 90, Buoy 91, Buoy 92, Buoy 93, Buoy 94, Buoy 95, Buoy 96, Buoy 97, Buoy 98, Buoy 99, Buoy 100.
- Other Labels:** TAOR MATTIS, BN OBJ ALPACA / LZ ANI, TAOR PULLER, BN OBJ CHEETAH / LZ CROW, LEE PT, YPDN, TACAN-VOR-DME DARWIN, Submarine 1-124 (1944), Masts 505 (200), Masts 381, Masts 427 (230), Masts 341 (262), Masts 336 (236), Masts 102, Masts 103, Masts 857, Masts 538 (492), Masts 128, Masts 317 (248), Masts 59, Masts 394 (203), Masts 11, Masts 13, Masts 15, Masts 16, Masts 17, Masts 18, Masts 19, Masts 20, Masts 21, Masts 22, Masts 23, Masts 24, Masts 25, Masts 26, Masts 27, Masts 28, Masts 29, Masts 30, Masts 31, Masts 32, Masts 33, Masts 34, Masts 35, Masts 36, Masts 37, Masts 38, Masts 39, Masts 40, Masts 41, Masts 42, Masts 43, Masts 44, Masts 45, Masts 46, Masts 47, Masts 48, Masts 49, Masts 50, Masts 51, Masts 52, Masts 53, Masts 54, Masts 55, Masts 56, Masts 57, Masts 58, Masts 59, Masts 60, Masts 61, Masts 62, Masts 63, Masts 64, Masts 65, Masts 66, Masts 67, Masts 68, Masts 69, Masts 70, Masts 71, Masts 72, Masts 73, Masts 74, Masts 75, Masts 76, Masts 77, Masts 78, Masts 79, Masts 80, Masts 81, Masts 82, Masts 83, Masts 84, Masts 85, Masts 86, Masts 87, Masts 88, Masts 89, Masts 90, Masts 91, Masts 92, Masts 93, Masts 94, Masts 95, Masts 96, Masts 97, Masts 98, Masts 99, Masts 100.

BN OBJ
ALPACA/
LZ ANI

TAOR
PULLER

BN OBJ
CHEETAH,
LZ CROW

LEE PT

YPD

Enclosure (8)





PHASE 1- AFL YPDN PZ to Objective Area Ingress

Enclosure (8)

SCHEME OF MANEUVER



PRE-LAUNCH

MAN: 2245Z/0815I/K
FUEL: 7.5K LBS FOR 10% MARGIN INTO CROW
RIO: 2255Z
RAMPS-UP: BACK TO FRONT

FORM: 60 STO (SINGLE PUSH) CC
A/A: 180KCAS / 2000'MSL → 2500'MSL
LIGHTS: COND 1
COMM: 1-1 C1: BRASS, RUST
C2: ATIS, DELV, GND, TWR, DEP
1-2 C1: BRASS, RUST
C2: ATIS, GND, TWR, BASE, NT COMMON
ORD: ALE-47: STBY / PROG 3
APR-39: MODE 2
NAV: FLPN1
SENSORS: FLIR, HAT, RADALT, OVERLAYS; PER CP

Enclosure (8)

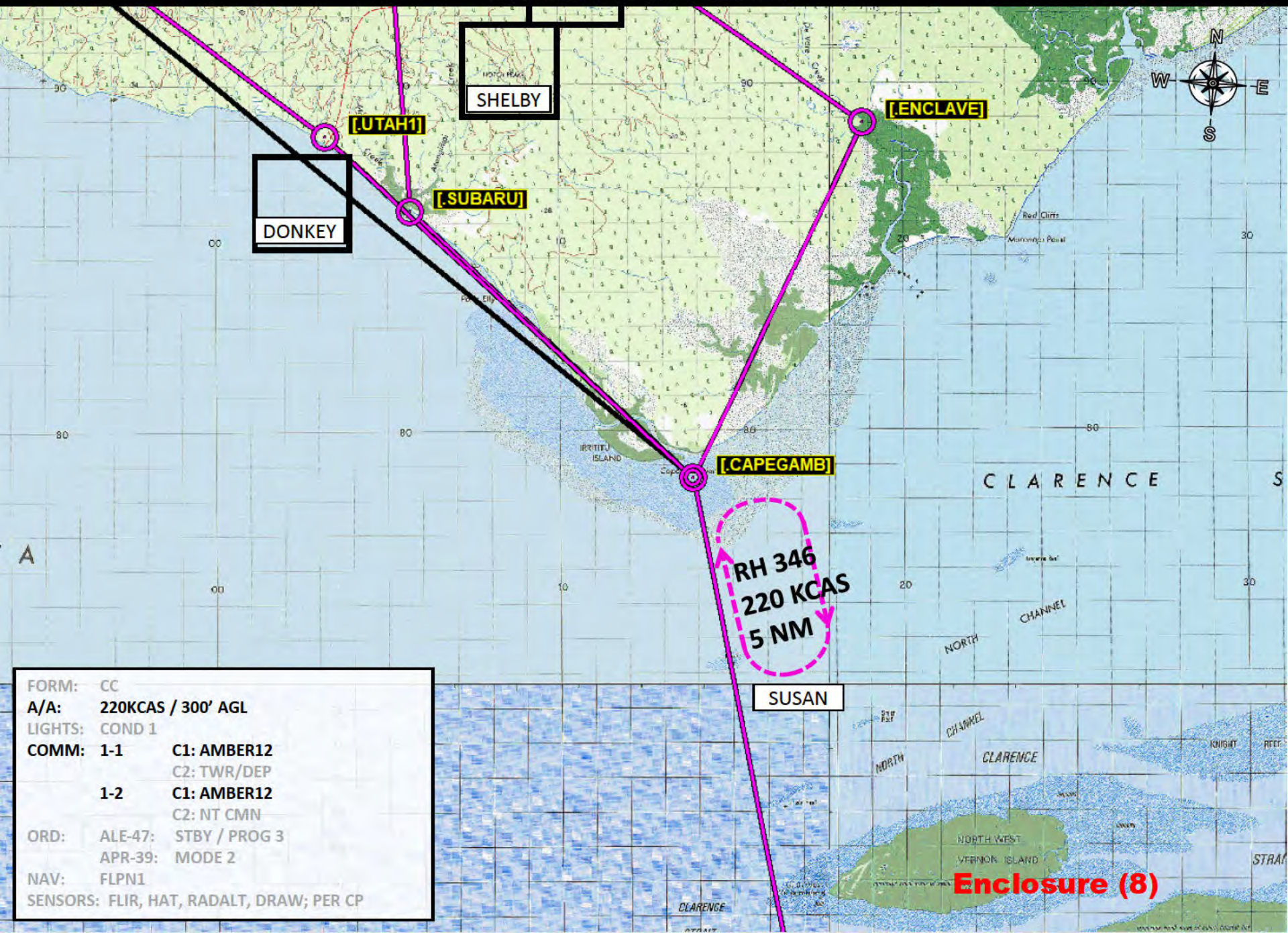
PZ DARWIN / 52L GM 0548 2610/ 103' MSL



SCHEME OF MANEUVER



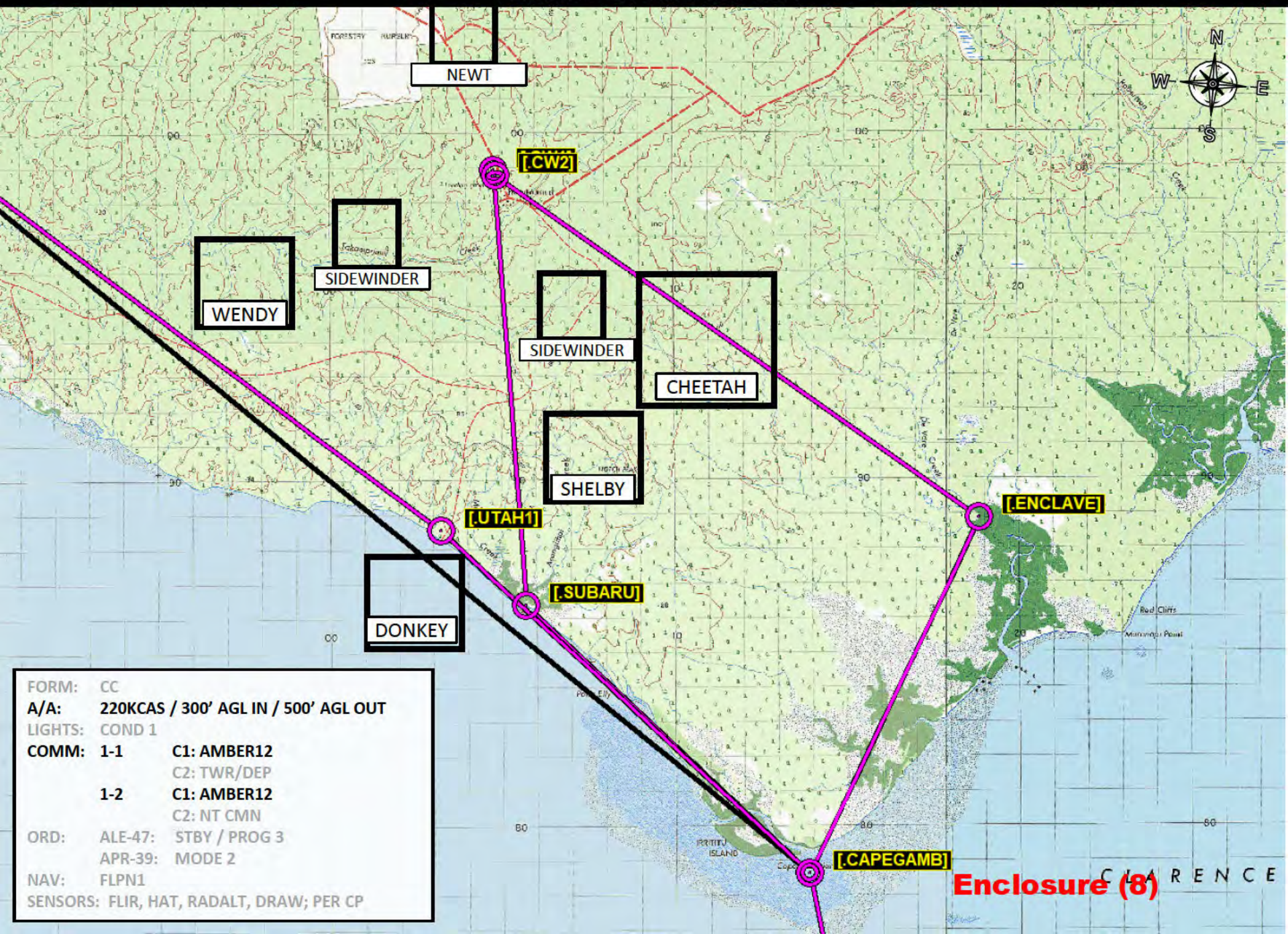
SCHEME OF MANEUVER



FORM: CC
A/A: 220KCAS / 300' AGL
LIGHTS: COND 1
COMM: 1-1 C1: AMBER12
C2: TWR/DEP
1-2 C1: AMBER12
C2: NT CMN
ORD: ALE-47: STBY / PROG 3
APR-39: MODE 2
NAV: FLPN1
SENSORS: FLIR, HAT, RADALT, DRAW; PER CP

Enclosure (8)

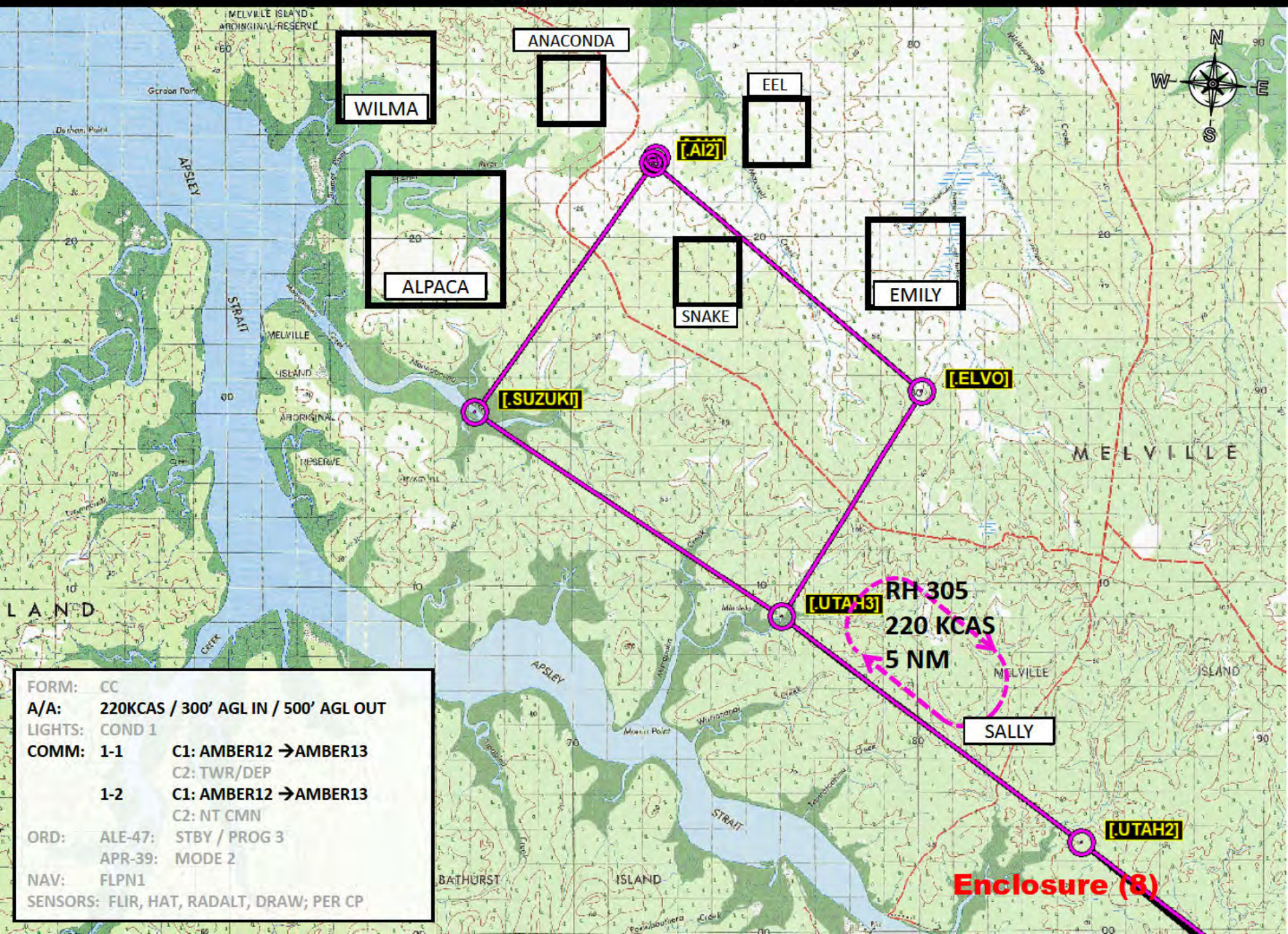
SCHEME OF MANEUVER



FORM: CC
A/A: 220KCAS / 300' AGL IN / 500' AGL OUT
LIGHTS: COND 1
COMM: 1-1 C1: AMBER12
 C2: TWR/DEP
 1-2 C1: AMBER12
 C2: NT CMN
ORD: ALE-47: STBY / PROG 3
 APR-39: MODE 2
NAV: FLPN1
SENSORS: FLIR, HAT, RADALT, DRAW; PER CP

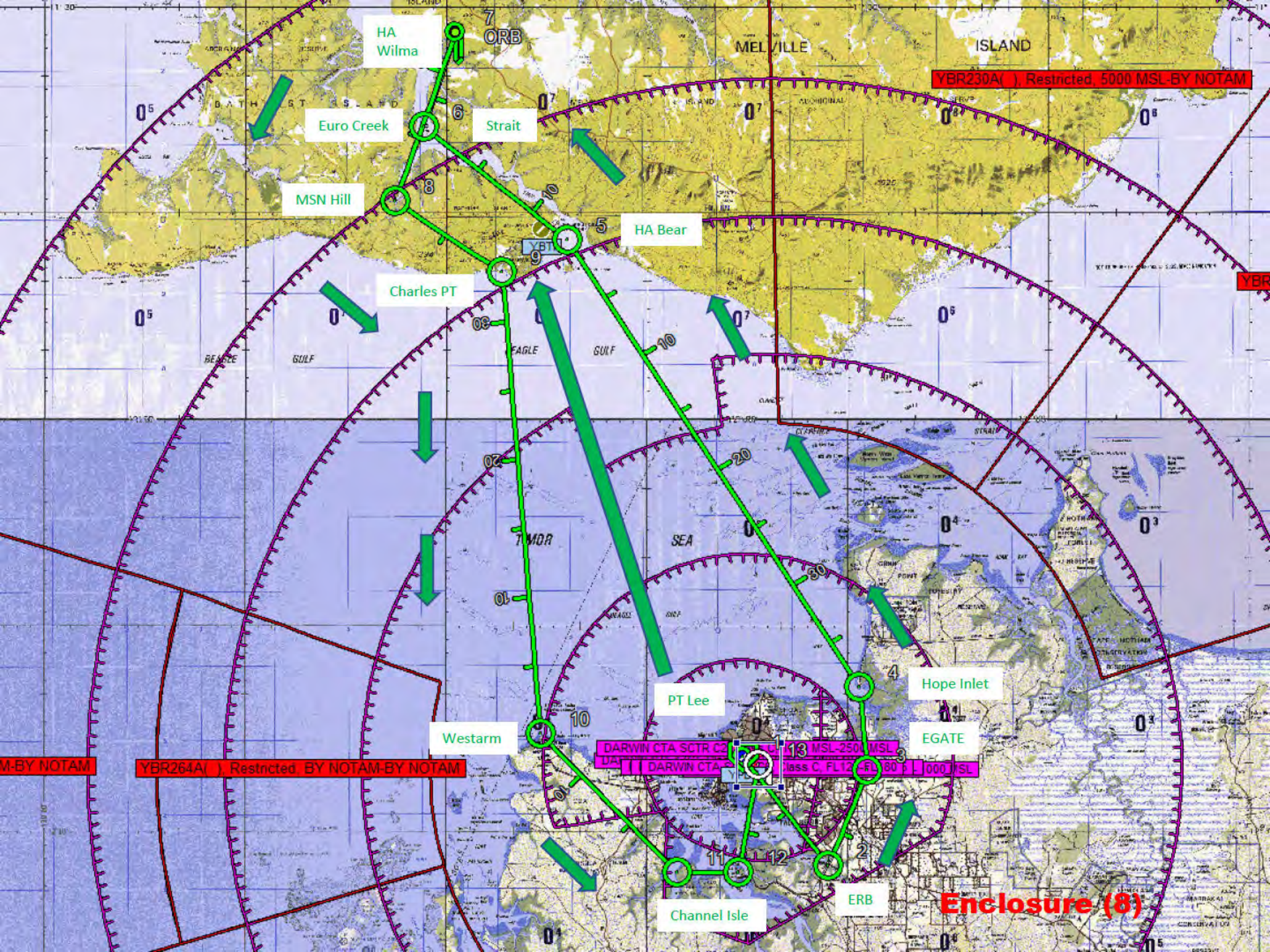
Enclosure (8) CLARENCE

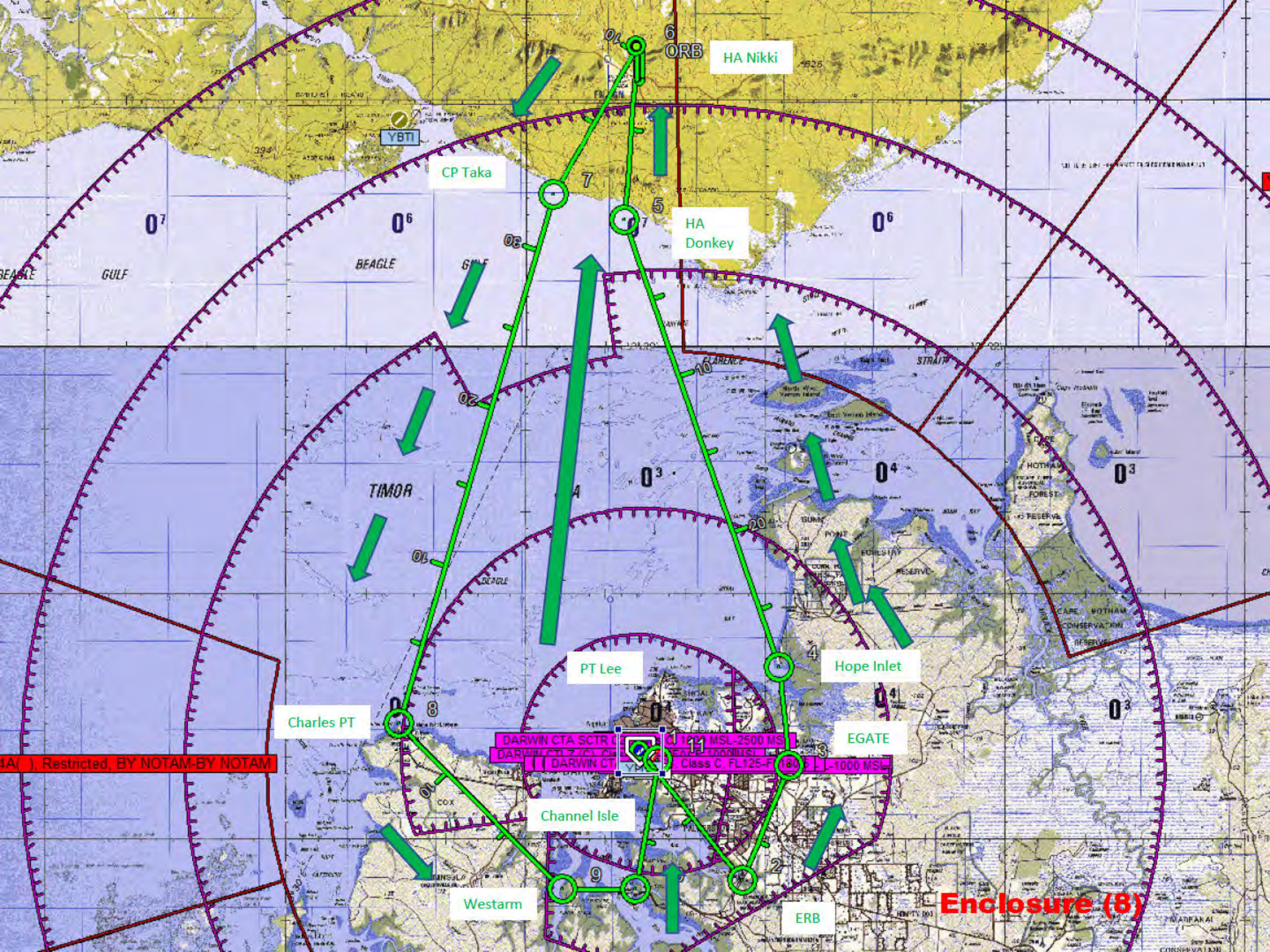
SCHEME OF MANEUVER



FORM: CC
A/A: 220KCAS / 300' AGL IN / 500' AGL OUT
LIGHTS: COND 1
COMM: 1-1 C1: AMBER12 → AMBER13
 1-2 C1: AMBER12 → AMBER13
 C2: TWR/DEP
 C2: NT CMN
ORD: ALE-47: STBY / PROG 3
 APR-39: MODE 2
NAV: FLPN1
SENSORS: FLIR, HAT, RADALT, DRAW; PER CP

Enclosure (8)



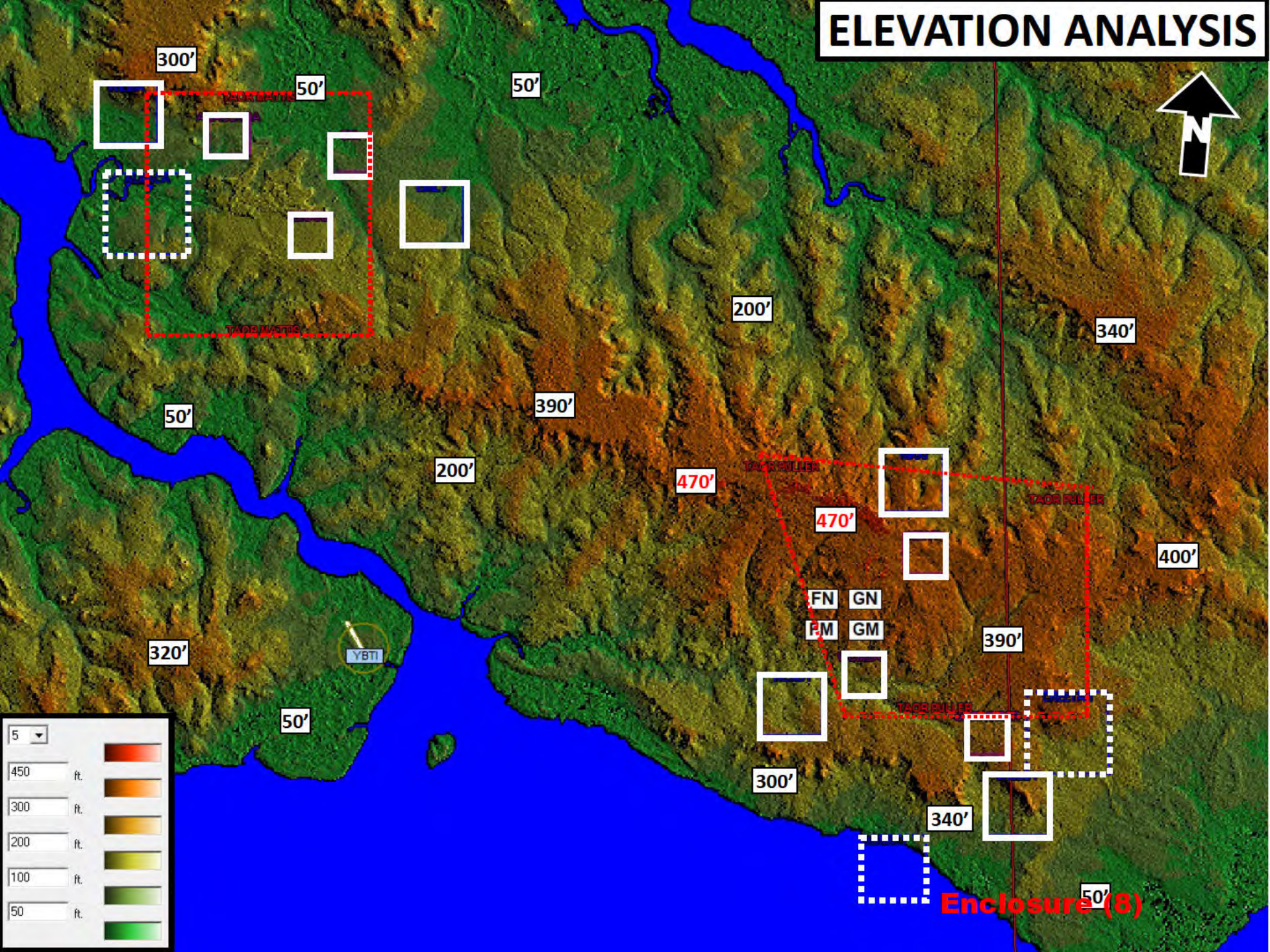




PHASE 2- EFL

Insert through Objective Area Operations

ELEVATION ANALYSIS



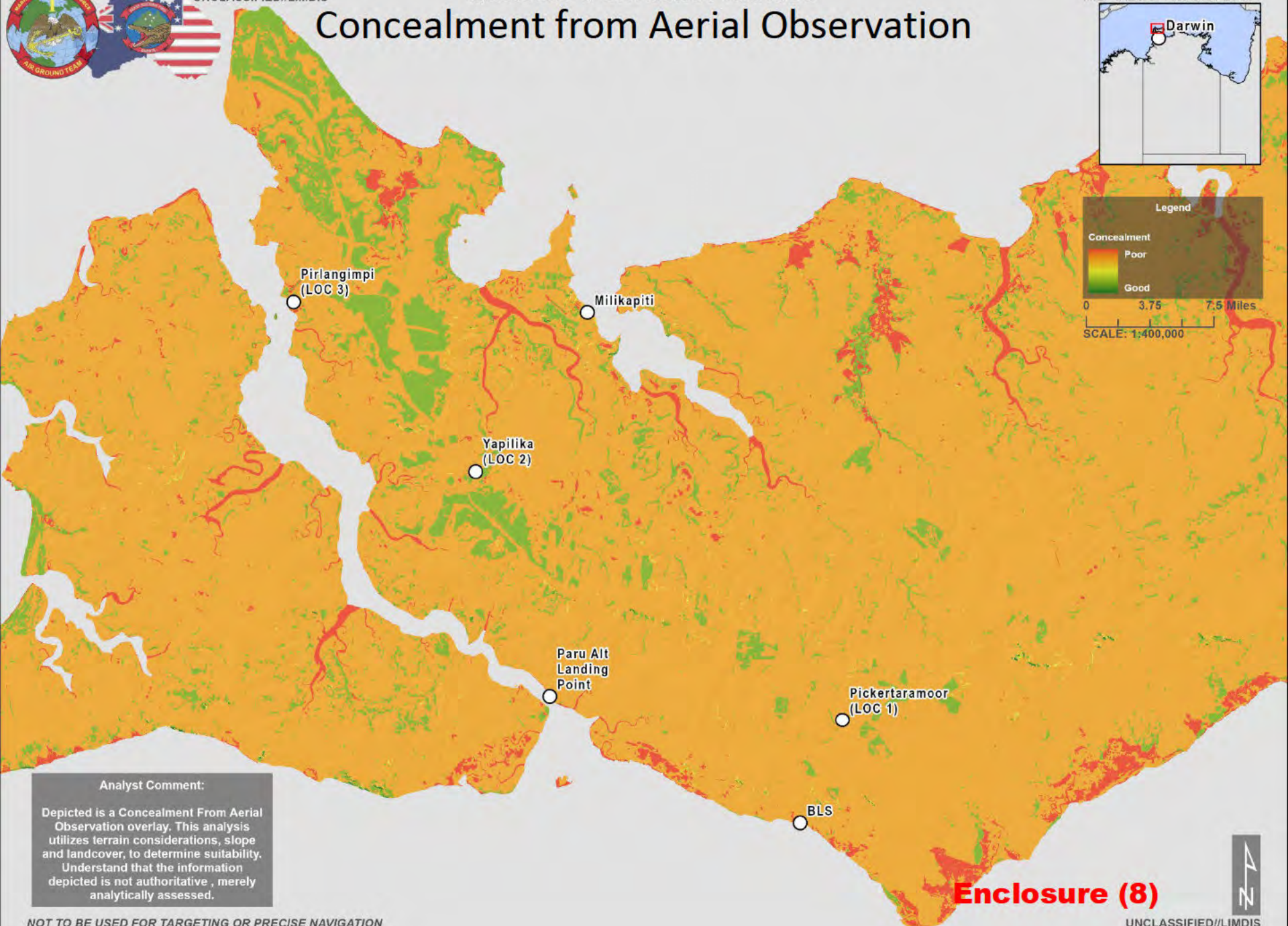
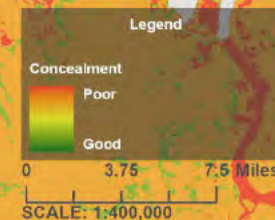


UNCLASSIFIED//LIMDIS

MELVILLE & BATHURST ISLANDS

IMEF-IREG-571-AU-0001-23-001

Concealment from Aerial Observation



Analyst Comment:

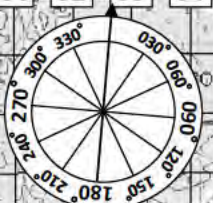
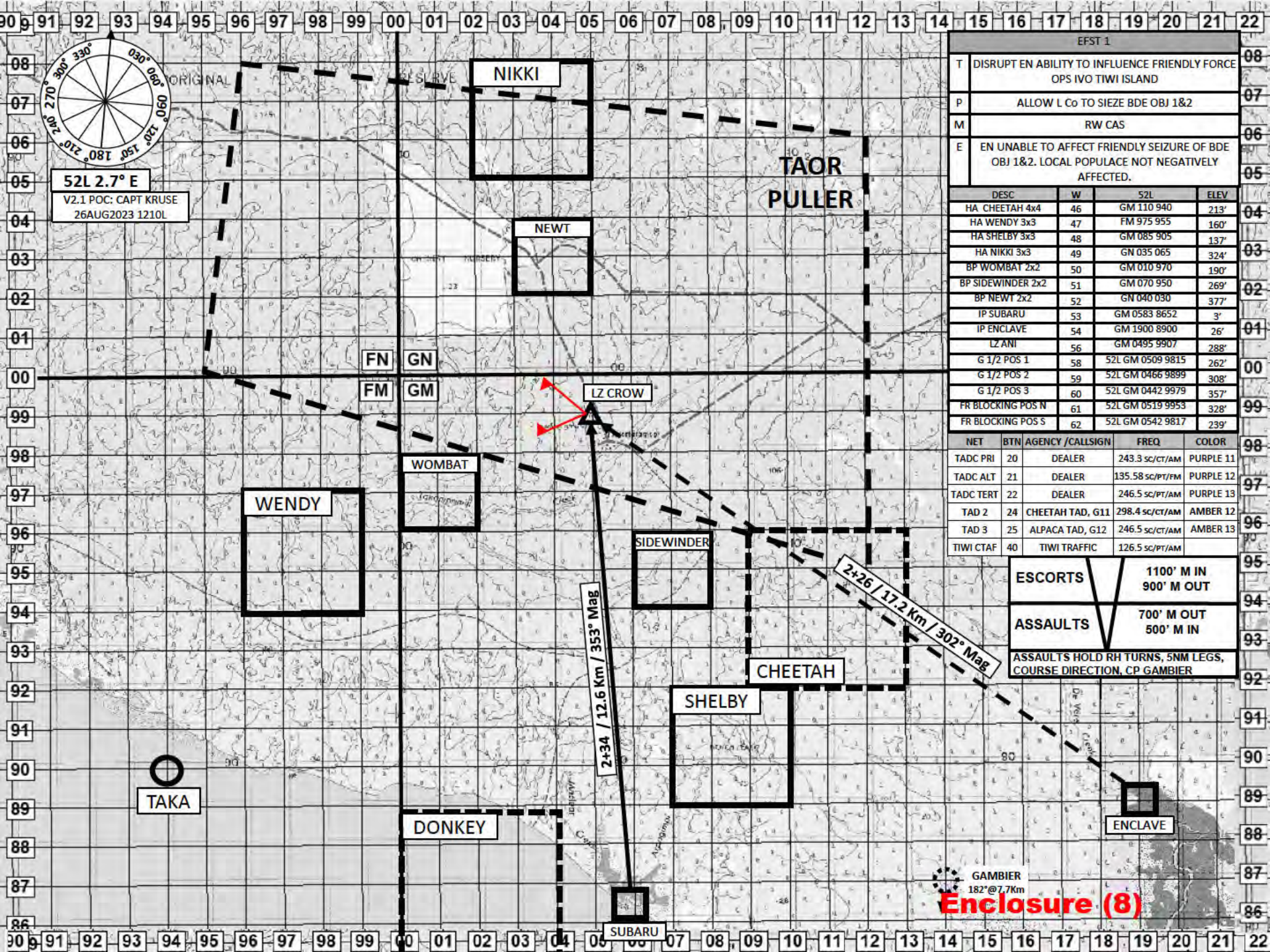
Depicted is a Concealment From Aerial Observation overlay. This analysis utilizes terrain considerations, slope and landcover, to determine suitability. Understand that the information depicted is not authoritative, merely analytically assessed.

NOT TO BE USED FOR TARGETING OR PRECISE NAVIGATION

Enclosure (8)



UNCLASSIFIED//LIMDIS



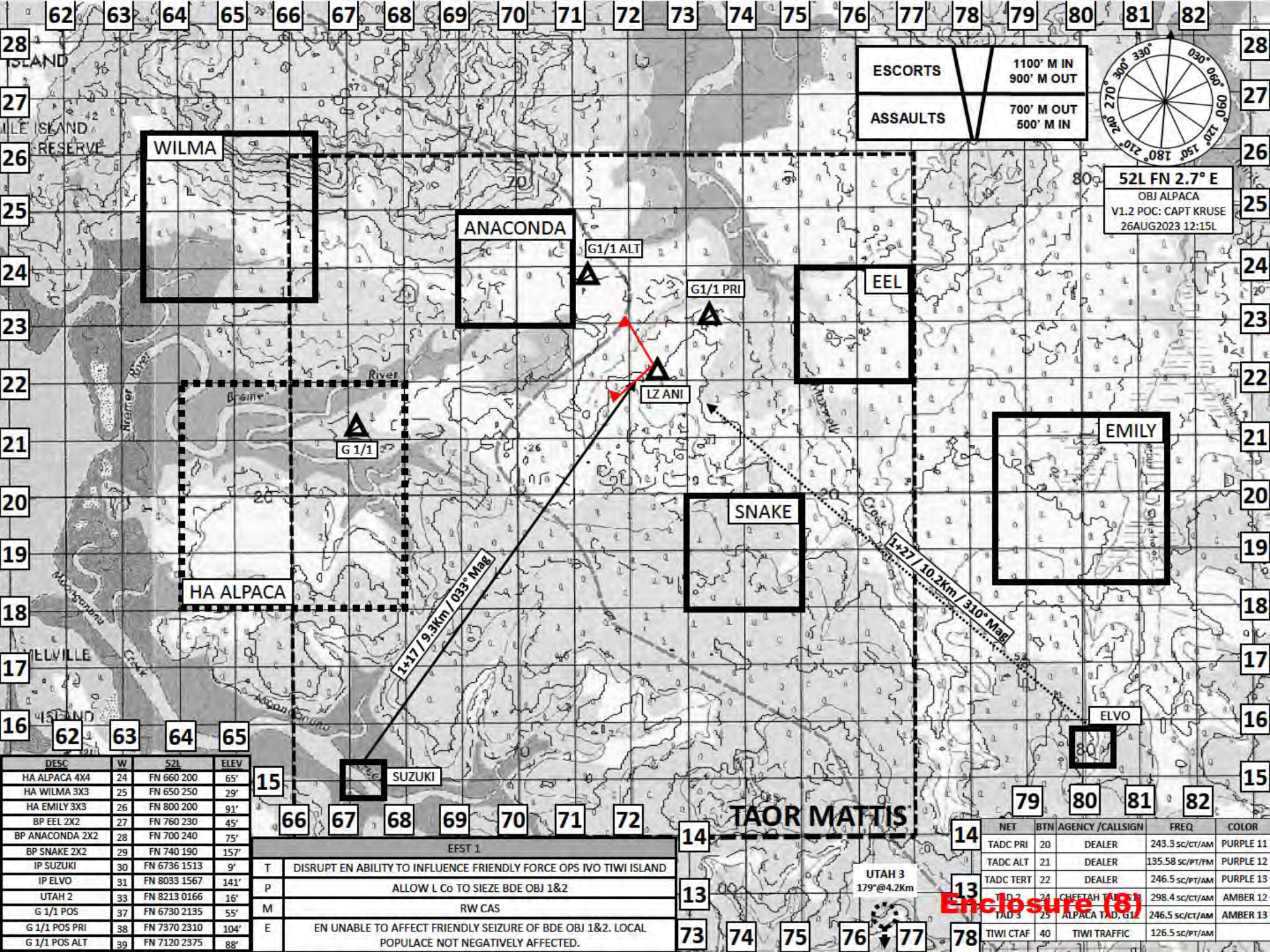
52L 2.7° E
V2.1 POC: CAPT KRUSE
26AUG2023 1210L

EFST 1				
T	DISRUPT EN ABILITY TO INFLUENCE FRIENDLY FORCE OPS IVO TIWI ISLAND			
P	ALLOW L Co To SIEZE BDE OBJ 1&2			
M	RW CAS			
E	EN UNABLE TO AFFECT FRIENDLY SEIZURE OF BDE OBJ 1&2. LOCAL POPULACE NOT NEGATIVELY AFFECTED.			
DESC		W	52L	ELEV
HA CHEETAH 4x4		46	GM 110 940	213'
HA WENDY 3x3		47	FM 975 955	160'
HA SHELBY 3x3		48	GM 085 905	137'
HA NIKKI 3x3		49	GN 035 065	324'
BP WOMBAT 2x2		50	GM 010 970	190'
BP SIDEWINDER 2x2		51	GM 070 950	269'
BP NEWT 2x2		52	GN 040 030	377'
IP SUBARU		53	GM 0583 8652	3'
IP ENCLAVE		54	GM 1900 8900	26'
LZ ANI		56	GM 0495 9907	288'
G 1/2 POS 1		58	52L GM 0509 9815	262'
G 1/2 POS 2		59	52L GM 0466 9899	308'
G 1/2 POS 3		60	52L GM 0442 9979	357'
FR BLOCKING POS N		61	52L GM 0519 9953	328'
FR BLOCKING POS S		62	52L GM 0542 9817	239'
NET	BTN	AGENCY /CALLSIGN	FREQ	COLOR
TADC PRI	20	DEALER	243.3 SC/CT/AM	PURPLE 11
TADC ALT	21	DEALER	135.58 SC/PT/FM	PURPLE 12
TADC TERT	22	DEALER	246.5 SC/PT/AM	PURPLE 13
TAD 2	24	CHEETAH TAD, G11	298.4 SC/CT/AM	AMBER 12
TAD 3	25	ALPACA TAD, G12	246.5 SC/CT/AM	AMBER 13
TIWI CTAF	40	TIWI TRAFFIC	126.5 SC/PT/AM	

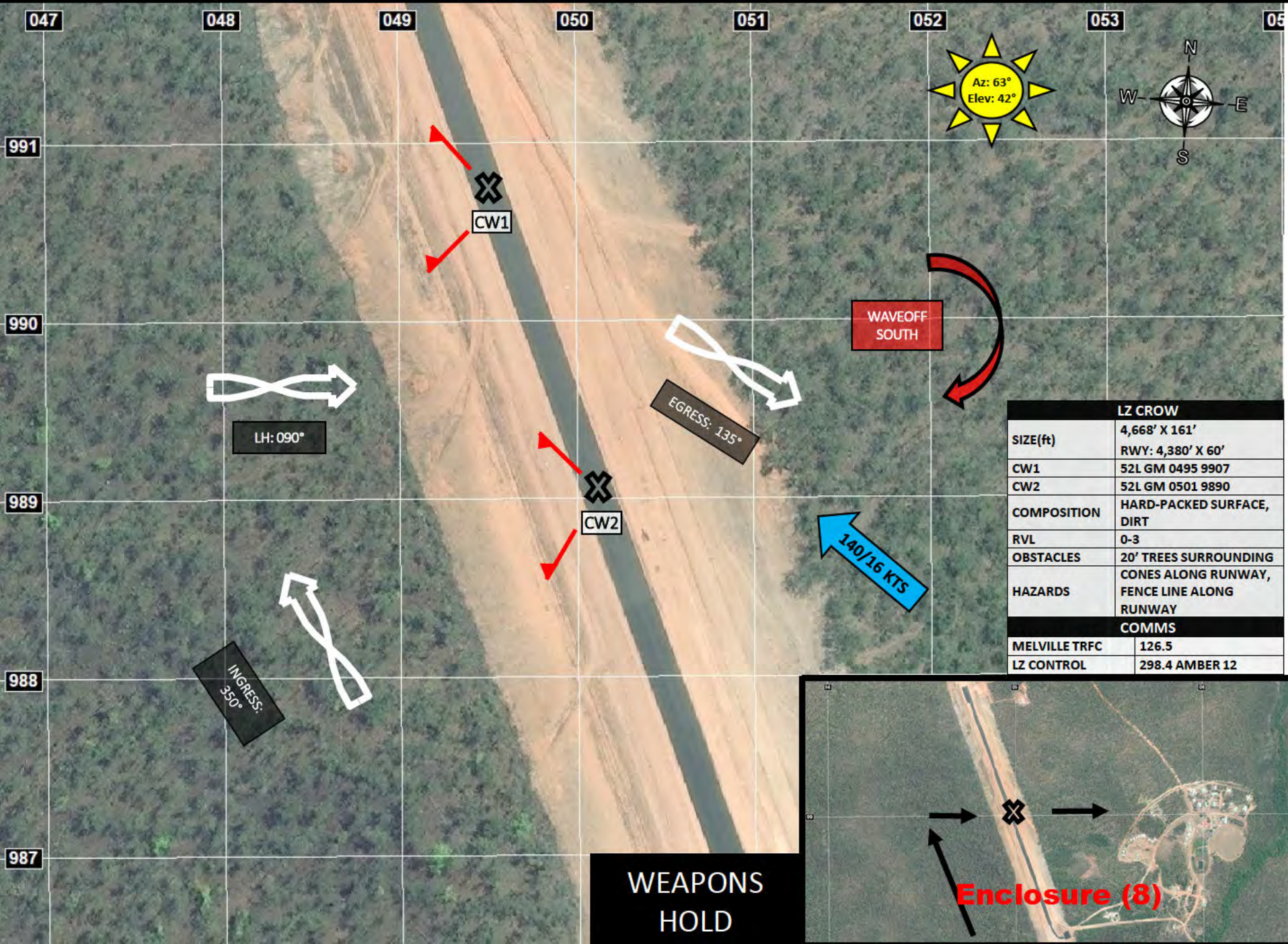
ESCORTS
1100' M IN
900' M OUT

ASSAULTS
700' M OUT
500' M IN

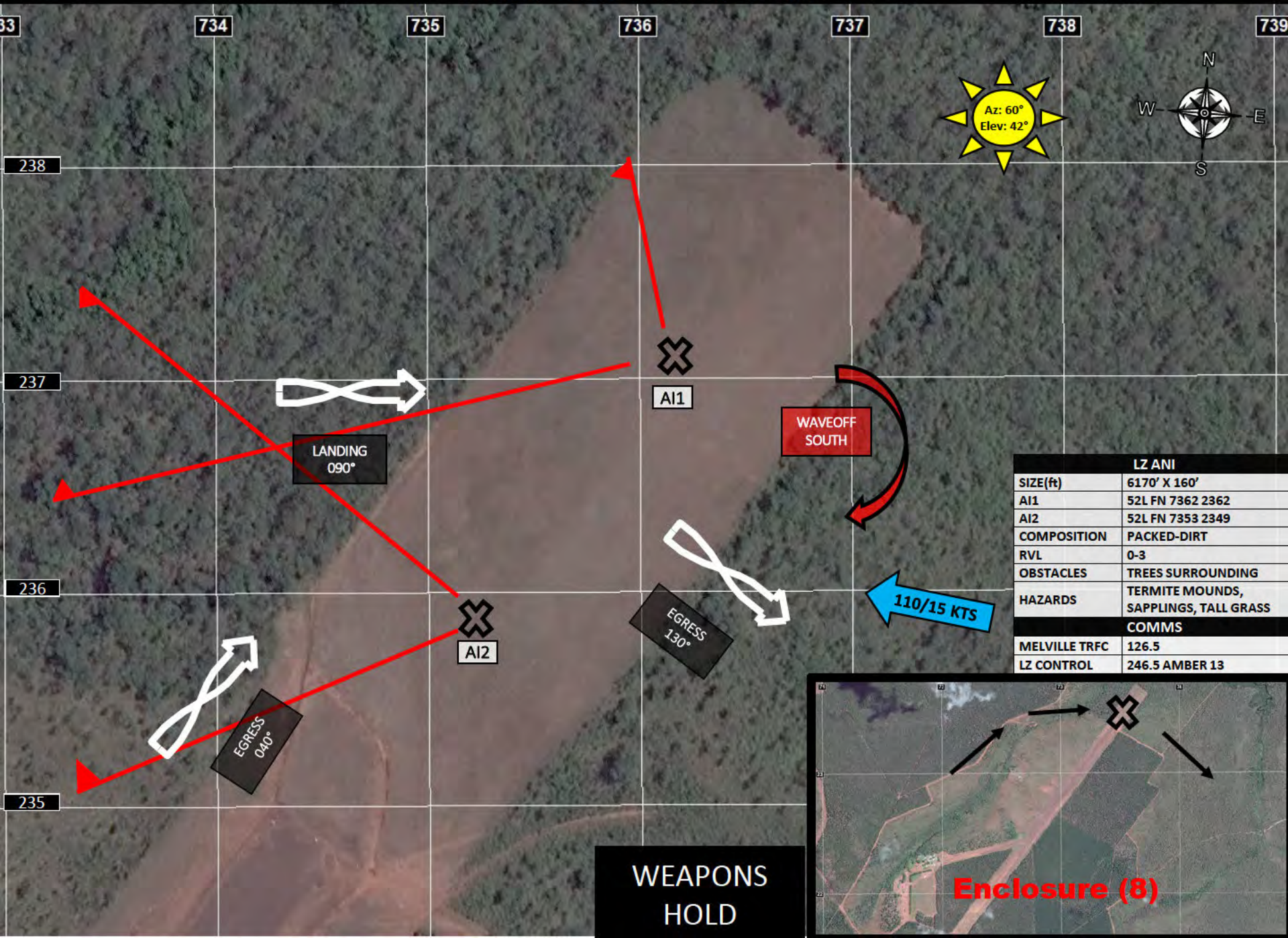
ASSAULTS HOLD RH TURNS, 5NM LEGS,
COURSE DIRECTION, CP GAMBIER




LZ CROW / 52L GM 049 990 / 285' MSL



LZ ANI / 52L FN 728 226/ 75' MSL



LZ ANI	
SIZE(ft)	6170' X 160'
AI1	52L FN 7362 2362
AI2	52L FN 7353 2349
COMPOSITION	PACKED-DIRT
RVL	0-3
OBSTACLES	TREES SURROUNDING
HAZARDS	TERMITE MOUNDS, SAPPLINGS, TALL GRASS
COMMS	
MELVILLE TRFC	126.5
LZ CONTROL	246.5 AMBER 13



PHASE 2- AFL Insert through Objective Area Operations

Enclosure (8)

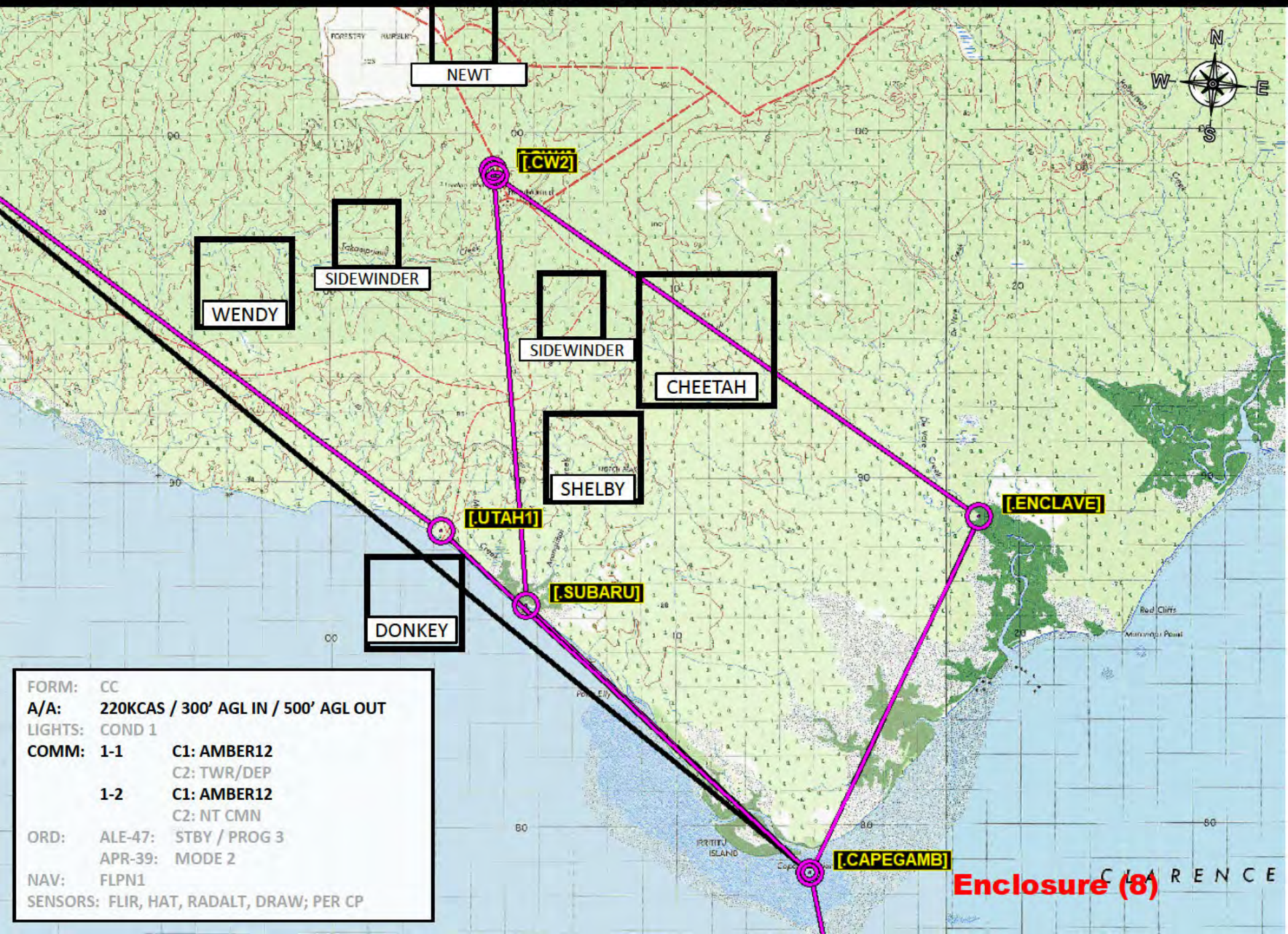
SCHEME OF MANEUVER



FORM: CC
A/A: 220KCAS / 500' AGL → 3500' MSL
LIGHTS: COND 1
COMM: 1-1 C1: AMBER12, RUST
C2: TWR/DEP
1-2 C1: AMBER12, RUST
C2: NT CMN → TWR
ORD: ALE-47: STBY / PROG 3
APR-39: MODE 2
NAV: FLPN1
SENSORS: FLIR, HAT, RADALT, DRAW, PER CP

Enclosure (8)

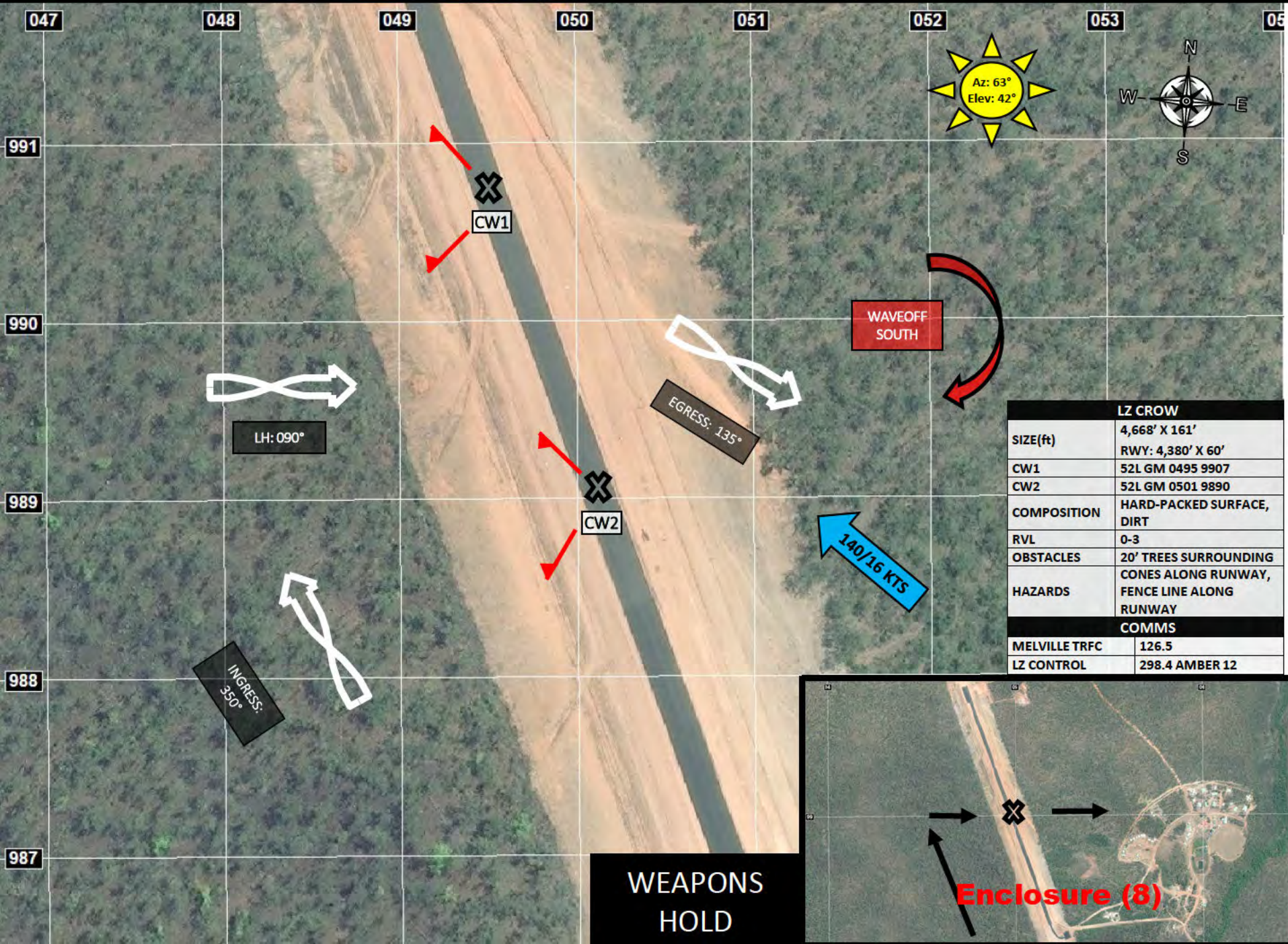
SCHEME OF MANEUVER



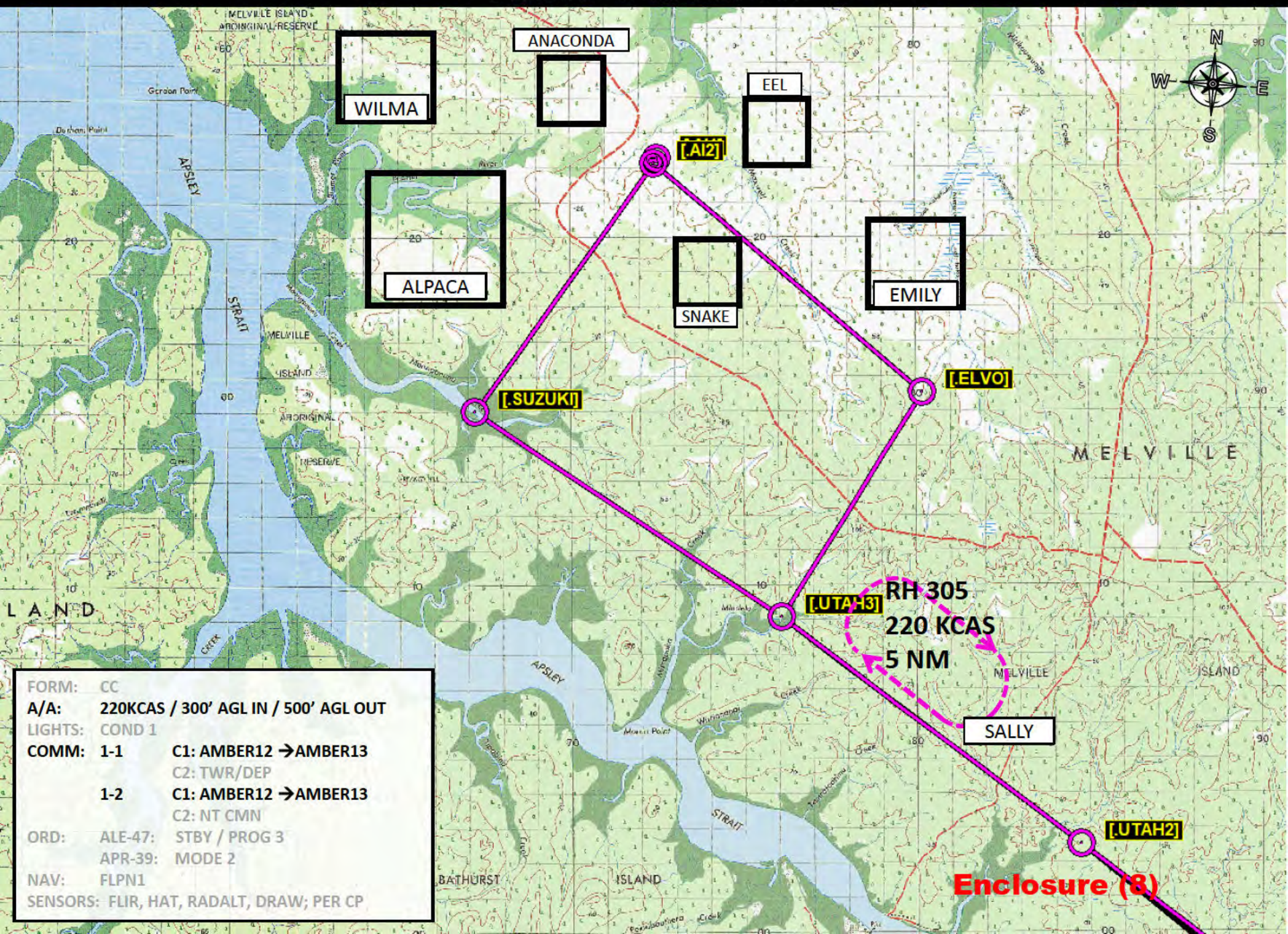
FORM: CC
A/A: 220KCAS / 300' AGL IN / 500' AGL OUT
LIGHTS: COND 1
COMM: 1-1 C1: AMBER12
 C2: TWR/DEP
 1-2 C1: AMBER12
 C2: NT CMN
ORD: ALE-47: STBY / PROG 3
 APR-39: MODE 2
NAV: FLPN1
SENSORS: FLIR, HAT, RADALT, DRAW; PER CP

Enclosure (8) CLARENCE

LZ CROW / 52L GM 049 990 / 285' MSL



SCHEME OF MANEUVER



FORM: CC
 A/A: 220KCAS / 300' AGL IN / 500' AGL OUT
 LIGHTS: COND 1
 COMM: 1-1 C1: AMBER12 → AMBER13
 C2: TWR/DEP
 1-2 C1: AMBER12 → AMBER13
 C2: NT CMN
 ORD: ALE-47: STBY / PROG 3
 APR-39: MODE 2
 NAV: FLPN1
 SENSORS: FLIR, HAT, RADALT, DRAW; PER CP

Enclosure (8)

Az: 60°
Elev: 42°

WAVEOFF SOUTH

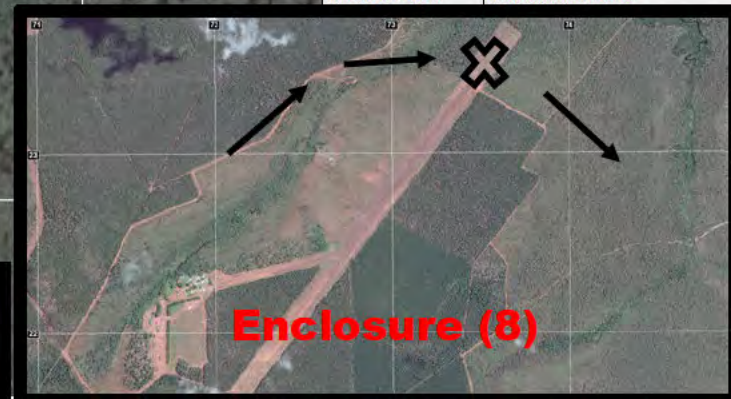
110/15 KTS

WEAPONS HOLD

Enclosure (8)

LZ ANI	
SIZE(ft)	6170' X 160'
AI1	52L FN 7362 2362
AI2	52L FN 7353 2349
COMPOSITION	PACKED-DIRT
RVL	0-3
OBSTACLES	TREES SURROUNDING
HAZARDS	TERMITE MOUNDS, SAPPLINGS, TALL GRASS
COMMS	
MELVILLE TRFC	126.5
LZ CONTROL	246.5 AMBER 13

	LZ ANI
SIZE(ft)	6170' X 160'
AI1	52L FN 7362 2362
AI2	52L FN 7353 2349
COMPOSITION	PACKED-DIRT
RVL	0-3
OBSTACLES	TREES SURROUNDING
HAZARDS	TERMITE MOUNDS, SAPPLINGS, TALL GRASS
	COMMS
MELVILLE TRFC	126.5
LZ CONTROL	246.5 AMBER 13





PHASE 3- AFL EGRESS

Egress Objective Area to YPDN

Enclosure (8)

AFL EGRESS





PHASE 3- EFL EGRESS Egress Objective Area to YPDN

Enclosure (8)

Command and Signal

- RED RISK TO MISSION
- RED RISK TO FORCE
- BLUE RISK TO MISSION
- BLUE RISK TO FORCE
- DEBRIEF TIME AND LOCATION
- QUESTIONS

UNCLASSIFIED



QUESTIONS

Enclosure (8)

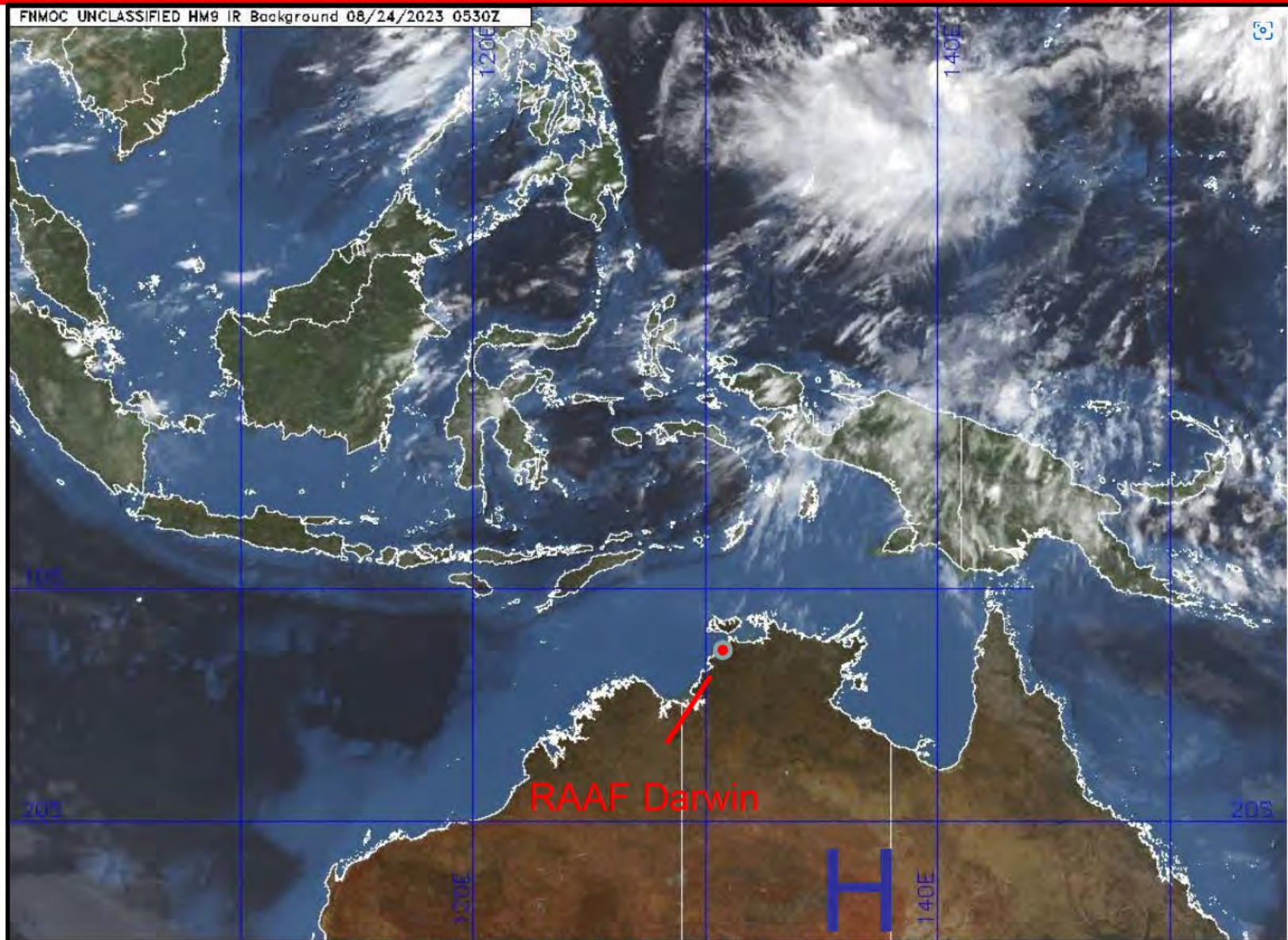
UNCLASSIFIED



CONTROLLED UNCLASSIFIED INFORMATION

Darwin Satellite Image

VT 20230824 / 1530 I'



CONTROLLED UNCLASSIFIED INFORMATION

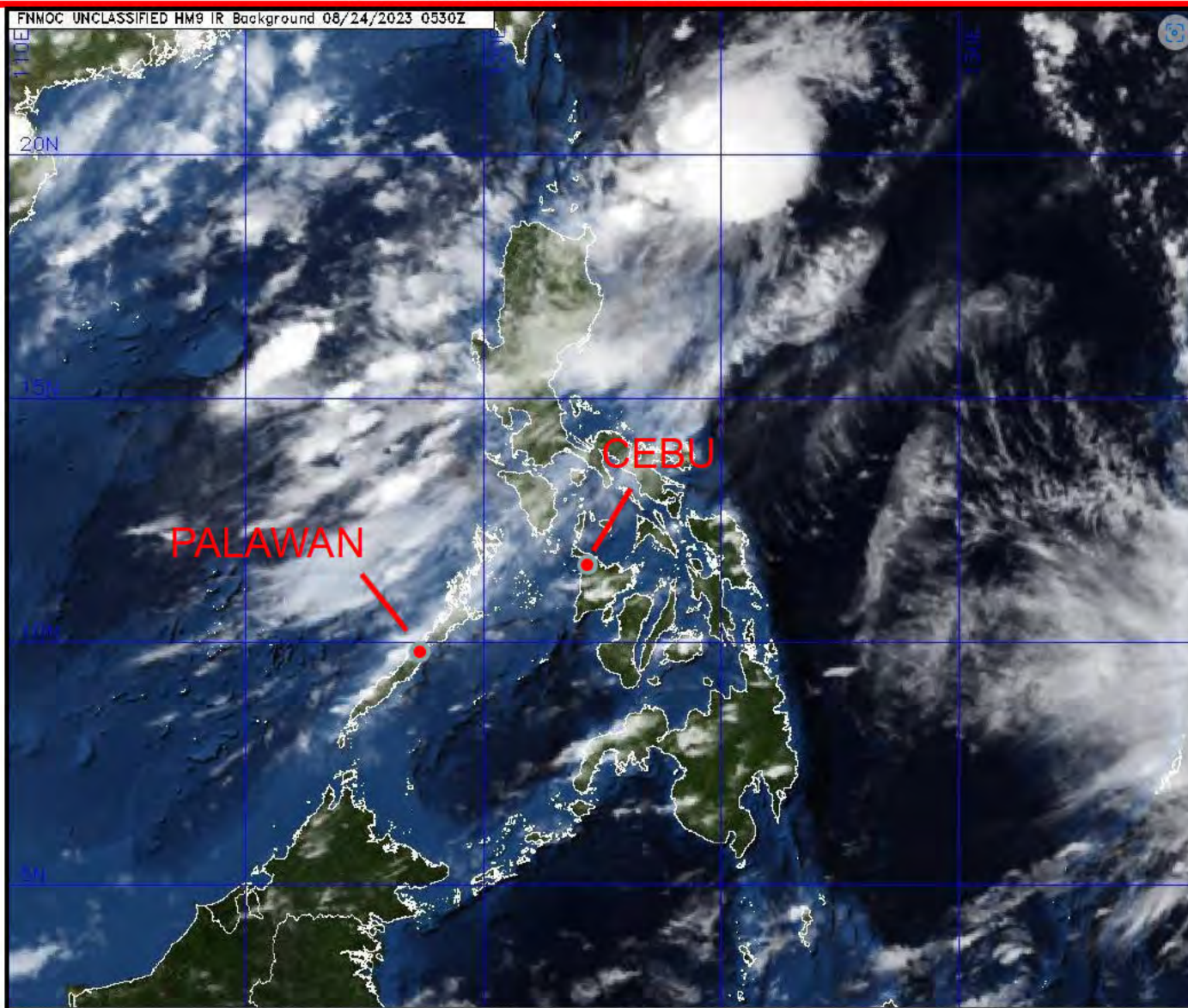
Enclosure (9)



CONTROLLED UNCLASSIFIED INFORMATION

Philippines Satellite Image

VT 20230824 / 1530 I'

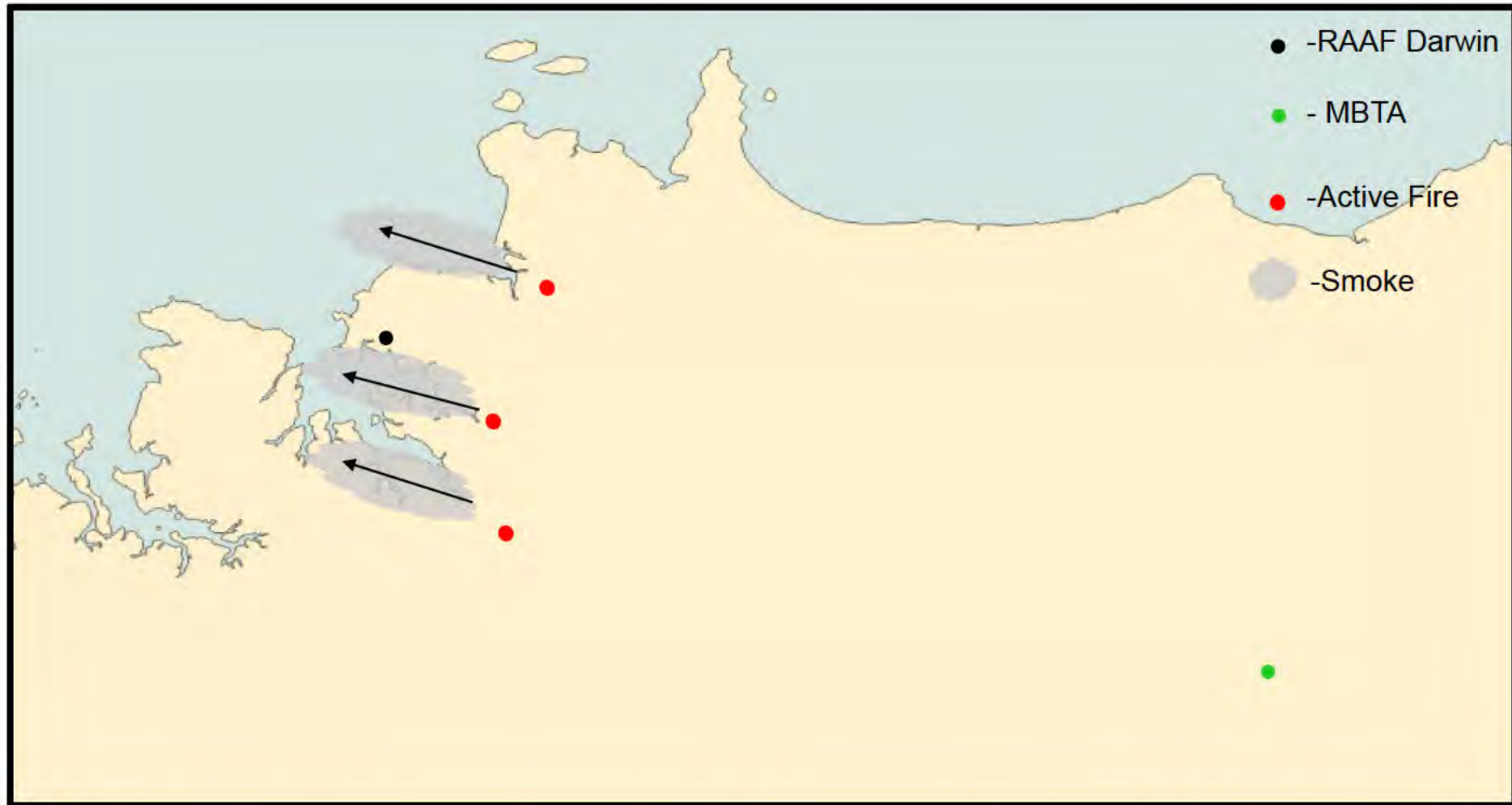


Enclosure (9)

CONTROLLED UNCLASSIFIED INFORMATION



Darwin Smoke Impacts



Smoke Direction	Max Top	Min Bottom
NW	6500 FT AGL	1000 FT AGL

Darwin 96HR Forecast



Date		Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
SR	SS	0657	1842	0656	1842	0655	1842	0655	1842
Sky Cover									
Time (l')		00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Ceilings		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weather		NSW	NSW	NSW	NSW	NSW	NSW	NSW	NSW
Visibility (SM)		7	7	7	7	7	7	7	7
Wind (KT)		VRB 6	SE 15	E 6	SE 15	SE 10	E 15	SE 10	E 15
Flag Con		1200-1600		1200-1600		1200-1600		1200-1600	
High	Low	88°F (31°C)	74°F (23°C)	88°F (31°C)	76°F (24°C)	88°F (31°C)	76°F (24°C)	88°F (31°C)	76°F (24°C)

Darwin Operational Impacts







Date	Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
Time (l')	00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Comm								
Trafficability								
Personnel	T	T	T	T	T	T	T	T
FW Aircraft								
RW Aircraft								
Legend	C – Ceilings		T - Temperature		V - Visibility		W - Wind	
	RA - Rain		IC - Icing		FG - Fog		DU - Dust	
	TS - Thunderstorm		TB - Turbulence		SC – Soil Comp		SA - Solar Activity	
Favorable			Marginal			Unfavorable		



Darwin Astronomical Data



Date	Friday August 25	Saturday August 26	Sunday August 27	Monday August 28
Moon Phase				
Illumination	61%	72%	82%	90%
Moonrise	1244	1340	1442	1549
Moonset	0103	0203	0306	0408
BMNT	0608	0608	0607	0607
EENT	1929	1929	1929	1929
Pink Time	47 min	47 min	47 min	47 min
LUX	0.060	0.071	0.083	0.092



Cebu 96HR Forecast

Date		Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
SR	SS	0530	1810	0530	1810	0530	1810	0530	1810
Sky Cover									
Time (I')		00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Ceilings		N/A	BKN020	N/A	BKN020	N/A	BKN020	N/A	BKN020
Weather		NSW	TSRA	NSW	TSRA	NSW	TSRA	NSW	TSRA
Visibility (SM)		7	5	7	5	7	5	7	5
Wind (KT)		VRB 6	SW 10	SW 10	SW 10G20	SW 10	SW 10G20	SW 10	SW 10G20
Flag Con		1200-1600		1200-1600		1200-1600		1200-1600	
High	Low	84°F (29°C)	76°F (24°C)	84°F (29°C)	76°F (24°C)	84°F (29°C)	76°F (24°C)	84°F (29°C)	76°F (24°C)



Cebu Operational Impacts

Date	Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
Time (l')	00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Comm		TSRA		TSRA		TSRA		TSRA
Trafficability	SC	SC	SC	SC	SC	SC	SC	SC
Personnel		T, TSRA		T, TSRA		T, TSRA		T, TSRA
FW Aircraft		TSRA		TSRA		TSRA		TSRA
RW Aircraft		TSRA		TSRA		TSRA		TSRA
Legend	C - Ceilings		T – Temperature		V – Visibility		W - Wind	
	RA - Rain		IC - Icing		FG - Fog		DU - Dust	
	TS - Thunderstorm		TB - Turbulence		SC – Soil Comp		SA - Solar Activity	
Favorable			Marginal			Unfavorable		



Palawan 96HR Forecast

Date		Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
SR	SS	0556	1823	0556	1823	0556	1823	0556	1823
Sky Cover									
Time (I')		00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Ceilings		N/A	BKN020	N/A	BKN020	N/A	BKN020	N/A	BKN020
Weather		NSW	TSRA	NSW	TSRA	NSW	TSRA	NSW	TSRA
Visibility (SM)		7	5	7	5	7	5	7	5
Wind (KT)		VRB 6	S 10	VRB 6	S 10	VRB 6	S 10	VRB 6	S 10
Flag Con		1200-1600		1200-1600		1200-1600		1200-1600	
High	Low	82°F (28°C)	74°F (24°C)	82°F (28°C)	74°F (24°C)	82°F (28°C)	74°F (24°C)	82°F (28°C)	74°F (24°C)

Palawan Operational Impacts







Date	Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
Time (l')	00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Comm		TSRA		TSRA		TSRA		TSRA
Trafficability	SC	SC	SC	SC	SC	SC	SC	SC
Personnel		T,TSRA		T,TSRA		T,TSRA		T,TSRA
FW Aircraft		TSRA		TSRA		TSRA		TSRA
RW Aircraft		TSRA		TSRA		TSRA		TSRA
Legend	C - Ceilings		T - Temperature		V – Visibility		W - Wind	
	RA - Rain		IC - Icing		FG - Fog		DU - Dust	
	TS - Thunderstorm		TB - Turbulence		SC – Soil Comp		SA - Solar Activity	
Favorable			Marginal			Unfavorable		



CONTROLLED UNCLASSIFIED INFORMATION

Palawan Astronomical Data



Date	Friday August 25	Saturday August 26	Sunday August 27	Monday August 28
Moon Phase				
Illumination	61%	72%	82%	90%
Moonrise	1249	1350	1453	1555
Moonset	N/A	0036	0138	0240
BMNT	0509	0509	0509	0509
EENT	1908	1908	1908	1908
Pink Time	47 min	47 min	47 min	47 min
LUX	0.060	0.071	0.083	0.091

CONTROLLED UNCLASSIFIED INFORMATION

Enclosure (9)
* ALL TIME IN LOCAL

Brisbane 96HR Forecast



Date		Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
SR	SS	0636	1711	0636	1711	0636	1711	0636	1711
Sky Cover									
Time (l')		00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Ceilings		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weather		NSW	NSW	NSW	NSW	NSW	NSW	NSW	NSW
Visibility (SM)		7	7	7	7	7	7	7	7
Wind (KT)		VRB 6	SE 10	S 6	SE 10	S 6	SE 10	S 6	SE 10
Flag Con		1200-1600		1200-1600		1200-1600		1200-1600	
High	Low	75°F (24°C)	58°F (14°C)	75°F (24°C)	58°F (14°C)	75°F (24°C)	58°F (14°C)	75°F (24°C)	58°F (14°C)









Brisbane Operational Impacts



Date	Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
Time (l')	00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Comm								
Trafficability								
Personnel								
FW Aircraft								
RW Aircraft								
Legend	C - Ceilings		T - Temperature		V - Visibility		W - Wind	
	RA - Rain		IC - Icing		FG - Fog		DU - Dust	
	TS - Thunderstorm		TB - Turbulence		SC – Soil Comp		SA - Solar Activity	
Favorable			Marginal			Unfavorable		



Zambales 96HR Forecast

Date		Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
SR	SS	0636	1711	0636	1711	0636	1711	0636	1711
Sky Cover									
Time (I')		00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Ceilings		BKN015	BKN015	BKN015	BKN006	BKN015	BKN015	BKN015	BKN015
Weather		TSRA	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA
Visibility (SM)		5	5	5	5	5	5	5	5
Wind (KT)		VRB 6	W 10	VRB 6	NW 15	NW 7	NW 12	NW 7	NW 12
Flag Con		1200-1600		1200-1600		1200-1600		1200-1600	
High	Low	80°F (27°C)	73°F (23°C)	80°F (27°C)	73°F (23°C)	80°F (27°C)	73°F (23°C)	80°F (27°C)	73°F (23°C)

Zambales Operational Impacts



Date	Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
Time (l')	00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Comm	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA
Trafficability	SC	SC	SC	SC	SC	SC	SC	SC
Personnel		T, TSRA		T, TSRA		T, TSRA		T, TSRA
FW Aircraft	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA
RW Aircraft	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA	TSRA
Legend	C - Ceilings		T - Temperature		V - Visibility		W - Wind	
	RA - Rain		IC - Icing		FG - Fog		DU - Dust	
	TS - Thunderstorm		TB - Turbulence		SC – Soil Comp		SA - Solar Activity	
Favorable			Marginal			Unfavorable		



Nauru 96HR Forecast

Date		Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
SR	SS	0636	1711	0636	1711	0636	1711	0636	1711
Sky Cover									
Time (l')		00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Ceilings		BKN020	BKN020	BKN020	BKN020	BKN020	BKN020	BKN020	BKN020
Weather		NSW	NSW	NSW	TSRA	TSRA	TSRA	TSRA	NSW
Visibility (SM)		7	7	7	7	7	7	7	7
Wind (KT)		N 6	NW 10	VRB 6	VRB 6	SW 6	SW 6	SW 6	SW 6
Flag Con		1200-1600		1200-1600		1200-1600		1200-1600	
High	Low	82°F (28°C)	77°F (25°C)	82°F (28°C)	77°F (25°C)	82°F (28°C)	77°F (25°C)	82°F (28°C)	77°F (25°C)

Nauru Operational Impacts



Date	Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
Time (l')	00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Comm				TSRA	TSRA	TSRA	TSRA	
Trafficability	SC	SC	SC	SC	SC	SC	SC	SC
Personnel		T		T, TSRA	T, TSRA	T, TSRA	T, TSRA	T
FW Aircraft				TSRA	TSRA	TSRA	TSRA	
RW Aircraft				TSRA	TSRA	TSRA	TSRA	
Legend	C - Ceilings		T - Temperature		V - Visibility		W - Wind	
	RA - Rain		IC - Icing		FG - Fog		DU - Dust	
	TS - Thunderstorm		TB - Turbulence		SC – Soil Comp		SA - Solar Activity	
Favorable			Marginal			Unfavorable		



Dili 96HR Forecast

Date		Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
SR	SS	0636	1711	0636	1711	0636	1711	0636	1711
Sky Cover									
Time (l')		00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Ceilings		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weather		NSW	NSW	NSW	NSW	NSW	NSW	NSW	NSW
Visibility (SM)		7	7	7	7	7	7	7	7
Wind (KT)		SE 8	NE 10	VRB 6	E 10	VRB 6	E 10	VRB 6	E 10
Flag Con		1200-1600		1200-1600		1200-1600		1200-1600	
High	Low	82°F (28°C)	72°F (22°C)	82°F (28°C)	72°F (22°C)	82°F (28°C)	72°F (22°C)	82°F (28°C)	72°F (22°C)



Dili Operational Impacts

Date	Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
Time (l')	00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Comm								
Trafficability								
Personnel		T		T		T		T
FW Aircraft								
RW Aircraft								
Legend	C - Ceilings		T - Temperature		V - Visibility		W - Wind	
	RA - Rain		IC - Icing		FG - Fog		DU - Dust	
	TS - Thunderstorm		TB - Turbulence		SC – Soil Comp		SA - Solar Activity	
Favorable			Marginal			Unfavorable		

Townsville 96HR Forecast



Date		Thursday August 24		Friday August 25		Saturday August 26		Sunday August 27	
SR	SS	0636	1711	0636	1711	0636	1711	0636	1711
Sky Cover									
Time (l')		00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Ceilings		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weather		NSW	NSW	NSW	NSW	NSW	NSW	NSW	NSW
Visibility (SM)		7	7	7	7	7	7	7	7
Wind (KT)		SE 10	SE 15G25	SE 10	SE 15G25	SE 10	SE 15G25	SE 10	SE 10G20
Flag Con		1200-1600		1200-1600		1200-1600		1200-1600	
High	Low	75°F (24°C)	67°F (19°C)	75°F (24°C)	67°F (19°C)	75°F (24°C)	67°F (19°C)	75°F (24°C)	67°F (19°C)



Townsville Operational Impacts

Date	Thursday August 24		Friday August 25		Saturday August 26		Sunday August 27	
Time (l')	00-12	12-00	00-12	12-00	00-12	12-00	00-12	12-00
Comm								
Trafficability								
Personnel								
FW Aircraft		W		W		W		
RW Aircraft		W		W		W		
Legend	C - Ceilings		T - Temperature		V - Visibility		W - Wind	
	RA - Rain		IC - Icing		FG - Fog		DU - Dust	
	TS - Thunderstorm		TB - Turbulence		SC – Soil Comp		SA - Solar Activity	
Favorable			Marginal			Unfavorable		



Aviation Hazards

Date	Friday August 25	Saturday August 26	Sunday August 27	Monday August 28
Location	RAAF DARWIN / ROBERTSON			
TURB	NONE	NONE	NONE	NONE
ICING	NONE	NONE	NONE	NONE
FRZ LVL	165	165	165	165
Location	MT BUNDEY TRAINING AREA			
TURB	NONE	NONE	NONE	NONE
ICING	NONE	NONE	NONE	NONE
FRZ LVL	165	165	165	165
Location	BRADSHAW			
TURB	NONE	NONE	NONE	NONE
ICING	NONE	NONE	NONE	NONE
FRZ LVL	165	165	165	165



Aviation Hazards

Date	Friday August 25	Saturday August 26	Sunday August 27	Monday August 28
Location	CEBU			
TURB	IN TS	IN TS	IN TS	IN TS
ICING	NONE	NONE	NONE	NONE
FRZ LVL	150	150	150	150
Location	PALAWAN			
TURB	IN TS	IN TS	IN TS	IN TS
ICING	NONE	NONE	NONE	NONE
FRZ LVL	150	150	150	150
Location	BRISBANE			
TURB	NONE	NONE	NONE	NONE
ICING	NONE	NONE	NONE	NONE
FRZ LVL	100	100	100	100



Aviation Flight Data

Date	Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
Location	RAAF DARWIN / ROBERTSON							
	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT
PA	+162	+72	+189	+103	+186	+109	+162	+91
DA	+2375	+1659	+2450	+1665	+2319	+1722	+2257	+1695
TEMP	86°F (30°C)	78°F (26°C)	91°F (33°C)	79°F (26°C)	88°F (31°C)	79°F (26°C)	88°F (31°C)	79°F (26°C)
MIN ALT	29.84		29.82		29.82		29.84	
Location	MOUNT BUNDEY							
	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT
PA	+225	+129	+241	+144	+232	+151	+226	+144
DA	+2800	+2027	+2757	+2475	+2568	+1959	+2703	+1905
TEMP	98°F (36°C)	84°F (29°C)	97°F (36°C)	84°F (29°C)	91°F (33°C)	84°F (29°C)	91°F (33°C)	84°F (29°C)
MIN ALT	29.85		29.83		29.82		29.85	



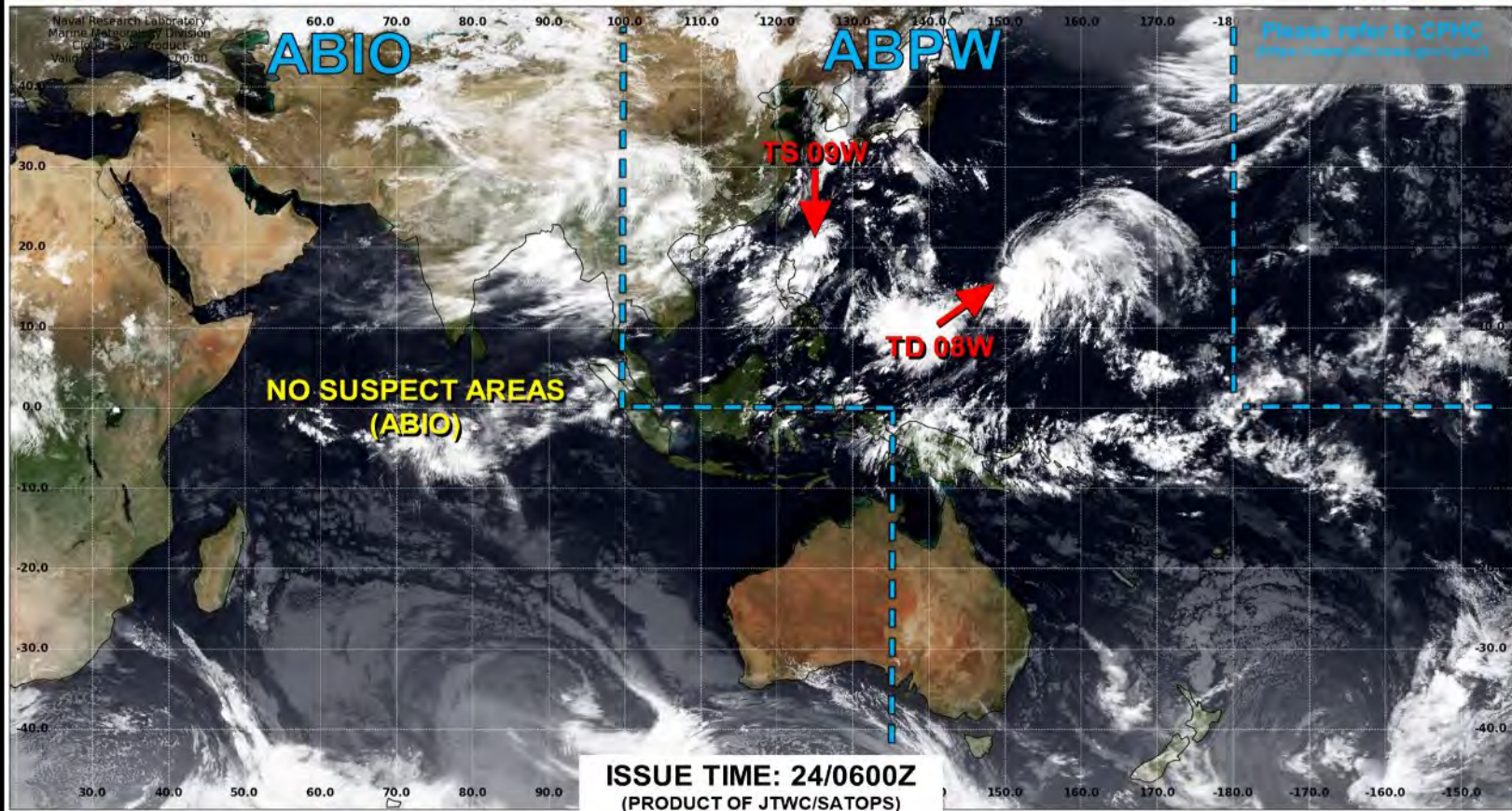
Aviation Flight Data

Date	Friday August 25		Saturday August 26		Sunday August 27		Monday August 28	
Location	BRADSHAW							
	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT
PA	+283	+197	+318	+221	+307	+225	+287	+214
DA	+2636	+1660	+2617	+1677	+2560	+1648	+2573	+1645
TEMP	94°F (34°C)	76°F (25°C)	91°F (33°C)	79°F (26°C)	91°F (33°C)	79°F (26°C)	91°F (33°C)	79°F (26°C)
MIN ALT	29.94		29.87		29.88		29.91	

Philippines Tropical Storm Activity



JOINT TYPHOON WARNING CENTER



TC development unlikely within 24 hours



TC development likely, but expected to occur beyond 24 hours



TC development likely within 24 hours (Reference TOFA)



Monitoring for potential transition to TC. Invest label color denotes tropical transition probability





HMLA-367 RISK ASSESSMENT WORKSHEET



FLIGHT DATE:
5-Sep-23
JULIAN DATE:
23248
FORMULA DATE
September 5, 2023

WARM-UP
GREATER THAN 15
NVG ELIGIBILITY
GREATER THAN 21
SIGNING / FCF
GREATER THAN 45
NIGHT WARM-UP

1. SET DATE.
2. VERIFY AIRCREW.
3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H). OTHERWISE LEAVE BLANK.
3A. FOR SUPPLEMENTARY MATRIX REFERENCE BACK PAGE
NATOPS / INST
DAYS LAST EP SIM

AIRCREW FACTORS
CREW DAY
AIRCREW FATIGUE

24 HR REVIEW										MISSION PROFILE										OVERALL RISK LEVEL			CO-5 COMMENTS	AIRCRAFT COMMANDER INITIALS
COMMAND RELATIONSHIPS	MSN TYPE	MSN PLANNING TIME	PLANNING ENVIRONMENT	OPERATING ENVIRONMENT	FAA / NET / NAV	FCF (M)	FORMATION	ESCORT	TEFF	FCLP	SHIPBOARD OPS (M)	ICV/OORNDANCE	TACTICS	FAC (A) (M)	CAS/CAS/SIN CAS (M)	DACM (M)	CAIS	HIST (M)	OVERALL MISSION RISK LEVEL	MITIGATION BASED ON QUAL	OVERALL MITIGATED RISK LEVEL	DOSS INITIAL	INITIALS - CO (M) - MAG CO (M)	
																			NSI					
																			WTO					
																			TERFI					
																			BIP					
																			CR MID					
																			NSI					
																			WTO					
																			TERFI					
																			BIP					
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																			WTO					
																			TERFI					
																			BIP					
																			CR MID					



FLIGHT DATE:	September 5, 2023
JULIAN DATE:	23248

1. SET DATE.
2. VERIFY AIRCREW.
3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H). OTHERWISE LEAVE BLANK.

NATOPS / INST		
C	10	NC

DAYS LAST EP SIM		
5-60	60-90	90

CO COMMENTS:

L NO ELEVATED APPROVAL REQUIRED
M REQUIRES SQUADRON CO APPROVAL
H REQUIRES MAG CO APPROVAL

(b) (6)



HMLA-367 RISK ASSESSMENT WORKSHEET



FLIGHT DATE:
August 30, 2023

JULIAN DATE:
23242

GREATER THAN 14
WARM-UP
GREATER THAN 15
FCI / NVG ELIGIBILITY
GREATER THAN 21
SIGNING
GREATER THAN 45
NIGHT WARM-UP

1. SET DATE.
2. VERIFY AIRCREW.
3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H).
OTHERWISE LEAVE BLANK.
3A. FOR SUPPLEMENTARY MATRIX REFERENCE BACK PAGE

NATOPS / INST
C 30 INC

DAYS LAST EP SIM
30-90 80-90 90

EVENT	ROLE	CREW	LAST RECORDED										T&R CURRENCY	T&R PROFICIENCY	NATOPS/INST CURRENCY	FLIGHT CURRENCY	BRIEF TIME	DAY/NIGHT	PLANNED FLIGHT	CREW DAY	TAKE OFF	24 HOUR OVERALL RISK LEVEL	MISSION PROFILE																OVERALL MISSION RISK LEVEL	MITIGATION BASED ON QUAL	OVERALL MITIGATED RISK LEVEL	DOSS INITIALS	CO-S COMMENTS	AIRCRAFT COMMANDER INITIALS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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CO COMMENTS:

L NO ELEVATED APPROVAL REQUIRED

M REQUIRES SQUADRON CO APPROVAL

H REQUIRES MAG CO APPROVAL

(b) (6)



HMLA-367 RISK ASSESSMENT WORKSHEET



FLIGHT DATE:
August 28, 2023

JULIAN DATE:
23240

GREATER THAN 14
WARM-UP
GREATER THAN 15
FCF / NVG ELIGIBILITY
GREATER THAN 21
SIGNING
GREATER THAN 45
NIGHT WARM-UP

1. SET DATE.
2. VERIFY AIRCREW.

3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H). OTHERWISE LEAVE BLANK.

3A. FOR SUPPLEMENTARY MATRIX REFERENCE BACK PAGE

NATOPS / INST
C 30 INC

DAYS LAST IP SIM
>50 80-90 90

EVENT	ROLE	CREW	LAST RECORDED										T&B CUL	T&B PRI	NATOPS	FLIGHT	BRIEF TT	DAY/NIGHT	PLANNING	CREW DAY	TAKE-O	COMM	HORN TT	MEN PL	PLANNING	OPERATION	FAM / I	FCI (M)	FORMA	ESCORT	TERR	FCIP	SHIPRO	BCWD/	TACTICS	FAL (A)	OAS/CA	DAOM (CALC	HIST (N	OVER	LMH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
			FLIGHT	NVG	30	NVG 45	90	N	E	I																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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CO COMMENTS:

L NO ELEVATED APPROVAL REQUIRED

M REQUIRES SQUADRON CO APPROVAL

H REQUIRES MAG CO APPROVAL

DOSS (b) (6)

CO _____



FLIGHT DATE:
August 26, 2023

JULIAN DATE:
23238

GREATER THAN 14
WARM-UP
GREATER THAN 15
FCF / NVG ELIGIBILITY
GREATER THAN 21
SIGNING
GREATER THAN 45
NIGHT WARM-UP

3. SET DATE.
2. VERIFY AIRCREW.
3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H). OTHERWISE LEAVE BLANK.
- 3A. FOR SUPPLEMENTARY MATRIX REFERENCE BACK PAGE

NATOPS / INST			DAYS LAST EP SIM		
C	10	INC	60	80-90	90

EVENT	ROLE	CREW	LAST RECORDED										T&R CUI	T&R PROPS	NATOPS	FLIGHT TI	BRIEF TI	DAV/INC	PLANE	CREW DI	TAXI-OUT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336
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CO COMMENTS:

- L** NO ELEVATED APPROVAL REQUIRED
M REQUIRES SQUADRON CO APPROVAL
H REQUIRES MAG CO APPROVAL

DOSS

CO

(b) (6)



HMLA-367 RISK ASSESSMENT WORKSHEET



FLIGHT DATE:
August 24, 2023
JULIAN DATE:
23236

GREATER THAN 14
WARM-UP
GREATER THAN 15
FCT / NVG ELIGIBILITY
GREATER THAN 21
SIGNING
GREATER THAN 45
NIGHT WARM-UP

1. SET DATE.
2. VERIFY AIRCREW.
3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H). OTHERWISE LEAVE BLANK.

3A. FOR SUPPLEMENTARY MATRIX REFERENCE BACK PAGE

NATOPS / INST	DAYS LAST EP SIM
C 20 MC	1-90 80-90 90

EVENT	ROLE	CREW	LAST RECORDED										T&R CUL	T&R PRO	NATOPS	FLIGHT	BRIEF T	DAY/N	PLANNED	CREW D	TAK-O	COMMA	MGR TY	MGR PL	PLANNING	OPERAT	FAM / J	FCF (M)	FORMAL	ESCORT	TERF	FCIP	SHIPBO	BCW/D	TACTICS	FAC (A)	OAS/CA	DAOM (CALS	HIST (N	OVR	NSI	WTO	TERFI	BIP	CR MIX	LM	H																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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CO COMMENTS:

L	NO ELEVATED APPROVAL REQUIRED
M	REQUIRES SQUADRON CO APPROVAL
H	REQUIRES MAG CO APPROVAL

DOSS
CO (b) (6)



HMLA-367 RISK ASSESSMENT WORKSHEET

FLIGHT DATE:	22-Aug-23
JULIAN DATE:	23234
FORMULA DATE	August 22, 2023

GREATER THAN 14
WARM-UP
GREATER THAN 15
NVG ELIGIBILITY
GREATER THAN 21
SIGNING / FOF
GREATER THAN 45
NIGHT WARM-UP

1. SET DATE.

2. VERIFY AIRCREW.

3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H). OTHERWISE LEAVE BLANK.

3A. FOR SUPPLEMENTARY MATRIX REFERENCE BACK PAGE

NATOPS / INST			DAYS LAST EP SIM	
C.	NO	INC	SUCCESS	90

[illegible]



FLIGHT DATE:	August 22, 2023
JULIAN DATE:	23234

GREATER THAN 14
WARM-UP
GREATER THAN 15
FOF / NVG ELIGIBILITY
GREATER THAN 21
SIGNING
GREATER THAN 45
NIGHT WARM-UP

1. SET DATE.

2. VERIFY AIRCREW.

3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H). OTHERWISE LEAVE BLANK.

3A. FOR SUPPLEMENTARY MATRIX REFERENCE BACK PAGE

NATOPS/ INST		DAYS LAST EP SIM	
C	90 INC	>60	90-90 90

[illegible]

CO COMMENTS:

- L** NO ELEVATED APPROVAL REQUIRED
M REQUIRES SQUADRON CO APPROVAL
H REQUIRES MAG CO APPROVAL

(b) (6)



FLIGHT DATE:
August 21, 2023

JULIAN DATE:
23233

GREATER THAN 14
WARM-UP
GREATER THAN 15
FOF / NVG ELIGIBILITY
GREATER THAN 21
SIGNING
GREATER THAN 45
NIGHT WARM-UP

1. SET DATE.
2. VERIFY AIRCREW.
3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H). OTHERWISE LEAVE BLANK.

3A. FOR SUPPLEMENTARY MATRIX REFERENCE BACK PAGE

NATOPS / INST		
C	30	NO

DAYS LAST EP SIM		
5-7	80-90	90

[illegible]

CO COMMENTS:

L NO ELEVATED APPROVAL REQUIRED
M REQUIRES SQUADRON CO APPROVAL
H REQUIRES MAG CO APPROVAL

Do (b) (6)



FLIGHT DATE:
August 15, 2023

JULIAN DATE:
23227

GREATER THAN 14
WARM-UP
GREATER THAN 15
FCF / NVG ELIGIBILITY
GREATER THAN 21
SIGNING
GREATER THAN 45
NIGHT WARM-UP

1. SET DATE.
2. VERIFY AIRCREW.
3. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (L,M,H). OTHERWISE LEAVE BLANK.

3A. FOR SUPPLEMENTARY MATRIX REFERENCE BACK PAGE

NATOPS / INST			DAYS LAST EP SIM		
C	10	NC	>60	80-90	90

[illegible]

L	NO ELEVATED APPROVAL REQUIRED
M	REQUIRES SQUADRON CO APPROVAL
H	REQUIRES MAG CO APPROVAL

DOSS

CC

(b) (6)

VMM-363 RISK ASSESSMENT WORKSHEET

FLIGHT SCHEDULE DATE: 20230825

RISK ASSESSMENT CATEGORIES

RISK LEVELS

L - LOW - MINOR IMPACT ON MISSION CAPABILITIES

M - MEDIUM - MODERATELY DEGRADES MISSION CAPABILITIES
(*FLT LD BRIEF ALL SPECIFIC RISK FACTORS AND MITIGATIONS)

H - HIGH - SERIOUSLY DEGRADES MISSION CAPABILITIES

OPERATIONS... (SHADED PORTION)

1. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (M, H) IF NO ELEVATED RISK, LEAVE BLANK.
2. ASSIGN AN INITIAL RISK LEVEL.
3. ATTEMPT TO MITIGATE IDENTIFIED RISK USING THE SPACE PROVIDED.
4. USE REVERSE SIDE AS NECESSARY.

SCHEDULE

FLIGHT TIME

JOINT OUTSIDE AGENCY OPERATION
TAC CURRENCY - NO FLIGHT PAST 30 DAYS; 15 DAYS
CURRENTLY NOT IN FLIGHT FOR NIGHT
COMPLETED OR UNCOMPLETED MISSION FOR ASSIGNED
MISSION PRECEDENCE / PRECEDENCE PRESSURE / VWP
APPROVED / C2 (downwards, term, workload, etc.)
OTHER HAZARDS:
WDM SCHEDULED REQUEST OF ASSESSED RISK
HUMAN FACTORS (FATIGUE, INTENTION, HYDRATION)
MISSION CHANGE (T + M)
IF T + M SCHEDULE CHANGE
AC CORD, PERFORMANCE, COORDINATE, MISSION
PASSENGERS (Safety Risk, etc. training and proper
PPE = L-male, term, workload, etc.)
VFP (FPI) LAW (FPI) + LOW MYRIS (FPI) + 10000 e.m.
OTHER (FPI) 10000

OPS (b) (6)
DSSN
CO

1. REVIEW AIR 24 HOUR ASSESSMENT
2. FLIGHT BRIEF RISK ASSESSMENT
3. IF NO ELEVATED RISK, LEAVE BLANK
4. USE THE SPACE PROVIDED TO IDENTIFY AND MITIGATE THE MISSION RISK FACTORS OF THE FLIGHT
5. IDENTIFY THE FINAL RISK LEVEL (THE HIGHEST ASSESSED RISK)
6. RECEIVE APPROPRIATE APPROVAL FOR ANY ELEVATED RISKS PRIOR TO FLIGHT

MEDIUM: CO APPROVAL
HIGH: MAG CO / MAGTF CO APPROVAL

*NOTE: IF ALREADY IDENTIFIED AND APPROVED BY THE CO OR BY ANYTHING IDENTIFIED BY THE SCHEDULERS OR AN APPROVED SCHEDULE CHANGE, IT DOES NOT NEED TO BE RE-AUTHORIZED BY THE CO.

EVENT # / MISSION	RISKS / HAZARDS IDENTIFIED DURING THE SCHEDULING PROCESS	RISKS / HAZARDS IDENTIFIED AFTER SCHEDULE SIGNING	CONTROL MEASURES: What is the highest risk aspect of the flight and how do you plan on mitigating it?	TIME CRITICAL RM COMMENTS...	FINAL RISK LEVEL (HIGHEST OF ASSESSED RISKS)	TAC INITIALS	AIRCREW NAME	DAYS SINCE LAST FLIGHT	DAYS SINCE LAST NVG	DAYS SINCE LAST LAT	DAYS SINCE LAST NVG LAT	DAYS SINCE LAST RVL	30 DAY FLIGHT TIME
7003 / CF		L			P	(b) (6)		7	28	42	42	22	195
					CP			4	30	84	84	28	215
					CP								
					CC			4	43	38	45	34	215
					CC								
					AO								
				TIME CRITICAL RM COMMENTS...	P								
					CP								
					CP								
					CC								
					CC								
					AO								
				TIME CRITICAL RM COMMENTS...	P								
					CP								
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				TIME CRITICAL RM COMMENTS...	P								
					CP								
					CP								
					CC								
					CC								
					AO								
				TIME CRITICAL RM COMMENTS...	P								
					CP								
					CP								
					CC								
					CC								
					AO								
				TIME CRITICAL RM COMMENTS...	P								
					CP								
					CP								
					CC								
					CC								
					AO								

FLIGHT SCHEDULE DATE: 20230824
RISK ASSESSMENT CATEGORIES:

1. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (M, H) IF NO ELEVATED RISK, LEAVE BLANK
2. ASSIGN AN INITIAL RISK LEVEL
3. ATTEMPT TO MITIGATE IDENTIFIED RISK USING THE SPACE PROVIDED.
4. USE REVERSE SIDE AS NECESSARY.

H - HIGH - SERIOUSLY DEGRADES MISSION CAPABILITIES

(b) (6)

- *NOTE: IF ALREADY IDENTIFIED AND APPROVED BY THE CO (I.E. ANYTHING IDENTIFIED BY THE SCHEDULERS OR AN APPROVED SC CHANGES) IT DOES NOT NEED TO BE RE-AUTHORIZED BY THE CO.

Enclosure 10

FLIGHT SCHEDULE DATE: 20230823
RISK ASSESSMENT CATEGORIES

1. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (M, H) IF NO ELEVATED RISK, LEAVE BLANK
2. ASSIGN AN INITIAL RISK LEVEL
3. ATTEMPT TO MITIGATE IDENTIFIED RISK USING THE SPACE PROVIDED.
4. USE REVERSE SIDE AS NECESSARY.

RISK LEVELS
 L - LOW - MINOR IMPACT ON MISSION CAPABILITIES
 M - MEDIUM - MODERATELY DEGRADES MISSION CAPABILITIES.
 (FILL IN BRIEF ALL SPECIFIC RISK FACTORS AND MITIGATIONS;)

OP
DS
CO

(b) (6)

DES MISSION CAPABILITIES

2. REVIEW 48/24 HOUR
3. FLIGHT BRIEF REASSESSMENT
3. IF NO ELLEVATED RISK: LEAVE BLANK
4. USE THE SPACE PROVIDED TO IDENTIFY AND MITIGATE THE HIGH RISK FACTORS OF THE FLIGHT.
5. IDENTIFY THE FINAL RISK LEVEL (THE HIGHEST ASSESSED RISK)
6. RECEIVE APPROPRIATE APPROVAL FOR ANY ELLEVATED RISKS PRIOR TO FLIGHT:

MEDIUM: CO APPROVAL
HIGH: MAG CO/MAGTF CO APPROVAL

*NOTE-IF ALREADY IDENTIFIED AND APPROVED BY THE CO (I.E. ANYTHING IDENTIFIED BY THE SCHEDULERS OR AN APPROVED SC CHANGE) IT DOES NOT NEED TO BE RE-AUTHORIZED BY THE CO.

CONTROL MEASURES: What is the highest risk aspect of the flight and how do you plan on mitigating it?

TIME CRITICAL RM COMMENTS:

Enclosure 10

[illegible]

FLIGHT SCHEDULE DATE: 20230822
RISK ASSESSMENT CATEGORIES

1. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (M, H) IF NO ELEVATED RISK, LEAVE BLANK.
2. ASSIGN AN INITIAL RISK LEVEL
3. ATTEMPT TO MITIGATE IDENTIFIED RISK USING THE SPACE PROVIDED.
4. USE REVERSE SIDE AS NECESSARY

(BUT DO NOT BRIEF ALL SPECIFIC RISK FACTORS AND MITIGATIONS;)

(b) (6)

*NOTE-IF ALREADY IDENTIFIED AND APPROVED BY THE CO (I.E. ANYTHING IDENTIFIED BY THE SCHEDULERS OR AN APPROVED SC CHANGE) IT DOES NOT NEED TO BE RE-AUTHORIZED BY THE CO.

Enclosure 10

RISK LEVELS
1 - LOW - MINOR IMPACT ON MISSION CAPABILITIES

H - MEDIUM - MODERATELY DEGRADES MISSION CAPABILITIES.
(*FLT LD BRIEF ALL SPECIFIC RISKS FACTORS AND MITIGATIONS;)

H - HIGH - SERIOUSLY DEGRADES MISSION CAPABILITIES

FLIGHT SCHEDULE DATE: 20230821
RISK ASSESSMENT CATEGORIES

52100115	11651 2015
<p>15 DAYS</p> <p>NAV. TAA. AND 500M.</p> <p>PLAN MISSION FOR ASSIGNED</p> <p>APPROX</p> <p>PRECEDENCE/ PERCENTED PRESSURE VIP</p> <p>FLIGHT DURATION = 8 HRS = M</p> <p>ARRIVAL 14Z (shorted arrival, however, estimate etc.)</p> <p>OTHER HAZARDS:</p> <p>100% REL. EXP. NUMBER OF ASSIGNED PERSON</p> <p>HUMAN FACTORS FATIGUE/NUTRITION/ITERATION</p> <p>MISSION DUNGE (1 = M)</p> <p>IF = 100% REL. CHANGE</p> <p>AC CONTING. PERFORMANCE, GADGET, MISSION</p> <p>PASSENGERS (Safety Brief, + gas training and proper</p> <p>VIP/PLANNING UNIT = LOW INFLIGHT = 10000 + M</p> <p>OTHER HAZARDS:</p> <p>100% REL. EXP. = 100% H</p>	<p>1. REVIEW</p> <p>2. PLAN</p> <p>3. IF M</p> <p>4. USE</p> <p>5. RISK</p> <p>6. PLAN</p> <p>7. PLAN</p> <p>8. PLAN</p> <p>9. PLAN</p> <p>10. PLAN</p>

OPS (b) (6)
DSS
CO

1. REVIEW 48/72 HOUR ASSESSMENT
2. FLIGHT BRIEF RISK ASSESSMENT
3. IF NO ELEVATED RISK, I LEAVE BLANK
4. USE THE SPACE PROVIDED TO IDENTIFY AND MITIGATE THE HIGH RISK FACTORS OF THE FLIGHT.
5. IDENTIFY THE FINAL RISK LEVEL (THE HIGHEST ASSESSED RISK)
6. RECEIVE APPROPRIATE APPROVAL FOR ANY ELEVATED RISK'S PRIOR TO FLIGHT

MEDIUM CO APPROVAL
HIGH MAG CO/MAGTF CO APPROVAL

*NOTE: IF ALREADY IDENTIFIED AND APPROVED BY THE CO (E
ANYTHING IDENTIFIED BY THE SCHEDULERS OR AN APPROVED S
CHANGE) IT DOES NOT NEED TO BE RE-AUTHORIZED BY THE CO

[illegible]

Enclosure 10

RISK LEVELS
1 - LOW - MINOR IMPACT ON MISSION CAPABILITIES

M - MEDIUM - MODERATELY DEGRADES MISSION CAPABILITIES.
(FLY LD BRIEF ALL SPECIFIC RISK FACTORS AND MITIGATIONS;)

H - HIGH - SERIOUSLY DEGRADES MISSION CAPABILITIES

OPERATIONS: (SHADED PORTION)

1. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (M, H) IF NO ELEVATED RISK, LEAVE BLANK.
2. ASSIGN AN INITIAL RISK LEVEL.
3. ATTEMPT TO MITIGATE IDENTIFIED RISK USING THE SPACE PROVIDED.
4. USE REVERSE SIDE AS NECESSARY.

FLIGHT SCHEDULE DATE: 20230820

RISK ASSESSMENT CATEGORIES

502503, 01, 2, 6

REFERENCES

JOINT/OUTSIDE AGENCY OPERATOR
LOSSES (M, H) IF
LEAVE BLANK
RISK LEVEL
GATE
ING THE SPACE
THE CURRENCY
CURRENCY NOT LAWYER/CHIEF
COMPLEX OR UNUSUAL SITUATION
MISSION PRECEDENCE PERCEIVED PRESSURE 1 HP
ASSIGNED 1/2 (Nervous, breath, awareness, unfamiliar
OTHER HAZARDS
HUMAN FACTORS/ROSTER OF ASSIGNED PERSONS
MISSION CHANGE (1 = M)
AC CONFIG. PERFORMANCE CHANGE
PASSENGERS (Solid Brief, agency training and support
VPE = 1, training and agency training (PE = M)
OTHER HAZARDS

1. REVIEW 48/72 HOUR ASSESSMENT
2. FLIGHT BRIEF RISK ASSESSMENT
3. IF NO ELEVATED RISK, LEAVE BLANK
4. USE THE SPACE PROVIDED TO IDENTIFY AND MITIGATE THE HIGH RISK FACTORS OF THE FLIGHT.
5. IDENTIFY THE FINAL RISK LEVEL (THE HIGHEST ASSESSED RISK).
6. RECEIVE APPROPRIATE APPROVAL FOR ANY ELEVATED RISKS PRIOR TO FLIGHT.

(b) (6)

MEDIUM CO APPROVAL
HIGH MAG CO/MAGTF CO APPROVAL

*NOTE: IF ALREADY IDENTIFIED AND APPROVED BY THE CO (I.E. ANYTHING IDENTIFIED BY THE SCHEDULERS OR AN APPROVED SC CHANGE) IT DOES NOT NEED TO BE RE-AUTHORIZED BY THE CO.

at is the highest risk aspect of the flight and how do

EVENT # / MISSION	RISKS / HAZARDS IDENTIFIED DURING THE SCHEDULING PROCESS							RISKS / HAZARDS IDENTIFIED AFTER SCHEDULE SETTING							CONTROL MEASURES: What is the highest risk aspect of the flight and how do you plan on mitigation it? TIME CRITICAL RM COMMENTS...	FINAL TAC	AFFECT	DAYS						30 D.				
	1	2	3	4	5	6	7	8	9	10	11	12	13	P				CP	CC	AD								
7005 INV. 22V	X						X							Airshow perceived - px L			P	CP	CP	CC	CC	AD	5	31	17	34	12	185
														TIME CRITICAL RM COMMENTS...			CP	CP	CC	CC	AD	23	25	79	79	23	7.5	
														TIME CRITICAL RM COMMENTS...			CP	CP	CC	CC	AD	5	23	34	34	13	255	
														TIME CRITICAL RM COMMENTS...			CP	CP	CC	CC	AD	6	12	13	13	13	9.7	
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						
														TIME CRITICAL RM COMMENTS...			P	CP	CP	CC	CC	AD						

Enclosure 10

Enclosure 10

VMM-363 RISK ASSESSMENT WORKSHEET

RISK LEVELS

L - LOW - MINOR IMPACT ON MISSION CAPABILITIES

M - MEDIUM - MODERATELY DEGRADES MISSION CAPABILITIES
(*FLT LD BRIEF ALL SPECIFIC RISK FACTORS AND MITIGATIONS)

H - HIGH - SERIOUSLY DEGRADES MISSION CAPABILITIES

FLIGHT SCHEDULE DATE: 20230819
RISK ASSESSMENT CATEGORIES

OPERATIONS (SHADED PORTION)

1. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (M, H) IF NO ELEVATED RISK, LEAVE BLANK.
2. ASSIGN AN INITIAL RISK LEVEL.
3. ATTEMPT TO MITIGATE IDENTIFIED RISK USING THE SPACE PROVIDED.
4. USE REVERSE SIDE AS NECESSARY.

SCHEDULING

JOINT / OUTSIDE AGENCY OPERATIONS
TAC CURRENCY: NO FLIGHT TASK > 90 DAYS; TAC AND SOON
CURRENCY NOT IMPACTED: 90-180 DAYS
COMPLET OR UNIMPACTED: 180-365 DAYS
MISSION PRECEDENCE: PRECEDENCE FOR ASSIGNED
ARRIVED LT (prioritize: tempo, breakdown, unfamiliar)
OTHER HAZARDS:
WITHIN ONE LINE: OBJECT OF ASSESSED RISK
HUMAN FACTORS / ATTITUDE / INTENTION / INADVERTENT
MISSION CHANGES (T = M)
IF V = SCHEDULE CHANGE
AC CONFIG, PERFORMANCE CHANGE
PASSENGERS (body count, weight, special training, PPE, etc.)
VFR EFR LANY OPERATIONS
OTHER HAZARDS:
1000'S = M, 1000'S = H

FLIGHT BRIEF

1. REVIEW 48/24 HOUR ASSESSMENT
2. FLIGHT BRIEF RISK ASSESSMENT
3. IF NO ELEVATED RISK, LEAVE BLANK
4. USE THE SPACE PROVIDED TO IDENTIFY AND MITIGATE THE HIGHEST RISK FACTORS OF THE FLIGHT
5. IDENTIFY THE FINAL RISK LEVEL (THE HIGHEST ASSESSED RISK)
6. RECEIVE APPROPRIATE APPROVAL FOR ANY ELEVATED RISKS PRIOR TO FLIGHT:
MEDIUM: CO APPROVAL
HIGH: MAC CO / MAGTY CO APPROVAL

*NOTE: IF ALREADY IDENTIFIED AND APPROVED BY THE CO (IF ANYTHING IDENTIFIED BY THE SCHEDULERS OR AN APPROVED SCHEDULE CHANGE) IT DOES NOT NEED TO BE RE-AUTHORIZED BY THE CO

OPS (b) (6)
DSS
CO

EVENT # / MISSION	1	2	3	4	5	6	7	8	9	10	11	12	13	CONTROL MEASURES: What is the highest risk aspect of the flight and how do you plan on mitigating it?	TIME CRITICAL RM COMMENTS...	FINAL RISK LEVEL (HIGHEST OF ASSESSED RISKS)	TAC INITIALS	AIRCRAFT NAME	DAYS SINCE LAST FLIGHT	DAYS SINCE LAST RWG	DAYS SINCE LAST LAT	DAYS SINCE LAST RWG LAT	DAYS SINCE LAST RWL	30 DAY FLIGHT TIME
1004 MV-22B	X																P	10110	4	30	16	33	11	220
																	CP		11	16	25	35	11	110
																	CP							
																	CC		16	16	39	39	22	145
																	CC		17	37	32	39	28	80
																	CC		11	11	12	12	38	110
																	P							
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																	AD							

HIGH LEVEL
1 - LOW - MINOR IMPACT ON MISSION CAPABILITIES

M - MEDIUM - MODERATELY DEGRADES MISSION CAPABILITIES.
(*FLY LD BRIEF ALL SPECIFIC RISKS AND MITIGATIONS)

H - HIGH - SERIOUSLY DEGRADES MISSION CAPABILITIES

OPERATIONS: (SHADED PORTION)

FLIGHT SCHEDULE DATE: 20230818
RISK ASSESSMENT CATEGORIES

1. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (M, H) IF NO ELEVATED RISK, LEAVE BLANK.
2. ASSIGN AN INITIAL RISK LEVEL
3. ATTEMPT TO MITIGATE IDENTIFIED RISK USING THE SPACE PROVIDED.
4. USE REVERSE SIDE AS NECESSARY.

JOINT COVERED AGENCY OPERATION
TAC CURRENCY: NO FLIGHT FAST
CURRENCY NOT INFLIGHT FAST
COMPLEX OR UNFAMILIAR MISSION FOR ASSIGNED
MISSION PRECEDENCE: 1 PERFORMED PRESSURE (VIP
ARTICLE 12 (exceptional terrain knowledge, unfamiliar
OTHER HAZARDS
HUMAN FACTORS: SUBJECT OF ASSIGNED PRESSURE
MISSION CHANGE (T + M)
IS V Y SCENARIO CHANGE
AC CONFIG. PERFORMANCE CHANGE
PASSENGERS (Military Blind, agency training and program
PPE LL (standing aid, agency training, PPE + M)
VIP FLIGHT OPLAN + M
OTHER HAZARDS

OP5 (b) (6)
DSS
CO

1. REVIEW 48/24 HOUR ASSESSMENT
2. FLIGHT BRIEF RISK ASSESSMENT
3. IF NO ELEVATED RISK: LEAVE BLANK
4. USE THE SPACE PROVIDED TO IDENTIFY WHO WILL MONITOR THE HIGHEST RISK FACTORS OF THE FLIGHT.
5. IDENTIFY THE FINAL RISK LEVEL (THE HIGHEST ASSESSED RISK)
6. RECEIVE APPROPRIATE APPROVAL FOR ANY ELEVATED RISK FLIGHT

MEDIUM CO APPROVAL
HIGH MAG CO/MAGTF CO APPROVAL

*NOTE: IF ALREADY IDENTIFIED AND APPROVED BY THE CO (I.E. ANYTHING IDENTIFIED BY THE SCHEDULERS OR AN APPROVED SCO CHANGE) IT DOES NOT NEED TO BE RE-AUTHORIZED BY THE CO

[illegible]

Enclosure 10

FLIGHT SCHEDULE DATE: 20230816
RISK ASSESSMENT CATEGORIES

1. FILL OUT ONLY THOSE COLUMNS WITH IDENTIFIED RISKS (M, H) IF NO ELEVATED RISK, LEAVE BLANK.
2. ASSIGN AN INITIAL RISK LEVEL.
3. ATTEMPT TO MITIGATE IDENTIFIED RISK USING THE SPACE PROVIDED.
4. USE REVERSE SIDE AS NECESSARY.

RISK LEVELS
 L - LOW - MINOR IMPACT ON MISSION CAPABILITIES
 M - MEDIUM - MODERATELY DEGRADES MISSION CAPABILITIES.
 (*FLT LD BRIEF ALL SPECIFIC RISK FACTORS AND MITIGATIONS;)
 H - HIGH - SERIOUSLY DEGRADES MISSION CAPABILITIES

OPS (b) (6)
DSS
CO

4. REVIEW 15/24 HOUR ASSESSMENT
5. FLIGHT BRIEF RISK ASSESSMENT
6. IF NO ELEVATED RISK : LEAVE BLANK
7. USE THE SPACE PROVIDED TO IDENTIFY AND MITIGATE THE HIGHEST RISK FACTORS OF THE FLIGHT.
8. IDENTIFY THE FINAL RISK LEVEL (THE HIGHEST ASSESSED RISK)
9. RECEIVE APPROPRIATE APPROVAL FOR ANY ELEVATED RISKS PRIOR TO FLIGHT:

MEDIUM: CO APPROVAL
HIGH: MAG, CO, MAG/CO APPROVAL

*NOTE-IF ALREADY IDENTIFIED AND APPROVED BY THE CO (I.E. ANYTHING IDENTIFIED BY THE SCHEDULERS OR AN APPROVED SC CHANGE) IT DOES NOT NEED TO BE RE-AUTHORIZED BY THE CO.

What is the highest risk aspect of the flight and how do

[illegible]

ASSAULT SUPPORT SERIAL ASSIGNMENT TABLE

FLIGHT SERIAL	PERSONNEL			EDIPI / ID	#	SUPPLIES AND EQUIPMENT	WEIGHT			BUN ORD
	PERSONNEL	RANK	UNIT				PERS	EQUIP	TOTAL	

DUMP TRUCK 1-1

3000	(b) (6)		1	PRC-152	300	15	315	
			1	PRC-117G	300	15	315	
			1		1200		1200	
			1					
			1					
			1					
		STICK TOTAL:			6	STICK WEIGHT:		
9005	(b) (6)		1	PRC-160	300	30	330	
			1	PRC-117G	300	30	330	
			1	PRC-117G	600	30	630	
			1		300		300	
			1		300		300	
			1					
		STICK TOTAL:			6	STICK WEIGHT:		
3005	(b) (6)		1		2100		2100	BUN
			1					
			1					
			1					
			1					
			1					
		STICK TOTAL:			7	STICK WEIGHT:		
AIRCRAFT TOTAL:			19	TOTAL WEIGHT:			5820	

DUMP TRUCK 1-2

AIRCRAFT TOTAL:

19

TOTAL WEIGHT:

5820

3010

(b) (6)

STICK TOTAL:

1

M240B

1200

50

1250

1

60MM MORTAR SYSTEM

600

45

645

1

1

1

1

6

STICK WEIGHT:

1895

1

60MM BASEPLATE

300

25

315

1

MECH BREACH KIT

900

20

920

1

1

1

1

6

STICK WEIGHT:

1835

1

2100

2100

1

1

1

1

1

1

7

STICK WEIGHT:

2100

3015

(b) (6)

STICK TOTAL:

3020

(b) (6)

STICK TOTAL:

AIRCRAFT TOTAL:

19

TOTAL WEIGHT:


5830


BUMP


Enclosure (11)

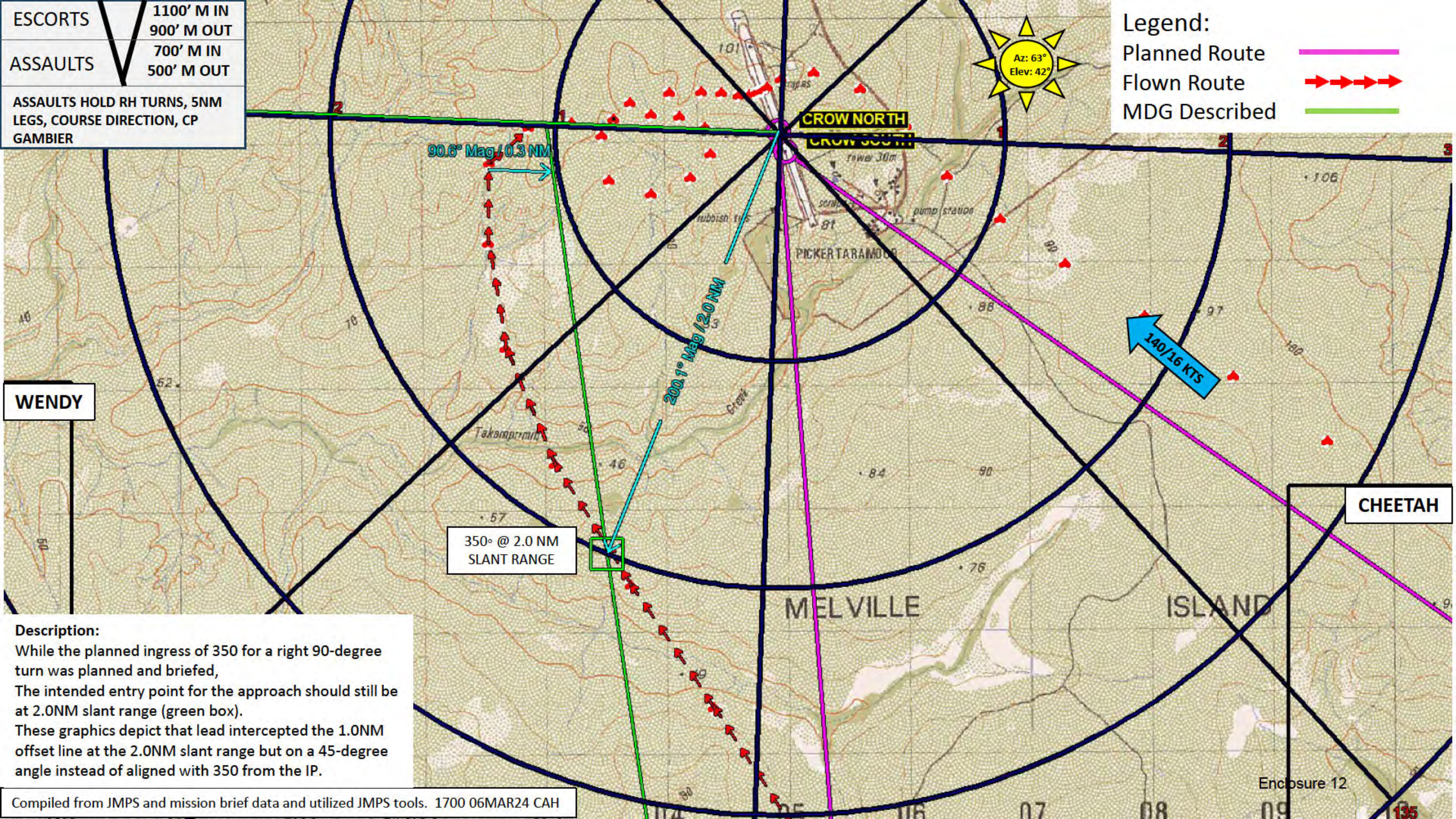
ESCORTS	1100' M IN 900' M OUT
ASSAULTS	700' M IN 500' M OUT
ASSAULTS HOLD RH TURNS, 5NM LEGS, COURSE DIRECTION, CP GAMBIER	

Legend:

Planned Route 

Flown Route 

MDG Described 




WENDY


CHEETAH


Description:
While the planned ingress of 350 for a right 90-degree turn was planned and briefed, The intended entry point for the approach should still be at 2.0NM slant range (green box). These graphics depict that lead intercepted the 1.0NM offset line at the 2.0NM slant range but on a 45-degree angle instead of aligned with 350 from the IP.

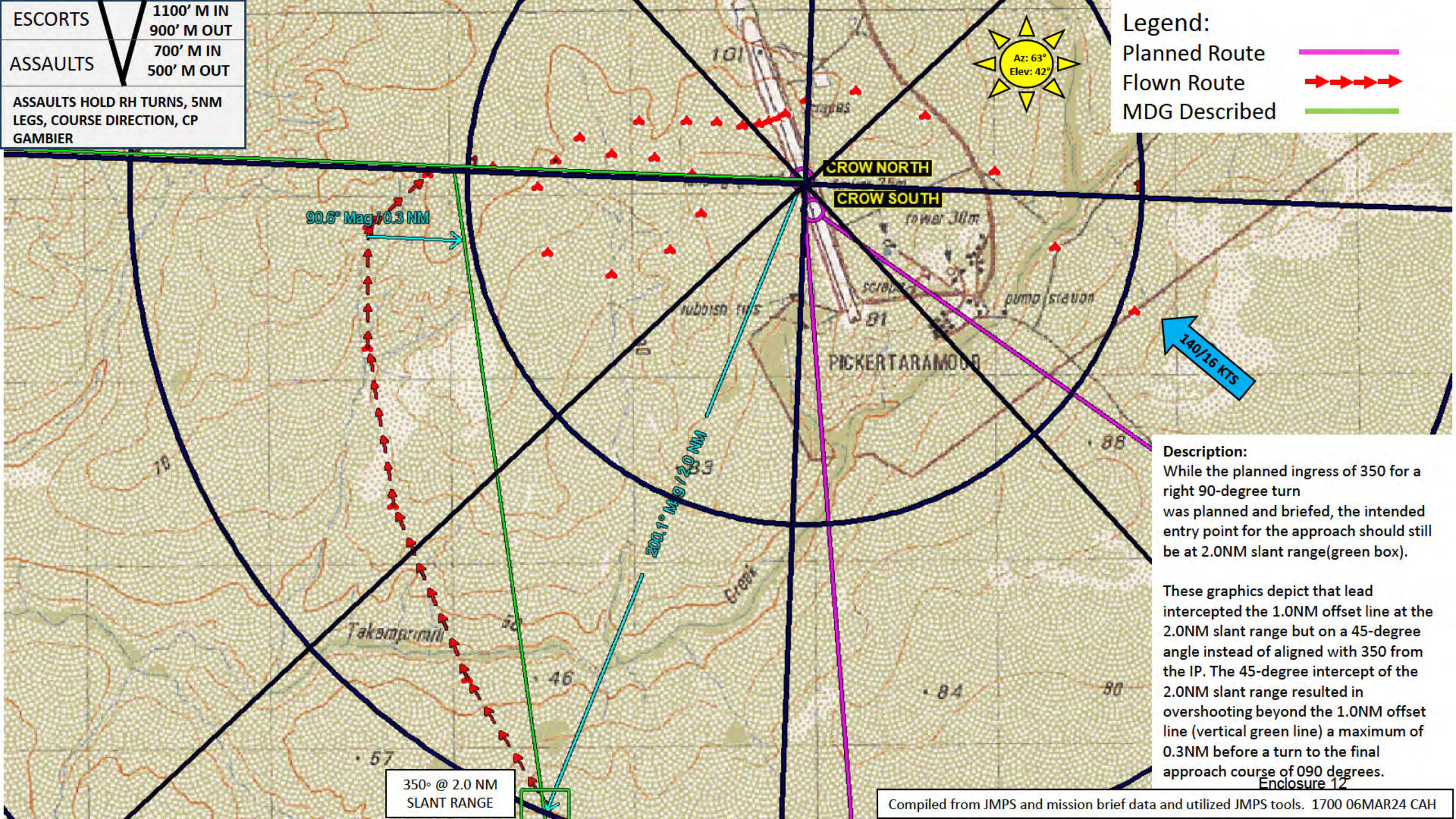
ESCORTS	1100' M IN 900' M OUT
ASSAULTS	700' M IN 500' M OUT
ASSAULTS HOLD RH TURNS, 5NM LEGS, COURSE DIRECTION, CP GAMBIER	

Legend:

Planned Route 

Flown Route 

MDG Described 



Description:
While the planned ingress of 350 for a right 90-degree turn was planned and briefed, the intended entry point for the approach should still be at 2.0NM slant range (green box).

These graphics depict that lead intercepted the 1.0NM offset line at the 2.0NM slant range but on a 45-degree angle instead of aligned with 350 from the IP. The 45-degree intercept of the 2.0NM slant range resulted in overshooting beyond the 1.0NM offset line (vertical green line) a maximum of 0.3NM before a turn to the final approach course of 090 degrees.

Enclosure 12

Enclosure (13) ASIST Lead Aircraft Flight Recreation Video

The video footage at enclosure (13) is a video that is computer generated based on flight data from the Lead Aircraft (LA). The video was generated by the Flight Vehicle Modeling & Simulation Division at Naval Air Systems Command in Patuxent, Maryland and was prepared at the request of this investigation team.

Enclosure (13) consists of the following one video:

Encl 13 ASIST Lead Aircraft Flight Recreation Video

Enclosure (14) Air Traffic Control Audio Recordings

The audio recordings in enclosure (14) are recordings covering the mishap flight from departure out of RAAF Darwin through the end of flight operations. The audio recordings were provided to the investigation team by Australian authorities.

Enclosure (14) consists of the following seven audio files:

Tape 1

Tape 2

Tape 3

Tape 4

Tape 5

Tape 6

Tape 7

(b) (6)

Australian Defense Forces (ADF)

Role and background?

CTC in Townsville, part of a 2-man team for coaching and facilitating the ex. linked up about 3 days prior with (b) (6). Positioned himself IVO the airfield. 27th 0900 arrived at airfield at tin shed. Easily visible and distinguished from role players. 0920-0925 I heard them begin their approach. I Was in the car. 0925-0930 I saw the Hueys and the Ospreys in the distance. I noticed the noise had reduced and noticed the formation had dispersed. A glimpse of an Osprey heading W/NW away from the airfield, about 2k from the airfield. It looked like it was heading to land someplace else. I assumed they were going to an alternate. Pulled out map to confirm it. The profile looked like a landing profile. I don't believe the rotors were fully vertical but not full forward either. No smoke or fire that I could see. It disappeared out of my view by the trees. The other Osprey landed, but nobody disembarked. A Huey landed in front of me quickly disengaged and ran to me. I saw the smoke rising and got that feeling in my stomach, and the aircrew I re-roled role players and observers to provide aid and reported over my EXCON.

When you start hearing the rotors coming in, can you talk me through location of h-1's?

Little observed recollection. I'm probably missing a bit of the critical piece.

Separation of the aircraft?

It looked like what I expected with H-1s to the front screening. 2-ship formation looked standard.

Refer to written statement with rough timeline.

Statement by (b) (6) – USMC V-22 Osprey Crash on Melville Island 27 AUG 23

- I am an (b) (6) with (b) (6) in the Australian Army.
- I am currently posted to the Combat Training Centre (CTC) at Lavarack Barracks, Townsville QLD.
- Within my unit I am employed as a coach (similar to an observer/trainer) in CTC-Live which is a sub unit under CTC.
- In the lead up to Exercise Predator Run 2023 (EX PR 23), I attended; EX PR 23 Orders on 15 Aug, Coach Laydown Brief and ROC Drill on 16 Aug.
- I was deployed on EX PR 23 as part of a two-man team (Team Leader was (b) (6) another CTC member). My team was partnered with Battle Group (BG) Brahman which was the United States Marine Corps (USMC) contingent drawn from the Marine Rotational Force – Darwin (MRF-D)
- I flew with the CTC Main Body from Townsville to Darwin via chartered flight on 23 Aug.
- I conducted RSO&I and battle preparation/admin on Robertson Barracks 24 & 25 Aug.
- My team organised an initial meeting with the BG Brahman commander (b) (6) at lunchtime on 24 Aug at the Officers Mess and then again at around 1700 on 25 Aug at his CHQ building.
- My team attended BG orders at 26 0800 AUG IVO CHQ Building
- My team deployed to Melville Island via Air North charter on 26 Aug, arriving approx. 1530h local time at Yapilika airfield (sometimes referred to as Maxwell Creek).
- My team conducted location specific RSO&I at Exercise Control Melville (EXCON Melville) located at Yapilika Forestry Plantation (YFP) camp immediately adjacent to Yapilika airfield
- At around 1700 my team departed EXCON Melville to conduct a recce/comms check of key locations including the southern airstrip (Pickertaramoor) IVO Tiwi College and the likely beach landing site (to be utilized to insert amphib elements and as a RV for CASEVAC) at GR 0200 8900.
- Returned to EXCON Melville at 2000
- At around 2100 that night, we had an internal team discussion around the best disposition to support the next 48 hours. Given the physical distance from EXCON Melville to the southern airfield (approx. 60min drive), it was decided that I should be pre-positioned at the southern airfield where a USMC Platoon was expected to insert on the first lift of V-22's (with the remainder of the USMC Company inserting at Yapilika airfield). The follow on plan was once the southern platoon had established comms and were secure I would eventually move back north to re-join my Team Leader IOT support the main effort of our coaching task (being targeted at HQ level)
- 0815 (27 Aug) Departed EXCON Melville for the southern airfield (Pickertaramoor)
- 0910 Arrived at airfield.
- 0920 Upon hearing rotary wing, I assumed position next to the airfield (out in the open at the northern end, facing W/SW sitting in my white 4WD hire car) GR 0480 9983.
- 0925 Aircraft formation observed in the distance, appearing to be approaching the airfield from the SW. At this point I was concentrating on sending some quick SITREPs and was

moving around outside the vehicle to improve/gain comms via mobile and our handheld range safety radios.

- 0930 I looked up and noticed that the formation was no longer approaching the airfield and appeared to have completely dispersed. It was at this moment that I caught a very brief glimpse of a V-22 at low level, about 2 km west of my location and heading away from the airfield in a W or NW direction. The aircraft appeared level to the ground (maybe a slight dip of the furthest left wing), the rotors were not completely vertical or horizontal but somewhere in between (if I had to be more specific, I would say closer to vertical but I cannot be certain). It was descending/losing altitude quickly and I observed nothing obviously wrong with the aircraft (i.e. no fire or smoke). The overall description of the aircraft behaviour/flight path would be that of a light aircraft coming into land on a short airstrip. As this was my first impression, I re-checked all my mapping and imagery to ascertain if there was another old airstrip close by or an area of open terrain that could possibly be used as an alternate LZ but I could find nothing obvious.
- 0935 The other V-22 approached and landed at the airfield, about half way down (500m to my south). After the dust cleared, I noticed that no Marines were disembarking and the V-22 remained on the ground.
- 0940 A single UH-1Y landed at the northern end of the airfield, within 50m of my location. As it landed, I noticed one of the aircrew frantically disconnecting all his leads/cords, exit the aircraft and begin sprinting towards me, waving both his hands above his head to get my attention. I exited my vehicle to move to meet him. It was around this time that I first noticed black smoke beginning to rise above the tree line somewhere to the W/NW of my location. It was about two hand spans in width and in the same direction where I had last observed the V-22. The aircrew informed me that a V-22 had just crashed to the west of the airfield and to expect there would be significant casualties. There initially was not much more info he could provide so he returned to the UH-1Y (which remained on the ground) to get updates.
- I raised the CTC units that were in close proximity to the airfield IOT consolidate at my location. This consisted of 2 x CTC staff members (Sergeants) with 2 x G-Wagons and a section/squad plus of reservists that were role playing as enemy with 4 x G-wagon SRVs (6-wheel recon variants).
- I then sent a SITREP to EXCON informing them of what had occurred and my intent to re-role to provide support in a search and rescue capacity.
- As these elements were moving to my location I received a second update from the aircrew saying that there are multiple Priority 1 and Priority 2 casualties (no exact numbers at this time) but some survivors had been observed IVO the crash site.
- 0950 All CTC personnel were now co-located at my location and I delivered orders for the new task and battle prep commenced. A map and physical recce confirmed that no vehicle tracks existed and a dismounted patrol would initially be the only way to reach the crash site. As a quick response was critical, the force elements were split into two groups so battle prep could be completed as soon as possible.
- 0957 First dismounted patrol departs. The aircrew gave another update as this patrol was departing, giving a confirmed 10 fig grid (52L GM GR 02919 99167) and relaying that there are multiple survivors observed walking around the crash site and that some are possibly trying the make their way through the bush to the airfield to get help. This was concerning

as the chance of them getting lost or disorientated was high so the first dismounted patrol changed its formation to extended file IOT ensure that no Marine was missed on their movement to the crash site.

- 1010 Second dismounted patrol departs
- 1025 First dismounted patrol arrives at crash site. On arrival they provide support to the Marine Platoon Commander, assist with casualties and conduct area searches to try and locate the 3 x V-22 aircrew members that were at this stage reported as unaccounted for/missing.
- 1040 Second dismounted patrol arrives at crash site (having proved a possible vehicle route through the terrain) and joined the supporting efforts there.
- 1040 2 x additional CTC members from EXCON Melville arrive with the CTC medic & G-Wagon Ambulance variant.
- 1050 An initial vehicle route is established between the airfield and the crash site.
- 1100 Casualty Collection Point (CCP) established at my location IVO the airfield

Throughout the day I remained central at the airfield IOT help co-ordinate and support the CASEVAC. After the first hour post-crash, exact timings are very challenging to recall with any guarantee of accuracy. However, some key events that occurred are;

- 1 - 1.5 hours after the crash, a two-man aviation investigative team (USMC) arrived by UH-1Y and I organised a vehicle packet to escort them to the crash site
- 1 - 3 hours after the crash, rotary wing CASEVAC assets began to land at the airfield and the med teams were provided vehicles to take them to the crash site (minus one med team that was winched in at the very start). In total there was 3 x CASEVAC rotary wing platforms that were positioned at the airfield IVO my location at the northern end of the airfield.
- 2 - 3 hours after the crash, (b) (6) arrived by UH-1Y.
- Throughout the day many locals who had travelled from all over the islands arrived at the airfield to offer support. This included 6-8 nurses and doctors that were utilised to run the CCP. Local Police also arrived in groups of 2-3 and were provided access to the crash site to aid in site preservation and to begin their investigations. Several privately owned fire-fighting tenders (flatbed ute/pickup with 200L water tanks from the local forestry plantations) arrived to help contain the fires. They did multiple runs back and forth to keep refilling. Initially they helped prevent the spread of the fires from the crash site but then were able to help fight the fires within the crash site once the intensity had reduced. This significantly contributed to the efforts to positively identify the remains of the 3 x unaccounted for/missing aircrew.
- 1130-1430 casualties were moved from the crash site to the airfield by G-Wagon Ambulance (for the 1 x Priority 1) and the G-Wagon SRVs (for the 2 x Priority 2) and cross loaded into the CASEVAC rotary wing assets which then departed in order of priority respectively. This was a very slow process as the Priority 1 casualty was extremely serious and the med teams had subsequently decided that a winch extraction was not an option, also due to the now increasing winds. The G-Wagon Ambulance with the Priority 1 had to move very slowly and cautiously as it had to traverse numerous small but steep creek lines and other difficult terrain (a fuel tank on one of the other SRVs had been punctured driving the same route).

- Concurrently, the remainder of the survivors were moved by G-Wagon SRVs from the crash site to the airfield where they were all secondary assessed by the local nurses and doctors in the CCP. This proved very beneficial as they were able to identify several more injuries amongst the Marines when conducting their more detailed secondary assessments of the walking survivors.
- 1430 Northern Territory Police (NTPOL) Super Intendent with a team of 8-10 Police HQ staff arrived via a NTPOL aircraft. It had been circling at altitude waiting for the airfield to be clear of the last CASEVAC platform. The Super Intendent informed me that from this moment onwards, he had officially assumed control over the incident site. He also offered the use of any of his aircraft to support the extraction of the remainder of the Marines back to Darwin. This was relayed to (b) (6)
- 1530 the NTPOL aircraft departs with around 7 Marines
- 1600 elements from 5th Battalion Royal Australian Regiment (5RAR), a Darwin based Infantry Battalion that was one of the units being trained on this exercise, arrive to begin the HOTO with myself to assume responsibility for the ongoing support to the recovery efforts.
- 1630 Second NTPOL aircraft departed with more Marines. All that remained after this flight departed was (b) (6) and the 2 x Marine aviation investigative team which were directed to remain in location until they did a physical HOTO with an equivalent Australian team that were due to arrive within the next few hours.
- 1830 the remaining Marine element was given the permission to depart as the Australian team had been significantly delayed (a phone call HOTO was done instead).
- There were currently no further NTPOL flights planned to operate from this airfield, however a NTPOL liaison officer informed me of another routine flight (the last one for the day) that was scheduled to depart at 1930 from a different airfield 60min drive to the north (IVO the township of Mlikapati/Snake Bay). I organised a joint NTPOL/Army convoy to drive the remaining USMC members to make that last flight.
- 1920 Arrived at Snake Bay
- 1930 Remaining 3 x USMC members departed on the last NTPOL flight.
- Remained at Snake Bay until 2045 to assist with the transport of more NTPOL members who were arriving on another flight to support the investigation/recovery efforts.
- 2200 Returned to Tiwi College (IVO Pikertaramoor airfield in the south)

*All timings are as accurate as possible, plus or minus 2-3 minutes

**Map used for any grid references: TIWI ISLANDS PLANNING MAP (HQ1BDE22-EXPR22-220002-TIWI ISLANDS 100K PM) Edition 004

All information provided in this statement is true and correct to the best of my knowledge and recollection of events at the time.

(b) (6)

(b) (6)

25 Oct 23

Summary of Interview of (b) (6), ADF

What is your background and role in the predator's run?

(b) (6) in the ADF, tank commander currently serving as an adjudicator at CTC, a coach or evaluator to inform troops in an exercise of what has occurred. Was around Pickerterramor awaiting contact.

What was the planning like?

Not involved in planning, more evaluating, one previous ex diamond strike in Townsville, with usmc company based in Townsville.

What is the overview narrative of observations day of mishap?

Sometime that morning we were told Pickerterramor around 0900; 2 pax in 2 Vics went to airfield. Linked up with (b) (6) around 09 saw the cobra and Huey never saw 2 Osprey in the sky at 1 time, we only saw 1 at a time. around 0915/0920 saw a very large plume of smoke asked if someone just crashed. We thought it might be a fire about 0937 the second Osprey landed, then the Huey. The cc ran over to us and from there we jumped into action.

What was the maneuver of the one you saw?

Looked like it approached and then maybe misjudged the landing then took off and went around and came back in for a landing.

Tell me about the fires

Lot of deadfall, dry and hot. Didn't even see the start of it. Didn't hear any sounds of a crash or anything.

Huey landed and cc ran to (b) (6) called us over. We ran over. Briefly spoke with cc who said the Osprey had gone down. About the same time (b) (6) reported it over the radio. 2x squads of role players in the vicinity. My partner grabbed one group, I grabbed them here. We spoke briefly. Comms bad so (b) (6) stayed at the shed and we went to the crash site.

We began running towards the crash site, about 200 meters behind the first patrol.

Observed the air frame was on fire and saw two groups of soldiers. One with the Pri 1 the other with the Pri 2 casualties. We began reporting to (b) (6) We started providing medical support until the care flight docs roped in. probably about 10/1015.

We were told 3 were missing, so we did a sector search around the crash site. While we were moving around the USMC investigators arrived [AMB].

Instructed some soldiers to begin cutting a trail, concurrently to get vehicles in. the ambulance got there and the Pri 1 was EVAC'd. Used other few Vics to shuttle remaining Marines out.

A truck with a water tank on the back came and took about 3 trips to put out the fire.

We saw the remains of 2 crew in the a/r around the time of the 2d truck. Found the 3d body in the a/c and ceased all search activities.

What time did you arrive at the crash scene?

About 1030

How much was on fire when you arrived?

Both wings detached, cockpit entirely burnt and very smashed in as if it took the brunt of the impact. Some fire on the right hand engine and through the middle of the aircraft.

Fuselage was collapsed at that point. By the time we left it was well burnt down. Over half of its total mass was not there.

Tell me about the truck

Hilux, two seater with a water tank

What were the search operations?

Concentric circles around the aircraft and a search of the crash lane to make sure nobody was under debris or wreckage and looked in the trees.

Clearing the road in

We all started walking, about 200 meters in I realized we could get a Vic in. Tasked 3 to go back and lead the Vics in and make a road. Didn't take too long, probably closer to 11 by the time they got to the crash site.

Pri 1 was still being intensely worked on by the time the Vic arrived and they hadn't completed too many laps.

Anything else?

About 200 meters from the crash site, one large bang, secondary explosion in the air frame. Louder than a grenade, closer to an 84 in terms of sound.

(b) (6)

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Transcript of Audio File:

COMMAND INVESTIGATION RE: AVIATION MISHAP

INTERVIEW OF (b) (6)

TAKEN AT ROBERTSON BARRACKS IN DARWIN, AUSTRALIA

TUESDAY, SEPTEMBER 5, 2023

Audio Runtime: 1 hour and 16 minutes

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INDEX OF EXAMINATION

WITNESS: (b) (6)

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By (b) (6)	4
By (b) (6)	63
By (b) (6)	66, 71

1 (Beginning of Audio Recording 1.)

2 (b) (6) All right. Good morning.

3 This interview is being conducted on 5 September at
4 Robertson Barracks in Darwin, Australia with (b) (6)

5 (b) (6). Present are (b) (6)
6 the investigating officer; myself, (b) (6) the
7 legal advisor appointed to this investigation.

8 Prior to beginning recording, we discussed
9 with (b) (6) the nature of this
10 investigation, the differences between this with the
11 Aviation Mishap Board, and the safety investigation
12 that are ongoing, the -- how (b) (6) and this
13 investigation team were appointed, as well as we
14 reviewed a Privacy Act statement and the rights
15 advisement regarding the origin of disease or injuries
16 for line of duty purposes in accordance with JAG
17 Instruction 58.7G.

18 (b) (6) signed the Privacy Act
19 statement and filled out the line of duty
20 questionnaire, and signed, agreeing to make a statement
21 regarding the origin of his injuries, and then at this
22 time, what I'll do is I'll go ahead and administer the
23 oath and then turn it over to (b) (6) for the
24 interview. So what I do -- ask you is just to raise
25 your right hand.

(b) (6)

1 (b) (6),

2 having first been duly sworn, testified as follows:

3 (b) (6) All right. Thank you very
4 much.

5 Sir, over to you.

6 EXAMINATION

7 BY (b) (6)

8 Q. Okay, (b) (6). So we can begin wherever you
9 want to. It can be, you know, pretty much in planning
10 at the PZ when you start loading on aircraft, and then
11 go through whatever you'd like to. And then I won't
12 stop you until you're kind of done, and then we'll
13 probably circle back to some questions that may kind of
14 bring up from what you've talked to me about, and some
15 other things I'll delve into as well, okay?

16 A. Sure.

17 (b) (6) I'm sorry, sir. Sorry to
18 interrupt.

19 Prior to kicking that off, one thing we did
20 want to ask kind of before beginning an interview was
21 we know you sustained some injuries and -- and whatnot.

22 Are you currently on any medication or
23 anything like that that would affect your memory or
24 ability to recall?

25 THE WITNESS: No.

1 (b) (6) Okay. Thanks. Appreciate
2 it. Thank you.

3 BY (b) (6)

4 Q. Okay, pass it to you, (b) (6).

5 A. Yes, sir. So I guess the -- can go back to
6 the first time that we interacted with 363 --

7 Q. Okay.

8 A. -- for planning this exercise, Predator's
9 Run.

10 Q. Okay.

11 A. I don't remember the exact date when we
12 initially started interacting with them. For me as the
13 (b) (6), we would've been talking about this several months
14 prior in various planning conferences, et cetera. But
15 really the -- the detailed air assault planning for us
16 happened, I believe, about a week prior to the
17 exercise. So the -- the real nitty-gritty air assault
18 planning checklist and whatnot.

19 And then about -- would -- it would be
20 probably the Wednesday or the Thursday prior to the
21 incident, we had a real deep dive planning session with
22 all parties involved from the ACE. So it would be --
23 include HMLA and VMM. And there was -- there's
24 probably about a dozen or more pilots who came over
25 here to -- to our spaces to conduct detailed planning

1 with myself, the CO of -- of Lima Company, as well as
2 ACE operations planners, et cetera. Just to -- to get
3 down in the weeds of it.

4 My role now as the (b) (6) is more the -- the
5 behind the scenes of, you know, air -- air manifest
6 assets, discussing the landing plan. One thing that
7 was different for me in this was I was designated as a
8 ground force commander, and because there was two
9 objectives for a -- for a rifle company, we decided not
10 to make one force -- ground force commander, but
11 instead F2, so my CO was going to have the northern
12 objective and then I was having the southern objective,
13 which we called Cheetah.

14 So that was really my -- my project. In the
15 in the planning, we -- we did kind of plan under one
16 umbrella, but know -- knowing that there would be two
17 separate inserts and really, the ground force commander
18 piece would've come into play once we were on deck and
19 -- and took charge of the -- the Marines on deck and my
20 objective, because there was other units in the ADF,
21 you know, that we were linking up with.

22 We -- we were managing our assets and just
23 decided to go that way, which is one thing that was
24 different. But for the air assault planning piece, it
25 was pretty much as SOP for us, and we're -- we're

1 typically air assault company in Lima, so we have a
2 couple of reps of this to -- to the pre-employment
3 workup, ITX, and et cetera. So this was not my first
4 time fulfilling this role --

5 Q. Okay.

6 A. -- as the (b) (6). So -- and then I was working
7 back and forth with the section lead primarily, to give
8 him our data for who was going to be on board, who
9 wasn't going to be on board. That went back and forth
10 a little bit for different reasons, mainly the UET
11 qualifications. So we took everyone off the -- the go
12 roster who was not UET qual-ed, as well as Marines who
13 were on light duty, injured, going to go back ADVON, et
14 cetera.

15 So we trimmed down to a final number of 106,
16 was our go number. Of those 106 would've been in 100
17 from Lima Company, and then we had, I believe it was,
18 six Marines from our combat engineer platoon that were
19 attached to us for the -- for the exercise. It
20 might've been plus or minus one here but -- and -- and
21 then specifically for my objective, we were going in
22 with 38.

23 So 19 per aircraft, which wasn't something
24 out of the norm. Initially it was going to be 18, but
25 because we had 38, we wanted to put into that

1 objective, we -- we requested to put 19 per Osprey, to
2 make it one -- one clean hit into the objective versus
3 like two hits with like two -- two Marines on one
4 plane.

5 Q. Uh-huh.

6 A. The other objective was going -- it was 68
7 to the northern objective for a total of -- would've
8 been two hits of 36, I believe the math there. In
9 their assault planning, most of it had to do with the
10 escort flight leads dealing with, like, they had to be
11 escorted to the zone. But then also the close air
12 support coverage, we would have once we were on deck.
13 So that was the majority of the conversation in that
14 detailed planning session we had with HMLA. Objective
15 area diagrams, et cetera.

16 And then we moved onto the landing plan. We
17 talked about the landing plan. Of note, myself and the
18 -- the CO of Lima Company, the -- the day prior to the
19 insert. So it would've been the 26th of August, went
20 on a aerial reconnaissance with HMLA. So we got, you
21 know, eyes on both objectives of the Huey pilots up
22 there, took a bunch of notes. We picked out a landing
23 spot, landing points for the Ospreys, noted obstacles
24 and whatnot and fed that information to them.
25 Ultimately, we came up with what was an off-axis

1 landing into the zone, into a paved runway. So it
2 would've been off-axis on -- section on-line landing is
3 what we were requesting.

4 Post that meeting, I think I sent a version
5 two of the manifest and asset to them just finalizing,
6 you know, a couple Marines who got injured prior to, et
7 cetera. But still we were going in with the same --
8 same go number, so we did one full-on swap. So going
9 in with 106 total with 38 going to -- to my objective.
10 So that was really the -- the planning piece. It was
11 very, very standard off the -- the Marine Corps assault
12 planning checklist back and forth with them. And we
13 were pretty happy. We -- we did know that that was one
14 of our more successful, like, planning sessions, having
15 that many pilots there.

16 Q. Yeah.

17 A. Planners and the actual pilots who would --
18 who would be flying the mission, so that was good for
19 us. Leading up to the day of insert, we did that
20 aerial reconnaissance the day before, myself and the
21 CO. Over to Mobile Island, guys on both objectives
22 came back with I assume good information, didn't --
23 didn't affect our scheme maneuver.

24 I just confirmed what we had already
25 planned, which was good. And then for us in -- in Lima

1 that -- that day prior, we did all of our pre-combat
2 actions, pulled our stuff in the armory, staged all of
3 our stuff, loaded our packs into trucks, and then just
4 prepared to push out to RAAF Darwin where -- where the
5 PZ was, the next morning, on the 27th. Our planning
6 factor for, I guess, like weights on our outside was
7 300 pounds per Marine.

8 **Q. Okay.**

9 A. We were going in lighter than that, but just
10 because it was only 72-hour mission, we -- most Marines
11 were going in lighter, but there was probably some
12 Marines who were closer to the 300-pound mark. But I
13 don't -- I don't think anyone would've been over it.
14 And so the average weight that we -- we went and agreed
15 with the ACE was round up to 300 per Marine. So it was
16 approximately, yeah, 300 times 19 would've been the
17 weight going onto each -- each aircraft.

18 **Q. Okay.**

19 A. Then day of, 27th August rolled around. We
20 had planned to link up with the whole company here at
21 this location at 06:30. I got up a little bit early
22 that day because we had a battalion main set up, so I
23 went and checked in with them, confirmed anything, you
24 know, that was different with the tactical scenario of
25 the -- of the day had changed.

1 Because the exercise had already been going
2 at that point with the -- the ADF. So that they had a
3 couple of small updates that didn't really pertain to
4 us, and just confirmed that, hey, we have the right X
5 checklist and whatnot, gave my copy of the manifest,
6 final copy to the battalion main so that they had our
7 serials, manifests, et cetera.

8 And then yeah, linked up back here at 06:30,
9 gathered everyone up. We got our final, you know, head
10 count and EDL of personnel, and the serialized gear
11 list, and then we loaded buses here at Robertson
12 Barracks, and then departed here a little bit after
13 7:00. We were supposed to depart at 7:00, a little bit
14 late, ran at 07:10 we pushed out. And that put us over
15 at RAAF Darwin, the PZ, around 07:40. We received a PG
16 diagram from 363 the night -- the day before, so --

17 **Q. Uh-huh.**

18 A. -- telling us where they wanted us to stage,
19 et cetera. Very easy. We're -- we feel confident to
20 say we were pretty good at starting at the PZs at this
21 point, so nothing out of the ordinary. The Marines got
22 in their spots, and then we had our MO techs drop off
23 our five by six planks there. Started loading that,
24 and that was about 08:00 at that point. 08:00 or so
25 roll around, we were planning on a 09:00 takeoff. So a

1 little bit after 08:00, one of the crew chiefs came out
2 to give us a safety briefing for the aircraft.

3 Q. Okay.

4 A. So we had everyone in the PZ staged there,
5 just circled them up. The crew chief came out with the
6 -- the LPU and he went through -- went through the
7 safety briefing, very standard. And he basically
8 covered donning the LPU, taking off the LPU, how to
9 inspect the oxygen tank, et cetera. Don't -- like,
10 don't pull the handles, you know, before, et cetera.

11 Q. Yeah.

12 A. Asked if we had any questions with that.
13 And then from my -- what I can best recall, he
14 mentioned the -- the forward right door of the Osprey
15 and then the rear ramp being like, the two main egress
16 points. And then he told us, like, you know, in the
17 event of an emergency, the crew chiefs will have, you
18 know, directions on which exit they want us to use to
19 egress if we had to. And that was pretty much -- it
20 was straight to the point.

21 Q. Okay.

22 A. Covered the -- the use of the LPU and then
23 told us that he would come back and grab us when they
24 were ready to board. So between that briefing ending
25 and loading the aircrafts, so we were -- we were staged

1 right next to the flight line, just outside of the gate
2 in the dirt, just kind of next to the spaces, right by
3 the gym there on the -- the -- the FRA (phonetic).
4 They were staged out there. I was going to be -- so my
5 serial was 9005.

6 We were also putting serial 3000 and 3005 on
7 -- on my aircraft. We were the priority serials. So
8 they came out, saw one bird start spinning. And then I
9 think it was our first sergeant who's typically our
10 MACO guy --

11 Q. Uh-huh.

12 A. -- talking to the crew chief. They said,
13 hey, like, one of the aircraft is having just a quick
14 mechanical thing. They're going to work through it,
15 but we're ready to load the first stick of 19, which
16 was going to be me. I didn't know this until after the
17 fact, but we were unloading Dash-2 because the section
18 lead was the aircraft that was having some trouble.

19 So he made the call to -- to switch the
20 priority serials around and the -- the plan was to push
21 with a single ship. So I got my guys up, it was 19,
22 and I walked down to the flight line, escorted by the
23 crew chief. The -- the forward crew chief, he pointed
24 up, handed us off to the rear crew chief. And -- and
25 then he did a quick head count. When we were on the

1 ramp, he counted 17 and I was like, no, there should be
2 19 of us. One of our Marines was just being slow, and
3 then someone else went to grab him, like typical.

4 Q. Okay.

5 A. So then yeah, one grabbed him. It was 19,
6 counted us, stood there for a little bit and then --
7 and then got on board. I was the first one on the
8 Osprey -- sorry, the second one on the Osprey. And
9 they were just telling us, hey, like, you know, sit
10 here, sit here, sit here, et cetera. But I was on ICS.
11 So then he pulled me and put me in the seat with the --
12 the ICS crew, you know.

13 Q. Okay.

14 A. As we were boarding, I noticed that the
15 other Osprey started to spin -- spin up, so assuming
16 that that one was good. And then we got on, buckled
17 up. That was a little bit of a slower process than
18 usual, like getting on board, buckling, just because of
19 the -- the LPU, main packs, et cetera, gathering, you
20 know, weapons and all that -- all that jazz. So I got
21 on. I got in my seat, sat down, put the LPU on over
22 the flack, and buckled that thing up.

23 And then was going to go put on the ICS
24 cranial, but like the -- one of the -- the headphone
25 things kind of, like, broke. So the crew chief just

1 grabbed it from me, like fixed it for me real quick.
2 In that time, I got my seatbelt on, got ICS up, and I
3 was just, you know, helping the guys to my left and
4 right, because they, you know, were sitting on their
5 belts. It was all over the place. You know?

6 Q. Uh-huh.

7 A. Like they're just tangled up and everything,
8 so they got all buckled in. And then I got up on ICS
9 and Corporal Collart (phonetic), front -- front crew
10 chief, I think he had us on, like -- he's -- I forget
11 what it was called, but it was like the mode where ICS
12 can only talk to each other.

13 Q. Okay.

14 A. So he just gave me like, a quick rundown. I
15 needed to press the button to talk, you know?

16 Q. Yeah. It was on private.

17 A. We're only talking to each other right now.

18 Q. Yep.

19 A. Any questions? I said, no, I'm good. And
20 then I'll switch you back to the aircraft, and then
21 switched us over and then I started to hear, you know -
22 -

23 Q. Okay.

24 A. -- all the crew talking, kind of like, air
25 traffic control chatter -- chatter between the, you

1 know, both the aircraft, et cetera. At that point,
2 yeah, everyone was still, kind of, getting on. When
3 everyone got on, did their normal like, muzzles down,
4 thumbs up, you know, they counted everyone one more
5 time. And then between the two crew chiefs, they
6 counted 19, told the guys in the front 19, and then
7 there was a little conversation that me and the pilots
8 had.

9 I think when we were getting on, the number
10 17 from when we were on the ramp got passed to the
11 pilots. So they were confused, like, oh, different as
12 fragged (phonetic), or whatever. And I just got on
13 there. I was like, Hey, no, like original 19 as
14 fragged, you know, just like, hiccup on the ramp, but
15 the 19 that they're counting is the original, and 19
16 names as fragged, so no change. And then they passed
17 that over to lead parked over on the right.

18 And then I noticed, or heard, you know, lead
19 was good to go. And then you know, we were pushing I
20 think 08:50 at that point. I was looking at my watch,
21 you know, because we got 09:00 night take-off time. I
22 figured we were going to be a little bit late. And the
23 two pilots up front, pilot, female pilot asks like,
24 hey, in this situation, in real world, like would we --
25 who -- who has the authority to roll -- or they had a

1 little conversation, like mission commander does, et
2 cetera. He would probably just roll at 15 minutes to
3 the right due to maintenance. No -- no -- no biggie
4 there. Started to hear pilots going through some
5 checklists.

6 Q. Uh-huh.

7 A. They went through some checklists. I
8 remember they talked to the crew chiefs in the back,
9 okay, let us know when your ramp is up, and everyone is
10 good. After, you know, a couple more minutes and
11 everyone was good, they'd say, hey, we're ramps up.
12 All right. Cool. Then we sat there for like, a few
13 minutes, maybe five minutes or so, probably just
14 waiting for the other guy to -- to button up. And then
15 -- then they were buttoned up.

16 They said they were going to back taxi, just
17 because of the way they were parked. So I don't -- I
18 don't actually know how lead like -- maybe I just
19 missed them. Maybe if they back taxied first, and then
20 taxied passed us, or went around the other way. But we
21 back taxied. (b) (6) in the back was giving
22 them talk-ons, et cetera. I could see the -- the
23 ground flight line guys, you know, like doing their
24 thing.

25 Q. Uh-huh. Uh-huh.

1 A. Backing up the aircraft. Kind of -- kind of
2 funny, like, Corporal Collart in the front right window
3 was up there like, you know, waving to them. Probably
4 -- probably friends with all those guys, you know? So
5 --

6 **Q. Yeah, yeah.**

7 A. -- he was out there waving at them. And
8 then you know, talking to all the pilots, et cetera.
9 Backed up, and then we started taxiing forward.
10 Everyone ran through their -- their checks as we were
11 taxiing out there. As we were pulling out of the FRA
12 ramp, where the FARP is, we stopped there for -- for a
13 minute.

14 I don't think we took on any gas or de-
15 fueled or anything. It -- it was just pretty quick,
16 but we were there for maybe a minute or two, stopped.
17 That's where I think we probably taxied out the other
18 way.

19 **Q. Okay.**

20 A. And then they probably let them pass us --

21 **Q. Uh-huh.**

22 A. Because I could see out the -- out the
23 cockpit because they had the -- the cabin door at the -
24 - cockpit door open, and Collart was up there, just
25 seeing them taxiing out in front of us. I could hear

1 the lead talking to air traffic control. They told
2 them whatever, I guess they were ready for takeoff,
3 whatever. They said, hey, we're -- we're in need of a
4 rolling takeoff.

5 Q. Uh-huh.

6 A. And then we taxied onto the runway. I can't
7 remember if our lead, I believe, was on the -- I
8 believe the lead was on the right side of the runway,
9 and we took the left side. And it was the first time
10 I've done a rolling takeoff, so that was pretty fun.
11 But yeah, they, you know, powered up and felt the
12 acceleration of the aircraft, and then we were off.

13 Q. Okay.

14 A. Pretty -- seemed pretty standard, nothing --
15 no real chatter from the pilots. There was a couple --
16 I believe it was shortly after takeoff, a couple -- or
17 actually, no. It was when we were still in the runway
18 before we took off, there was some like deedle, like
19 the noises from the --

20 Q. Uh-huh. Deedle-leedle?

21 A. Yep. And they -- they said no factor or
22 something like that, so we continued. Yeah. And then
23 we took off, and shortly after takeoff, we -- the
24 female pilot was the one flying. I feel like I forgot
25 to mention that before. It was when we were taxiing,

1 or before we started taxiing.

2 Male pilot said, hey, do you want to fly, or
3 do you want me to take it?

4 She was like, I'll -- I'll fly, if you don't
5 mind.

6 He was like, yeah. Sounds good.

7 So then she was the one flying presumably
8 for the -- for -- for the first bit. Yeah. Took off,
9 and then I think she asked like, hey, good to
10 transition, good to go fast, and he was like, yeah,
11 hey, let's do it. And then you know, if I saw -- you
12 how you can feel it and see it?

13 Q. Uh-huh.

14 A. You know, out the window?

15 Q. Okay.

16 A. Because I had -- I was in like, the second
17 most seat to the front on the left-hand side of the
18 cabin, so I could see pretty clearly out the front
19 right cabin door, and then had a little window back to
20 me. So I'm also just like -- an interest in aviation.
21 So I was looking around the whole time.

22 Yeah. Just make notice, you know, we
23 transitioned to airplane mode. Took off out of Darwin.
24 I don't know what direction it was, but we made a --
25 kind of a nice, easy left-hand turn. I believe we were

1 in echelon left, because I'm pretty sure I could see
2 lead --

3 Q. Okay.

4 A. -- front right, a couple of times
5 throughout. He had his normal -- normal flight, they
6 called feet wet. I was having trouble hearing up and
7 out comms out of the aircraft, so like ATC, et cetera.
8 But I could hear internally --

9 Q. Okay.

10 A. -- pretty -- pretty good. Yeah, definitely
11 could hear inside. Yeah. Called feet wet. We were
12 going. I'd flow the same route the day before in a
13 Huey, so I was pretty surprised, like they called feet
14 dry, like, super quick, you know, if -- you know, a lot
15 faster than the Huey.

16 But when we were over the water, I believe,
17 right before we were feet dry, the male pilot said,
18 hey, hey (b) (6), did you hear that?

19 And I was like, oh, no, I -- I didn't hear.

20 And then Collart, the crew chief came back
21 and adjusted my volume, because there was a situation
22 update from the -- the skids, that they passed, of the
23 objective tactical scenario, and then -- and then the
24 male pilot just repeated himself, hey, there's --
25 there's five people in the -- right in the middle of

1 the runway. No weapons, doesn't seem to be an issue,
2 sounds good? And then, you know, just passed a hand
3 and arm signal to the guys in the back. They, you
4 know, thumbs up, sounds good. A lot of like yelling
5 and screaming, trying to communicate that.

6 Q. Yeah, yeah.

7 A. But yeah, got that back to them. And then
8 yeah, when we were in flight, normal flight, I saw the
9 crew chief up front, Collart. He was looking at the
10 manifest, probably just looking at the next sticks, who
11 was coming on board. And then most of the flight who
12 was up in the tunnel, you know, like up with the pilots
13 there --

14 Q. Uh-huh.

15 A. -- once we had taken off. And then hey,
16 they called feet dry, and then I heard the lead called
17 dump truck 1-1 flight, this -- IP Subaru, called to IP.
18 And then escort flights, you know, said like, continue
19 the LZ's ICE (phonetic). So I was like, sweet, you
20 know, let the guys know in the back that zone was ICE,
21 we're going in. Everyone was getting pretty, you know,
22 chief separated it, ready to go.

23 Q. Yeah.

24 A. And then I can't remember if it was, like,
25 right before, when we hit the IP, we made kind of a

1 nice, easy left-hand turn. And -- and our point of
2 ingress altitude from what I remember was 700 feet, so
3 I think we descended like, a little bit to hit that
4 altitude at the IP.

5 And then yeah, made a nice, easy left-hand
6 turn. And then after that, I could see the beach.
7 Like, we were flying right along the beach, out the
8 window. And then my mind here gets a little bit -- a
9 little bit jumbled together.

10 Q. Okay.

11 A. But the best of my memory was we started a
12 series of I -- what I remember was three right-hand
13 turns. So we made our first right-hand turn, which was
14 a pretty hard turn to the right, but nothing we hadn't
15 really experienced before as, you know, from just
16 assuming that they're getting set up for the zone.
17 Still in -- still in airplane mode, and then rolled --
18 rolled wings level. We started to make a second right-
19 hand turn, and then the male pilot up front made --
20 made a comment, hey, like, you're right on top of lead.

21 And then after that, we rolled wings level
22 again, and I saw lead out of the front right, so
23 assuming we were just kind of correcting back a little
24 bit, because I could see them up front right. Sorry,
25 that was in the first right-hand turn, was when he

1 said, hey, you're on top of lead. And then we rolled
2 the wings level. And then we made, in our second
3 right-hand turn, which was a little bit harder, and
4 that's when I heard stall.

5 **Q. Okay.**

6 A. Of the -- the -- like the automated voice,
7 and then some of the deedles, and then we rolled wings
8 level. And then the male pilot said, all right, like,
9 give me one more, like, you know, pull it, like give me
10 one more hard turn, because I think that was our final
11 right-hand -- right 90 to set up for the zone.

12 And at that point, we made a pretty hard
13 right-hand turn. Probably one of the harder turns I've
14 experienced in an Osprey. Definitely wasn't past 90,
15 but it -- it was a hard one. And then, I felt, you
16 know, the -- we started to transition. And then, in
17 that right-hand turn was -- out of the front right
18 window was when I noticed trees getting closer and kind
19 of felt like the little bit more of a nose-down
20 attitude.

21 **Q. Okay.**

22 A. And that's when the male pilot said, hey, I
23 have the -- I have the controls. She said, you have
24 the controls. And then quickly, we rolled wings level,
25 and then male pilot just kind of -- kind of screamed,

1 brace, brace. And I heard that in the ICS, the guys in
2 the back definitely could see more than us in the
3 front, that, you know, we're -- we're real low,
4 something wasn't quite right. He yelled, brace, brace
5 as we were wings level.

6 And then what I felt was the tops of the
7 trees, kind of like -- it almost felt like we rode the
8 tops of the trees for a little bit. I could feel it
9 like, kind of like scattering on the bottom of the
10 plane for -- it couldn't have been more than a second,
11 but a good amount of time that I remember that clearly.
12 And then just one big -- one big impact.

13 **Q. Yeah.**

14 A. I knew we were wings level for a fact, and
15 yeah. And then it was just one -- one big -- one big
16 impact. Yeah, pretty sure right when he yelled brace,
17 brace, I had enough time to just, like, grab the guys
18 next to me, like by the -- by the -- by the flacks,
19 just to like give them a -- a warning. They -- they
20 probably knew but --

21 **Q. Yeah, yeah.**

22 A. -- just grabbed them. I think I even like,
23 tried to, like, put the guy on my left kind of into the
24 brace position a little bit. And then it was just one
25 big impact and then yeah, closed my eyes. And then we

1 hit, and then opened my eyes, like, surprised that, you
2 know, I was alive, and then I -- yeah. Pretty, pretty
3 dark, smoke, dirt filling the cabin.

4 And then yeah, the first thing I saw just
5 right in front of me was just flames. Just complete
6 flames covering that -- that right-hand cabin door. I
7 saw, and this I wrote -- I wrote in the statement, this
8 is one of the things that I saw that no one else did,
9 which probably is just my mind, you know, on me now.

10 But I -- I saw -- saw Corporal Collart, once
11 we were on the ground, egressed the aircraft. Everyone
12 else said like -- and -- and prior to that point, he
13 was in the tunnel. Like he -- he rode the tunnel the
14 whole way down.

15 **Q. Uh-huh.**

16 A. So that's where I think my mind was just,
17 you know, telling me something different. But yeah.
18 And then that right-hand door is completely engulfed in
19 flames. And then out the left-hand window, I could see
20 flames as well. And then even to the cockpit, just you
21 know, flames as well. And then initially -- initial
22 impact, there was no fire, like within the cabin, but
23 very quickly after, there was fire inside the cabin.

24 **Q. Okay.**

25 A. And the Marine on my left, he was head down.

1 So I was just, you know, didn't -- didn't know what his
2 state was, but he was head down. So I kind of like,
3 screamed his name and, like, shook him a little bit.
4 And he -- he woke up. He was just super confused and
5 whatnot. Hey, like, we got to go. You know, helped
6 him get his -- his harness off.

7 I took my harness off, and then kind of,
8 like, moved him to the seats, because the middle of the
9 cabin, I -- the packs were like, you know, all in the
10 middle and our gear was everywhere. So I moved him
11 over to the seats because we ended up crawling out over
12 the seats to get out the back. And then yeah, started
13 making my way to the rear.

14 Did kind of a visual sweep to make sure
15 that, you know, guys on the left weren't stuck up.
16 They -- they got out before us on the left, and then us
17 on the right got to the rear of the -- the aircraft.
18 And by the time I was at the tail ready to get out,
19 there was, like -- like fire in the front of the cabin.
20 So quickly, it had started to make its way inside.

21 When I got to the rear of the aircraft, the
22 tail, there was no ramp left. But (b) (6)
23 (phonetic), (b) (6), I saw him. He was
24 face down at that point, and there was a few Marines
25 working on him. He was still hooked up to ICS and then

1 from what I remember, his gunner's belt was still
2 attached to a panel of the floor, which had detached.
3 So he was kind of, like, stuck under some debris, and
4 there was probably three Marines working on extracting
5 him. They cut his ICS cable away and then we start --
6 they -- they moved him to the rear and started
7 egressing him. So I would've been the last one
8 physically off the -- off the aircraft.

9 Q. Okay.

10 A. Yeah. Once I saw -- by the time I -- I
11 don't remember how long it took. Probably no longer
12 than a minute for all of us to get out. But by the
13 time I got to the rear there, like, they had mostly
14 freed him, and I knew like they've got him, one of our
15 lieutenants and then one of our sergeants was there and
16 I was like, they've got him, like -- and they -- they
17 were in the process of starting to move him.

18 Q. Okay.

19 A. And then got out. My first three priorities
20 that came to my head was head count, casualties, and
21 then comm. My decision making when we got out the back
22 was informed by me seeing Corporal Collart get out. So
23 I was confident of that, even though it didn't end up
24 being the case. So my -- my initial number in my head,
25 like I knew there was 23 they told us on that aircraft.

(b) (6)

1 So I got out, got the initial headcount. I got -- I
2 got told 19.

3 I was like, hey, did you guys count for the
4 crew chief, right, that you have? Like, no, no, we
5 didn't. Then we counted 20. Recounted, got 20, and
6 then I told (b) (6) (phonetic), who's our
7 (b) (6) on board, and I was like,
8 hey, one of them is out there to the front, like, go --
9 go do a search. I told him not to get super close for,
10 you know, because the thing was on fire. I was afraid
11 of, you know, secondary explosions. But I was like, he
12 -- go, you know, make a 360, as -- as close as you can
13 get, and bring one with you.

14 So he -- he went off and took one -- one of
15 the Marines with him, and started conducting the
16 initial search, the initial 360. Concurrently,
17 initially, I told the guys to push 100 meters back, and
18 then that wasn't far enough in my opinion. So we've
19 moved another 100 meters back for the main body. They
20 kept (b) (6) the Corpsman didn't want to move him as --
21 if they didn't have to anymore. So they -- they were
22 comfortable for me. They were a little close, probably
23 about 150 meters away. It was (b) (6) and the three or
24 four Marines and the Corpsman working on him. So I was
25 comfortable with that.

(b) (6)

1 And then the rest of the Marines were about
2 another 50 meters back, consolidating. Yeah. We told
3 them to start, you know, identifying who was -- who was
4 an urgent or priority casualty, understanding that most
5 of us were at least injured in some way or form. So
6 the initial casualty count that we had was three.

7 So we had one -- one urgent, and then two
8 priority casualties. (b) (6) (b) (6)
9 would've been our urgent casualty. And then we had

10 (b) (6) (phonetic), (b) (6)

11 was our -- one of our priority casualties with

12 (b) (6). And then (b) (6)

13 (phonetic) was our third -- or our second, rather,
14 priority casualty with (b) (6).

15 So we put those two together and then
16 everyone else right next to them together. By the time
17 I got -- I got back there and got the headcount, kind
18 of like gave the initial actions, do casualty
19 collection. Knew that those two were conducting the
20 search. Cobra was in the single -- Cobra -- I don't
21 remember Cobra or Huey, but single -- single helicopter
22 in the overhead. We were meant to be talking to them
23 on the objective on -- on TAD. So I got up on TAD, but
24 I had the wrong frequency program, so switched the
25 frequency and then got comms with duct tape overhead,

(b) (6)

1 after a couple of minutes of troubleshooting. And I
2 got comms with them.

3 I can't remember who I put in charge of the
4 -- the main body of Marines, but one of the sergeants I
5 was like, hey, hey, just keep everybody together.
6 Like, just keep them all together. Like, don't --
7 don't spread out, take care of -- you know, keep -- and
8 then I heard (b) (6), who was the guy searching,
9 like, yelling up forward at the aircraft.

10 So at that point, I went over there because
11 I thought, okay. Like he's found, he's found them, and
12 then he went up there and he was forward -- pretty much
13 directly forward the aircraft, the wreckage at that
14 point. And we kind of like, impacted on a ridge. So
15 there was a kind of downhill slope.

16 And he was like, okay, we didn't find
17 anybody on this side.

18 And I was like, okay. Like, maybe they --
19 maybe they went down the hill, or something like that.

20 So he completed his 360, and then I -- I
21 moved direct route back to the main body, and I was on
22 comms at that point with the guys in the overhead.
23 From what I initially remember, my -- my initial report
24 was, like, hey, this is (b) (6). That's my -- my
25 call sign. We've got 20 accounted for, and three

1 missing when we were conducting our search. And I told
2 them we have a couple of casualties, and we'd be able
3 to pass the Zima's 9 line (phonetic) as soon as I had
4 it. So they were in the overhead. That helped calm me
5 down a little bit, just to have them there. And then
6 an initial search came back. They didn't see anybody.

7 And then I think (b) (6) decided to
8 take one more with him, and they conducted another --
9 another perimeter search. Most of the time, I had
10 myself positioned, like, in this -- kind of in the
11 middle of the two groups. So the urgent casualty with
12 the Corpsman, and then the main body of Marines that
13 was kind of like, in the middle. And I had Marine --
14 one or -- or two Marines as, like, the MACO gave -- for
15 lack of better terms, just keeping everyone there, like
16 controlling traffic. Like if anybody had to go
17 anywhere for whatever reason.

18 Yeah. And after that it was -- they came
19 back again, like, hey, we -- we can't find them. At
20 that point for sure, the -- the -- the aircraft was
21 completely engulfed. Like --

22 Q. Yeah.

23 A. There was no way we could get back inside,
24 but yeah. And then so on and so forth. After that, we
25 got our Zima's nine lines together, passed -- I think

1 the -- the first one we passed was the urgent casualty
2 up to Duct Tape 3-3, and then after a few more minutes,
3 one of the guys handed me the -- the -- the casualty
4 card for the other two. Passed -- passed that up to
5 them. And then from there, it was just a series of,
6 you know, monitoring back and forth, trying to balance,
7 keeping everyone a safe distance away. Because at that
8 point, there was, like, smaller, like secondary,
9 tertiary, and so on and so forth, explosions going on.

10 Q. Okay.

11 A. The blank ammunition was starting to go off.

12 Q. Yeah.

13 A. It was small, but like compartmentalized
14 explosions. And then I think -- I don't -- I don't
15 remember the time space on it, but eventually the Cobra
16 came back and said, hey, there's a -- a team --
17 dismounted team of seven pushing your way from CTC,
18 who's the Australian exercise planner director who has
19 guys on the ground facilitating an exercise.

20 Q. Yeah.

21 A. So they were en route on foot. I asked one
22 of the sergeants to plot our position, to find out
23 where the hell we were initially, and they came back
24 with a plot of 300 meters away from the airfield. So
25 that started to inform my initial thought process of,

1 okay, we're 300 meters away from the zone. Would it be
2 better to -- because we had a couple of poleless
3 litters (phonetic), so like, would it be better to --
4 to move these guys to -- to the airfield, where easy to
5 pick up, and then -- and then the Hueys came back and -
6 - came back and said, hey, you're -- I think he said
7 like a zero.

8 They gave me an azimuth and a distance to
9 the airfield, and it was -- it was about 1,900 meters.
10 So we were just way off in our plot. So at that point,
11 I told them, like, my game plan was we're going to keep
12 everyone together here. Like we're -- we're not going
13 to move these -- especially these three. I, you know,
14 knew a lot of other guys were injured and, you know,
15 kind of juiced up on adrenaline.

16 **Q. Yeah.**

17 A. But the only two self-reporting were those,
18 but my game plan was to keep everyone together until a
19 higher echelon of care arrived, and then I think it was
20 about 45 minutes afterwards, after the initial impact
21 where those -- that -- those first seven came in on
22 foot, and then my -- my first thing was initially, just
23 have them start conducting wider perimeter searches.
24 And so they were conducting some wider perimeter
25 searches of -- of the immediate surrounding area and

1 then not too long after that, it was in the first care
2 flight, life flight helicopter checked in. They
3 checked in with Duct Tape, who was controlling the
4 stack overhead.

5 And then I got on comms directly with
6 CareFlight, and I had previously passed our -- our most
7 refined position to the Cobras. They already knew it,
8 but they passed that to CareFlight, and then I had two
9 of the Marines signal in with our air panels, because
10 that's all we had to signal at that point. CareFlight
11 came on. They -- they were a little bit off, so told
12 them to come right 100, they came right, and they found
13 -- saw our air panel, and then they -- they started
14 searching around for a good place to hoist because it
15 was relatively thick overhead.

16 And then they conducted a hoist of four
17 personnel, medical personnel came with a bunch of
18 equipment. And then at that point, our Corpsman was
19 still with (b) (6), the urgent casualty, but we
20 more or less handed over the casualty to them.

21 Q. Okay.

22 A. And they started working on him, and
23 stabilizing him. He -- he was up and talking as well.
24 Like, he -- he was communicating through it, and there
25 was no -- from what I remember, there was no visual

1 injuries, a little bit of, like, coughing up blood and
2 stuff.

3 Q. Yeah.

4 A. But the Corpsman knew probably mostly
5 internal injuries, and he didn't have the equipment to
6 -- to treat any of that --

7 Q. Yeah.

8 A. -- because it was in the aircraft. So he
9 was, you know, holding them together and keeping them
10 stable, and then handed them over to the care flight
11 doctors. Who -- who brought the big guns, you know,
12 monitors, medicine, blood transfusions, IVs, and had
13 stabilized him on a stretcher.

14 The initial plan when they arrived was to
15 conduct a hoist three times with our three -- our
16 urgent or two priority casualties, that was the initial
17 game plan. And then the Cobra came overhead and say,
18 hey, CTC's pushing vehicles your way, but it was going
19 to take -- it was going to take them a while, because
20 there's no road. So they were, you know, plowing a
21 path through with their trucks.

22 And before the trucks got there, a second
23 care flight helicopter came in, hoisted in another
24 doctor. So at that point, we had five medical
25 personnel on deck, and then a -- a various number of

1 CTC personnel. Initially it was seven, but quickly
2 after that, more -- more started to show up.

3 The plan then changed from conducting a
4 hoist to moving the casualties via ground to the
5 airfield, where they had a bunch more medical
6 personnel, helicopters, and then local, like triage
7 nurses were staged there. So that was then the
8 ultimate game plan, was not to move on foot, not to
9 conduct a hoist, but to move everybody via ground to
10 the airfield to conduct an extract that way.

11 **Q. Okay.**

12 A. When we got the -- the -- the escort flight,
13 Duct Tape asked me to give them a 10-minute warning for
14 when -- when they were leaving the crash flight, gave
15 them a heads-up so that they can get the helicopter
16 spinning, ready to roll. I did that when the first
17 wave pushed out.

18 So that was the first three Marines, the
19 three most injured. Pushed, I gave them the warning,
20 and they -- they went over to the airfield, and then
21 the time space is -- is a little bit off. But like I
22 said, at that point, like, more people started to show
23 up. The exercise director from CTC was there. The
24 first two Marines from 363 showed up, the initial
25 investigators to cordon off the scene.

1 And then at that point, we just stayed
2 together in our group. We -- we gathered what we had,
3 and just, you know, stayed together. I was on comms
4 with Duct Tape through the whole time. I was pretty --
5 I think I was their only guy on the ground that could
6 talk to them with green gear. So I was kind of like
7 relaying back and forth with all parties, and trying to
8 keep the count of everyone who was there.

9 And then yeah, time -- time went by and then
10 we started -- those two trucks that initially came --
11 came back, and they just made I think it was three
12 round trips to get all 20 of us to the airfield. So we
13 sent the initial three, I think the next, like, nine,
14 and then the final group back to Pickateramore
15 (phonetic).

16 I gave the -- the 363 pilot who showed up
17 one of our radios, so he then could communicate with
18 them, and then when it was -- when it was time, yeah.
19 When we were the last group to push out the
20 Pickateramore, they had already lifted (b) (6)
21 out on life flight by the time I got there, and they
22 were in the process of loading what turned out to be
23 seven, or six, sorry, additional priority casualties.

24 So guys who initially were not identified as
25 priority casualties, but were "upgraded" when they

1 arrived at the airfield. We -- we were met there by --
2 my CO had flown -- flown in at that point. And then
3 there was a team of local volunteer nurses who
4 established, kind of, a triage station at the airfield,
5 as well as the medical rescue folks, the -- the
6 helicopter guys, doctors and paramedics who were there
7 and conducted, you know, further on triage and decided
8 there was six total priority casualties that had to
9 fly to Royal Darwin Hospital. Probably about 30
10 minutes after I was -- I was there at the airfield, the
11 Northern Territory police fixed wing airplane --

12 Q. Okay.

13 A. -- came in and made a landing at
14 Pickateramore. And that was going to be our ride off -
15 - off island, was that -- that aircraft.

16 Q. Okay.

17 A. So they took the initial total of seven via
18 CareFlight. And then they took, I believe, it was a
19 group of seven and then six by two trips on the
20 Northern Territory fixed wing airplane.

21 Q. Okay.

22 A. We went back to RAAF Darwin, back to the FRA
23 ramp, with a MRF-D Role 2 surgical team was set up, and
24 then they conducted further triage of all of us. And
25 ultimately, I elected to send all of us to Royal Darwin

1 Hospital to be treated, and then from there, I only
2 spent a few hours there, a couple of X-rays, and then I
3 was released at that point, and then everyone was
4 pretty much turned over to the MRF-D Medical Team from
5 there.

6 Q. Okay. Okay. Thank you. It's a tremendous
7 amount of detail, and I apologize for you to have to,
8 kind of, think through it all, you know, one more time.
9 But I appreciate the -- the amount of detail.

10 I'm going to go back a little bit here,
11 okay?

12 A. Yes, sir.

13 (b) (6) Give me one second. I
14 apologize.

15 THE WITNESS: Yes, sir.

16 (b) (6) You can go ahead.

17 BY (b) (6)

18 Q. So let's go back to your -- your previous --
19 so not your first time on an Osprey?

20 A. No, sir.

21 Q. The first time was at MRF -- or I'm sorry,
22 at -- at Steel Knight? Or is it prior to that?

23 A. Yeah, my -- my first time would've been TBS.

24 Q. Okay. All right. Oh, okay. Good.

25 What about -- so what about the first time

1 operating with 363 was this time, or were there
2 previous experiences with you guys working with 363?

3 A. So this was my first time flying with 363.

4 Q. Okay.

5 A. We worked with them. However, it's Exercise
6 Southern Jackaroo. We did just a PAX movement there.
7 I didn't end up flying with them.

8 Q. Okay.

9 A. I was a PZ officer at that point, so --

10 Q. Okay.

11 A. -- I didn't fly with them there, but we did
12 do a PAX -- administrative PAX movement there in
13 Townsville with them.

14 Q. Okay.

15 A. And that was our first time flying with 363
16 on this deployment.

17 Q. Okay. So can -- if I can ask you from your
18 impressions of just the interactions at that point in
19 time, I -- I think you, as you talked through your
20 planning experience with the Arrows, like you
21 highlighted, a lot of aviators in the room really get
22 support from 363.

23 If we can go back to Jackaroo, was it the
24 same kind of thing? Was there a lot of support there,
25 or was it less and --

1 A. So Southern Jackaroo was -- it -- it was
2 favorable.

3 **Q. Okay.**

4 A. We -- we were in a tactical field
5 environment, so there wasn't -- so we -- we were
6 supposed to conduct a -- like a air -- air raid with
7 them at one point, but we got canceled due to weather
8 that day.

9 **Q. Okay.**

10 A. We had one of our battalion air officers out
11 there as like, a liaison out of the exercise, so all of
12 the working with 363 was by the air officer via
13 tactical means.

14 **Q. Okay.**

15 A. Tactical radio communications. So we went
16 out there with a pre -- pre-made manifest and asset, so
17 they -- they had that in advance, so.

18 **Q. Okay.**

19 A. Because we -- we had planned to fly with
20 them at least once out there, so.

21 **Q. Yeah.**

22 A. Battalion Arrow was out there, so he did the
23 detail coordination with them.

24 **Q. Okay.**

25 A. And then gave us -- he was kind of the

1 middleman, and gave us the information we needed.

2 Pick-up times, how many packs it could take --

3 Q. Okay.

4 A. -- where to, you know, pick up LZs, et
5 cetera.

6 Q. Okay.

7 A. But we had no -- no troubles out there.

8 Very standard, you know, talked to them on the deck as
9 they were coming into the zone.

10 Q. Okay.

11 A. LZ brief, all that stuff.

12 Q. Yeah.

13 A. So nothing out of the ordinary there.

14 Q. Okay. So your opinion, professional
15 organization from your couple of experiences with them
16 in Jackaroo and then the planning prior to this?

17 A. Yes, sir.

18 Q. Okay.

19 A. It was the most -- probably the most, like,
20 interaction back and forth talks with any Osprey
21 squadron we've --

22 Q. Okay.

23 A. -- we've had since I've been in 31.

24 (b) (6) Cool.

25 (b) (6) How many other squadrons

1 have you worked with?

2 THE WITNESS: Would've been --

3 (b) (6) Like, what was the context?

4 THE WITNESS: So we did two Exercise Steel
5 Knights where we had VMM support. I went through the
6 HRST Master's Course, so was a student, but worked --
7 didn't really work with them.

8 Q. Yeah.

9 A. Just used the aircraft, and then ITX as
10 well. We worked with I think it was 263 out of the
11 East Coast.

12 Q. Okay.

13 A. It was an East Coast Squadron.

14 Q. Yeah.

15 A. And it -- they were pretty good, but we
16 didn't really -- I was just -- I was a platoon
17 commander then, so I didn't have much interaction with
18 them.

19 Q. Okay. Okay.

20 A. And then as an XO, we worked with the
21 Knightriders and the Purple Foxes --

22 Q. Yeah. HMM-364, yeah. Okay.

23 A. So as an XO, this would've been my -- my
24 third or fourth squadron.

25 Q. Okay.

(b) (6)

1 A. But total experience, probably six.

2 (b) (6) Okay.

3 THE WITNESS: Five or six.

4 (b) (6) Okay.

5 (b) (6) I -- I know that as well, so
6 -- like, you just seemed a little surprised when you
7 said that all the pilots who were actually flying the
8 missions were present for this one.

9 Has that not been your experience otherwise?

10 THE WITNESS: Typically, it would've been,
11 like, the section lead and like, one of the ops guys.
12 But this one, we didn't -- so we didn't have for this
13 planning, the pilots from Dash-2, so like, my aircraft.
14 But the pilots from Dash-1, the ops planners, the --
15 the guy who's going to be on the ground coordinating PZ
16 operations, so --

17 (b) (6) Okay.

18 THE WITNESS: It was just much more, yeah,
19 like, genuine, and just -- it just meant a lot to us
20 that they were actually, like, showed up to, you know,
21 do the face-to-face.

22 BY (b) (6)

23 Q. Yeah. Yeah, yeah. I understand completely.
24 Talking about the plane and moving forward to kind of
25 the planning that you were doing with the -- the 363

1 folks, and you talked to the UET, like, how -- was that
2 -- I -- I guess I kind of want to -- and a little --
3 this is a little -- takes you a little bit back to the
4 pre-deployment training process here.

5 Did -- did these folks that you kind of had
6 probably, kind of, set up to execute the mission who
7 had to get pulled off, did the UET expire or just never
8 had the opportunity to do the UET before you guys came
9 out here to -- to Darwin?

10 A. Yes, sir. So there's kind of three groups.
11 It was people who either didn't pass the UET --

12 Q. Okay.

13 A. Or didn't have the chance to do it.

14 Q. Yeah.

15 A. Like, they joined the unit right before we
16 deployed.

17 Q. Okay.

18 A. Or Marines who did the UET and it had
19 expired, so --

20 Q. Okay.

21 A. Most of our squad leaders or, like, our
22 sergeants did the UET prior to the previous deployment,
23 but in this deployment, it had expired.

24 Q. Okay. Got it. So --

25 A. I don't remember the exact number that had

1 planned to go that we took off, but we trimmed down
2 quite a bit from the original planned number to just
3 106.

4 Q. Okay. Because I think originally it
5 would've been probably two waves, something like that?

6 A. Correct, sir.

7 Q. Okay.

8 A. It would've been -- yeah, I think ballpark
9 in the -- in the 150s.

10 Q. Okay. Okay. Let me just make a note of
11 that. Okay. Thank you. So again, I -- I just want to
12 make sure I got the note right here. Three kind of
13 categories.

14 Either they had expired, when they did do
15 it, they didn't pass it, or they're -- and they joined
16 so late that they never got an opportunity to train to
17 the UET?

18 A. Yes, sir.

19 Q. Okay. Copy. Thank you. So I -- and I --
20 forgive me on the timeline here. You go out and do a
21 leader's recon in the back of a QE.

22 It's you and who else? It's just you?

23 A. My CO.

24 Q. Okay. You and your CO. And so is it during
25 that, or whether it's during the flight or after the

1 flight when you're kind of talking with the escort --
2 escort flight lead, you guys kind of decide on the
3 approach profile that you're asking for -- for the
4 Ospreys to -- to operate and like, go fly.

5 So I guess what I -- I would like to know
6 about that is so when you kind of -- you -- you brought
7 that to the -- the planning discussion, how did the V-
8 22 guys, kind of, perceive that?

9 They were like, well -- were they -- did
10 they challenge that? Did they like, take it for face
11 value, okay, if that's what you want you to do, that's
12 what -- what I'm going to do? Or was there any kind of
13 discussion back and forth about that?

14 A. So the -- the face-to-face planning meeting
15 happened a few days prior to the aerial recon.

16 Q. Okay.

17 A. So the aerial recon, more we were just going
18 and looking for obstacles and, like, composition of the
19 LZ.

20 Q. Yeah. Okay.

21 A. We -- the only thing that we really didn't
22 expect that we found was that the LZ we were going to
23 was a paved runway, but we were like, happy, surprised
24 to see that. And then I know that Huey pilot just took
25 down, you know, more notes of, like, obstacles around

1 the zone.

2 It didn't really inform our -- our landing
3 plan.

4 Q. Okay.

5 A. I think we had -- they had already planned -
6 - we didn't discuss explicitly we're going to do a
7 section on line off access landing.

8 Q. Okay.

9 A. That's what the Huey pilots, when we were
10 flying the aerial recon said, hey, they're probably
11 going to do that.

12 Q. Okay.

13 A. Because of the composition of the LZ. But
14 there was no, hey, I want you to land this way.

15 Q. Okay. I misunderstood what you said then.

16 Okay.

17 A. Yes, sir. The only thing that I asked them
18 to do was to put us down in a certain portion of LZ.
19 So I asked them to put us down right in the middle of
20 the runway.

21 Q. Okay.

22 A. Versus, like, extreme north or south.

23 Q. Okay.

24 A. And they said that would be no problem.

25 Q. Okay. I -- that makes sense. So I mistook

1 -- messed up what you said there. And then so let's
2 talk about that then a little bit more, if you can
3 remember, from the planning portion of that. Who was
4 the -- was it the section lead who was there planning
5 who kind of said like, this is -- got it, that's where
6 you want me to land, I'm just kind of here to support
7 your ground tactical plan. My landing plan will
8 support that.

9 And then as we talked about the ingress
10 route, were they the ones who kind of came up with that
11 plan or was that --

12 A. Yes, sir. So I asked them to put us down
13 pretty much right in the middle of the -- the runway.
14 Just due to our ground scheme maneuver, we were going
15 to be splitting the force north and south, so just to
16 cut down on people hauling ass like, you know --

17 Q. Yeah.

18 A. -- like a K or two north or south.

19 Q. Yeah.

20 A. They said that wouldn't be a problem, and
21 then it was really the escort flight planners and the
22 assault support planners that went over on the map and
23 was like, hey, we're going to put the IP here, and you
24 guys, what's your ingress out going to look like?

25 They were just de-conflicting ACAs, IPs, et

1 cetera. So they -- yeah, they drew it on the map.
2 Like, this is roughly what it's going to look like.
3 And then from -- from the flight, it's what it felt
4 like we executed.

5 Q. Yeah.

6 A. From the IP, sweeping left-hand turn, and
7 then two right 90s into the zone.

8 Q. Okay. Okay.

9 (b) (6) When you say two right 90s
10 into the zone, what do you mean by that?

11 THE WITNESS: You're just kind of, like,
12 squared off, the approach into the LZ. So it was like
13 a -- a -- almost like the first left-hand turn was
14 getting it set up for a landing, and then -- and then
15 we made that first right-hand turn and then that's
16 where, like, the -- the three right-hand turns, I don't
17 -- I can't remember if it was two or three, but -- and
18 then we made the first right-hand turn still in
19 airplane mode. And then that -- the final right-hand
20 turn was when we started transition, which presumably
21 was getting us set up to -- to land.

22 (b) (6) Okay. (b) (6) go ahead.

23 (b) (6) Yeah, I'm sorry. I was just
24 asking, because two right 90s gets you to 180, so I
25 just wanted to make sure you weren't expecting them to

(b) (6)

1 go, like, a full 180 and come --

2 THE WITNESS: No, I -- yeah, just -- it was
3 like a -- I'm literally like, on the map, like, you
4 know, line.

5 (b) (6) Yep.

6 THE WITNESS: So it was, like, okay, they're
7 probably going to square it off, and then --

8 (b) (6) Okay. Makes sense.

9 BY (b) (6)

10 Q. Have you guys weighed yourselves at all
11 since you've been out here, before getting on an
12 aircraft?

13 A. Just semi-annual weigh-ins.

14 Q. Okay. So -- and so -- so -- so as you talk
15 about how much of your -- your packs weigh per person,
16 you don't actually get on a scale with your gear on? I
17 just want to make sure I'm -- I'm clear on that.
18 Because that's something we do on a MEU, is like, we'll
19 make the Marines hop on a scale with their gear so we
20 know that -- sometimes that's done at the beginning of
21 the deployment.

22 Sometimes there -- you know, we've had times
23 where we've actually put scales down on the deck prior
24 to a mission so we make sure that we know, and I just
25 want to make sure. No harm, no foul. I'm just asking.

(b) (6)

1 A. Yes, sir.

2 Q. There is no procedure currently in MRF-D
3 that requires you to weigh yourself as -- as
4 individuals?

5 A. No, sir.

6 Q. And then you -- you load up, to know exactly
7 how much you weigh?

8 A. No, we did not explicitly step on a scale.

9 Q. Okay. Okay. That's enough from the
10 planning piece.

11 Now, so do you happen to remember who was
12 sitting in what seat from the pilot's point of view?
13 Do you know if the male pilot or female pilot was kind
14 of hidden from you, versus the one you could see?

15 A. I never saw their faces, but just from,
16 like, when I was hearing talking, like head gestures, I
17 presumed that a male pilot was in the right seat, and
18 then female was in the left seat.

19 Q. Okay.

20 A. But I -- yeah, I never saw any faces.

21 (b) (6) Do you -- do you want me to
22 note that on here, sir?

23 (b) (6) Hmm?

24 (b) (6) Do you want me to just have
25 him note that on here?

(b) (6)

1 (b) (6) Sure.

2 (b) (6) And then I know the
3 instructors say put an X by the seat you were in.

4 Can you just draw a line with your name to
5 that seat as well?

6 THE WITNESS: Yes, sir. And then I can also
7 put -- well, obviously.

8 (b) (6) What's that?

9 THE WITNESS: I was going to -- the crew
10 chief was, like, was here, but he was back and forth
11 between. So it was --

12 (b) (6) Uh-huh. Uh-huh. Okay.

13 THE WITNESS: -- those.

14 (b) (6) Yeah. Yeah. That's fine.

15 Thanks.

16 BY (b) (6)

17 Q. Just standard. Okay. Now probably a little
18 bit more for the hard part here, because I know you say
19 it's -- you know, mentally, it's kind of muddled. And
20 so now I kind of want to focus on your feet dry, and
21 you're starting to go in here, and it's -- this is kind
22 of that lead -- that easy left-hand turn kind of thing
23 before the hard right.

24 If you can recall -- me -- I want to make
25 sure I'm at the right place on this; so the -- did you

1 -- so you've -- you've flown on a V-22 before, right?

2 A. Yes, sir.

3 Q. Do you ever notice on a V-22 as you're
4 coming out from airplane mode, and you're starting to
5 convert into the helicopter mode or -- or chopper mode,
6 do you ever notice that there's a -- like, the engines
7 get louder?

8 A. Yes, sir.

9 Q. And they spin up?

10 A. Uh-huh.

11 Q. Okay. So that's kind of what I -- I want
12 to, kind of, focus on, if you can potentially remember
13 that or not, in relation to the -- kind of, the first
14 right turn.

15 Do you happen to remember like, that
16 sensation, that -- that noise at any point in time
17 during that?

18 A. Not -- not in the first turn, sir.

19 Q. Okay. Do you remember at all between the
20 first turn and the second turn?

21 A. I -- I do remember when we started to
22 transition again, I don't remember if it was between --
23 and it could've been two right turns, it's --

24 Q. Yeah, I understand.

25 A. -- you know, my mind's kind of together.

1 Q. I understand.

2 A. But I do remember feeling the -- the engine
3 spin up, and then just kind of, like, the -- you know
4 how you can feel like, the choppiness of the --

5 Q. Yep.

6 A. It -- it felt we were getting there, but we
7 weren't -- we were not fully converted. We were kind
8 of --

9 Q. Yeah.

10 A. -- and I could see it too out my
11 peripherals.

12 Q. Yeah. Okay.

13 A. We were starting to kind of chop up into --

14 Q. Okay. And so that was after the first right
15 turn? I just want to make sure I'm tracking that.

16 A. It was.

17 Q. Okay.

18 A. Yes, sir.

19 Q. All right. That's critical for me to
20 understand.

21 So -- and it's about this time that the --
22 the male pilot says, hey, you're leaning into or about
23 the -- you're leaning into lead; is that right?

24 A. Like you're right on top of lead, or
25 something like that.

1 Q. You're right on top of lead, yeah.

2 A. Something along those lines.

3 Q. Okay. And it's roughly -- so sometime after
4 that, there's a second right turn and then you hear a
5 stall, stall?

6 A. Correct.

7 Q. Okay. Did you feel anything in the
8 aircraft, like, any movement in the aircraft once you
9 heard the stall, stall thing?

10 A. I -- I didn't. I -- I'm a private pilot
11 myself, so like I -- I --

12 Q. Okay.

13 A. -- it raised some, you know, bells in my
14 head.

15 Q. Sure.

16 A. But the male pilot, like, we were flying --

17 Q. Uh-huh.

18 A. -- we were in a right-hand turn and heard
19 just one audible stall and then some of the deedle
20 beeps.

21 Q. Okay.

22 A. And then quickly, we just rolled wings
23 level.

24 Q. Okay.

25 A. And it didn't seem to bother them up front,

1 because pretty much immediately after that, it was,
2 like, all right, give me one more, give me one more
3 turn.

4 **Q. Okay. Okay.**

5 A. And then we went into the final turn and
6 pulled.

7 **Q. Gotcha. Okay. So a couple maneuvers,**
8 **stall, stall. He asked for one more turn, and then --**
9 **and then you -- that's when I -- when I took a note of**
10 **that's when you kind of felt the shutter into the**
11 **transition, you started to feel the aircraft kind of**
12 **vibrate more?**

13 A. Yes.

14 **Q. Okay. And then you felt descending, a nose-**
15 **down kind of attitude, and that's basically when the**
16 **aircraft commander took the controls; is that correct?**

17 A. Correct, sir.

18 **Q. Okay.**

19 A. Yeah. I could -- just like noticed out of
20 the front right window that we were in a -- in a hard
21 right bank, and then --

22 **Q. Yeah.**

23 A. -- started to pitch down a little bit.

24 **Q. Okay.**

25 A. And then --

1 Q. Okay.

2 A. -- he took controls.

3 Q. Could you see the trees at that point in
4 time?

5 A. I could.

6 Q. Okay. So you were -- I want to make sure I
7 understood this correctly, you were -- you were
8 descending in a right-hand turn?

9 A. Yes, sir.

10 Q. Okay. And he takes controls, then he rolls
11 wings level, and then a period of time, maybe a second
12 or two, then his brace, brace?

13 A. Correct.

14 Q. Okay. Okay. All right, brother. I know
15 you -- we already asked you the question in there, and
16 as you talked through egress and the platform, did the
17 -- were the seats stroke at all, or were they --

18 (b) (6) I -- I put a note about
19 that, actually, sir. Because your answer was -- I -- I
20 -- we just wanted to clarify that, I think. Did your
21 seat stroke to the deck of the aircraft upon impact?
22 If so, did it drop all the way to the deck of the
23 aircraft or partially? And you said, no, remained
24 intact.

25 Do you know what we're asking about when we

1 say did the seat stroke?

2 THE WITNESS: I -- no, I guess I was
3 assuming you like, meant detached.

4 BY (b) (6)

5 Q. No. So what happened, with how the aircraft
6 is designed for your -- the passenger seats, and so
7 imagine I'm up here like this, kind of, riding along,
8 and on impact, the seat's supposed to drop down to --
9 to blunt the force, so to take kind of that pressure
10 out of your spine and out of your neck and out of your
11 head, and allow you to -- to be survivable, and then be
12 able to, you know, give, you know, unclip if you will,
13 and then egress the aircraft.

14 So that's kind of my question on that is:
15 Did the seat drop down to the kind of the floor or did
16 it basically stay level, or do you even remember?

17 A. I don't remember. I'm trying to recall as
18 we're crawling out the back.

19 Q. Yeah. I guess the easiest way to think
20 about that, as you were crawling out the back, was the
21 gear that you guys had in-between the seats, was it
22 more, like, at shoulder level or was it down kind of
23 lower towards your hands?

24 A. Yeah. Now that you put it like that, like -
25 - like I remember, like, we were like, crawling and,

(b) (6)

1 like, our hands were, like, on the gear to like -- to
2 get out. So that would, I guess, imply, yeah, I think
3 we probably would've had the seats a little bit lower.

4 Q. Okay.

5 A. One of the Marine's seats did, like, come
6 undone, but that was towards the rear of the aircraft.
7 I didn't -- I didn't see it, but I know from afterwards
8 that he was -- his seat did, kind of, detach, and he
9 was turned -- turned over a little bit.

10 Q. Okay.

11 A. So that's what I thought you were getting at
12 there, but --

13 (b) (6) Yeah. Okay.

14 (b) (6) Can -- can you talk about
15 that a little bit more?

16 (b) (6) Yeah.

17 (b) (6) Describe that.

18 THE WITNESS: Yeah.

19 (b) (6) Where -- like, which seat
20 was it?

21 THE WITNESS: So from what I remember, I --
22 I don't -- I didn't see him.

23 (b) (6) Uh-huh. Yeah.

24 THE WITNESS: But I -- from what I remember,
25 he was somewhere in this vicinity.

(b) (6)

1 (b) (6) Uh-huh.

2 (b) (6) Okay.

3 THE WITNESS: And of some of the other
4 Marines afterwards, you know, told him, hey, we had to
5 unclip him and right him, and then take him out. And
6 then he was our casualty, the initial casualty that had
7 the -- the broken leg.

8 (b) (6) Okay. Okay.

9 THE WITNESS: But like, I -- that would've
10 been on this side of the aircraft, for sure, because I
11 didn't --

12 (b) (6) Yeah.

13 THE WITNESS: I didn't call over, like, a
14 missing seat, or you know?

15 (b) (6) Okay. I gotcha. I mean,
16 that's -- that information is very helpful for us in
17 regards for that Marine in particular, as we go
18 through, yeah, injuries sustained. That's -- that's
19 really important to understand. Thank you for that.
20 That's -- that's critical.

21 (b) (6) Do you remember which Marine
22 that was?

23 THE WITNESS: That was (b) (6)

24 (b) (6) .

25 BY (b) (6)

(b) (6)

1 Q. Do you happen to remember if they pulled
2 that seat out with him, or?

3 A. I don't remember, sir.

4 Q. Okay. That's fine.

5 A. And when you talk to the -- the other guys,
6 they'll be able to tell you.

7 (b) (6) Yeah, absolutely.

8 (b) (6) Do you know which -- which
9 Marines do we talk to about that?

10 THE WITNESS: I would direct you to (b) (6)
11 (b) (6) .

12 (b) (6) Okay. Okay. I think
13 that's -- that's all I -- I think I have follow-up
14 questions about.

15 Did you have anything?

16 (b) (6) Just a couple, sir.

17 (b) (6) Yeah, please.

18 EXAMINATION

19 BY (b) (6)

20 Q. In -- in the questionnaire, you mentioned
21 you saw a couple Marines attempting to extract the rear
22 crew chief from -- pinned near the rear of the
23 aircraft, and I know you talked about that a little bit
24 more, cutting the -- the ICS strap or cords and his
25 gunner's belt still attached to one of the panels.

1 How close was that in relation to the
2 aircraft?

3 A. So by the time I got to the rear, he was --
4 he was freed of debris. He was still attached to -- to
5 ICS. (b) (6) and (b) (6) would be the
6 two who were --

7 Q. Okay.

8 A. -- directly there.

9 Q. Okay.

10 A. But by the time I got to the rear, he was 90
11 percent freed. I think maybe his ankles were still
12 maybe underneath, but he was still face down and they
13 were just doing the final cuts to -- to move him.

14 Q. Okay.

15 A. And then by the time I stepped off, they
16 were in the process of moving him.

17 Q. Okay. Was that right by the aircraft that
18 all that was going on, or was that further away?

19 A. No, that was directly -- so the -- the ramp
20 --

21 Q. Was it in the aircraft?

22 A. -- was gone --

23 Q. Okay.

24 A. -- but it was where the ramp would attach
25 the fuselage. It was right -- right there.

1 Q. Okay.

2 A. So physically directly under the --

3 Q. Okay. I -- I think I heard you right. Did
4 you just say you were a private pilot; you have a
5 private pilot's license?

6 A. Yes, sir.

7 Q. How long have you had that? How long have
8 you been flying?

9 A. For -- I've had the license for seven years
10 now, but I haven't been actively flying recently, so --

11 Q. Yeah. I guess, I -- I don't know what the
12 right question is. How many flight hours do you have?
13 Do you know?

14 A. Around 100.

15 (b) (6) Okay.

16 (b) (6) Okay.

17 THE WITNESS: You said -- that was why I
18 kind of -- I'm -- I'm pretty comfortable flying.

19 (b) (6) Yeah.

20 THE WITNESS: Yeah. And the initial, like
21 nothing to that point of the flight until I heard the
22 first stall was concerning, like, I wasn't concerned
23 with any of the -- the -- the pulls or the turns or
24 anything.

25 (b) (6) Yeah. Yeah.

(b) (6)

1 THE WITNESS: I think some of us were even
2 like having a good time back there.

3 (b) (6) Yeah, walking around.
4 Yeah.

5 THE WITNESS: But that -- that's when it
6 first concerned me, and then -- yeah.

7 (b) (6) Okay.

8 THE WITNESS: But it was --

9 (b) (6) Do you want to talk about
10 integration between various elements or anything like
11 that, sir?

12 (b) (6) No, I think he answered
13 that as we were talking about, you know, interaction
14 with the ACE. Well, I guess, let's -- I -- I guess
15 there -- so there was a -- another, kind of,
16 conversation we had yesterday that kind of --

17 EXAMINATION

18 BY (b) (6)

19 Q. What's your sense of GCE to command on that
20 interaction? Like, support-wise, and -- and oversight
21 of, you know, what you guys have been doing from a GCE
22 perspective?

23 A. Yes, sir.

24 Q. Can you explain that?

25 A. Yeah. I'm not in ops, so I don't typically

(b) (6)

1 interact directly with them.

2 Q. Yeah.

3 A. We typically get handed the package, if you
4 will, for an exercise --

5 Q. Sure.

6 A. -- kind of around the final planning
7 conference --

8 Q. Okay.

9 A. -- time. And the ops guys, and so really
10 the -- the command element ops guys would be the ones
11 attending the -- the initial and the mid-planning
12 conference because they're six, seven months prior to
13 the events.

14 Q. Yeah, yeah, yeah. Yeah.

15 A. And we -- we weren't even here for some of
16 them, and then we kind of take the -- the package from
17 battalion ops at the final planning conference time
18 frame about a month out, and we'll be involved in those
19 conversations. But I -- I don't -- I personally don't
20 interact with the command element --

21 Q. Okay.

22 A. -- directly, so --

23 (b) (6) Any observations of GCE
24 interactions with the command element, even if you're
25 not the one doing it? I guess what I'm asking for is,

(b) (6)

1 like, what's the scuttlebutt in the GCE?

2 THE WITNESS: Yeah, the -- I think the --
3 the GCE ops guys probably take the package, if you
4 will, more on their -- more on themselves, I guess.
5 Like, the command element is kind of in the -- the
6 higher, you know, interoperability talks, how are we
7 going to achieve these objectives, but really, like,
8 the -- all the detailed planning would -- would start
9 and end here. And then between OPSOs to OPSOs of
10 different subordinate commands --

11 (b) (6) Yeah.

12 THE WITNESS: -- would be, like, the
13 conversations of, you know, when we'd get in touch.

14 BY (b) (6)

15 Q. Have you ever done a confirmation brief out
16 here, or been part of a confirmation brief for, like, a
17 mission like this?

18 A. I was not in the confirmation brief for this
19 exercise. The only confirmation brief at the command
20 element level I've been to was for Southern Jackaroo.

21 Q. Okay.

22 A. I didn't have a speaking part. I was just
23 in the room.

24 Q. Observing, okay. Okay. And I guess, you
25 know -- okay. That -- that already answers the other

(b) (6)

1 question I have. Okay.

2 So other than (b) (6) (b) (6)

3 (b) (6), anyone else you think we should talk to to try
4 to help us understand what happened?

5 A. I think you're planning on talking to
6 (b) (6) (phonetic)?

7 Q. Yeah.

8 A. Who was in lead.

9 Q. Yeah.

10 (b) (6) We'll do a questionnaire
11 with everybody who was in the aircraft, but if there's
12 specific Marines you think that are like a --

13 THE WITNESS: Yeah. (b) (6)

14 (b) (6) --

15 BY (b) (6)

16 Q. (b) (6)

17 A. -- were the two ones who -- yeah. It would
18 be all the other Marines were more guys who I just
19 tasked when we were out to, you know, keep the crowd
20 together, stuff like that.

21 Q. Yeah. Okay.

22 A. (b) (6) was the one who I had told to
23 conduct the perimeter search. (b) (6) was
24 heavily involved in the extraction of (b) (6)

25 Q. (b) (6) okay.

(b) (6)

1 A. And then (b) (6) was the one
2 whose seat came undone, but (b) (6) I
3 believe, was the one who worked on him to --

4 Q. Okay.

5 A. -- to get him out. And then yeah, I think,
6 and then (b) (6), of course, in lead.

7 Q. Yeah.

8 A. So --

9 (b) (6) Okay. Anything I missed?

10 (b) (6) I don't think so, sir.

11 (b) (6) Okay. All right. Thank
12 you, (b) (6). I appreciate it, (b) (6).

13 THE WITNESS: Yes, sir.

14 (b) (6) If we need to circle back
15 with you on anything, then you know, we'll obviously go
16 through the command to -- to let you know. But as of
17 right now, I think we're -- I think we're good.

18 THE WITNESS: Yes, sir.

19 (b) (6) But just be prepared for
20 that potentially as well.

21 THE WITNESS: Yes, sir.

22 (b) (6) Okay? All right.

23 (End of Audio Recording 1.)

24 (Beginning of Audio Recording 2.)

25 (b) (6) Good afternoon. This

(b) (6)

1 interview is being conducted on 5 September at Robinson
2 Barracks with (b) (6). This is our
3 second interview with (b) (6) for today.

4 (b) (6) I'll just remind you that
5 you're under oath from your previous interview.
6 That'll remain in effect.

7 THE WITNESS: Sure.

8 (b) (6) And I'll ask you now if you
9 have any questions about any of -- of the things we've
10 talked about so far.

11 THE WITNESS: No questions.

12 (b) (6) Okay. Appreciate you
13 hanging around. (b) (6) just had a few
14 additional questions for you.

15 THE WITNESS: Yes, sir.

16 EXAMINATION

17 BY (b) (6)

18 Q. So yeah. So a couple comments have been
19 made about a potential crew chief interaction with the
20 cockpit and -- and noises and things like that were --
21 that were being made. And I just kind of want to
22 circle back from your position, because obviously you
23 were on ICS, you're hearing things, with aviation
24 background, you know. You talked earlier about the
25 stall indication or warning that you heard over ICS.

1 Prior to -- or let's go back to the transition as
2 you're flying -- departing Darwin, you're in transit to
3 the objective area.

4 At any point in time, did you hear the crew,
5 kind of, talking about trying to troubleshoot anything
6 or any noises over ICS that were, kind of, related to a
7 deedle deal or what have you?

8 A. No, sir. The -- the first deedles that I
9 heard were when we were on deck at RAAF Darwin. I
10 think it was right before we taxied onto the runway.

11 Q. Yeah.

12 A. And then that was deemed no factor, is what
13 I heard. And then after that heard nothing else over
14 ICS. I didn't hear any troubleshooting. The only
15 really interactions with the crew were when we went
16 ramps up. Before we even back taxied, like, hey, we're
17 ramps up. Good.

18 And then I don't remember when in flight it
19 was. It was sometime around the IP. Maybe even after
20 we made our first turn. We were flying over the beach,
21 and they -- they went through like a checklist. And
22 then they just asked for the crew, like some --
23 something like, is the cabin secure, or something like
24 that.

25 Q. Yeah.

1 A. And the crew's like, yep. All good. And
2 then the -- the forward crew chief, from what I recall,
3 was kind of in the tunnel most of the way, especially
4 IP -- after we IP inbound. And he -- he was pretty
5 much in that position until we went down.

6 Q. Okay.

7 A. But I don't -- I don't -- there was no,
8 like, troubleshooting --

9 Q. Okay.

10 A. -- going on.

11 Q. Okay. Do you recall the crew chief in the -
12 - in the front, in the tunnel, touching a panel, like,
13 basically straight across from you and then touching
14 another panel or two inside the -- the cabin, the -- or
15 cockpit area?

16 A. No, the -- the only panel that I remember
17 him touching was the ICS right behind my head, just
18 when I asked him to adjust it.

19 Q. Okay.

20 A. I didn't ask him. I just told -- told him I
21 couldn't hear something, and then he came and fixed it.

22 Q. Okay. And then the last question I think I
23 have for you is, do you remember Corporal Collier
24 (phonetic) in the front there, breaking out a checklist
25 or something where he is flipping like this?

1 A. I don't -- I know what you're talking about.

2 Q. Like an up -- up/down as opposed to a
3 left/right kind of orientation for the --

4 A. Yep. I saw -- to answer your question, no.
5 I saw his, like -- like, a binder for like a better
6 term, like, was attached to the seat of -- relative,
7 like, across from me to the left, like with his pack.

8 Q. Okay.

9 A. The only thing I --

10 Q. And -- and just to describe that, what --
11 what color -- do you remember what color that was?

12 A. It was -- it was a white book, like bound,
13 like a normal book, with like big white rings.

14 Q. Okay.

15 A. And that was carabiner clipped to his pack.

16 Q. Okay.

17 A. I don't remember him looking through that at
18 all. The only thing I remember him looking at, I think
19 he took out the -- the manifest --

20 Q. Okay.

21 A. -- like a paper -- a paper manifest --

22 Q. Yep.

23 A. -- for either us on board or for the next
24 wave that they were going to go pick up. He -- he
25 flipped through that at one point. That would be the

(b) (6)

1 only vertical, because I think it was stapled, like, in
2 the top corner, so he might've been, like, flipping
3 that paper.

4 **Q. Okay.**

5 A. That's the only thing that he -- he looked
6 at through the flight.

7 (b) (6) Okay, perfect. That makes
8 a lot of sense. Did I miss anything?

9 (b) (6) I don't think so.

10 (b) (6) No. That's awesome. Thank
11 you. I'm -- I, again, I apologize for making you wait
12 around, but this is -- circling back with you is
13 critical for me --

14 THE WITNESS: Yes, sir.

15 (b) (6) -- to understand what's
16 happening in the cockpit --

17 THE WITNESS: Yes, sir.

18 (b) (6) -- and the front of the
19 aircraft. So I have no further questions.

20 THE WITNESS: Thank you, sir.

21 (b) (6) All right, thanks, bro.

22 (b) (6) All right. Thanks,

23 (b) (6) I think I gave you the same warning
24 earlier. Just understand this is an ongoing
25 investigation, so please don't discuss your testimony

1 with -- with any of the other witnesses. Obviously
2 other investigating bodies, it's good to go.

3 THE WITNESS: Yes, sir.

4 (End of Audio Recording 2.)

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CERTIFICATE OF TRANSCRIPTIONIST

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I, (b) (6), a transcriptionist

located in Charlotte, North Carolina, hereby certify:

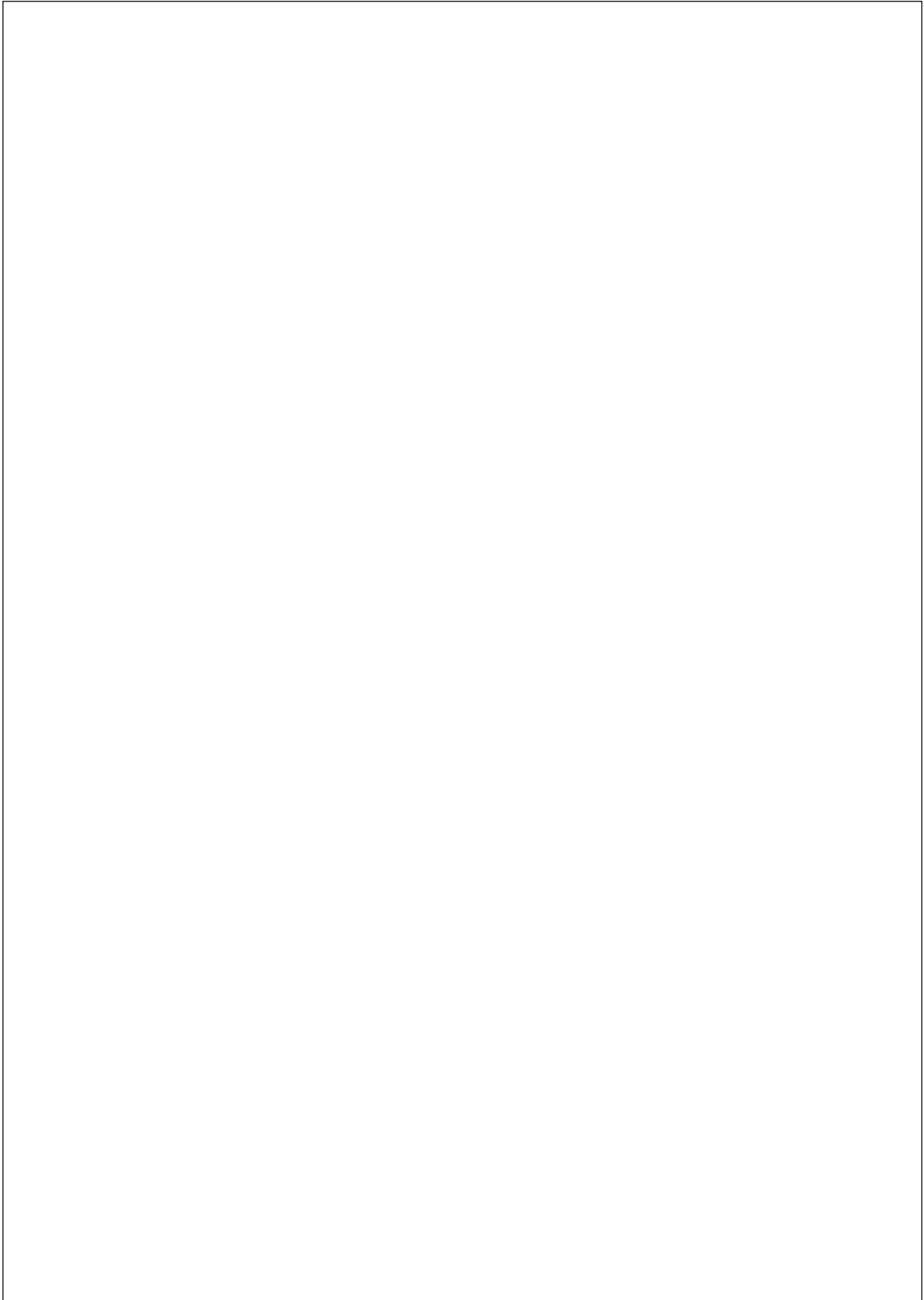
That the foregoing is a complete and accurate
transcript of the digital audio recording of the
proceeding in the above-entitled matter, all to the
best of my skills and ability.

I further certify that I am not related to any
of the parties to this action by blood or marriage and
that I am in no way interested in the outcome of this
matter.

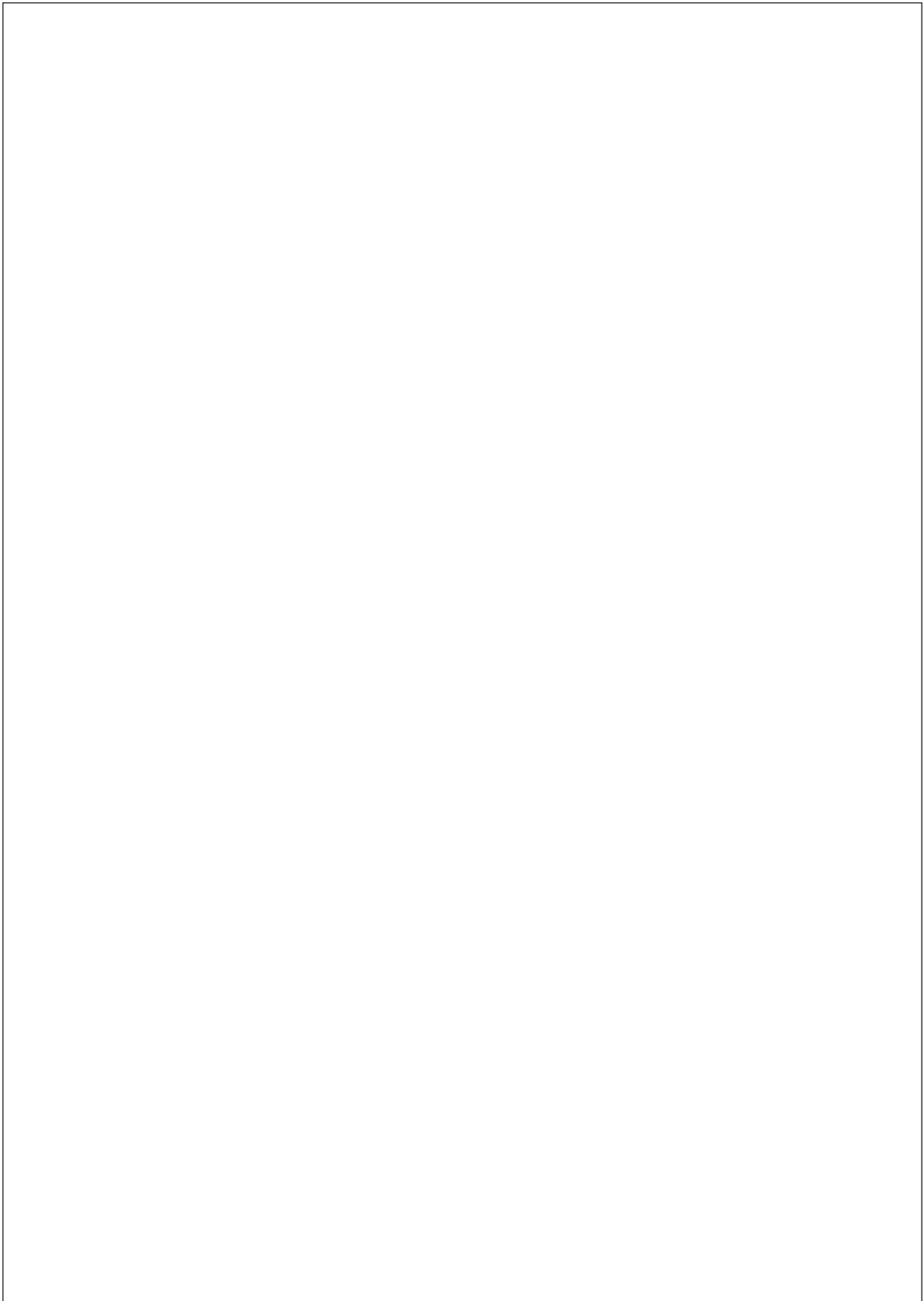
IN WITNESS THEREOF, I have hereunto set my hand
this 19th day of October, 2022.

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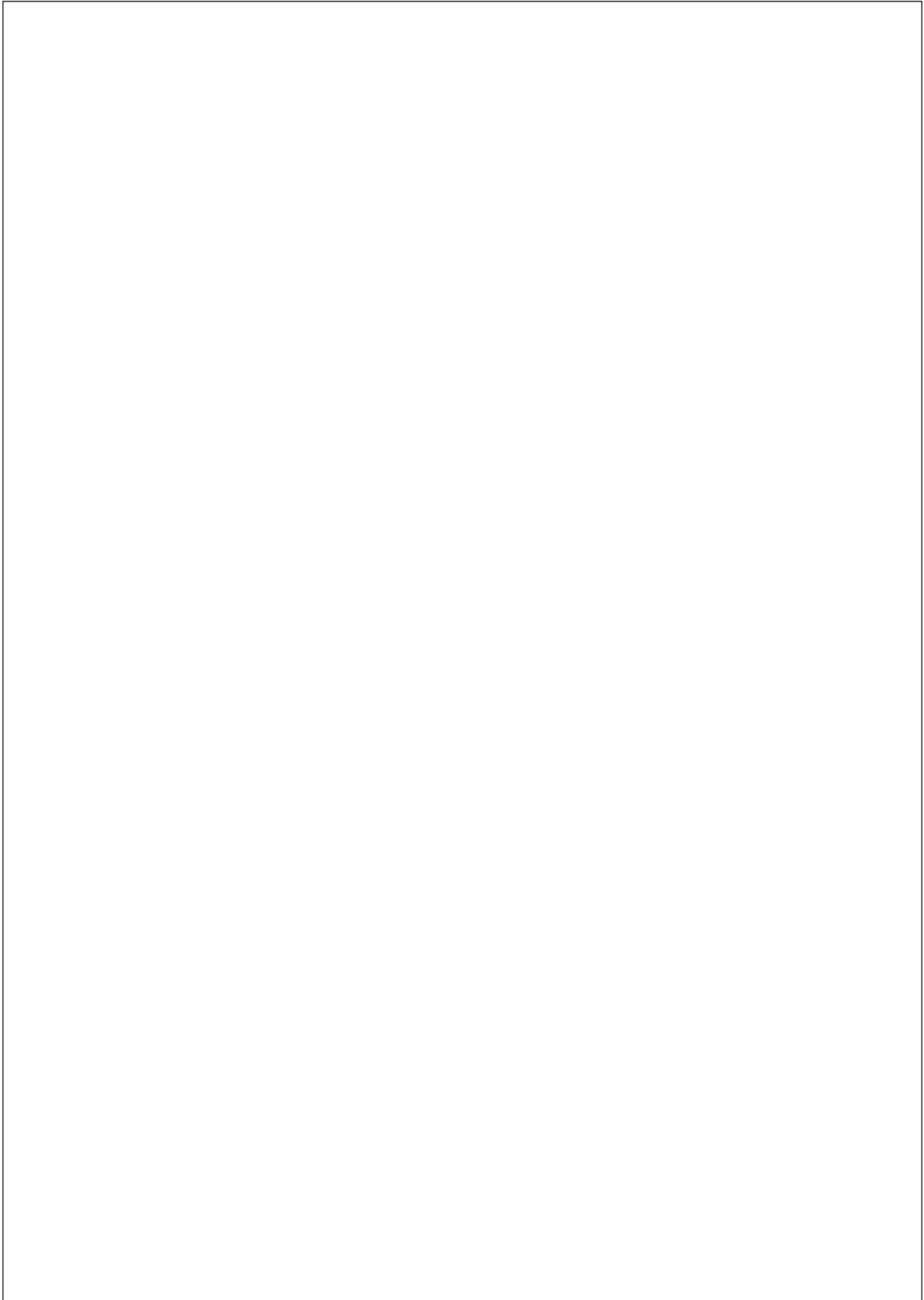


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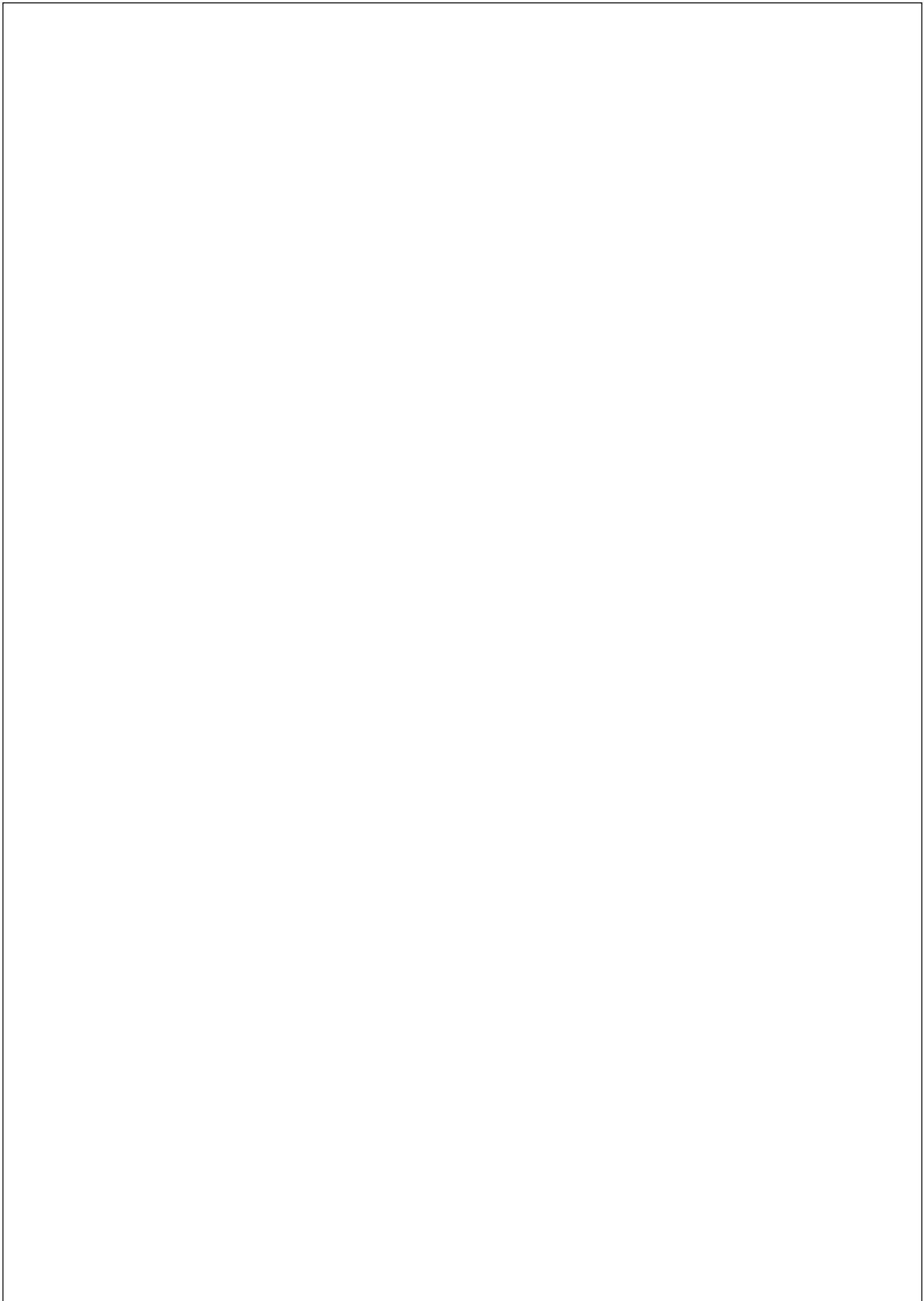
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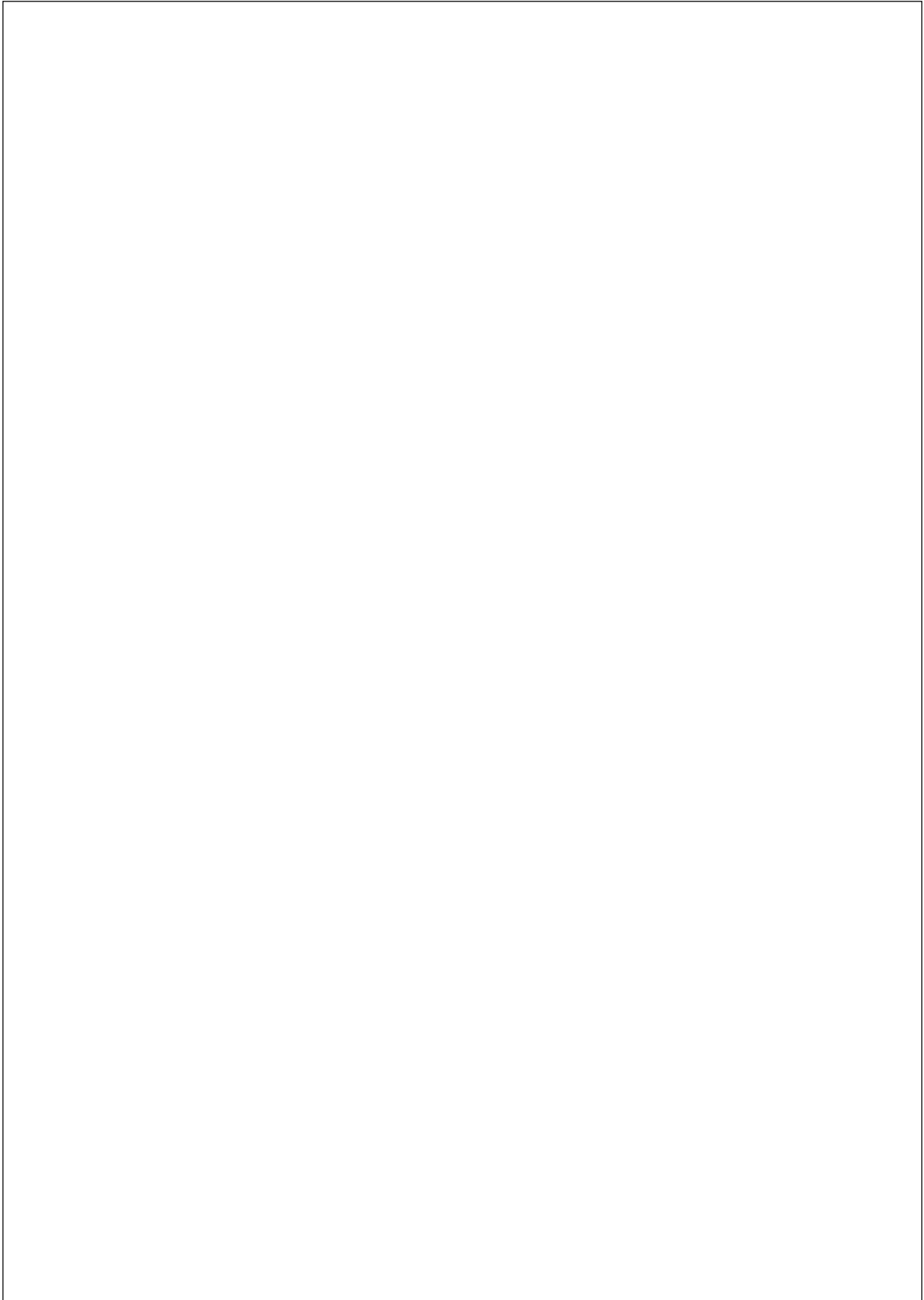
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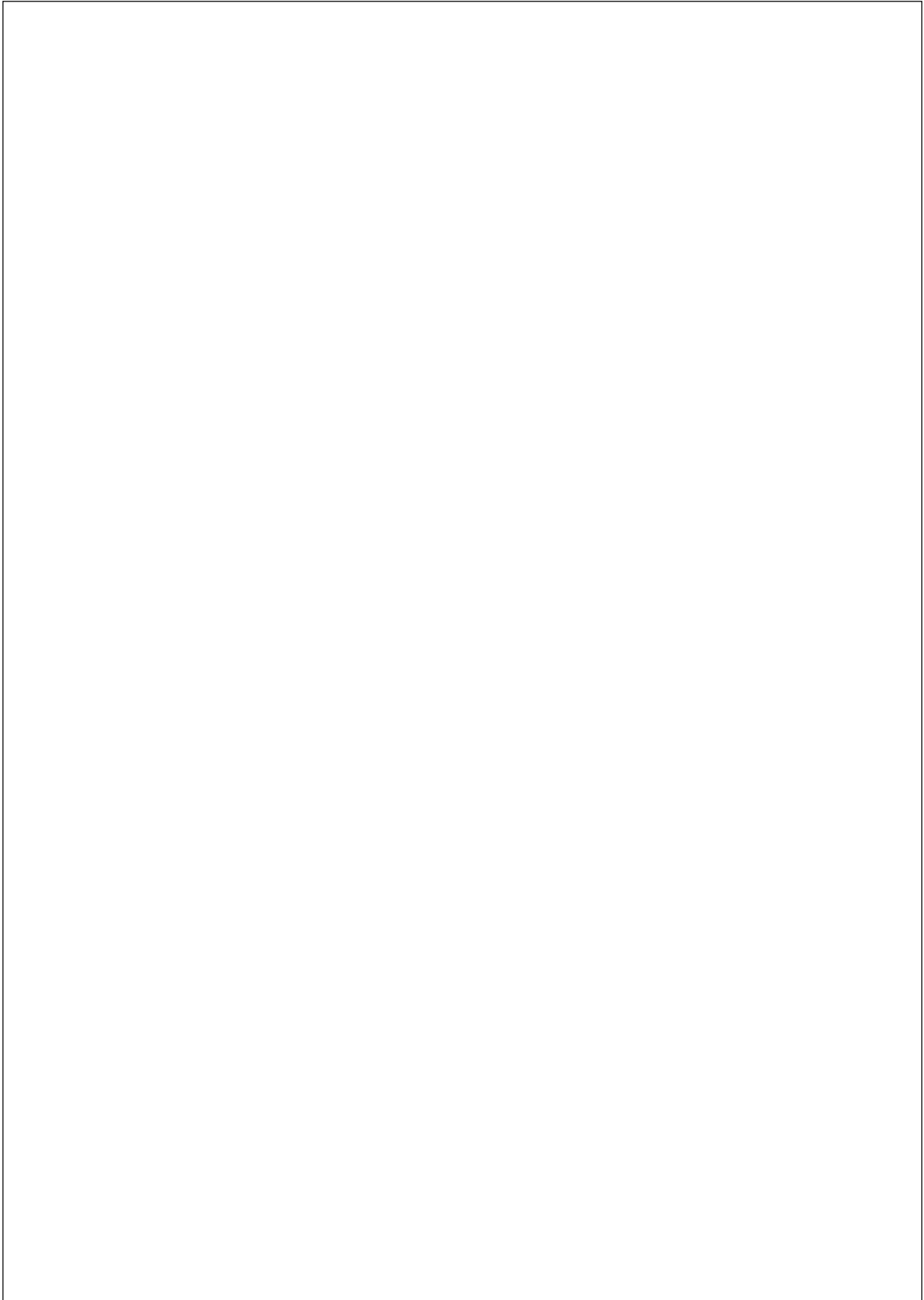
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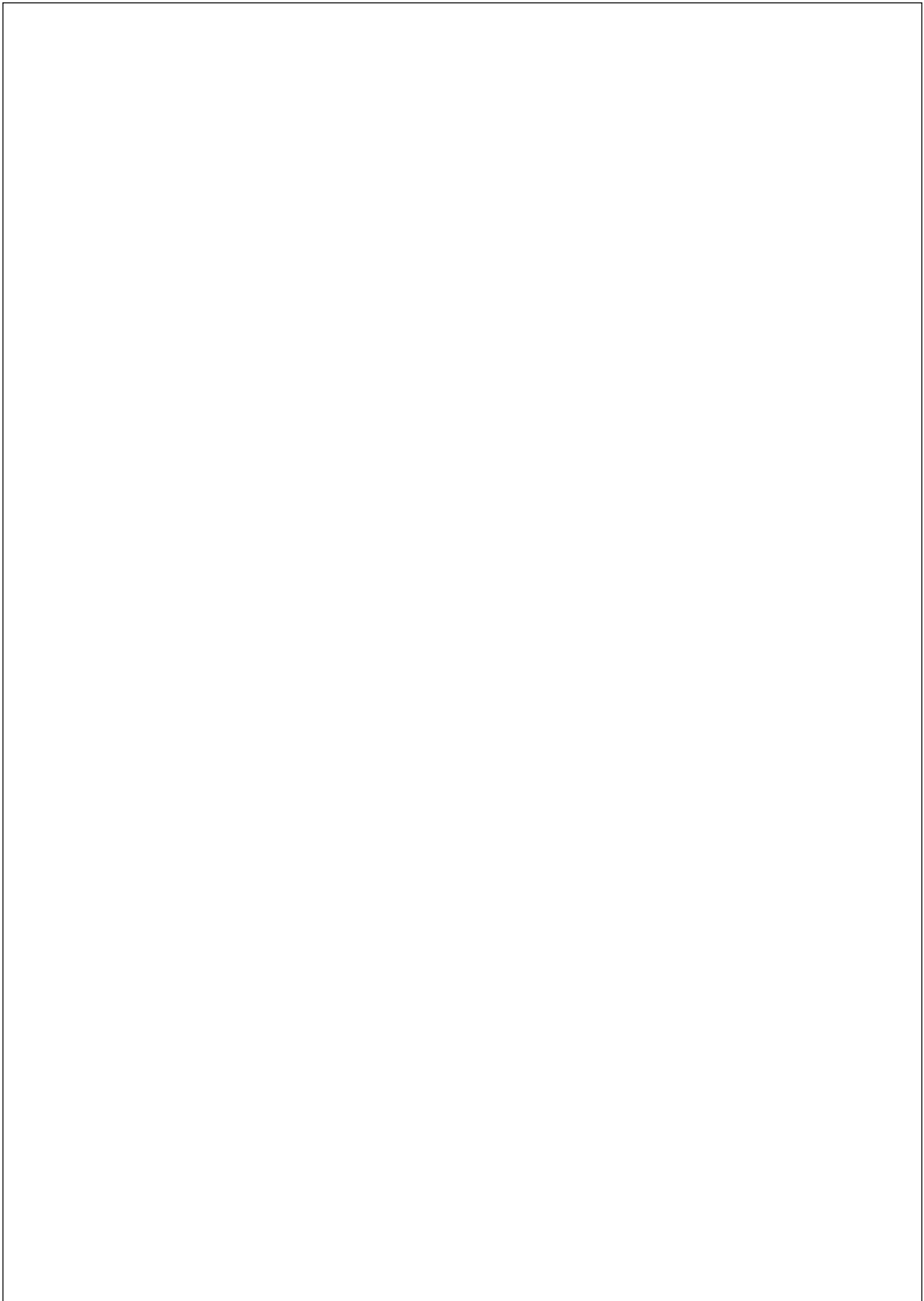
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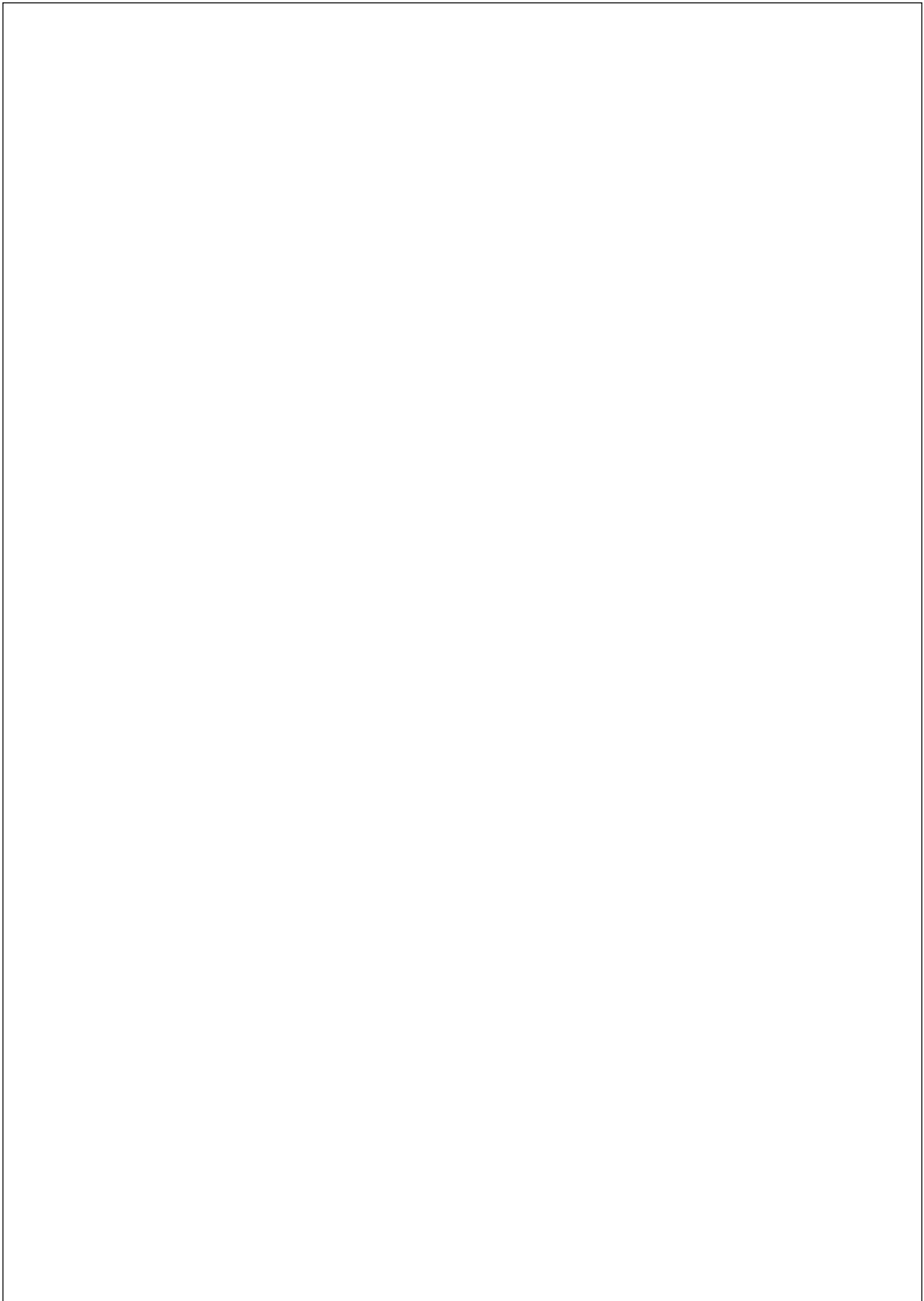
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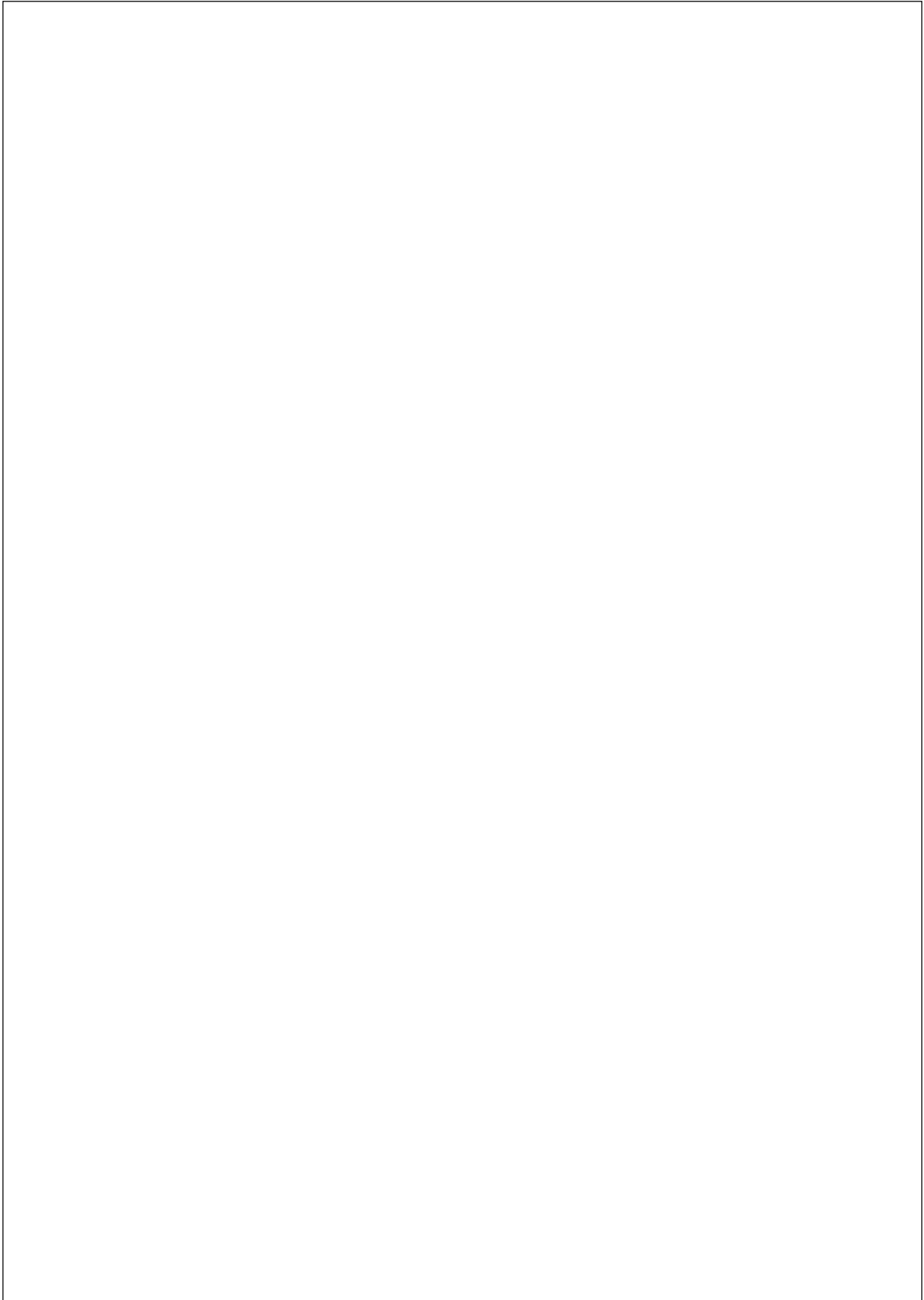
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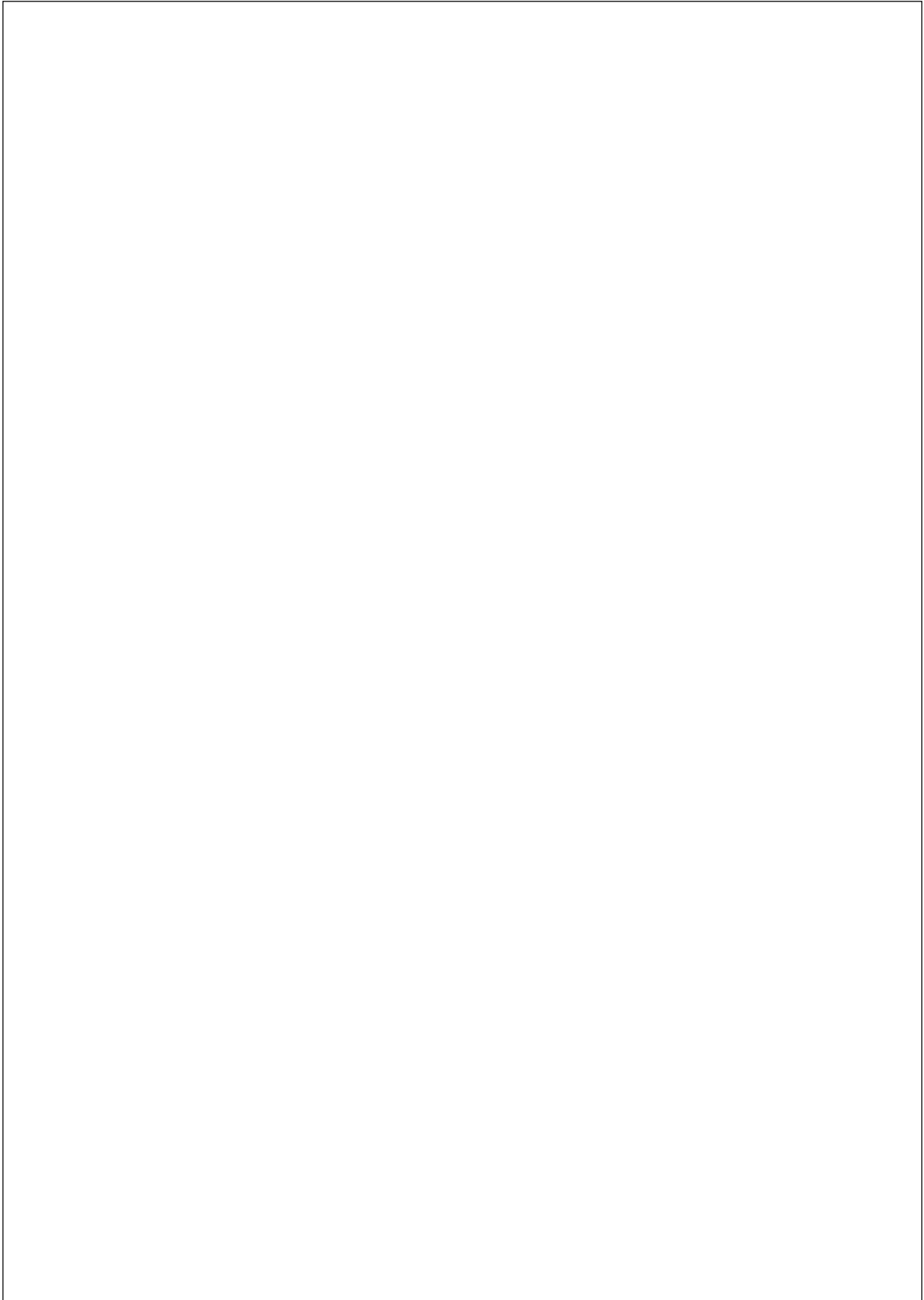
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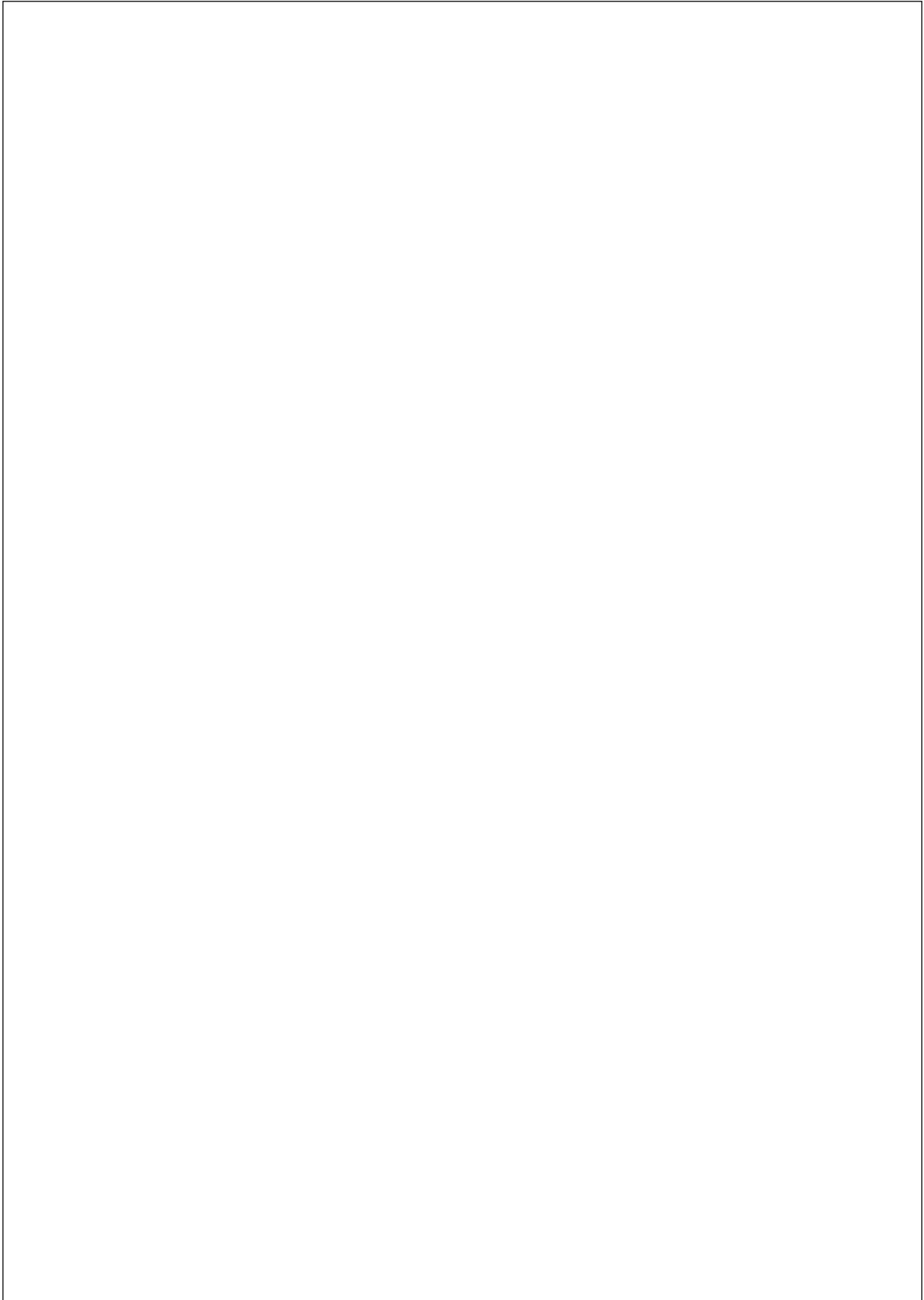
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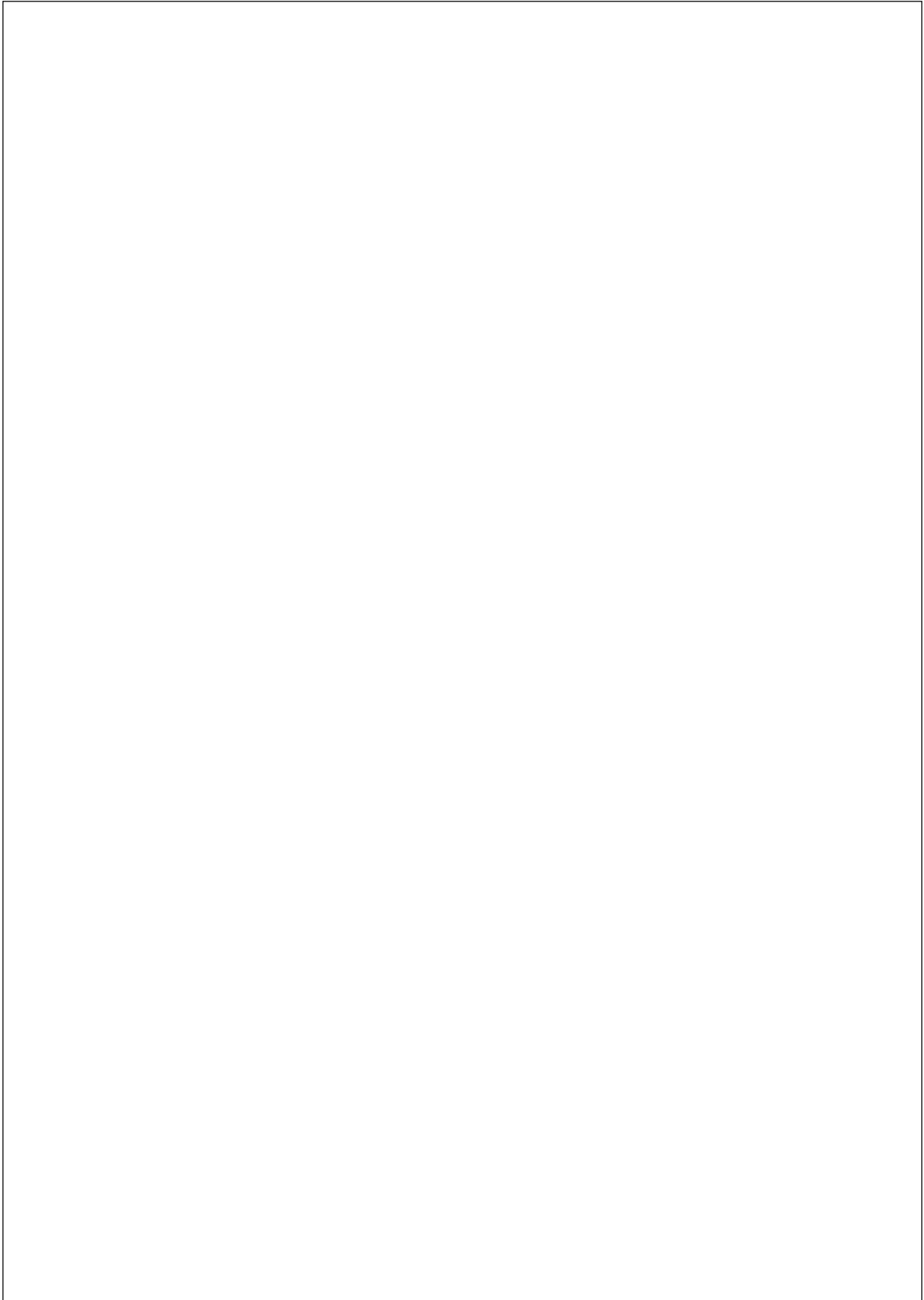
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Transcript of Audio File:

COMMAND INVESTIGATION RE: AVIATION MISHAP

INTERVIEW OF (b) (6)

TAKEN AT ROYAL AUSTRALIAN AIRFORCE BASE DARWIN

MONDAY, SEPTEMBER 4, 2023

Audio Runtime: 1 Hour, 31 Minutes, 5 Seconds

(b) (6)

1 (Beginning of Audio Recording.)

2 (b) (6) Good afternoon. This
3 interview is being conducted on September 4th at 1100,
4 approximately, for RAAF Darwin with (b) (6)
5 We already went through who the investigating officer
6 is and all that prior to this and -- and talked about
7 the purpose of this investigation. Additionally, you
8 were advised about your rights under the Privacy Act.

9 Did you have any questions about -- about
10 that?

11 (b) (6) No, sir.

12 (b) (6) Okay. Thank you. So we'll
13 do the same things we talked about earlier, is that --
14 you know, it's important to provide information that's
15 true and complete for purposes of this investigation.
16 And just know that making false official statement --
17 false statements under oath can be considered a
18 violation of the UCMJ, okay?

19 (b) (6) Okay.

20 (b) (6) So at this time, I'll -- I'll
21 ask you to go ahead and raise your right hand.

22 (b) (6)
23 having first been duly sworn, testified as follows:

24 (b) (6) Thank you.

25 And then, sir, I'll turn it over to you.

(b) (6)

EXAMINATION

1

2 BY (b) (6)

3 Q. Okay. All right. (b) (6) (phonetic),
4 excuse me. I knew it wasn't (b) (6), why don't
5 you just start where you -- where you -- where you want
6 to take it from whether it's from here at the PZ --you
7 know, you, kind of, lead the conversation here. And
8 I'll start the whole thing and ask questions about
9 that, okay?

10 A. Of course. Yeah, I can start from -- start
11 from when we showed up. So I took the aircrew van,
12 which was driven by (b) (6) (phonetic), and then
13 the front seat was from -- passenger seat was (b) (6)
14 (b) (6). And they picked me up from my building which is
15 just next to the RAAF officers' mess at 5:36-or-so in
16 the morning. That's just the number that comes to
17 mind. And then we drove over to 1066 which is where
18 the E5 and below stay which is just down the street
19 from the officers' mess. And we waited outside for a
20 little bit while we picked up (b) (6)
21 (phonetic), and (b) (6) (b) (6) (b) (6)
22 (phonetic), and Corporal Collard (phonetic). We left
23 there, I want to say, like, 10 minutes later, 5:46
24 maybe, and then drove straight over here to the froth
25 under a punishment area, parked the van. And then it

1 was, probably, about five minutes of brief time, so
2 about 5:55.

3 And then I, kind of, went to the Department
4 of Safety and Standardization (inaudible) which is
5 where I work as the NATOPS standout. And since the
6 DOSS is currently out, he's got a big TV screen as his
7 monitor, I went ahead and pulled out the jumps
8 computer. Then I signed out, plugged it in, kind of,
9 set it up for a brief. So our ODO brief was 0600, but
10 the EFL was going to conduct their ODO brief at 0630.
11 I didn't want to run into their time in the ready room.
12 So once I was set up, I walked over to the ready room.
13 And then just shortly after 06, we had our ODO brief.
14 And then at the conclusion of the ODO brief, I said,
15 hey, (inaudible), but we're going to go ahead and brief
16 over DOSS just so we don't interfere with the AFO when
17 they come in in a half hour.

18 So I walked down over to the DOSS and set up
19 some chairs. It's a tight space, but everyone was able
20 to see the TV screen. And then I -- I briefed the TPG
21 brief in PowerPoint form off of that. I went through
22 pretty much everything that we had gone over the night
23 before. So the night before was our combined brief for
24 AFL, EFL, kind of, like NATOPS. But we did go over the
25 -- the objective area and scheme maneuver and mission

1 and everything. But this was just more in detail and
2 depth for the AFL, just for our section. So I ran the
3 brief as a section lead under instruction, but -- ran
4 it as the section lead until otherwise overruled by the
5 Section 8, actually, which was Major Lewis (phonetic).
6 So I ran through the brief. And the brief is where I
7 talked about more specifics than just the B22s.

8 So our PZ operations brief were -- main time
9 was going to be 0815 which is -- for 0900 takeoff, is
10 non-standard. And I briefed that because I wanted to
11 get APUs running as early as possible. But when we
12 were doing our pre-mission planning, we determined that
13 we were going to need a lighter fuel load for a 10
14 percent margin in the zone. And that was before we
15 identified that the zone was a paved surface. And then
16 that was also too late, on my part, to identify that
17 and relay that to maintenance. I mean, it's an already
18 -- kind of, topped off the aircraft. Once we relayed
19 it, they were able to pull a couple thousand pounds out
20 of each aircraft via an EGR. So we knew that we were
21 still about 1.5 to 2000 pounds heavier than we wanted
22 to be. However, we still had greater than a 5 percent
23 margin going to a paved surface. So we were willing to
24 accept that.

25 But again, I wanted to get APUs turning as

1 soon as possible to start that fuel burn. And then I
2 wanted us to just be on time, you know, in the early
3 morning brief for FRAG. Things were, probably, going
4 to be a little bit delayed, and I don't want to be
5 delayed. During the brief, I do remember one of the
6 questions that the XO asked was for the second
7 objective area. So let me -- let me step back. So I
8 briefed the PZ, briefed what serials were going to go
9 on the aircraft which we had also on our smart PAC, and
10 then the reason why we're going to man early, went
11 through the standard aspects of the TPG brief for
12 scheme maneuver, all of that. For the actual mission,
13 we were taking three waves of PACs to two different
14 LZs. So Wave 1 was 19 PACs per aircraft which was a
15 decision that I accepted because of underwater egress
16 training. Marines who expired and didn't have it were
17 removed.

18 So in order to facilitate a one wave insert
19 for the first zone -- like, hey, should we do like 12
20 PACs per or just bump it up, you know? If we do 18, we
21 have two leftover. Let's split those two into each
22 aircraft, so 19. Nothing really, as far as we saw, out
23 of the ordinary. So we accepted 19 PACs for the first
24 wave for the first objective which was objective
25 Cheetah. And we called the LZ, LZ Crow. And then Wave

1 2 and Wave 3 were then going to be to Objective Area
2 Alpaca which we called LZ Annie. And those were going
3 to be -- I want to say, 36 and 32 PACs, respectively,
4 for Wave 2 and Wave 3 which was split 18 and 18 and
5 then 17 and 15.

6 And that was our plan. Not that any of this
7 matters but like, for context, originally, there was
8 almost going to be potential for a section requirement
9 that single shift inserts simultaneous to both LZs.
10 And then we finally were able to, kind of, leverage to
11 do it as a section because that was going to be a lot
12 easier for our planning. And we just thought it made
13 sense as far as massing combat power in one fell swoop
14 at each zone, to go sequential. So that was where we -
15 - where, you know -- when the scheme maneuver that we
16 briefed passed what the objective area where the
17 mechanics were going to be, which were already covered
18 the night prior's brief. So for VFR Route 1, which is
19 the route that I planned to take, we're going to do a
20 60 sto (phonetic) out of the airfield to -- from
21 Taxiway Echo 1 because there's some construction going
22 on at the threshold, so 60 sto from Echo 1 which is
23 slightly further from our normal takeoff point of
24 Delta, depart 2000 feet, is what they want to give us
25 on departure from noreast Bateman (phonetic).

1 And then from there, requesting 2,500,
2 resuming on navigation. We had filed for VFR Route 1.
3 VFR Route 1 takes us to lead point which is just to the
4 northeast. And then Jackos Junction (phonetic) further
5 to the northeast. And then, pretty much, direct north
6 to Cape Gambier. Jackos Junction is, like, the last
7 land point before you just cross over that little
8 channel to get over Cape Gambier which is the southern-
9 most point of Melville Island. And we were going to
10 request 2,500 until radar service is terminated. And
11 then we were going to descend to at-or-below 700 feet
12 MSL. And that was our contract with the EFL. So once
13 we are on Melville Island, we were 700-feet-or-so
14 below, and they were 900-feet-or so above. And that
15 was just the entirety of Melville Island. That was --
16 we just considered the whole thing objective area --

17 **Q. You have to --**

18 A. -- to keep the contracts. Even though two
19 separate objective areas, we're not going to mess with
20 the altitudes there. So from Cape Gambier, we're going
21 to proceed to the northwest for IP Subaru which is
22 about six-or-so miles from LZ Crow. And then it was a
23 -- almost near direct north, 350 ingress. And then the
24 runway was, kind of, like, I want to say, and I don't
25 exactly know the runway headings but, like, 340, maybe,

1 so a little bit offset. So we're going to land based
2 off the winds coming from, kind of, like, the
3 southeast. We were going to land at a right 90-degree
4 tactical approach that facilitated us being able to
5 land an echelon. And my main concern there was before
6 we knew it was paved, I -- and knew it was, like, a 50-
7 foot runway, I didn't want to land with -- with our
8 blade tip span, didn't want to land on runway heading.

9 So off axis, I thought, bought us the most
10 spacing. And additionally, wind mitigation, I didn't
11 want anyone to land in sequence and tailwind. So the
12 river recession on the left allows us to land further
13 to the north and Dash-2 further to the south, but us
14 just slightly offset behind them or recession
15 (inaudible) direct to. So that was what I reached. So
16 350 for a 0900 landing heading just to make it simple.
17 We were going to accept, for the most part, a right
18 quartering headwind. But we were still going to have
19 margins, and we were still going to have our
20 separations as -- as required. The GCE scheme maneuver
21 really gave us a limited option as far as where to
22 land. So they just said, kind of, dead center of the
23 field, because of, again, mixing the serials and
24 bringing them up to 19 for both to facilitate just one
25 wave.

1 They didn't exactly have, like, one aircraft
2 that was moving to the north, one aircraft moving to
3 the south. There was guys going in either --

4 **Q. Okay.**

5 A. -- that were going to, potentially, have to
6 cross -- cross paths. So just, they would land in the
7 middle, and they'll lump it out to the turn around
8 they're supposed to go to just as long as we let them
9 know which way they need -- like, which way is north.
10 So that was our scheme maneuver in the brief for the
11 first objective area. And then parting, we were going
12 to part to the southeast to our exit IP, IP Enclave.
13 And then that was just going to go from there, south to
14 Cape Gambier and then VFR Route 1 out back to Darwin.
15 Originally, I was briefing 3,500. But then I was like,
16 hey, do you want (inaudible) we'll get 1,500. There's
17 three fly planes in. They know what we're doing. And
18 it's just going to facilitate us just, kind of, getting
19 in and out quicker and just staying alone. There's no
20 need to climb all the way up just to come back down.
21 It's a short transit.

22 We're going to come back to the PZ and load
23 the second wave to part, pretty much, the same routing,
24 all that, to Cape Gambier. Just this time, we're going
25 to proceed further to the northwest, passing Subaru.

1 And then there was a (inaudible) which pretty much
2 delineated a road that went north-south, pretty much
3 delineated where we're going to switch from Tab 2 to
4 Tab 3 to talk to the EFL on that stuff in that
5 objective area. And then flow, Suzuki. And same
6 thing, it's going to be like a 050, ingress for 090.
7 But same thing, more or less, a modified right 90
8 tactical approach. Same thing, similar-oriented
9 runway. Actually, this one was a little bit more the
10 same ingress about 040 runway heading. This time, we
11 were going to land to the north. There's a large --
12 effectively a grass displaced threshold to the north.
13 We're going to land there off of the first wave -- or
14 Wave 2, but first wave to LZ Annie. They were going to
15 set up a perimeter. They were going to go back,
16 reverse routing, same thing, we're going to pick up the
17 third wave of PZ, insert them. And then once all PACs
18 on deck at Annie, they were, kind of, conducting north-
19 to-south push.

20 Same thing, LZ Annie or objective area
21 Alpaca, we had an exit IP. We're going to exit and
22 then just reverse routing back to Cape Gambier, VFR
23 Route 1 back to Darwin. The only difference for that
24 last wave was based on our nav log and our -- our
25 actual flight schedule timeline. If everything went

1 according to plan, we were going to have about 30
2 minutes of backside holding that we were then going to
3 provide for LZ Crow and objective Cheetah just to the
4 south while the EFL coded down on the north objective
5 area. So we -- we went over that. The one question
6 that I remember distinctly was the XO talked about
7 objective Alpaca and said that's a right 90 for a 090
8 landing. We're going up a 360 which means we're going
9 to cross through one of the VPs and we're going to
10 cross through where the enemy was pre-briefed as the
11 last location.

12 Q. Okay.

13 A. So I had to clarify. I was like, it's not
14 entirely a right 90 it is -- it's a modified, so we're
15 going to take it slow. It's going to be a wide turn
16 because we're not covering as much of head change. So
17 (inaudible) little bit earlier, we'll make the call for
18 that. And then we'll be within each aircraft to manage
19 how we want to fly the Dash 2 stay in position. It's
20 not going to be a hard pull to the right. Expect that
21 we're going to be rolling out -- still 090, but again,
22 not entirely a full head change 90 degrees. Once that
23 was clarified, that's, like, the only question that I
24 recall. Went through the rest of the brief per TPG
25 covered down on those items as discussed with the GCE

1 as far as, like, contingencies and then, like, the
2 regular sectioning discussion for internal to us, on
3 scene commander, double IMC, loss (inaudible) contact,
4 all of that.

5 And then anything outside of that for like
6 AFL, EFL had already been covered at the brief prior or
7 was going to be, for the most part, as we saw
8 (inaudible). We talked about holding, who were going
9 to be split, what our altitude contracts were going to
10 be in 300 holding out of 500. But we weren't expecting
11 to go a single. So at least I was knocking on wood for
12 that because that was just going to complicate
13 everything. Conclusion of the brief, I believe it was
14 about 0700. And I can't recall if that was the end of
15 the section brief or the end of my NATOPS brief from my
16 crew, but I just remember it was 0700. People were
17 going to try to get breakfast. We're, kind of, on our
18 own, and we had like an hour of change before we had to
19 go in.

20 Q. Okay.

21 A. So I tried to screen the book. I had some
22 trouble with UMA. I was getting a user login error.
23 So I ended up, eventually, going to maintenance
24 control. And screening, they could be digital and
25 physical book, pinged maintenance control and getting

1 platoon (indiscernible) in for aircraft debriefing.
2 And I was like, okay, I'll come back. When I get back,
3 you know, I -- I had been, actually, out of the country
4 for the ASO course. So I was like, you know, maybe it
5 was acting up because it's been like 35 plus days. So
6 I'll catch that on the back end, come in and fix UMA.
7 But I don't want to waste too much time on that. I did
8 UMA, used the bathroom, filled up my water bottle,
9 walked over to the DOSS trailer, grabbed my flight bag,
10 and then walked over to the ready room, took look at
11 the raw and then filled up the raw.

12 I was just like, hey, a lot of stress, just
13 take it back, just take it slow and methodical. It's a
14 very short transit for both objective areas. So really
15 no necessity to rush anything. And we -- we did have,
16 just by nature of the TOT, the system TOT -- we had in
17 -- or the L-hour -- excuse me, the L-hour that was
18 planned 0920 at the first objective area with the 0900
19 departure. We were going to have like roughly five
20 minutes, front side of things. And that was at our air
21 speed of 220 knots on altitudes. (inaudible) I was
22 like, I'm not -- I'm not really in any rush here. We
23 have some slop expecting we'll do one or two turns of
24 holding before we are airborne. And that holding was
25 briefed, standardized and SOP, right hand turns over

1 the water. So we could still maintain altitude without
2 violating the altitude contract once we're over the
3 landmass, the full drive. So still be wet, 220 knots
4 just to facilitate fuel burn. Like, if we're going to
5 be earlier, we'll keep burning some of that fuel before
6 we get in the zone.

7 And then -- and then we did -- I did brief --
8 just run a pre calc in aircraft. Just -- I mean,
9 that's -- I wouldn't say that's standard, but I think a
10 common practice. You run a pre calc every time before
11 you take off just see to see what you -- what you're
12 at. So we took a run, I'm going to go slowly. I'm
13 going to take things slow methodical -- section of
14 that. It is combined with EFL, but we did have a
15 brief. We met prior, and we're going to be, obviously,
16 laterally and altitude conflicted. So I wrote, overall
17 risk low because, you know, even though we said it's a
18 priority mission for -- for the scenario, for the
19 exercise --

20 Q. Okay.

21 A. It's -- it's an exercise.

22 Q. Yeah.

23 A. So I signed the raw and then went over to
24 flight equipment and started checking out my gear pre-
25 flighting it. By the time I initialed for my

1 equipment, I want to say, it was like -- it -- it was
2 sometime between or after 0810, but it was before 0815.
3 So I was already like, okay, I don't want to be late.

4 **Q. Okay.**

5 A. And then as I was checking out my gear and
6 walking out, the XO walked in to check in his -- check
7 out his gear. So I was like, okay, maybe intentional,
8 unintentional, he's -- he's going to be late to the
9 main time. We are also meeting very early, so I'm not
10 concerned.

11 I did my walk around the aircraft. I do
12 remember getting in the seat about 0816 after my walk
13 around. (b) (6) was already in the left seat. He
14 was doing the pre-start checklist. So I'm assuming he
15 was trying to get a rep which was a little frustrating
16 for me. It was -- I didn't think it was the time, but
17 hey, no big deal. So I started getting myself buckled
18 in and strapped in. And then I took over the checklist
19 -- I can't exactly recall at what point, but I took
20 over the checklist as we started running some of the
21 pre-flight bits. And so as we got to FCSPF bit, he did
22 all the control checks, patrol service checks. And
23 once he did those, I took over. So that -- that might
24 have been when I took over. I remember him doing that
25 part. But I was the one who was like, okay, we're

1 running the FCSPF bit. The FCSPF bit kept failing. So
2 we called our QA and our troubleshooters out there. We
3 did have -- I believe, a left -- a cell interface
4 control unit (inaudible) that was written up. So we
5 pulled the circuit breaker on that, plugged it back in.
6 And that ended up bringing up the FCSPF bit to task.
7 So while we were troubleshooting, we -- let me
8 backtrack. I apologize.

9 Q. Yeah. That's okay.

10 A. So I got in the seat, I was already placed in
11 the seat. I knew that the XO was going to be late to
12 the seat. 0815 was our main time. 10 minutes later
13 was our RIO. So I called over to Dump Truck 1-2 and I
14 said, hey, we're going to roll out the RIO in 10
15 minutes. It allowed me to get situated (inaudible).
16 We, eventually, ended up conducting the RIO on time.
17 We had -- did not have time to SINCAR (phonetic). So
18 we did not have our SINCARs or our active routes at the
19 time. So we -- we got good comms, clear, secure on
20 time at the RIO. And then we -- we revisited that
21 later.

22 Q. Okay.

23 A. But we did our RIO. And then while we were
24 troubleshooting the FCSPF bit -- I can't recall the
25 times anymore, unfortunately. But like, they -- they

1 ended up starting more-or-less on timeline.

2 Q. Okay.

3 A. So we were -- I don't know the spot
4 positions, but we were just in the aircraft to the
5 right of them.

6 Q. Okay.

7 A. So from my seats -- and then we're kind of
8 like in -- in like river recession. On the left, I
9 could see their aircraft. I couldn't see inside their
10 cockpit, but like, (inaudible) so I can see him. So
11 they start spinning. Like, they -- like, they're
12 spinning. We're still troubleshooting. Then he relays
13 over like, hey, 1-2's got a good bird. Copy. We are
14 still troubleshooting this FCSPF bit. Go ahead because
15 we didn't know how long it was going to be or what the
16 fix was going to be. So go ahead and execute the bump
17 plan. The bump plan was under bump crews, but it was
18 to bump serials. It was a priority. And it was, for
19 all intents and purposes, it was a routine exercise.
20 Like, the priority is getting the PACs in.

21 So I'm not going to waste our time bumping
22 crews out of aircraft. Like, hey, I'm going to take
23 your aircraft because it's good. Like, you take the
24 PACs. You take the priority serials which we're going
25 to go and Dump Truck 1-1. Then we're going to go Dump

1 Truck 1-2. And you're going to go execute as a scene.
2 It's like, right. I'm going to start loading PACs. So
3 if he goes 75-75, starts loading PACs. And while he's
4 loading PACs, we can see if we can get the FCSPF bit to
5 pass. And then we just continue with our start
6 sequence, and we end up getting a good start. So once
7 we're about in the middle of the start, I relay back
8 over. I'm like, hey, complete troubleshooting. It
9 looks like we've got a good start. I expecting we're
10 going to have a good bird. Let's go ahead and do an
11 on-call delay of five minutes. And this was 8:40-
12 something closer to 8:50 than 8:40.

13 Q. Okay.

14 A. But I'm thinking we -- we have potential to
15 make timeline. And I know we've got a couple minutes
16 of front-side holding. So like, let's go ahead and
17 delay it. We'll -- we'll go as a section on call. Our
18 delay plan was also none. We got a good bird. We got
19 PACs. Go put it out.

20 Q. Okay.

21 A. We had the holding altitude contracts. We
22 had AFL common and -- if we could communicate and
23 coordinate to join up as required, or join up on deck -
24 - it's a permissive environment, both of them, just
25 stay on deck where the PACs are getting on waiting for

1 me to land, or even hold them until I land. And then
2 we'll figure it out from there.

3 Q. Okay.

4 A. I thought it was safer to go as a section in
5 my head, you know, than to be, like -- just, like, a
6 main trail or something like that. I didn't want --

7 Q. Okay.

8 A. I didn't want to risk any of that
9 (inaudible). So I made an on-call delay for five
10 minutes. And then he was going to -- he asked if we
11 needed to reposition. But where we were, we could just
12 kind of pull straight out because they got a little
13 taxiway that connects out of the ramp area. So I said,
14 no, just stay where you are. We'll go out of our way.
15 You'll go out of yours. Well, he had -- he had gotten
16 clearance where -- he was, at least, about to get
17 clearance for just himself, I think, when I said, hey,
18 hold on. We're -- we're going to -- we're going to
19 have a good aircraft. So still don't have -- nothing --
20 - getting -- he -- he got clearance for the both of us.
21 But I made the taxi calls outbound as a section.

22 But yeah. Once we had a good aircraft, he
23 just stayed put. We loaded our PACs. And they ended
24 up taking about an extra five minutes longer than we
25 were expecting. So now we were -- I think we -- we

1 taxied out by 9:05. So we were, like, truly, five
2 minutes delayed behind timeline. Still couldn't make
3 up timeline. But the PACs took a while. And then we,
4 like, taxied out -- by the time we took off, it was,
5 like, 0910, so a bit of a trek down to echo-one.

6 **Q. Yeah.**

7 A. (crosstalk) And then, obviously, we were
8 departing runway 1-1. So we're, like, not, exactly,
9 going to the north. So that, kind of --

10 **Q. So that direction?**

11 A. That -- yeah. So that, kind of, took off
12 some time. But we ended up getting on that -- on that
13 -- on navigation, proceeding north to, pretty much,
14 direct -- Cape Gambier, I believe. So, hey, clear to
15 the north. So okay. We're just going to cycle direct
16 to Cape Gambier, maintain 2,500. EFL called us on AFL
17 comm and said, like, hey, what's your status update?

18 And we're like, Jackos Junction. And it's
19 like we're about eight minutes from Cape Gambier at
20 this -- at this time. 2,500 inbound there's a section
21 that's fragged.

22 And it's like, roger.

23 That approach, we must have been -- I -- I
24 couldn't tell you what distance we were. But far
25 enough and low enough for that approach that I said,

(b) (6)

1 hey, control services (inaudible) we're trying to get
2 this approved.

3 It's like, roger.

4 That was our switch TAD. so I said, hey,
5 switch the TAD over to -- or AFL. And then I had to
6 check in., and I was like, hey, Dump Truck 1-1 flight
7 is checking out on TAD-2, inbound for the point prior.

8 And then they, like, rogered up.

9 And then approaching Cape Gambier, we began
10 our descent -- I don't know what distance, but we began
11 our descent to 700 feet of the cell. And then I
12 checked in (inaudible). So Dump Truck 1-1, it's Cape
13 Gambier inbound, that's fragged.

14 They're like, roger. Continue -- continue
15 towards Subaru (phonetic).

16 And then approaching Subaru, I said, Dump
17 Truck 1-1, Subaru, inbound crow.

18 They said, roger, LZ is ice. Continue.

19 And then I cycled forward and then, actually,
20 like, put the course in direct over to crow. And so
21 copilot (b) (6) (phonetic) started turning right. And
22 we were, like, now, like, turning inside of the points.
23 I was like, hey, now, go ahead. Roll out. Hold a
24 heading. We got to get lateral separation on the
25 lights up. So basically, like, 45-degree cut-or-so,

1 like, from IP -- from IP, like, Subaru outbound. And I
2 was like, go ahead and start coming down at 300 feet
3 AGL. So we were -- we were -- we descended. And 300
4 feet AGL was -- was -- it was like 350. It was like
5 500 feet AGL. It's about 550 in the cell. So we come
6 down to 300 feet AGL. And as we start approaching
7 about 1 mile, I had to start coming back right after
8 course line. So it starts coming back right. I think
9 we rolled out at like a 1.25, is what I remember seeing
10 on the glass. And I was like, hey, no biggie. It's at
11 90 anyway. So that just gives us more time.

12 So we rolled out on course with about 1.25
13 separation, is what I remember, and then right at about
14 2 miles. So I was like, all right. Rolled out. Hey,
15 there's your 2 miles, powered full, keep 20 percent.
16 He pulls power. And then we're trucking along. It's
17 still on altitude, on course line, slowing down. I go
18 to (inaudible) swap in 090. He gets his course, CDS
19 coming alive. And I was like, hey, go ahead and start
20 your beep. We're about like -- we're -- we're within
21 1.5, starting beeps of beeps. We're going 220, starts
22 slowing down. Under 200, I asked them to bring our
23 cells up. He starts bringing the cells up and then
24 executes the turn.

25 I don't recall, like, what -- what the index

(b) (6)

1 -- the 1 mile or the .5 dot -- but he started executing
2 the turn for the 90. And then I don't know what
3 heading change we were at yet. But I just remember we
4 were starting to turn. The cells were coming up. And
5 then (b) (6) is, like, whoa -- and I'm paraphrasing, but
6 whoa, shit, what is -- like, what is -- what is a Dash
7 2 doing here, or something like that. I'm like, what?
8 I look over across cockpit, and then I see what feels
9 like 30 to 50-feet step-up angle, a bank to the right,
10 and the cells are up, probably, no more than, like, 30.
11 But the cells are up, and I'm like, hey, just keep your
12 altitude, keep coming on course, like, they know what
13 they're doing.

14 And I'm thinking, okay, they -- they,
15 obviously, overshoot. So we did a -- we did a shooting
16 job, just slowing down. We were also heavy. So they -
17 - they overshoot, or they were too close. Or you know,
18 they didn't realize we're at the 2-mile. We were
19 beeping and converting. So they overshoot. Okay. No
20 big deal. It happens sometimes. They're going to do a
21 crossover which they needed to, kind of, do anyways to
22 some extent because we're executing it right -- right.
23 So they're going to have to be on -- on our inside for
24 -- for that. And I did forget to mention approaching
25 Gambier for Subaru. I made the call on (inaudible). I

1 said, hey, just to reiterate, Dump Truck 1-1, landed in
2 Crow 1. Dump Truck 1-2, landed in Crow 2. It's like,
3 roger. All right. So I'm thinking, like, okay,
4 they're just getting in position. They're doing their
5 own thing at this point. I'm thinking, stay in your
6 lane, get on the course, fly inbound.

7 And we were just about rolling out on course.
8 And this is kind of hazy, this one. But we were just
9 about rolling on course, I'm pretty sure, when I want
10 to say it was the ramp who called, hey, like, wing is
11 down.

12 And I was like, what? And then like, what do
13 you mean my wing is down?

14 And then tunnel was like, no, yup, my wing
15 is, like, wing is down. And -- and I -- I -- I thought
16 it was a missile. Only -- only reason I think that was
17 like in the forefront of my mind, not only because it
18 was silly -- Collard -- Collard came up to me when I
19 was walking to maintenance control.

20 He was like, I think it's going to be
21 interesting. It sounds like they were saying they got
22 a lot of stuff for you.

23 And I was like, oh, like what?

24 He's like, well, he was talking about how,
25 like, he didn't brief over IMC And I was like, oh, 100

1 percent briefed over IMC.

2 So in my head right at this moment, I'm like,
3 this is -- this is maybe, like, blind or, like, on
4 scene commander or something. So -- so I'm -- I got
5 controls. So I start coming right expecting I'm about
6 to see them on -- bombing out towards the holding area
7 at Cape Gambier which is the point prior. And there's
8 -- there's just trees and then, like, just like this,
9 just like a black plume just coming out an angle and --
10 and then a lot of stuff, a lot of -- a lot of talking
11 starts happening.

12 So then the ramp is like, I don't know, like,
13 they're -- they're --

14 Because I was like, oh, like, simulated down?
15 What do you mean down? You know, like, down, down?
16 Ramp was like, oh, fireball on the ground down.

17 And -- and then the H-1 was like, okay, we
18 have, like -- we have an aircraft down. Like, dump --
19 Dump Truck is down. Like, I've got on scene commander,
20 you know, duct tape, whatever the other H-1 was, like,
21 get on deck, Dump Truck 1-1, like, proceed on deck.

22 I'm like, okay. So I'm wrapping the turn.

23 And then the Dash-2 H-1 was like, hey, Dump
24 Truck 1-1, we got visual view of you at, whatever
25 composition they saw us at when they were moving from -

1 - like, my one -- my, like --

2 It's like, hey, copy, Dump Truck 1-1's
3 visual, continuing the land. And then I rolled out on
4 just, like, a generic easterly heading. I was like,
5 hey, we're -- like, I've got controls, we're going to
6 take this thing, and we're going to talk about on deck.
7 So we brought it in, slowed down. We always had these.
8 So like, brought ourselves back as far as I could
9 without bringing the nose up. And I, kind of, settled
10 for, like, a good hover in the cell. And I don't
11 remember what it was at, but it was aft. And I was
12 approaching zone. I was like, hey, we're still going
13 to land this aircraft. And so the -- the door starts
14 calling the calls. At some point, we did the landing
15 checklist. I can't remember if it was, like, in the
16 middle of our turn or if it was the second turn, like,
17 second approach inbound. I want to say I did the
18 landing checks for our first turn. We were -- we were
19 below -- below 30, so that was covered down. But I was
20 at the controls.

21 He verified through analog it was approaching
22 zone. It was, like, 40-foot trees. So we start coming
23 in, tail, ramp was clear, tail was clear, start coming
24 down. And then I see the paved runway, but then we
25 start getting dust. I hear a brownout ramp and then

1 brownout tunnel. And I still have very little visual
2 reference to my right, my 45, and then (inaudible)
3 page. But like, in theory, don't really know where to
4 stop forward. And then they start calling aft. And
5 I'm looking, and I see, like, the -- the -- the dirt
6 that's offset from the runway. I'm like, yup, we're
7 drifting aft. I'm at, like, 93 in a cell, or copy,
8 stopping aft. I was coming down a little bit, coming
9 forward, and the cell is moving forward. Okay. Like,
10 89 or so, like, coming to us, continuing forward and
11 down.

12 I've got ground reference and then tunnels.
13 I've got visual or contact and then brought in like a
14 063, I think, is what I remember, my heading being 063
15 on the deck, middle of the runway. And so okay, we're
16 on deck, like, brakes on, 75 75. Okay. We're, like,
17 going to take a breather. So we took a breather. And
18 then all the while, H-1's sponsoring commander started
19 to make all the calls. And -- and then, like, I think
20 I just froze for a while. So the copilot did a good
21 job. He started, kind of, like, taking note of, like,
22 what time we were on deck, what time he thought he saw
23 everything happened, and just, like, everything that
24 was, like, being said, he was, like, taking down. He's
25 like, I just need to, like, stay with this and do

(b) (6)

1 something.

2 And I was like, hey, (b) (6), like, are you guys
3 good?

4 They're like, oh, yeah, we're good, sir.

5 And I was like, hey, all right. Let's --
6 let's -- let's stay on deck for a little bit. We still
7 have (inaudible) in the back. We still have a -- a
8 live aircraft spinning. Let's not do anything
9 irrational, like, there's people that are coming in the
10 way -- in our way to our left. Our waypoints are to
11 our right. So it's, like, we're -- we're just going to
12 stay on deck for now. Like, their on scene commander
13 did that. There were some discussions throughout.

14 (b) (6) like, wanted to do some things to get
15 these guys out and take people out. I'm like, I -- we
16 don't even know who is who. And then at one point, I
17 heard duct tape 3-3 in the overhead make contact with
18 lone star five, who was the lieutenant in the back of
19 the aircraft, over the radio. And we couldn't hear a
20 lot of the comms that were being made, really, only
21 their transmissions. We couldn't hear anything they
22 were receiving. But everything started being made on
23 TAD.

24 Q. Okay.

25 A. And then it's like, hey, like, Dump Truck 1-1

1 is on deck, like, let us know if you need any
2 assistance. And then they started relaying to
3 approach. They were comms with the guys on the ground.
4 So then we started hearing, like, their transmissions.
5 But again, nothing from the -- from the ground up.

6 And then we're hearing, like, hey, copy, lone
7 star five, like, you got -- you got, like, six
8 survivors, like, missing 20 or -- or, like, missing,
9 like, 18 or something. They were like, what does --
10 what does that mean? How do they have, like, six
11 survivors and missing 20?

12 I was like, well, that means, like --
13 they're, like, how do they know how many they're
14 missing? They have -- they know how many were in the
15 aircraft. They're, like, deducing. They -- they've
16 got 20 survivors that they've identified. And they
17 don't know where the -- or six survivors that they
18 identified. They don't know where the other, you know,
19 17, 18 are which -- which means like, they re
20 pulverized, or -- I don't -- I don't fucking know, but
21 they're not there. And that was, I think, panic
22 inducing because we couldn't hear all the comms. And
23 then as soon as we were back on deck, God bless, we had
24 the comm ring had come into our aircraft because we
25 were leading and given us a super MAGTF. And it's

(b) (6)

1 like, this is a direct link to, like, the audio of
2 your, like, DS-2.

3 Q. Okay.

4 A. So when we landed, since I was running
5 checklists, (b) (6) took that and put it, like, on
6 the side. But when he made it, he would walk and he
7 just would just chat for whatever it was. And it was
8 like, hey, like -- I -- I think I remember when I was
9 reading, I was like -- like DK 1-2 is down, not a
10 drill, like, aircraft is down. He, eventually, like,
11 passed it to me. And then I used it to, like, any
12 updates.

13 I'm like, hey, like, can't hear them. But
14 like, it sounds like six survivors working on
15 accountability. And I just started, like, just passing
16 us, like, we got information that I felt was, like,
17 relevant, trying not to screw up. And I was like,
18 their unseen commander, like, clarified that people are
19 going to be coming inbound. And they immediately
20 started, like, talking to approach. Some C-130 got in
21 the overhead at, like, 10,000.

22 And people were coming in really quickly.
23 And then at that point, that's when (b) (6) was
24 like, we should, like, do something to help. I was
25 like, I -- I -- I didn't want to -- my inaction was,

1 probably, really bad. I feel guilty for that. But,
2 like, I didn't want to -- I don't want to do anything
3 in, like, an already congested airspace. Like, these
4 people are all coming in. Who knows what altitudes?
5 Like, they don't know what our objective area contracts
6 are. But we used that. They used the objective area
7 contracts for, like, the H-1's that were coming in per
8 the on scene commander. Like, they all knew it because
9 they all briefed it. So that helped. And then once
10 there was, like, six aircraft on deck, after a while,
11 finally, like, it was like, hey, who is to think Major
12 Smith (inaudible) overhead. Like, at that time,
13 (inaudible). It's like a couple -- maybe a couple
14 hours. I don't know. It felt like a couple hours had
15 gone by, at least an hour.

16 It was like, hey, audio was, like, saying,
17 like, the plan is, like, hey, get RTB when you can if
18 you're comfortable doing it.

19 I was like, yeah, I'm comfortable. I'm just
20 trying to get out of here. Once it seemed like there
21 was kind of a lull, it's like, hey, a request for lift.

22 He was like, yeah, roger. Like, there's
23 people inbound coordinating someone's reposition of the
24 airfield. But once they're on deck, like, you'll be
25 cleared to lift, enclave out, 700 below.

(b) (6)

1 I was like, roger.

2 At one point in there, I got out at Leslie's
3 recommendation. So he -- he did a good job of, like,
4 kind of, getting me out of this slump. It was like,
5 you should talk to the Marines in the back.

6 And (b) (6) and (b) (6) already, kind of, told
7 them, like, remain calm.

8 And I told them, hey, make sure that you let
9 them know, like, they can take off their helmet or
10 something. If they need to, like, relax, we might be
11 on deck a while. When we first got on deck, the ship
12 commander was like, what's your on-deck time? So I
13 wrote up about four hours, got a lot of time, and
14 started burning up all the asphalt. So we were doing
15 heat mitigation all the while.

16 But I got out of the cockpit on the right.
17 And I walked in the back. And I couldn't walk through
18 it. (inaudible). I was just like, hey, like, you know,
19 I was, obviously, you know, like, hey, obviously,
20 something bad happened. And we're not in a good
21 position right now. So what I need you guys to do is,
22 like, sit tight, don't panic, like, drink some water,
23 relax, just keep to yourselves for now. And I'll pass
24 an update to you guys when I can. But I promise you,
25 I'm going to get you back home safely. So yeah. I

(b) (6)

1 think it was like 11 11 -- sometime after 11. It
2 wasn't 11:30, but it was after 11.

3 Q. Okay.

4 A. Finally got, like, okay to take off so it
5 took 30 seconds to lift. Everyone set in the back. We
6 Did our turns, sweeps. I told (b) (6) he could
7 take -- you got controls. I'll back you up. So he
8 puts power again, (inaudible) 17 percent margin at this
9 point. We took off, clearing trees, proceeded
10 outbound. Once we got to Gambier, climbed 1,005
11 (inaudible) prior to Gambier. And then it was in the
12 middle, about to start my turn, before they switched us
13 off to approach, got to approach, and it was a clear
14 descent. So we didn't even turn to (inaudible). We
15 just proceeded inbound Route 1. Three-mile final
16 (inaudible) 1-1, landed at delta, called a taxi to pull
17 off. And then once we were parked, chocked, about, 75,
18 75, (inaudible) PACs out, (inaudible) (b) (6), like,
19 walked in.

20 And he was like, gentlemen, are you -- are
21 you okay?

22 Like, yeah, I'm good, you know, I'm trying to
23 keep -- keep our head in the game. So we might go back
24 out. We might be able to assist on.

25 He was like, okay, like, you guys okay to go

1 back out?

2 And we went back to front. We're like, yup,
3 ready to do -- you know, got back -- got to go help out
4 as best we can.

5 And then he left. And then the AMO came in.
6 And he was like, are you guys okay? Like, you guys
7 think you can go back out, like, help?

8 We're like, yeah, absolutely, sir.

9 He said, okay, well, like, you're -- you're
10 not going to. I need somebody else in, like, you guys
11 can't fly around. And (b) (6) got pretty --
12 pretty heated about it. He kind of swung out, started
13 doing crew storm. And then -- yeah, I just kind of
14 waited and sat until an oncoming crew came in. And
15 then he, kind of, came in. He got out of the left
16 seat, and then (inaudible) came in. I had left my smart
17 PAC with him and the super MAGTF. And I briefed him ON
18 all of the objective area and everything and like, what
19 -- what the current situation was. And, like, do a
20 debrief and everything else. Like, I just follow the
21 pebble off the pebble in there, and just, like, follow
22 all that. Do your swap attack, do your Alpha Approach,
23 then talk to him when your done maybe that will help.

24 They ended up not going out. But that was --
25 that was kind of, understood different to mention it.

1 I keep forgetting to mention the (inaudible). When we
2 were in CHOPS, we -- our ramp -- the ramp -- final
3 ramps up because we got, obviously, before we had
4 taxied out. I want to say we were at 8.9 for fuel, or
5 8.7.

6 Q. Okay.

7 A. So we hadn't burned a lot. But I remember we
8 had a 7 percent margin. And they had a heavier
9 aircraft. And they took the private serial which were
10 a bit heavier. But they both -- they got less fuel
11 state than us. We got 7 percent, like, we know right
12 now with what we have, we have 5 percent. So they've
13 got to have at least, like, a margin of a percent. We
14 were comfortable taking off and just kind of trusted --
15 said, fine, with what I thought was the best pilot
16 squadron since -- just good. Probably, relied too much
17 on that as -- as a -- as a section leader instead of
18 asking the questions. I was like, he knows what he's
19 doing. And -- and I was just trying to get out and do
20 the thing. There was nothing, really, that I thought
21 would be (inaudible) But that was -- that was the --
22 the last fuel state I recall --

23 Q. Okay.

24 A. -- from ramps up. I -- I -- I didn't ask
25 them again what their margin was. But I remember we

1 gave the ramps (inaudible). I want to say they were,
2 like, (inaudible). They were less than us. I could
3 feel more comfortable -- usually, I would say I would
4 be more comfortable if I was the fuel-limited one. But
5 in this case for -- for weight, I'm more comfortable
6 being heavier than that.

7 Q. Sure.

8 A. But yeah. I think that's -- that's, I guess,
9 it's a --

10 Q. I -- I do. There's a -- a lot of really,
11 really good detail. Thank you for that. We -- we'll
12 look through this. Let's go back to the -- the brief
13 the night prior.

14 What time -- do you remember what time that
15 brief was?

16 A. It was 1715. So we originally had it for
17 1700. I think it was different on the schedule, and
18 then we changed it. I think we moved it earlier. GCE
19 wanted to meet with us, just key players which ended up
20 being myself --

21 Q. Yeah.

22 A. -- and the acting EFL.

23 Q. Okay.

24 A. And then the SPO who drove us, who was also
25 going to be, like, the L&L for the H-1's --

1 **Q. Okay.**

2 A. -- the next day. GCE wanted to meet with us
3 the night prior as well. And so we scheduled the time
4 of 1530 until 1630, and I'm giving us by 1630. We were
5 leaving by riverboat. We'll be back. Our XO's and
6 planners would take care of the products as they were
7 (inaudible) part of. And they did -- they had
8 everything. There were just issues with, like,
9 printing, shopping, stapling. So we rolled extra 1700
10 to 1715, but it was just because of product issues.
11 We're trying to compile it. But otherwise, the briefs
12 were already -- we -- we'd done a practice brief at,
13 like, 1300.

14 **Q. Okay.**

15 A. So went over the -- basically the -- asking
16 us -- appealing the AMC brief. But like, cut out some
17 of the things that weren't applicable. So we also need
18 the strike flight lead. And then some of the things
19 that we're going to be covering in detail in the
20 section briefs will be left out, but we -- we covered
21 (inaudible), the orientation, the mission, our family
22 situation, army situation. Talked on the EFL portion
23 and the AFL portion and, like, counter ops, the
24 routing. In detail, the objective area, contingencies,
25 as much as the GCE gave us which -- permissive of their

1 environment and, like, trying to take into account
2 administrative constraints so -- so there's really not
3 --

4 Somebody breaks their ankle, like, yeah,
5 that's going to be your trigger for CASEVAC. If -- if
6 the -- if the Australians fire or not -- like, push via
7 service connectors on, like, the shore in the southeast
8 or southwest, like, we're going to use it for --
9 otherwise, if they are, then, like, we'll just keep
10 them on deck, ambulatory, ground movement to, like, you
11 know, where they're going to be or, like, -- it's like
12 a weird combo of, like --

13 It's such a low-threat environment in this
14 scenario. Like, yeah, if someone gets sick, we're just
15 going to call them. We're not expecting that we're
16 going to need that V-22 for anything else. We're not
17 expecting they get to have immediate (inaudible) for
18 us.

19 **Q. Yeah. Yeah.**

20 **A.** There's a minefield there --

21 **Q. Okay.**

22 **A.** -- with, like, no -- no -- I can't think of
23 what --

24 **Q. That's all right. What time did you guys end**
25 **that night?**

1 A. We ended, I want to say, like, right after
2 18. And then with questions, we were, probably,
3 finished by, like, 1810. Yeah.

4 **Q. And you departed the squadron spaces when?**

5 A. I departed, like, 1830.

6 **Q. Okay.**

7 A. Most people were out there pretty quickly.

8 **Q. Okay.**

9 A. And we had -- we had, like, talked to them.
10 We -- and asked them, kind of, like, hey, we're going
11 to be within 12 hours, but we'll -- we'll make sure by
12 no means that it is anything less than 10 hours,
13 obviously. And I can't speak for, like, one DX0 or,
14 like --

15 **Q. Yeah.**

16 A. -- other -- other players, WTS one on the
17 left. But for myself, I got back in computer and I
18 just went to just rehearse my briefing (inaudible)

19 **Q. Okay. All right. Well, that's helpful. Can**
20 **you, kind of, lead to -- and kind of, what I'm trying**
21 **to understand there is just the crew rest potential**
22 **issues between the night prior and the day, or the**
23 **morning of.**

24 A. Yes, sir.

25 **Q. But for yourself and all the -- what you**

1 knew, you had plenty of crew rest built-in. What's the
2 -- is it 12 hours is what you guys have been using?
3 You said 10. I just want to make sure I understand.

4 A. We -- we've gone, like, kind of back and
5 forth on that, so I m not going to fight with, like,
6 safety. And for the most part, 12 hours, typically.
7 12 hours sounds right.

8 Q. Okay.

9 A. And if it's less than 12 hours, it --
10 something -- when I was an officer of the group, I did
11 tend to, kind of, put like -- like, a note to just
12 identify. Like, this was identified that this person
13 is going to have less than 12 hours.

14 Q. Okay. Copy. And the answer to my other
15 question was starting to think through that. And I
16 appreciate you being able to think back to what we've
17 heard over the radio. So you had 8.9. They were at
18 8.7.

19 A. That's what I remember. Yes, sir.

20 Q. And your PerfCap for the LZ, not for your
21 (inaudible) out of here. It gave you a 7 percent
22 margin in the -- in the LZ.

23 A. Yes, sir.

24 Q. Got it. Okay. So in theory, they got about
25 one more percent margin, roughly two -- 200 pounds

1 **difference --**

2 A. Or -- or the same. So I know Aircraft 15,
3 which they had, is our heaviest aircraft.

4 **Q. Is it?**

5 A. But I think compared to Aircraft 3, it was
6 only one-PACs-worth heavier. And then they, probably,
7 did have -- I know they did have extra weight from last
8 year's (inaudible). And I think their heavy hitters,
9 but it wasn't --

10 **Q. Got you.**

11 A. -- it wasn't heavy as far as -- no -- no pun
12 intended, as far as, like -- they were actually
13 physically heavier. Like, they were because I think
14 they had heavier weapons. But, like, it was just,
15 like, their -- their -- I guess, more lethal forces.
16 That's why they have priority service.

17 **Q. Yeah.**

18 A. And it works still fine with the radio. You
19 can do -- call the fire stuff, you can do that fires
20 authority. And then they have some guys that have, I
21 think, a couple crew ship weapons. I'm not -- I'm not
22 entirely sure. I can't recall.

23 **Q. Okay.**

24 A. That -- that would be in the asset.

25 **Q. Okay. Perfect. Covered that. Okay. A**

1 little bit of this is not in order, so I -- I
2 apologize. But I asked -- I thought of the question as
3 you were talking through, why was the frag this early?
4 What's the reasoning behind that? Do you know that?
5 Is that just the way it was kind of set up or --

6 A. Just I think the way it was set up, 0920. I
7 mean, there was an opportunity for me to say, like,
8 slide, go left or right. But it wasn't too much -- I -
9 - so I came back from ASO on a Sunday and then had a
10 warm-up -- not -- not, like, a warm-up flight because I
11 didn't really think it was some, kind of, a I think
12 true warm-up flight. But I had an opportunity to fly
13 about like 3.0 on, like, Wednesday or Thursday.

14 Q. Okay.

15 A. And I wasn't going to, like -- I didn't know
16 when the next time was I was going to fly. And then
17 the COPSO was like, well, there's this frag. Like, do
18 you feel comfortable --

19 Q. Okay.

20 A. -- like, flying the frag on Sunday for for
21 the (inaudible) because which is with limitations. We
22 don't know when the next opportunity is going to be to
23 capture perception event for you. So yeah, absolutely,
24 which is a frag so that makes a lot easier because I'm
25 not playing pretend as much like a lot of the actual

1 stuff is happening.

2 Q. Yep. Yep.

3 A. So I accepted that. That was, probably,
4 like, the day before my warm-up flight, I think. So I
5 think I flew on Thursday and, Wednesday, it was brought
6 up. So I flew Thursday and then, like, mission-
7 planning stuff, Friday. Then tidied up planning on
8 Saturday from the brief night prior. And then the
9 brief night prior, and then briefed Sunday morning.
10 Not, like, out of the ordinary. I mean, at some point,
11 somebody had done coordination. We accepted, so the
12 Predator's Run, and -- and there was that discussion
13 that was had.

14 Q. Okay.

15 A. That like, what time do you guys want me to
16 serve? Well, as early as possible. I'm sure the
17 trade-off was, like, we're not going to do any earlier
18 than nine.

19 Q. Okay.

20 A. So and I think -- I've seen that before
21 having been to COPSO and FOPSO, like -- yeah. Most
22 people make fun of us. Like, 10 -- 10:30 is, like, the
23 golden time because it allows us do front-side
24 maintenance that's required to get people, like, in and
25 whatnot, but, like -- we're usually unfortunate not

1 getting pushed any earlier than that, unless we've had,
2 like, a whole week to shift everyone.

3 **Q. Yeah. Right.**

4 A. (inaudible) So my -- I just accepted that,
5 but yeah. It makes sense. We pushed -- left an hour
6 and a half from, like, our standard normal, like,
7 regular route takeoffs in 9:00 a.m. And based off the
8 distance, somebody would probably napkin math and
9 said, that's going to take us 15 minutes to get there.
10 So yeah, 0920 L-hour, like, you can see no problems.

11 **Q. Okay. That's a great point.**

12 A. That -- I wouldn't say that's abnormal.

13 **Q. Okay.**

14 A. We've -- I'm pretty sure we've done plenty of
15 frags since we've been here, since, like, the first
16 frag response exercise where it's like, okay, early
17 briefing. Come in at 5:30. Takeoff is at 9:00.

18 **Q. Okay. But there's no -- no real intent to**
19 **your point based on the operations you're doing here**
20 **right now is to -- to adjust your sleep cycle to -- to**
21 **flex to that.**

22 A. No, man. We had issues with that. Not
23 issues, but we had one like that, the last one up here.
24 It's my second.

25 **Q. Okay.**

1 A. Things kept changing with the GCE and things
2 were, kind of, like, asses and elbows. And we did,
3 like, a, like, 3:30 a.m. showtime for, like, a 4:00
4 a.m. brief for, like, a night and a day, like, it's too
5 and, like -- it was fine. And we took, you know -- we
6 gave people, like, three days to, like, adjust, which
7 arguably maybe wasn't enough. But, like, I think that
8 a lot -- a lot came out of that that were, like, maybe
9 we're just being sissies, but we're just, like, that's
10 dumb. Like, we don't want to do that again. So I
11 think it was just kind of, like -- to the next extent,
12 we're not going to push any further left than we need
13 to for, like, all --

14 **Q. Okay.**

15 A. Also, we're trying to facilitate (inaudible).
16 It's no longer as much a T&R deployment as it used to
17 be. But, like -- and -- well, we still have the
18 potential that we want to fly night flights, and, like,
19 what is that bias? If we have really early morning
20 because, like, now, we're dragging on the entire day,
21 putting more hours on air (inaudible) for -- and then
22 maybe, like, minimizing how much time we get for
23 nighttime. And that's all dependent. I can't recall
24 if there was even any night flights that day --

25 **Q. Okay.**

1 A. -- after us. But those are always factors
2 when -- and that's just -- that's just based off my
3 experience. I'm not speaking for any current officer.

4 **Q. Got you.**

5 A. That's just my experience when we're doing
6 trade-offs and bargaining for times --

7 **Q. Yeah.**

8 A. -- takeoff times. It's, like, I got to --
9 unless this is, like, true call that continues until
10 the time that I got a balance of (inaudible).

11 **Q. Sure.**

12 A. So I just -- I just kind of accepted it.

13 **Q. Okay. You guys -- what's the normal PAC, you**
14 **guys? The 19 -- like, the normal seems --**

15 A. 12 to 18, sir.

16 **Q. Okay.**

17 A. And that's just -- I mean, it -- it depends
18 on if we've -- we've loaded up all the way. Before
19 we're, like, 20 or more, but it's -- it just depends on
20 what we're doing.

21 **Q. Yeah.**

22 A. Like, if we're doing a morale fighter,
23 administrative movement, and it doesn't matter how
24 we're getting in, we can just load up as much as we
25 can.

1 **Q. Yeah. Yeah.**

2 A. It depends on what we're doing. This -- this
3 is -- normally, we're going a fair distance. So --

4 **Q. We got plenty of time to burn down.**

5 A. Plenty of time to burn down. So in this
6 case, it was short and I -- I made that call too late.
7 I didn't go to maintenance early enough, and tell them
8 like, hey, I don't feel anything yet because we're
9 still figuring out the counts. I mean, we didn't even
10 know that (inaudible) people weren't going to make the
11 cut until, like, later. Those things happen.

12 **Q. Yeah.**

13 A. Like, I've been part of plenty -- not
14 exercise, but, like, these kinds of events, I know. So
15 my biggest concern was just, like, how close we are,
16 and we don't have a lot of time for the front side,
17 like, holding. So I burned that.

18 **Q. Right.**

19 A. But -- but -- but it's only -- I mean, you
20 know, sir -- but --

21 **Q. Yeah.**

22 A. -- I'm not going to put it on you. From --
23 from what I know, we bargained (inaudible) anything
24 that can be divisible, like, three or six. So if we
25 need to do bomb strike to move serials out. It's --

1 it's not anything crazy. We don't want odd numbers.
2 So I think initially we -- we might've been still at
3 18. And then it was, like, going to be weight in a
4 half, like 18 18, and like, 15. But then we, like,
5 lost, like, 12, 13 of those people --

6 Q. Okay.

7 A. -- because I was just -- well, it's, like,
8 18, 18, and 2. So can we just put one at each, again?

9 Q. Okay. Got you. Now, that's the reason one
10 of you said an odd number. That's the reason why I'm -
11 - this perks out my ears. Like, 19 is an interesting
12 number.

13 A. Yeah. That was a conversation of, like, can
14 we just put these guys on so we're not getting extra
15 weight?

16 Q. Yeah. Okay.

17 A. (inaudible).

18 Q. So I -- I -- I asked questions in here about
19 BASH. Is that something that you guys have -- is there
20 a BASH information that they have in Australia?

21 A. There is.

22 Q. Yeah.

23 A. There is.

24 Q. Okay.

25 A. (inaudible) like the -- the MACG folks brief

1 it. And --

2 (b) (6) Can you give us 30? Thank
3 you.

4 (b) (6) They brief it and sometimes
5 for, like, these early warnings, like -- or if, like,
6 we don't do a good job communicating to them when our
7 brief times are because our schedule came out like 23
8 or something, like, that -- not -- that wasn't the case
9 in this sense. But I just, like, showed up. We
10 briefed, like, their -- but they have -- they have a
11 folder --

12 BY (b) (6)

13 Q. Yeah.

14 A. -- in -- in teams. So ODO will pull their
15 files. And normally (inaudible) weather forecasting
16 briefs.

17 Q. Yeah.

18 A. There's specific slides. When they're not
19 present, the ODO will just -- and they're pretty self-
20 explanatory so --

21 Q. Okay.

22 A. There is BASH.

23 Q. Okay.

24 A. So BASH is low is what I remember.

25 Q. Yeah.

1 A. I didn't want to put something that I --

2 Q. I understand. Do you happen to recall on
3 your approach in there, did you see any birds that
4 caught your attention as you're flying?

5 A. No. The only bird we saw was on final for
6 Runway 1-1 coming back.

7 Q. Okay.

8 A. So that's 3 nautical miles at most. But
9 we're, probably, more, like, at 2 or anything back over
10 the water, you know, to -- to the -- to the west --

11 Q. Okay.

12 A. -- coming in.

13 Q. Okay.

14 A. And that was like -- we were already
15 converted. I don't think we're feet dry there. We
16 were crossing feet dry. And then it was just, like,
17 low on the left side, co-pilot and I both saw it at the
18 same time. And it -- it was low enough that he was
19 like, oh, bird. I was like, continue because, like, it
20 was just already under us. It wasn't high.

21 Q. Okay.

22 A. That was the only bird I ever seen.

23 Q. Okay. All right. Good. Kind of, covered
24 that one. Just confirming it, the intended L-hour was
25 0920?

1 A. That was the intended L-hour. Yeah. We --

2 Q. Just want to make sure I got that right.

3 A. Yeah. I -- I ended up, I think, just looking
4 at timing and then looking at our flight summary -- in
5 the flight plan summary. Our ETA was 0930 so when
6 we're coming back that one already 10 minutes into the
7 water.

8 Q. Okay. So walking through from your -- your
9 en route to -- so what you had planned for was holding.
10 You never had the opportunity to hold. I just want to
11 make sure I understood that correctly?

12 A. Correct.

13 Q. Okay. Do you happen to recall air speed?
14 Were you coupled up, coming down, or was the co-pilot
15 hand flying?

16 A. Everything was hand -- I mean, for our
17 aircraft --

18 Q. Yeah. Yeah. Sure.

19 A. -- it was hand flying. I agree with hand --
20 just because of how close it was --

21 Q. Yeah.

22 A. I wouldn't bother trying to couple anything
23 up.

24 Q. Okay.

25 A. And I didn't -- I -- I -- I mean, I quite

1 frankly didn't know necessarily at what point approach
2 was going to let us go.

3 Q. Okay.

4 A. So I wanted to be able to hand fly and
5 maneuver as required.

6 Q. Yeah.

7 A. They told us that they needed to sequence us
8 or whatnot. And if they wanted us to go directly to
9 one of those specific VFR points on VFR (inaudible)

10 Q. Okay.

11 A. Once they cleared us direct access we could
12 just fly north.

13 Q. Okay.

14 A. But I told him 220 and then I originally --
15 or not originally. I told 220 and then once we were
16 clear direct, it was human navigation. It's like, you
17 can buster. And I was like, nevermind.

18 Q. Okay.

19 A. Just keep 220.

20 Q. Yep.

21 A. Like, they're already late. They don't know
22 we're going to go 240 or faster. So like, they know
23 220. We're 220. We're just going to accept what we
24 know and just going to go 220.

25 Q. Okay. Interflight -- so you had enough

1 interflight or were you, like --

2 A. I was.

3 Q. Okay.

4 A. So the -- the comm delegation was --
5 originally was get your own ADIS. And then I'd get
6 clearance to deliver and ramp stuff back to front.
7 Then we'd get a switch or they switch us ground over
8 AFL common. So we -- we'd be -- so base frequency
9 until the REO.

10 Q. Okay.

11 A. And then once the REO is complete, it's going
12 to be based -- based for whatever frequency required
13 over AFL --

14 Q. Okay.

15 A. -- which is our second inter flight trip.
16 But (inaudible).

17 Q. Okay.

18 A. And then once -- yeah. Once ADIS and (b) (6)
19 delivery was going to be -- okay, follow me along,
20 airfield flow, ground over AFL until hold short on
21 tower. And then once off deck, and I get the switch to
22 approach. Dash 2's going to switch off at base.
23 They're going to switch to base and check off outbound.
24 And they're going to switch over to dealer which was
25 over at Robo and just to facilitate another form of

1 redundancy for battle tracking --

2 Q. Okay.

3 A. -- off deck. And then they were going to
4 switch over to TAD and modern TAD. So I was going to
5 be approached over AFL. They're going to be TAD over
6 AFL just to try to get -- as early as possible.

7 Q. Okay.

8 A. Because I didn't know when the approach is
9 going to switch me off.

10 Q. Yep.

11 A. And I wanted to have comms with on TAD with
12 the EFL --

13 Q. Okay.

14 A. -- before hitting Cape Gambier. And then EFL
15 reached out to us. I think I could get up to Jackos
16 Junction and flight plan also have eight minutes to
17 Cape Gambier. And they're like, hey, just want an
18 update. Cool. And they switched off AFL common and
19 then did -- did our checking. Yeah. I think he passed
20 to me before they talked to us. He passed to me. He
21 was like, checked off with base up on TAD. And I was
22 like, roger, like, stealth approach, right? I said
23 that approach was like, hey, you're clear. I said,
24 okay, roger -- like, over AFL. I was like, hey, clear
25 direct approach. Going TAD -- TAD too over AFL Roger.

1 So TAD too over. I -- I tried to do a positive check-
2 in.

3 Q. Okay.

4 A. And he was like, (inaudible). I said, okay.

5 Q. Okay. Copy. So coming downhill, setting up
6 to get below -- getting below 500 or 700 feet MSL,
7 right? And coming into your objective area still 220
8 in the descent?

9 A. Yep. Still 220. Just kept 220 whole time.

10 Q. Do -- Yeah. Go ahead. Do you remember --
11 let me -- I'm sorry.

12 A. That's okay.

13 Q. Let me ask you this: Do you remember the DME?
14 Did you have air attacking up or were you --

15 A. Yeah. We had air attacking.

16 Q. Okay.

17 A. I -- I don't remember the DME.

18 Q. Okay.

19 A. But we were -- but we had we had suite --

20 Q. Okay.

21 A. -- for -- yeah -- yardstick. Yep. I don't
22 remember the DME. We were from Cape Gambier when we
23 descended. Yeah. I -- I don't make it up.

24 Q. Yeah. That's fine. If you don't recall, you
25 don't recall. If you happen to recall if ramp said

1 distance and direct or location of dash two at any
2 point in time?

3 A. No. I just knew they're on the left side.

4 Q. Okay.

5 A. But I don't think they have removed on the
6 left side.

7 Q. Okay.

8 A. Well, they did when we conducted our initial
9 turn to the north. So the winds -- we were on the left
10 side of the runway. They were on the right. Their XO
11 took off. They're obviously a few seconds behind us.
12 And then once we conducted to turn the left,
13 (inaudible) the left side.

14 Q. Okay.

15 A. It was combat cruise the whole way. Oh, it
16 was combat cruise. That's what's briefed.

17 Q. Okay. All right. Enough about that. Let's
18 go back a couple of questions here. One question
19 regarding your (inaudible). You know, as you -- was
20 there -- did you get a sense in your own mind? Were
21 you anxious?

22 Like, if you only went to singles, that --
23 was -- was there an issue that you might get -- you
24 might lose this opportunity to get an accent that you
25 were going through your mind?

1 A. Yeah. Yeah. But I've -- I've seen events
2 where people have preached that you can still be
3 (inaudible)section or division.

4 **Q. Yep.**

5 A. So I wasn't really too concerned.

6 **Q. Okay.**

7 A. And I -- and I knew it would be harder, but I
8 thought it might be a good opportunity to flex, like,
9 in -- on deck or in here. Like, you know, hey, I'm
10 behind you and a brief flight expect that. Well, the
11 briefer straggled really, because that would've been a
12 straggled, like --

13 **Q. Yeah.**

14 A. We're going to straggle on deck, at the PZ
15 for the subsequent waves. So if it's at the first
16 wave, straggle on deck for the second wave. If it's
17 after the second wave, straggle on deck for the third
18 wave. And if it's after the third wave, then straggle
19 on contingency holding which is, like, Cape Gambier,
20 you know, as time permits.

21 **Q. Right.**

22 A. If we are so egregiously offset that we're
23 like 180 out, then we're just going to communicate on
24 AFL common. But, like, we're just going to work 180
25 out. We've got lateral deconfliction and we've got

1 altitude deconfliction. So I'm not too concerned. I
2 didn't want to rejoin on deck at any LZ just because
3 even though it was a low-threat (inaudible) scenario, I
4 didn't want them to be on deck any longer than they
5 needed to.

6 Q. Sure.

7 A. The same thing for hot LZ. It was, like, if
8 we were -- it's hot LZ, like, you've got rank
9 authority, you take off the meetup later.

10 Q. Okay.

11 A. So I wasn't -- I wasn't too concerned. And
12 that was originally what we planned for was all single
13 sheet.

14 Q. That's right.

15 A. So like I, kind of, already had in my head,
16 like, how that was going to go like it happened. My --
17 my decision -- the on-call delay was, probably,
18 selfish. Just -- really just -- like it -- it's going
19 to be easier for me to, probably, navigate and manage
20 this -- this session together. And I really thought
21 that I was going to be a few minutes in trail.

22 Q. Sure.

23 A. I don't -- I don't want to be -- I have
24 deconfliction when we're going opposite directions,
25 but, like, I don't want to be in trail prealtitude --

1 Q. Right.

2 A. -- on the same course line.

3 Q. Yeah. I would -- I would call that less
4 selfish and more understanding the risks and how to
5 mitigate, in my opinion. Probably, not needed in this
6 conversation. But I'll just tell you that's what I
7 think. So with your co-pilot -- as you talk through,
8 what I, kind of, got a sense of is you're, like, really
9 busy in the cockpit right now during your approach
10 coming in. I mean, you're managing the, you know --
11 the -- the -- not only twist and dials like we normally
12 do but also kind of talking him through the approach
13 profile to make sure he's hitting his parameters.

14 Is that -- did I get that sense correctly
15 that you were -- you were, kind of, busy?

16 A. Yeah.

17 Q. I won't say -- overtaxed. But you were very
18 busy on your side of the cockpit.

19 A. Backing up -- but like, in more encouraging
20 sense which -- which I, kind of, like, expected. It
21 was -- was -- I don't -- I don't know, I guess, just
22 from secondhand experience and talking to people. That
23 -- that was what I thought I failed was I didn't talk
24 to the section as if, you know, they were all brave co-
25 pilots, great aircraft commanders. So I, kind of, felt

1 I relied on -- on Major Lewis and -- but I knew that
2 that was going to be expected (b) (6) was -- I
3 mean, he's approaching a year -- if not already just
4 passed the year, but like, with the grounding of V-22
5 and then with some of the stuff we've had, this -- the
6 half inspection you can get out here. I mean, our
7 flight hours were, like, skipped for a while and -- and
8 -- and I don't say that to say, like, we -- we weren't
9 getting enough flight time, you know, but it was --
10 like, I've flown with him a couple of times. I'll see
11 it if flies. Like, I know -- I know how he flies, and
12 I wasn't going to fault him because I remember when I
13 was a co-pilot flying the big miss and, like -- then we
14 briefed what we were going to do. And I still turned
15 on course when I was supposed to get my lateral
16 separation. So like, I was -- I think I was expecting
17 that.

18 Q. Okay. Okay. That's good.

19 A. So I wouldn't say there was -- I was busy
20 with it, but I don't think it detracted.

21 Q. Okay.

22 A. Or -- or maybe it did. But in the moment
23 when I was seeing us, I was expecting, you know, like,
24 hey, okay, I'm going to cycle us forward, like,
25 verbalizing everything. I'm going to cycle us forward

(b) (6)

1 to the next point. Started coming right. Okay. No,
2 coming too far right. Kept -- kept going -- but, like,
3 other than the objective area of calls (inaudible) -- I
4 mean, really, there wasn't that much other crazy things
5 happening that it was pulling me away from.

6 Q. Got it.

7 A. So --

8 Q. Okay. Okay.

9 A. So it's -- overall, it was a very our air
10 work maybe was -- was less than standard, but --

11 Q. Yeah.

12 A. But like, what we were doing was -- was
13 making -- was a standard objective.

14 Q. Okay. Okay. I got a quick -- ask you
15 question from JAG here. Can I have him draw something;
16 is that okay?

17 (b) (6) Absolutely, sir. Yeah.

18 BY (b) (6)

19 Q. What's the best thing -- can I use is -- do
20 you have a blank piece of paper? If -- if you could --
21 I -- can you just draw the airfield? And as you talk
22 through it -- like, if you -- from your offset --
23 because what I'm having a difficulty time understanding
24 is your aircraft and as you described, Dash 2 crossing
25 over. I -- I'm going to give you a red pen --

1 A. Yeah.

2 Q. -- and -- so use the black pen. There you
3 go. (inaudible). It's not to scale, I got it, but just
4 to, kind of, visualize and I'm -- I'm having a
5 difficult time visualizing.

6 A. Yes, sir. This is what I recall airfield.

7 Q. Okay.

8 A. And then this was Crow 1, and this was Crow
9 2.

10 Q. Cool.

11 A. And so Cape Gambier would have been, like --
12 Cape Gambier would have been, like, right here per se.
13 And then like, Subaru would have been, like, right
14 here.

15 Q. Okay.

16 A. So not --

17 Q. Let's call that the IP?

18 A. No. Yeah.

19 Q. Close enough?

20 A. Not totally to scale, but like, inbound. And
21 this is, probably, off as well, because it's, like, a
22 350. So I apologize.

23 Q. That's all right.

24 (b) (6) You just read 350 by it, if
25 that's what it was supposed to be.

(b) (6)

1 (b) (6) Yeah. At some point, we
2 were -- we were coming in, I guess, more offset with
3 the IP. We were coming 350. So when we started our
4 turn, he was, probably, like, just inside, like, this
5 had him correct. So we maneuvered out.

6 BY (b) (6)

7 Q. Okay.

8 A. And I was like, all right, you can start
9 coming right now what I remember is we just came -- we
10 were more or less along the course line.

11 Q. Okay.

12 A. I remember our lateral was on about 1.25.
13 And -- and then a few seconds later, 2 miles. So
14 there's 2 miles, there's your power pool. And then as
15 we start coming inbound, I swapped this course for 090.
16 So for the stars here -- because this is our inbound
17 course. And then, like, CVI is alive at 1.5 or
18 something. I say, all right, go ahead and beat and
19 convert. And I wanted him to do it early just because
20 we wanted the first pass. So what I remember is more
21 or less us being like this.

22 Q. Okay.

23 A. And I don't know what distance this is, but
24 it's, probably, within 1 mile or greater than a 0.5.

25 Q. Okay.

1 A. And what I remember seeing wasn't until about
2 right here. Because again, they were off to the back
3 left. Right about when we were rolling out or starting
4 with our turn -- probably, halfway through our turn, I
5 remember seeing lead and going back to the right, the
6 cells off the down stop, high step up crossing over.
7 And I'm just thinking, like, he's just going to -- I'll
8 do dots. I don't want to draw -- because I don't know.
9 I'm thinking he is -- he is going to, you know, Crow 2.
10 He's -- he's -- was supposed to be, kind of, like, one
11 of those almost like a attack right. And, you know, he
12 overshot. So he was just trying to get back in his
13 lane.

14 **Q. Okay.**

15 A. But -- but this is -- that's -- that's right
16 of (inaudible)

17 **Q. Okay.**

18 A. And then it was, probably, a little on
19 rollout that, you know -- you know, those down downs
20 that can get out of controls. So then continuing what
21 I did, I came right and IT WAS somewhere, like, over
22 here was not -- not to scale -- but from my vantage
23 point, that's where I saw.

24 **Q. Okay.**

25 A. And I, basically, continued my turn and I

(b) (6)

1 ended up landing like that.

2 Q. Got you. Okay. Thank you for that. That's
3 -- that's very helpful for me.

4 (b) (6) Can I just have you label
5 each line with like 1-1, 1-2 first?

6 (b) (6) Yes, sir.

7 (b) (6) And if you could just, like,
8 write your name at the bottom. You can say, not to
9 scale. Can you print your name for me, please?

10 (b) (6) I'm sorry.

11 (b) (6) Thanks.

12 (b) (6) Do you want a date or
13 anything?

14 (b) (6) Please. Yep.

15 (b) (6) Thank you, sir.

16 BY (b) (6)

17 Q. One last question, just to confirm, so no pre
18 calc? You, kind of, talked about it, like, it's a hit
19 or miss squadron wise -- whatever those are. It's not
20 a standard thing you guys do.

21 Is that accurate?

22 A. It -- it's pretty standard. It --

23 Q. That you do pre calcs?

24 A. That we do. Yeah.

25 Q. Okay.

1 A. It's -- when I say, like, hit or miss, it's
2 really, like, you are told, like, you will do a perfect
3 combo before we take off.

4 **Q. Okay.**

5 A. And if you have time and route, like, we will
6 do one for landing. If you look at your -- look at
7 your load comp and then your load comp is -- is
8 typically forecasted. But, like, what's waiting for
9 you to anticipate being for takeoff? I said, okay.
10 Expecting we will be at 10,500 for battery. And so I
11 expect that through my nav log the first time I land,
12 and that's, like, basically, your takeoff point and
13 your landing point -- your first landing point. First
14 takeoff, first landing or what's on the load comp.
15 Unless you're doing something notional or stimulated in
16 which case you put all the notional weights and
17 everything and you say, hey, all this is included.
18 Flexing the -- in the payload. And then you say, this
19 is, you know, this is my max fuel in the zone if I want
20 to land this margin here.

21 **Q. Yep.**

22 A. So that was what we went off of where it's,
23 like, max fuel in the zone was like 7.8. So like,
24 that's, like, you know, but that was where 10 percent.

25 **Q. Okay.**

1 A. And that was -- I -- I kept 10 percent, even
2 though it's, like, 10 percent for dust is for -- for
3 unimproved or 5 percent paved. I was, like, I want 10
4 percent because I want us to know what that mark is
5 that we're aiming for to maximize, like, our margin.

6 **Q. Okay.**

7 A. So I -- I need -- that's why I was, like,
8 everywhere we brief -- or our brief, like, we're going
9 to do a PerfCap on deck. That would be independent to
10 each aircraft, just a PerfCap. And then the same
11 thing, every time we cycle through the GZ (phonetic)
12 and a refuel prior to on load.

13 **Q. Okay.**

14 A. But you're going to run a PerfCap to see,
15 like, you know, no more than 7.5 or it's going to get
16 you 10 percent instead. So it's, like, willing to
17 accept the risk on the first one because we're kind of,
18 like -- I -- I -- I, kind of, screwed the pitch on that
19 one as far as, like, fuel and fuel limits. I was like,
20 every single wave after, no more than 7.5 or what's
21 going to give you 10 percent. Because there's no
22 reason for us to accept less than 10 percent per square
23 foot waves.

24 **Q. Okay. And that's just a question in the**
25 **cockpit whether you're doing that en route prior to**

1 **your first landing? Just to confirm.**

2 A. Okay. So yeah. So it's -- it's on each air
3 -- air crew, but the aircraft commander, ultimately --
4 he's actually, ultimately, I suppose -- which I feel
5 like -- I feel that, but it's, ultimately, their
6 responsibility to make sure they're doing that. But as
7 a crew, (inaudible) they did not (indiscernible).

8 **Q. Okay.**

9 A. Like, okay. Yeah. We can go -- let's go
10 ahead pause, you know, proof, kind of, what we're
11 looking for. But I mean, if you forget --

12 **Q. Yeah.**

13 A. Now, that is the -- that is the -- I guess,
14 maybe an expectation is a better word than the, like,
15 standard. The expectation --

16 **Q. So it's not in the SOP that you know of? And**
17 **if you don't remember, that's okay.**

18 A. It should be in our current SOP.

19 **Q. Okay.**

20 A. Yeah. Should be in our current SOP, there
21 will be a PerfCap one prior to take off.

22 **Q. But not in landing?**

23 A. I -- I --

24 **Q. Okay. That's all right. I'll -- I'll get**
25 **the -- we'll get the SOP. All right. Switching topics**

1 all together here. If you want to talk a little bit
2 about the -- the command culture from your perspective?

3 And when I ask that, I'm -- what I'm really
4 kind of leaning into here is: From a safety
5 perspective, is it more of an ops focused organization?
6 Is it a more maintenance focused organization? Is it a
7 nice blend of the two? Just that's what I'm, kind of,
8 getting a sense of from you.

9 A. I'd say it's a blend of the two. I'd say
10 it's a nice blend that they get to be standard.

11 Q. Yeah.

12 A. Maybe not standard, that's not the right
13 word. But there's a good working relationship. And --
14 and I think sometimes it's very much in, like, a
15 brotherly love type of way that ops things are more
16 form of maintenance than maintenance looks more form
17 than ops. But there's always the understanding that
18 someone is going to give and everyone is trying to
19 achieve the same thing.

20 Q. Okay.

21 A. So some days, maintenance gives and when the
22 maintenance gives, you know, four to make three when
23 they didn't want to. But they'll do it. And
24 sometimes, ops has to cut a flight hour or an event
25 because --

1 Q. Okay.

2 A. Maintenance can't -- can't get maintenance on
3 a two to make two.

4 Q. Yeah.

5 A. And so okay. Well, we're going to have to,
6 like, build our schedule appropriately to mitigate so
7 we're not putting all our eggs in the basket that we're
8 going to have two to make two. We do -- we do monthly
9 PVDs. You know PVDs?

10 Q. Okay.

11 A. Those are normally really good opportunities
12 where that, kind of, comes out. The maintenance says
13 we can, we can't do this, or if we look at a monthly,
14 it's like, hey, Predator's Run -- and this is just as
15 an example. Predator's Run is -- is, you know, these
16 two weeks or this -- this weekend. And it's, like,
17 five straight days. Like, we can do that, but you need
18 to let us know if that's priority over the other thing
19 that's happening two weeks later.

20 Q. Yeah.

21 A. Because if it is, then we'll do Predator's
22 Run. Don't -- don't ask us for more than we can give
23 you two weeks later for the other thing.

24 Q. Okay.

25 A. Or vice versa. You guys got a Predator's

1 Run, then so we're going to give up four aircraft for -
2 - but, like, two weeks before that. You know, we're --
3 we're moving aircraft onto the ship. We're putting our
4 best aircraft on the ship. So which aircraft do you
5 want us to give to which one?

6 Q. Okay.

7 A. Which one is more important? And -- and
8 that's just, like -- just, like, anything else with
9 support. Like it's all kind of a bargain.

10 Q. Yeah.

11 A. But I think we -- I think we've come a -- a
12 good ways as far as trying to look out for proficiency
13 and, you know -- and that's an opportunity. I think
14 this was an event of opportunity. Hey, I know you just
15 got back. We're going to sit down and assess. Are you
16 comfortable flying at such an event because you've been
17 on a cockpit for around 30 days?

18 Q. Yeah.

19 A. But we're going to fly you. And are you
20 still comfortable after that? And he was like, yeah,
21 I'm -- I'm -- I'm comfortable and capable of my
22 abilities. I did skill work before I left, so I can
23 continue the service.

24 Q. Yeah.

25 A. I don't know if I'd say there's really any

1 operations pressure. Nobody told me because I felt
2 operations pressure before. Like, hey, if you don't do
3 this, we don't know the next time you're going to do
4 it. It was just very a matter of fact. Like, I -- I
5 wasn't, like, oh gosh, I have to do this or I don't
6 have -- I was like, hey, you know, what? Yeah. I
7 think this is a good opportunity for me because maybe I
8 don't have an opportunity.

9 Q. Right.

10 A. But at least I continue progression and I get
11 one more event in. I -- I felt no way pressured to do
12 the event. And I felt no -- I felt no pressure either
13 with the -- with the aircraft because this -- with what
14 was failing, it's like, hey --

15 Q. Yeah.

16 A. -- if we got to roll and we'll roll with
17 priority. We'll get the backup aircraft, you know, the
18 second goes. Don't get it. But, like, I was very
19 stressed the two days leading up to it which I think
20 was just kind of normal (crosstalk). Once I did the
21 brief night prior, I felt a lot more comfortable, and I
22 was very still stressed practicing the brief in my
23 room. The night have felt, like, I had very restless
24 sleep. I -- I did sleep, but I did almost feel like I
25 was just laying with my eyes closed.

1 **Q. Yeah.**

2 A. But once I woke up and, like, showered, you
3 know, right. I was, like, hey, you know what? Like we
4 -- we briefed this. We've exercised it. I know what
5 the plan is. We're going to -- we're going to brief,
6 plan, apply the brief. The only thing that I thought
7 was going to be hindrance was, like, this fuel thing.
8 But I knew that we were still think SOP length to a
9 gauge surface and we're going to have 5 percent reward.
10 And so it's going to take a little bit of just pilot
11 stuff to -- to get into the zone.

12 **Q. Yeah.**

13 A. But like, that is not -- that is not the
14 first time that I have done that. I have -- I have
15 landed to a pad which means I can't really deviate any
16 distance in any direction because I've just had that
17 pad with 18 guys in the back and, like -- I didn't have
18 settling on power, but I had a very tight margin. And
19 so it was uncomfortable --

20 **Q. Yeah.**

21 A. -- I mean, like, to -- to burble and ride --
22 ride the burble all the way down, like, okay. This is
23 going to be the best zero reserve of my life because I
24 don't really have any other option. So like, that
25 never really -- the fuel -- the fuel for me was a

1 concern, but not -- not to this extent. Same with
2 PACs, that was a concern --

3 Q. They're heavy?

4 A. That's -- that's what we do. I mean, you --
5 you plan to the 10 percent. That way, you can
6 maximize.

7 Q. Can you give me a general sense or -- so you,
8 kind of, alluded to this. I mean, I know that you had
9 -- you guys had the airshow you were supporting, you
10 had Canberra that -- that was out. How was the --
11 since you were able to get here on to Darwin, how was
12 the flight hours? And we'll pull the numbers of, you
13 know, what -- what -- whatever was when getting -- what
14 was the general of, like -- you were getting the best
15 you could when you're out here. Was it not enough?
16 There's never enough hours, like, I get that.

17 What was just the general sense?

18 A. The general sense, good flat hours.

19 Q. Okay.

20 A. To start with, sir. I was -- I was delayed a
21 little bit just because of, like, peer groups. And
22 when people showed up, I was, like, the last -- I don't
23 want to go to, like, a weird history, rabbit hole. But
24 like, I -- I showed up -- I was supposed to be the last
25 co-pilot for the last appointment and then we got,

1 like, four more before we're deployed.

2 **Q. Okay.**

3 A. So there was this weird thing that happened
4 with me where they were, like, should we accelerate it?
5 So the guys with phone or should, like, slow them down
6 and catch those guys up. And I ended up -- well, the
7 war was so successful that I pretty much stayed where I
8 was. So those four guys that showed up after me, like,
9 one of them has more flight hours than me. Right now,
10 it's still just with me. Some of the guys that were
11 above me also got slowed down. They got, like, you
12 know, plenty more hours than I do, but are only really,
13 like, three events ahead of me.

14 **Q. Okay.**

15 A. In theory. So that has, kind of, worked
16 itself out. And I think that was recognized and maybe
17 a little late and -- or maybe it was just
18 unintentional, just, kind of, looked out that way. I -
19 - I felt like I was flying a -- a good amount when I
20 first --first showed up. We didn't -- I didn't get,
21 like, any night flights. I was here for, like, a good
22 while before I flew at night at all. And that was
23 because we were prioritizing personnel getting NSQ and
24 personnel getting NSI, which is the story in and of
25 itself. But we -- day flights signing, like -- or even

1 co-piloting. I was -- I was getting hours.

2 Q. Okay.

3 A. Just wanted to kind of move on to the next
4 thing. But, like, I was getting hours. So I -- I
5 didn't think I was getting skimmed at all. I didn't
6 think I was getting overworked either.

7 Q. Okay.

8 A. Like, I'm on a pretty middle road. I was
9 happy.

10 Q. Okay. Last question, and then I'll leave it
11 up to you if you have any save rounds. So sense of a -
12 - your sense as a pilot when the aircraft you were
13 receiving for maintenance -- good aircraft, average
14 aircraft, standard V-22 issues with aircraft? You have
15 a couple open maps on -- something, obviously -- it's
16 illegal to fly that kind of thing.

17 But what was the general sense from your
18 perspective on maintenance?

19 A. In general, or my aircraft, specifically?

20 Q. In -- in aircraft that you've flown since
21 you've been here.

22 A. In aircraft I've flown since I've been here?

23 Q. Yeah.

24 A. Me, personally -- and I say that just because
25 I don't want to, like, say anything that other people

1 have told me how they feel. But, like, for me, I'm --
2 I'm pretty comfortable with aircraft. Like, I -- I
3 know a lot of these maintainers wouldn't sign an
4 aircraft safe for flight if they wouldn't fly it in --
5 in the back of the cells.

6 Q. Yeah.

7 A. So I think everyone is doing their best.

8 Q. Okay.

9 A. And -- and for me, usually, we have some
10 aircraft that are, like, notorious. So I flew Aircraft
11 3 that day. And I know you're going to ask for
12 specifics, but, like, that one is, like, nickname like
13 fur Steve because it's just like, you -- you kind of
14 don't know sometimes --

15 Q. Yeah.

16 A. And it's nothing dangerous, but we just -- I
17 don't know if it's going to, like --

18 Q. You just have these irritants.

19 A. Just like it was in the line, like, oh, FCSPF
20 is going to be a failure, of course, never going to see
21 and like, okay. But then there's, like, a PC thing
22 that like, okay. Just going to reset the circuit
23 breaker and, like, that's going to help with it
24 because, obviously, it's failing because of the cell
25 stuff. And it's telling me on the screen you know the

1 flight simulator something, like, what specific things
2 are on our failings? I know it's tied to that, you
3 know, gave that overall. So we don't -- we don't, like
4 -- we don't jockey things, like, we don't like, oh, you
5 just got to kick it a couple times and push this switch
6 and it fixes. But we recognize what things we have
7 that, you know, we're able to afford to --to say, like,
8 keep us an open map. And that's -- that's usually our
9 maintenance department. I think that's a very good job
10 of trying to get everything they can to fix those.

11 **Q. Yeah.**

12 A. So if it's not fixed, it's usually because
13 they're waiting. So they don't -- they don't just need
14 stuff before they just (inaudible). Or there is
15 instances sometimes, like, can -- cannot duplicate, but
16 I don't think it's because of being lazy. I think
17 sometimes it really is. We had one aircraft that,
18 like, just could not duplicate these dumb things that
19 were happening with it. And then there's aircraft 9,
20 like, can't -- what is the issue with this? Like, fuel
21 thing -- this fuel, you know, they continuously
22 failing. We just can't figure out what it is. And
23 literally, we replaced every single part.

24 **Q. Yeah.**

25 A. And that was just, like, (inaudible) The next

1 day it was on the flight schedule, I failed for the
2 exact thing I'm failing for days before. So --

3 Q. Yeah.

4 A. But I'm -- I trust -- I trust -- and that was
5 -- that's why I have no issue when I was out there.
6 That's why when they said we've got three to make two,
7 I have no issue with, like, no delay, no -- our
8 priorities going to passing and, like, they're going to
9 give you the best aircraft they got. If it doesn't
10 work, they're going to give me the next best one.

11 Q. Okay.

12 A. We have the best aircraft at our disposal
13 right now. So like, I'm not going to bump you out here
14 if the aircraft isn't good.

15 Q. Yeah.

16 A. And my aircraft should be good. We're going
17 to find a way to fix it. I mean, those guys were out
18 there.

19 Q. Yeah.

20 A. Good -- to -- to help get it. If it didn't
21 and they were -- it'd be damned if they didn't have the
22 next aircraft already just that.

23 Q. Okay.

24 A. So --

25 Q. All right. Thank you for that. Very

(b) (6)

1 informative. Other than what you've answered here in
2 the questionnaire and what you have provided to me, is
3 there anything else that you think we -- I should know
4 or we should know?

5 A. No. Just let me know if you have other
6 questions. If I think of something, I'll let you know.

7 Q. Okay.

8 A. But trying to -- I -- I -- I wanted to put
9 everything I could --

10 Q. I appreciate the detail.

11 A. -- on a sheet of paper, just to -- to dictate
12 to you. Especially, as we re coming further and futher
13 away as far as time from the -- I don't want to, like,
14 the bash --I don't -- I know we proof it, but I don't
15 want to say we do if we didn t that day.

16 Q. I understand.

17 A. I don't want my mind to make closure of
18 something that didn't happen.

19 Q. Okay. I appreciate that.

20 (b) (6) Any other additional
21 witnesses you think we should talk to that we probably
22 aren't thinking of already?

23 (b) (6) As far as that diagram,
24 specifically, (b) (6). I'm not trying to, like,
25 name-drop anyone, but he was -- he was the one who did

(b) (6)

1 a phenomenal job of immediately assuming officer
2 commander on my behalf.

3 BY (b) (6)

4 Q. Okay.

5 A. And -- and I -- I think he saw it all.

6 Q. Okay.

7 A. So I can't speak for the rest of my crew as
8 far as, like, how much they did or did not see. I know
9 what I saw. I know that they saw different things,
10 too. He might have seen all of it.

11 Q. Okay.

12 A. So --

13 Q. Okay. And he was the H1 EFL?

14 A. He was the active EFL. Yes.

15 Q. Okay.

16 A. So just as far as, like, more fidelity and --

17 Q. Yeah. Absolutely. Right.

18 A. But I don't -- I don't know what else he put
19 (inaudible).

20 Q. Okay. Okay.

21 (b) (6) Anything else, sir?

22 (b) (6) No.

23 (b) (6) Same morning, I've -- I've
24 kind of mentioned a couple of times already, right.
25 You're advised that this is an ongoing investigation.

(b) (6)

1 You're directed not to discuss your testimony with
2 anyone outside from the two -- aside from a two
3 (inaudible) point investigator. If you have any
4 questions, let us know. If somebody is trying to ask
5 you questions about it, you can just refer them to us
6 and -- and I ask that you report it to us. All right.
7 That's all we've got for you.

8 (b) (6) Thank you for your time
9 today.

10 (End of Audio Recording.)

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CERTIFICATE OF TRANSCRIPTIONIST

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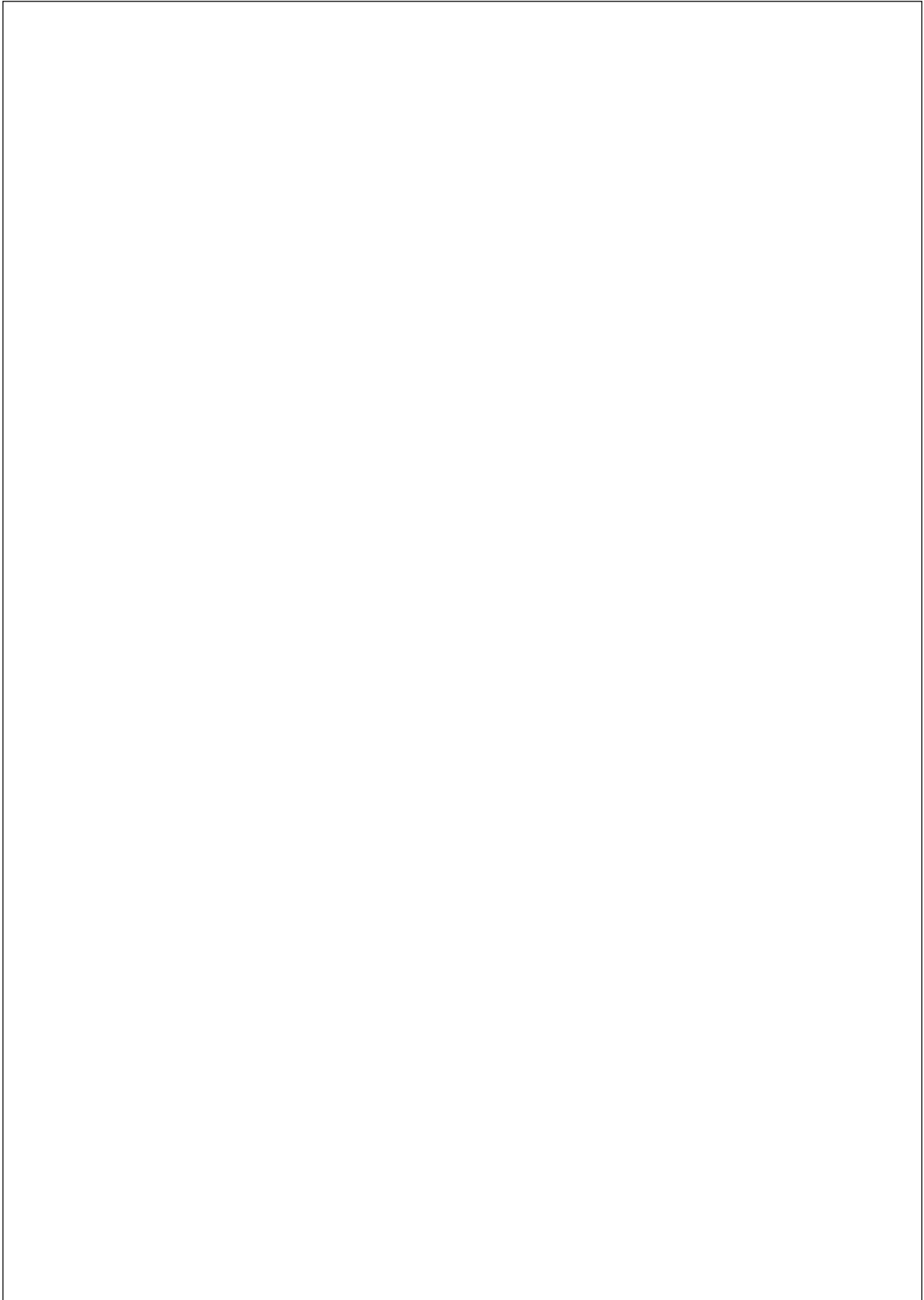
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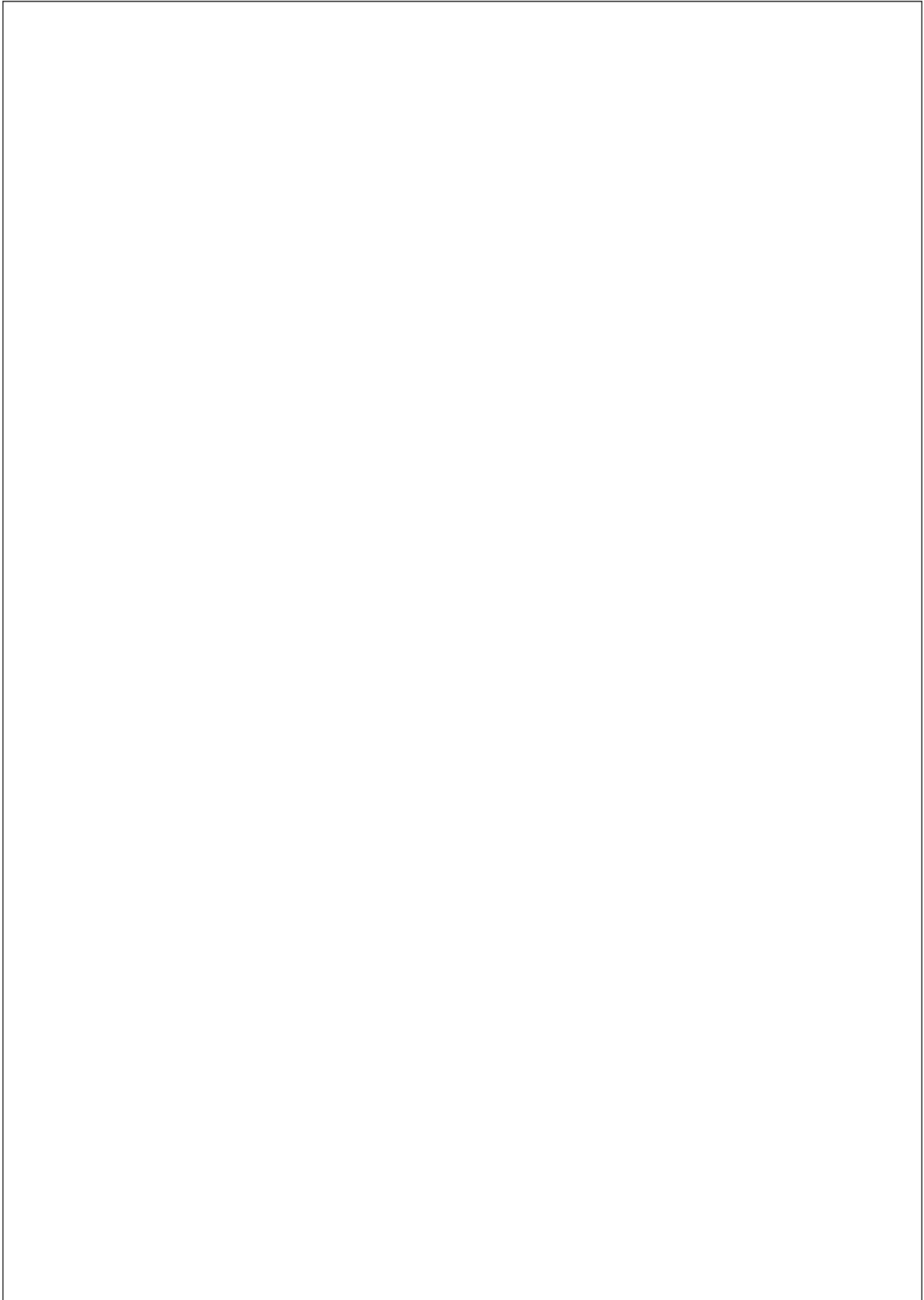


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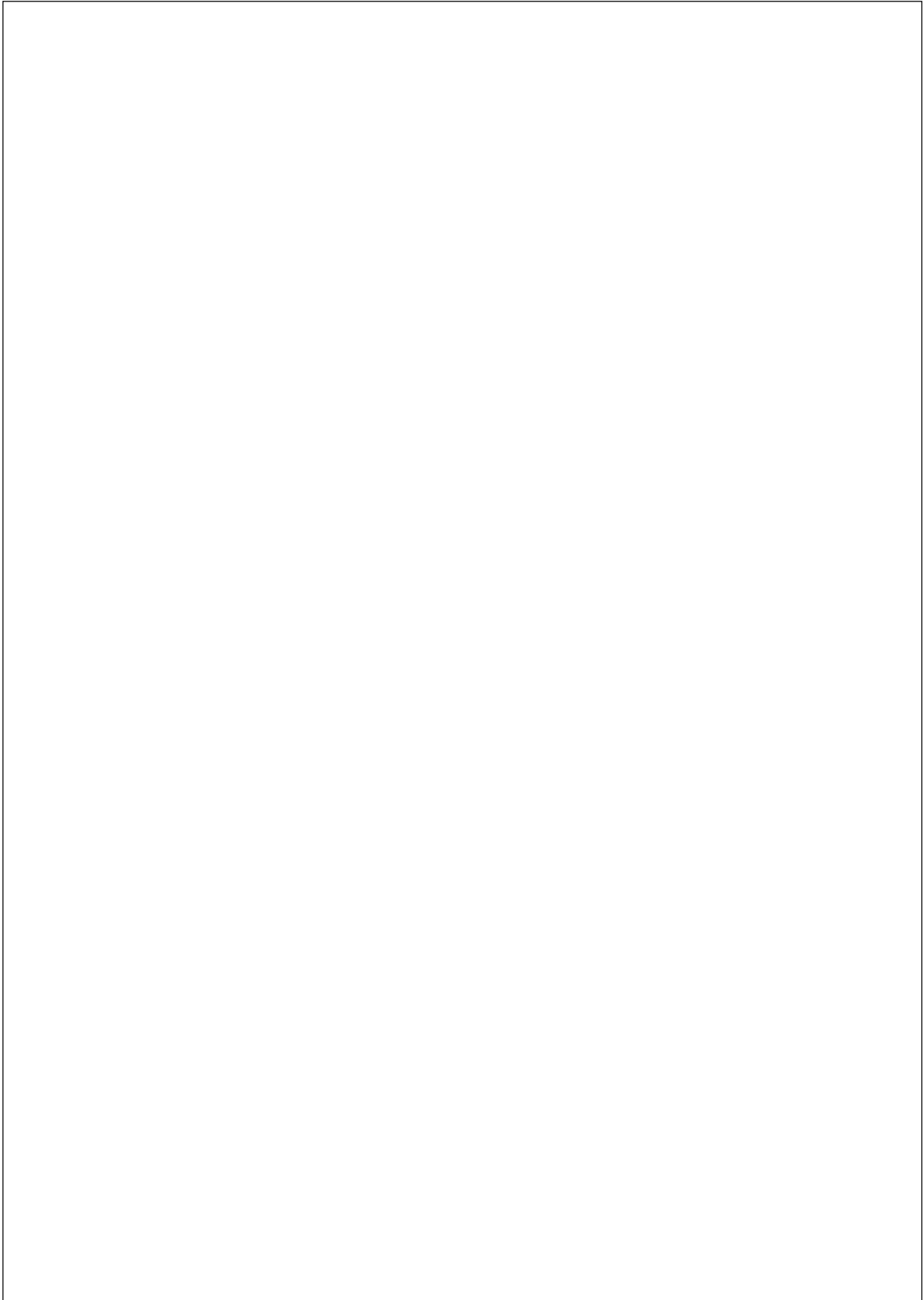
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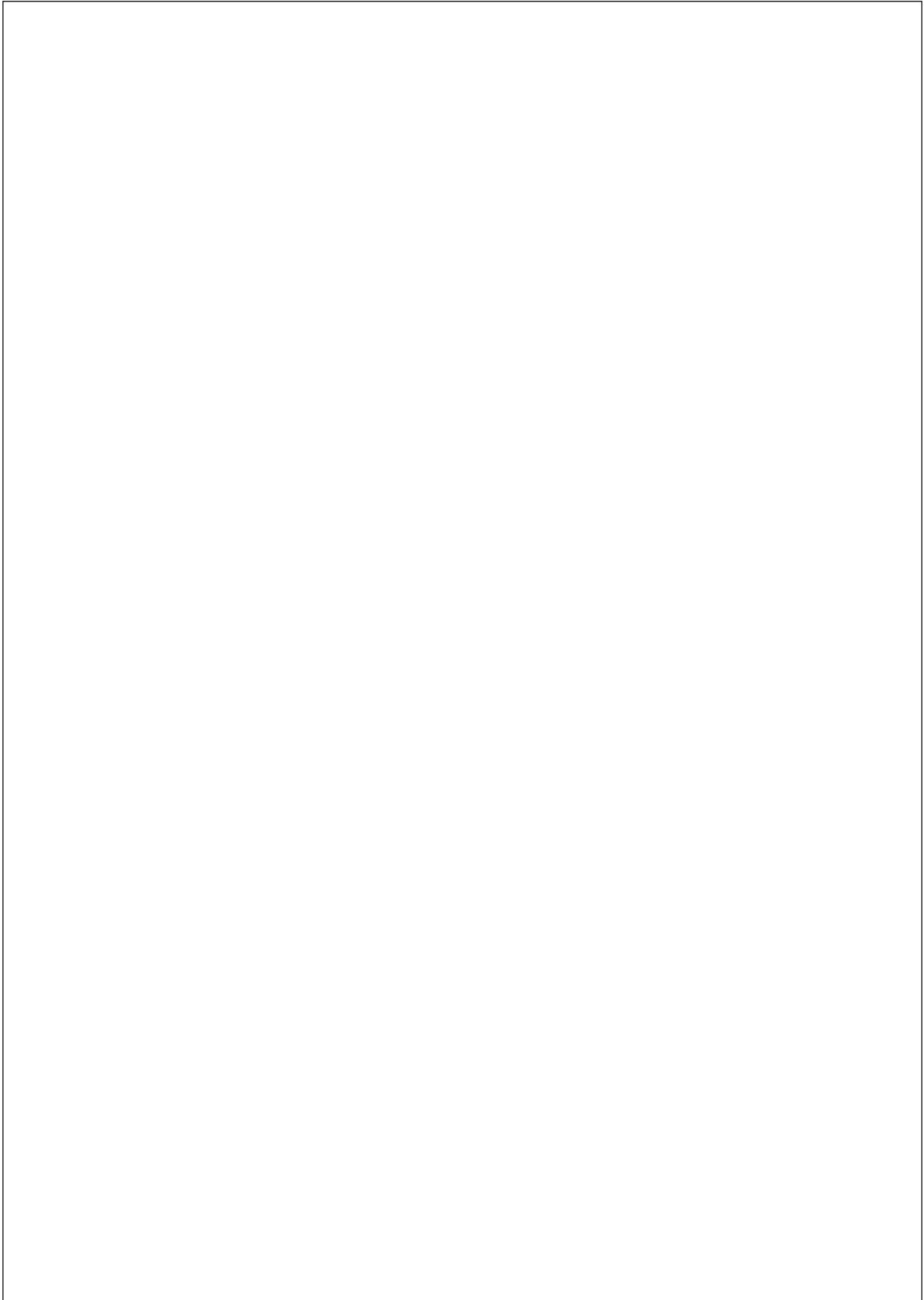
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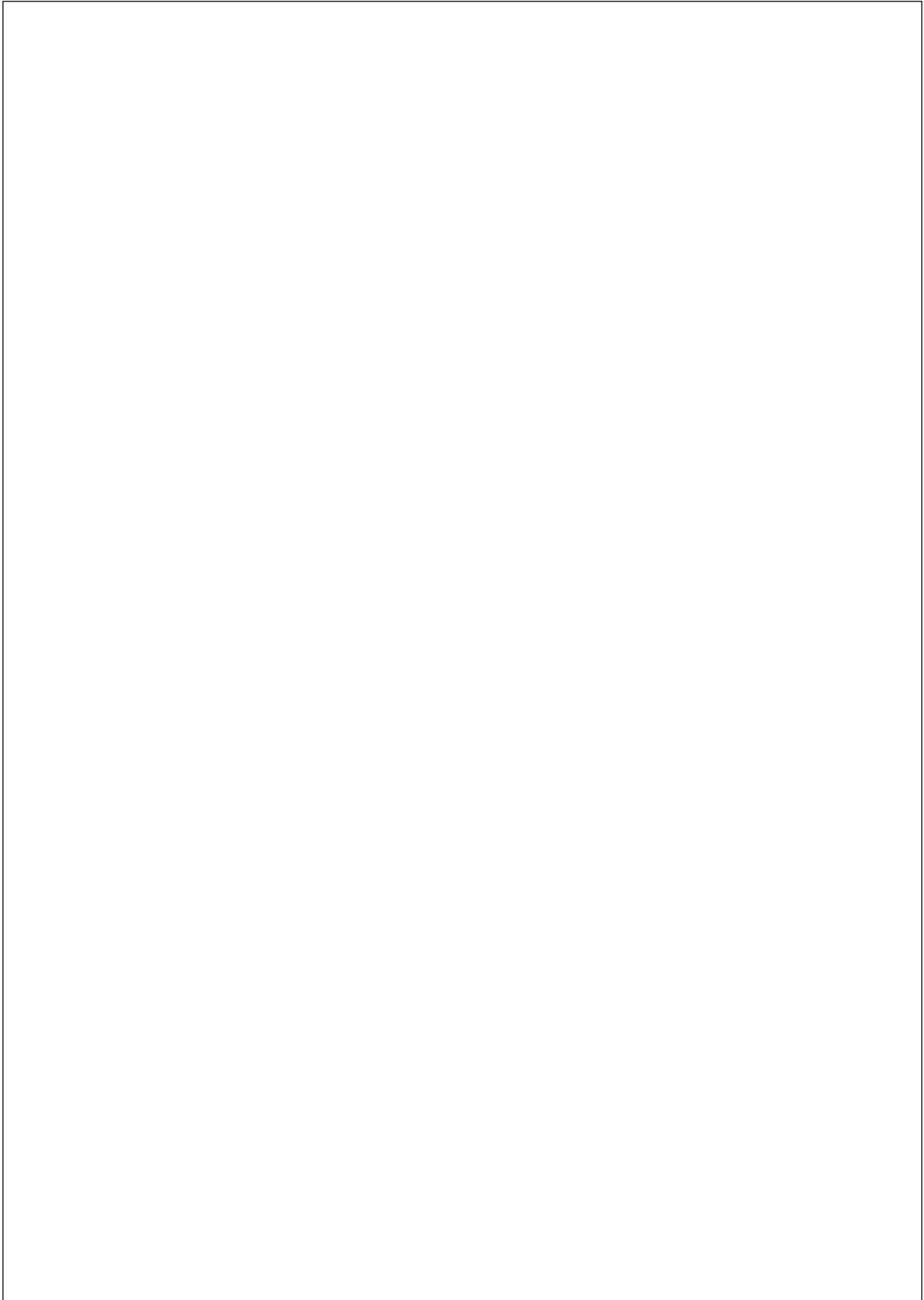
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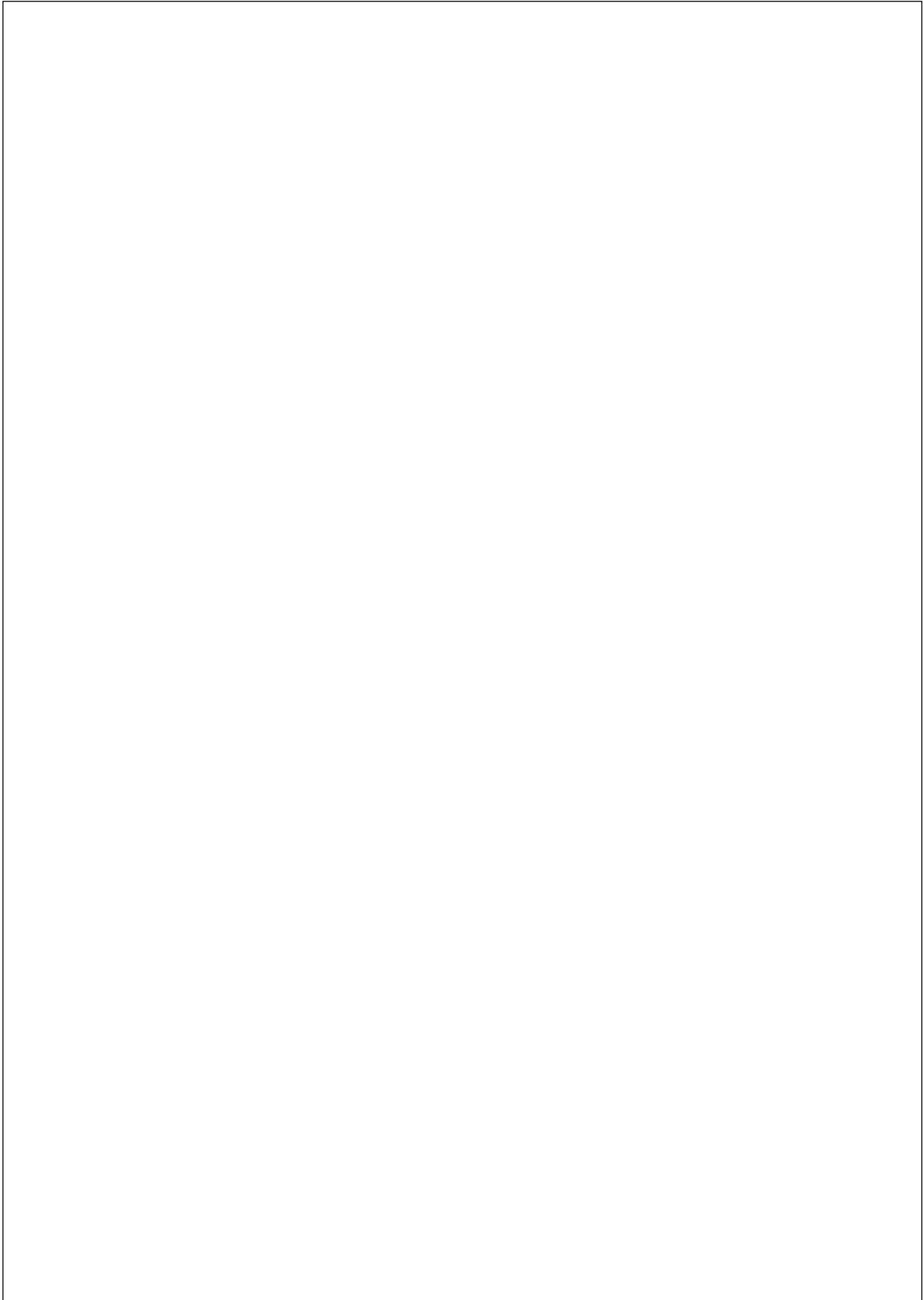
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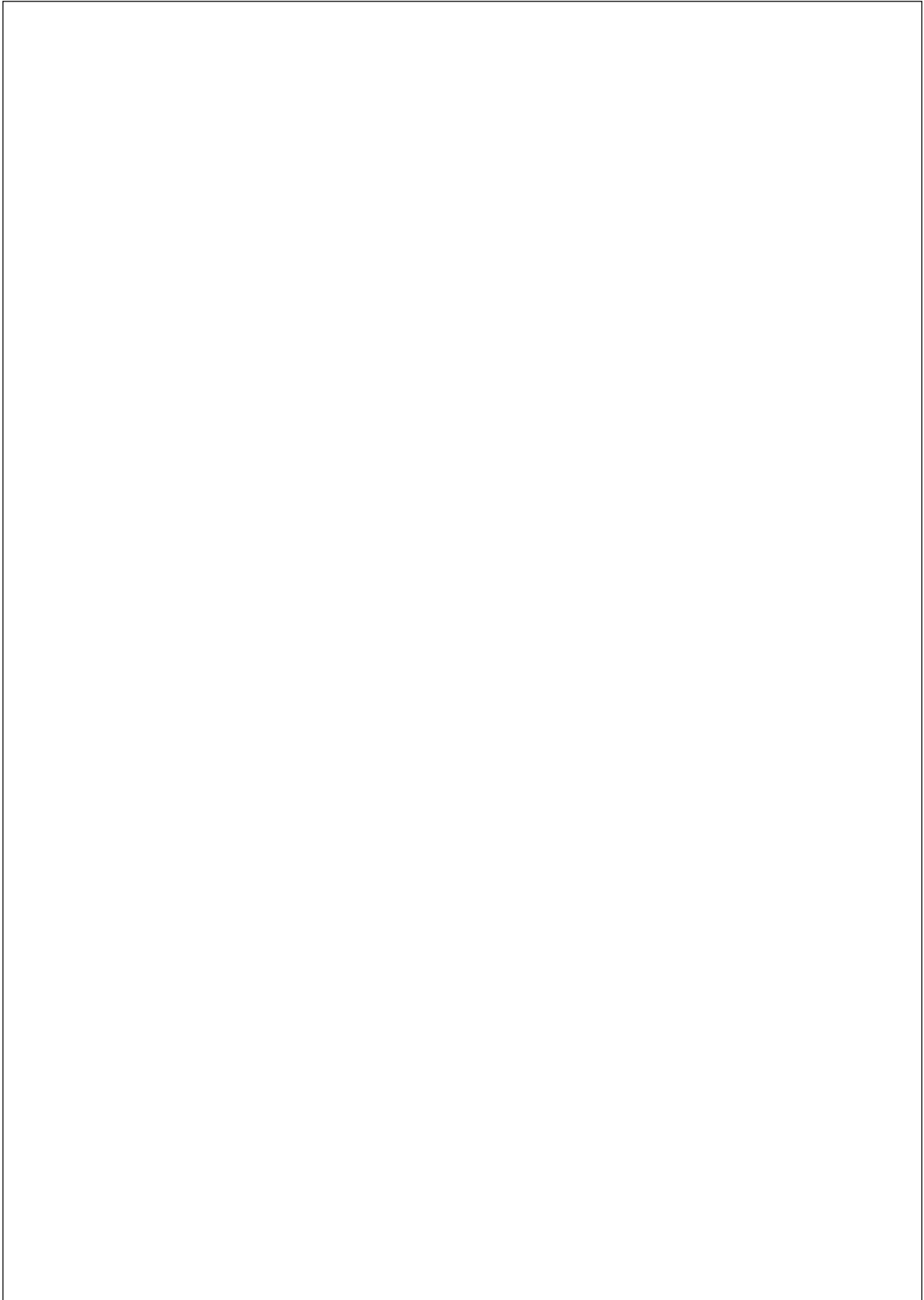
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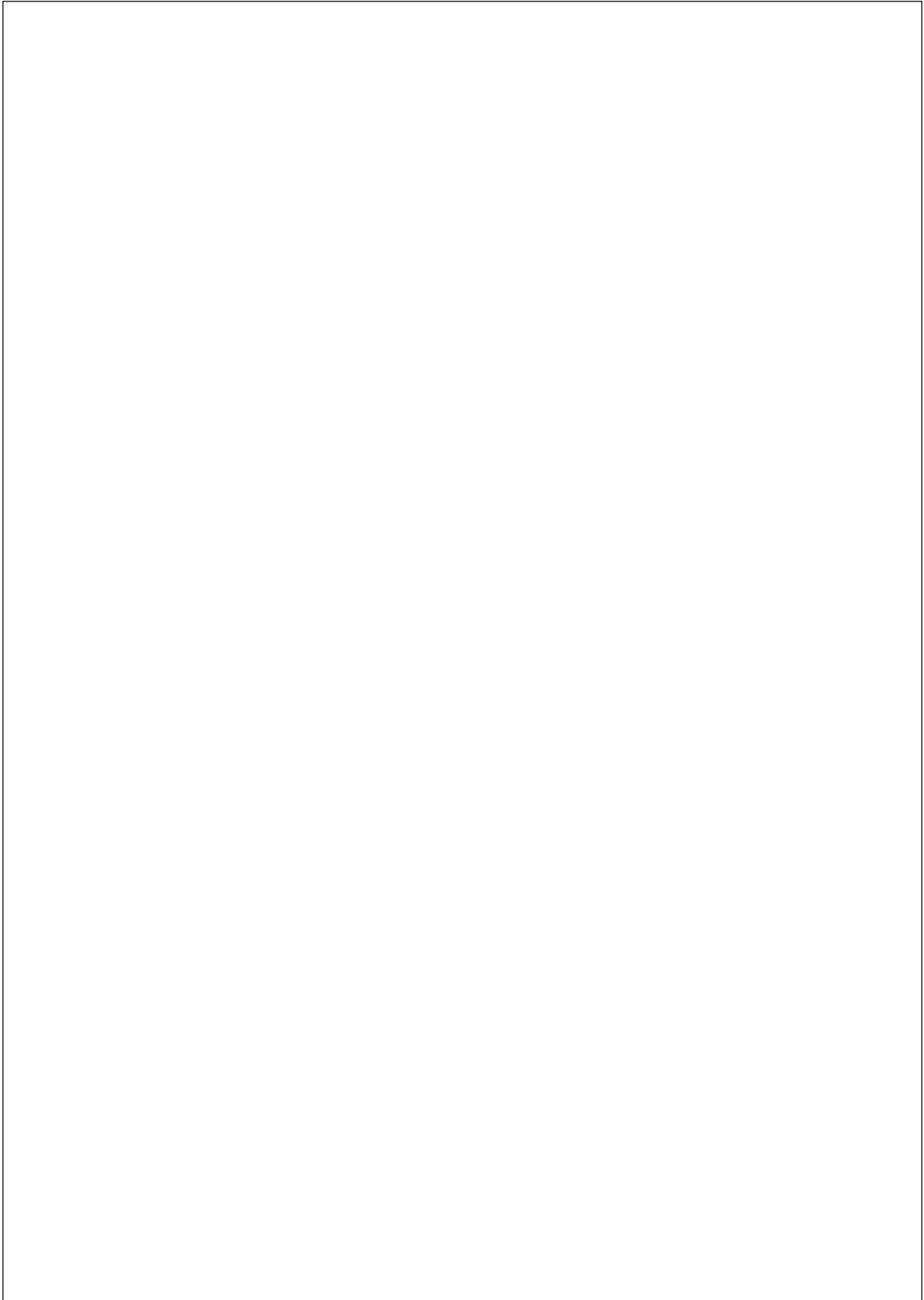
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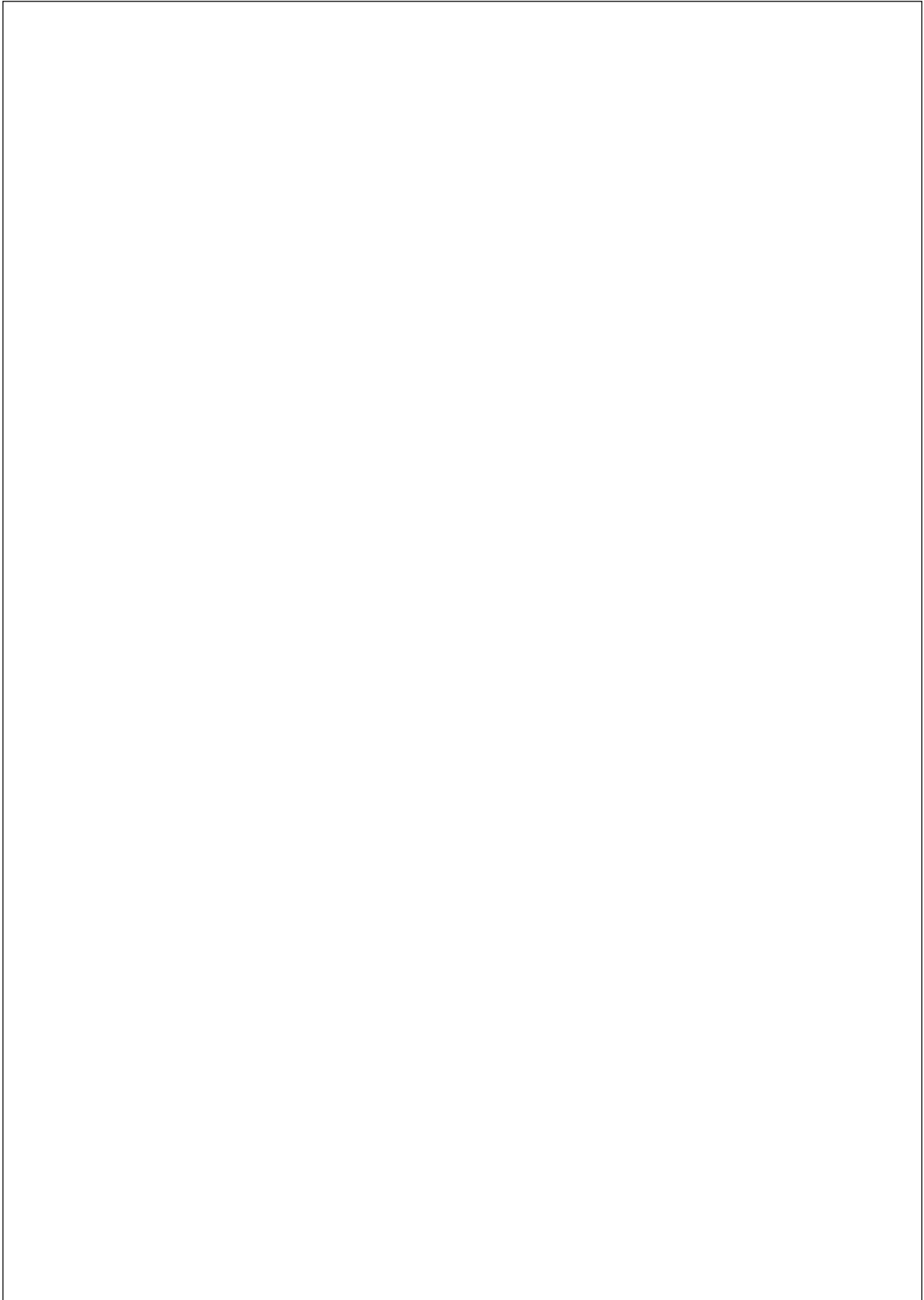
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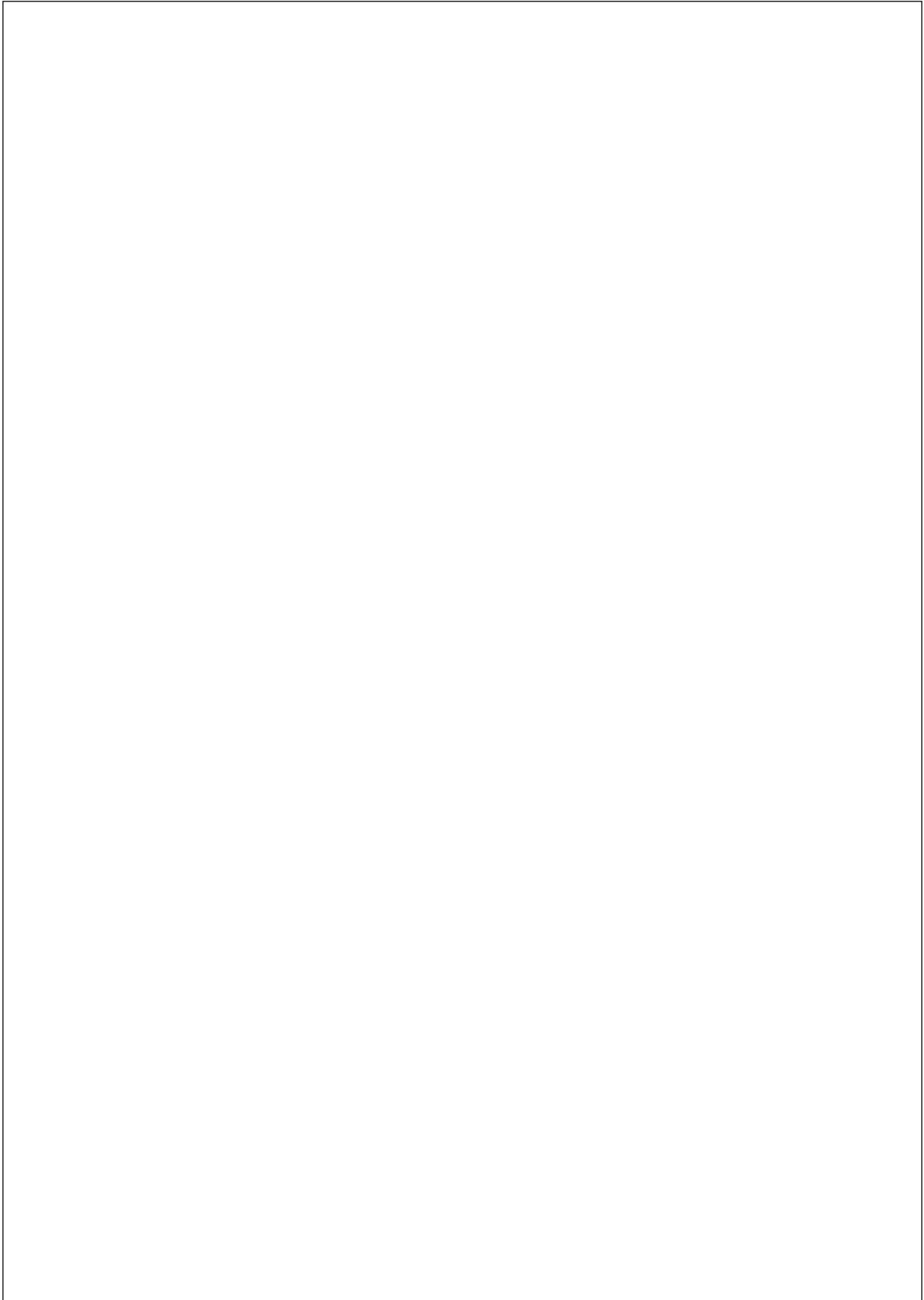
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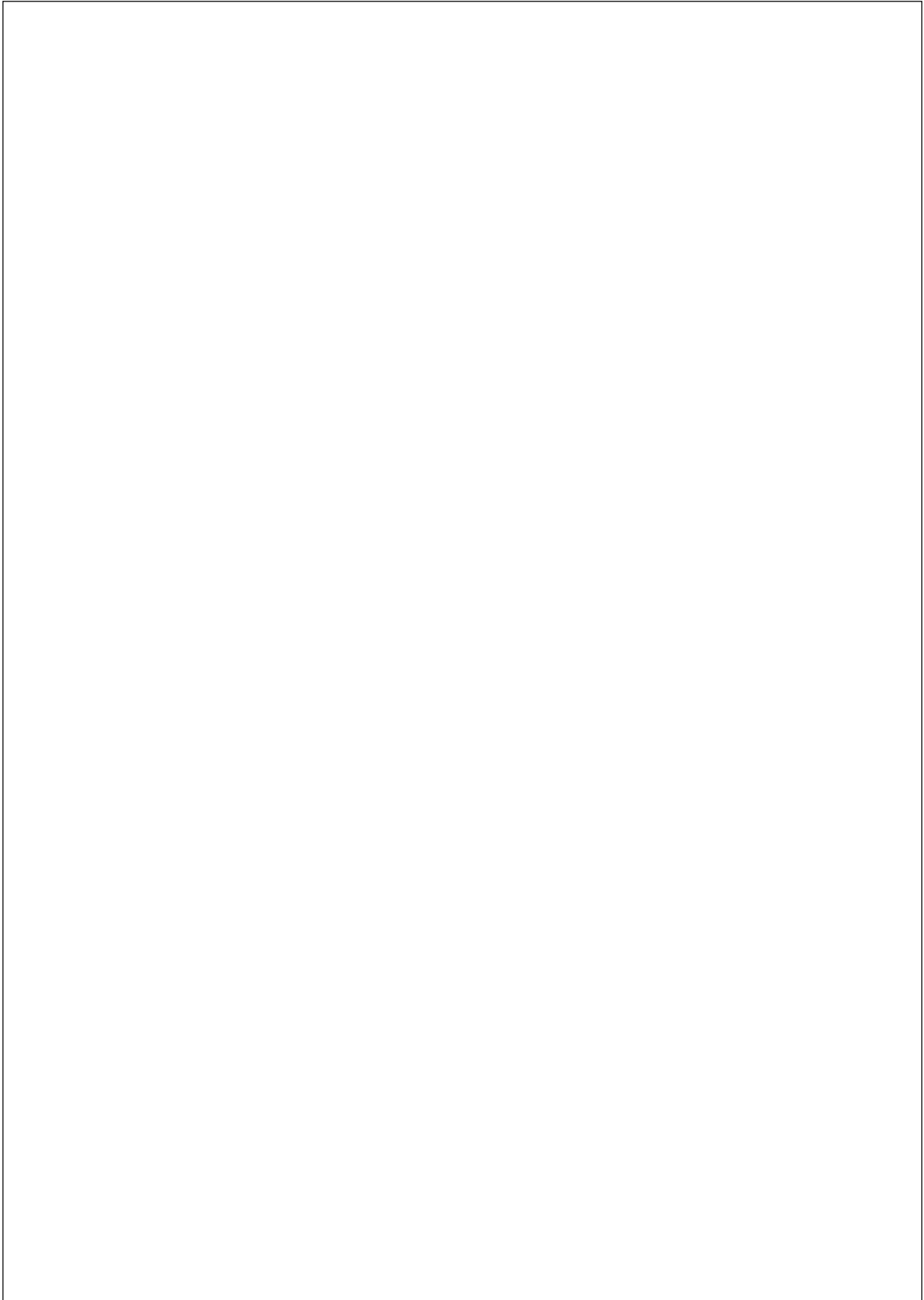
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Transcript of Audio File:

COMMAND INVESTIGATION RE: AVIATION MISHAP

INTERVIEW OF (b) (6)

TAKEN AT ROYAL AUSTRALIAN AIR FORCE BASE DARWIN

THURSDAY, SEPTEMBER 14, 2023

Audio Runtime: 34 Minutes, 24 Seconds

(b) (6)

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(b) (6)

1 (Beginning of Audio Recording.)

2 (b) (6) All right. Good morning.

3 It is approximately 11:15 on 14 September. We're on
4 Royal Australian Air Force Base Darwin. Present in the
5 room is (b) (6) myself, (b) (6) (b) (6)

6 (b) (6), and (b) (6) This will be a follow-up
7 interview with (b) (6)

8 Prior to turning on the recording, I
9 reminded him of the Privacy Act statement that he
10 filled out during the previous interview. He didn't
11 have any questions about that, and I advised him that
12 he remains under oath for this interview. He didn't
13 have any questions about that.

14 Anything you'd like to add?

15 (b) (6) No, sir.

16 (b) (6) Okay. Gentlemen?

17 (b) (6) Cool. Appreciate you
18 coming in.

19 (b) (6) Yes, sir.

20 EXAMINATION

21 BY (b) (6)

22 Q. It's (inaudible) six but we -- we had a few
23 -- few questions as we kind of went through the
24 evidence over the last week, week and a half. One of
25 the big ones we want to talk about is -- is kind of,

1 the position of -- of the H-1s and, kind of, get your
2 perspective when you guys got, you know, IP inbound, or
3 checkpoint prior.

4 Like, when -- when did you guys pick up the
5 H-1s, and what is -- what was your perception of their
6 positioning on your section as you came in?

7 A. It might take me a second to -- to
8 (crosstalk).

9 Q. Take all the time you need.

10 A. Because I do recall -- I distinctly remember
11 calling them out when I had visual of them, and I'm
12 trying to remember which direction they were moving, if
13 it was right to left or left to right. And I want to
14 say, or I'm going to say they were right to left
15 because of what we briefed their battle position was to
16 where the holding area was going to be. And it would
17 have been while we were -- would've had to have been
18 when we were past the IP inbound.

19 The reason why that might also have been a
20 little bit different is, like, as I depicted there, I
21 remember when we pretty much turned inside the IP, so
22 we had to make a cut out to the left, you know, heading
23 change to pick up our lateral separation. So it could
24 have been as I was looking at them, they were to the
25 right. But otherwise, if we would've been on course,

1 they would've actually been to the left.

2 So it may have just been a perception that
3 they looked like they were to the right of us, and once
4 we rolled out, they were actually to the left. But
5 they did call that they were established in their
6 holding area, which -- which I -- I recall was to the
7 left of our course line. And that -- that would have
8 had to have been at the -- at the very earliest from
9 the IP inbound.

10 But I want -- I think we were still on our
11 course correction when I identified them. And again, I
12 think -- I want to say that they were, like, on --
13 maybe, like, 12:00 to the right, and then they moved
14 over to the left. We had briefed that they were going
15 to join on us on our 5 and 7 once we passed their
16 holding area. So as we proceeded northbound, they did
17 make a call that they were joining on us. And I -- I
18 do remember them being eventually, like, on our left
19 side, and then we passed them.

20 And then the last time I saw them, or the
21 only other time I saw them after we passed them and
22 they made their calls that they were joining was after
23 I saw Dash-2 do a -- like a crossover after the calls
24 were made in the back about what had happened. Once I
25 took controls and I came to the right, there was an H-

1 1. Couldn't -- couldn't tell you which -- which one,
2 if it was a AH or UH. There was an H-1 that was
3 between the -- I know it's recorded, so you won't be
4 able to hear the picture --

5 **Q. That's fine.**

6 A. -- so to speak. But as I made the turn, if
7 this is where I remember seeing them, I want to say
8 there's like an H-1 that was more to the right of me,
9 but between me and them on the ground. So as I'm, like
10 -- sorry, try to look at picture, but as I'm like,
11 here's my -- here's the way I'm looking, and I start
12 coming right from my landing heading, I start coming
13 right. I see them. That is, like, where I would say I
14 saw an H-1.

15 **Q. How far away, do you think?**

16 A. You have a pen on you?

17 **Q. Yeah.**

18 A. So at --

19 **Q. Let's -- let's do it like this.**

20 A. Yeah, at this -- at -- I would say at this
21 point --

22 **Q. Uh-huh.**

23 A. -- I'll do like shapes to kind of mark it.
24 At this point, I would say that I saw an H-1 with --
25 with their altitude, per their contract, at that

1 position. And then as I continued to turn -- and they
2 had already started coordinating. So I can't spit out
3 verbatim what they said, but they were already like,
4 you know, I have on-scene commander. You go on deck.

5 And then I didn't get my on -- like, go
6 continue on deck call until I was probably -- what's a
7 good shape to use? I was probably right here, in which
8 case, the other H-1 -- the other H-1 would've been,
9 like, over here with their altitude, and they were kind
10 of heading in, like, that heading.

11 And they're like, hey, I've got visual of
12 you at -- you know, they gave the clock position that I
13 was at from them.

14 And I said, Roger, I've got visual of you as
15 well. Continuing my turn to land.

16 And they're like, yeah, we recommend you
17 continue to land.

18 I was like, Roger.

19 And then I continued to land and so, yeah.
20 I landed, and then this aircraft ended up to my left,
21 probably, like, 200 meters to the left of me on the
22 runway.

23 **Q. And the position of this H-1, what -- what--**
24 **what would you say the distance is?**

25 **A.** I'm trying to think of, like, V22

(b) (6)

1 separation. Like what we have when we land, they were,
2 like, further than that. They were at the -- at -- at
3 the least, they were probably, like, 500 feet from us,
4 at the least.

5 Q. Yeah. So pretty close?

6 A. With still, like -- like, 200 feet --

7 Q. Yeah.

8 A. -- 300 feet altitude separation.

9 Q. Yeah. And -- and I don't know that we're --
10 the altitude separation we -- we understand was
11 briefed, and it sounds like the altitude contracts were
12 being maintained. Really, laterally is kind of what
13 we're trying to figure out. So it -- it seems like,
14 based on your -- what you're describing, that from your
15 perspective, it was -- it was -- it was close.

16 A. Yeah.

17 Q. I mean, you could clearly see them, and they
18 were pretty much next to you, you know.

19 A. I wouldn't say they were next to me, sir. I
20 mean, that -- that -- that was still a -- a distance
21 away that --

22 (b) (6) So I think that red dot is
23 the crash site.

24 BY (b) (6)

25 Q. Was -- was -- was this an H-1 right here?

(b) (6)

1 (b) (6) No.

2 (b) (6) No, this was the crash
3 site.

4 (b) (6) The red dot is the crash
5 site.

6 BY (b) (6)

7 Q. This was the crash site. And then -- so
8 this -- this was an H-1 and this was an H-1?

9 A. As I was here --

10 Q. Yeah.

11 A. -- that was an H-1.

12 Q. Yeah.

13 A. That -- that was pretty far.

14 Q. Okay.

15 Let's do this real quick.

16 A. I mean that was, like, a kilometer it felt
17 like, like 1000 -- 1000 meters.

18 EXAMINATION

19 BY (b) (6)

20 Q. If you -- if you don't mind, let's do this.
21 So like, can you label this as an H-1 and -- yeah, you
22 don't know what type, right?

23 A. I don't know what type.

24 Q. Okay. And then --

25 A. Well, I can deduce because this guy who

(b) (6)

1 landed here was a UH-1, and I can deduce who I saw here
2 was a UH-1.

3 Q. Yeah.

4 A. And I know Duct Tape 33, because I know who
5 the crew is and who they are. And afterwards --

6 Q. Okay, perfect.

7 A. -- like, okay, they were Cobra. But in the
8 moment, no, I just saw (crosstalk) --

9 Q. Okay. That's fine. Let me think.

10 A. Also, I saw them when I was --

11 Q. At this separation?

12 A. -- (crosstalk) and they were already -- you
13 know --

14 (b) (6) (Crosstalk).

15 (b) (6) I don't know what
16 direction they were turning, but they were doing their
17 on-scene stuff.

18 BY (b) (6)

19 Q. Okay.

20 A. I was at this position when I saw them, and
21 I continued my turn inbound, which again, not to scale,
22 but they ended up, you know, going whatever direction
23 they were going.

24 Q. I think -- yeah. I think what I want to
25 annotate on here is that at this position, you saw this

(b) (6)

1 aircraft. I'm not sure what the best way to do that
2 is, if it's drawing a line between the two.

3 (b) (6) Can we just take a --

4 (b) (6) Or a dotted line.

5 (b) (6) -- a dotted line out and do
6 like a --

7 (b) (6) Yeah.

8 (b) (6) -- cloud bubble here and
9 explain?

10 (b) (6) Yeah.

11 (b) (6) Am I allowed to ask what
12 the purpose of this is for or is that for --

13 (b) (6) We're just trying to get a
14 better picture of what was going on in there. Let's
15 see.

16 (b) (6) It'll help to deduce
17 causality, or establish opinions. That's what they use
18 this for.

19 BY (b) (6)

20 Q. Okay. So let's label this one the same way
21 as H-1 on-scene commander, the way you've got it
22 described there. Just so -- so, like, somebody's going
23 to have to look at this and not have your voice over
24 it.

25 A. Yeah.

1 Q. Right?

2 A. Understood.

3 Q. So I want -- I want them to be able to
4 interpret it, and then we'll do the same thing on this
5 one, a dot box off to here with a, you know, V22
6 position, a visual of this H-1. That's what that box
7 is, right?

8 A. That's correct.

9 Q. Okay. Yeah. And then I think I want a -- a
10 distance line between the 22 and the H-1, an estimated
11 distance.

12 A. I -- yeah, I can try, sir, but --

13 Q. Okay.

14 A. -- that's just me using my Mark 1 Mod 0
15 eyeball to determine, like --

16 Q. Yeah.

17 A. The -- the -- the H-1 was closer to the
18 impact site than it was to me and -- and I -- I don't
19 know what that was.

20 Q. This H-1 or this H-1?

21 A. The on-scene commander.

22 Q. Okay, yeah. No, I -- I'm asking about this
23 one. You said this one was maybe 500 feet away?

24 A. Yeah. Well, I said that -- I was talking
25 about the on-scene commander.

1 Q. Oh, okay.

2 A. It was like, at the very minimum --

3 Q. Okay.

4 A. They were, like, 500 feet away --

5 Q. All right.

6 A. Or -- or five -- yeah, 500 feet.

7 Q. Okay.

8 A. But like, that's -- that's -- even then,
9 that's pretty close, and like -- and I only say that
10 because I know what that looks like when we land with
11 our separation --

12 Q. Thank you.

13 A. -- I've got, like, 500 feet between me and
14 the next guy. Like --

15 Q. Okay.

16 A. -- I know what that looks like. So I can
17 tell you they were no closer than that because --

18 Q. Okay.

19 A. Granted, it's a smaller helicopter. It's
20 only going to be 22. So --

21 Q. Yeah.

22 A. -- that could also be skewed as far as, like
23 --

24 Q. Okay.

25 A. -- a distance perception, but --

EXAMINATION

1

2 BY (b) (6)

3 Q. Maybe a different way to ask it then, the
4 distance between your aircraft and the Huey on the
5 deck, was that about a similar distance?

6 A. No, that was like -- again, that was like
7 200 meters. Like, that was pretty far up the runway.
8 So we --

9 Q. Okay.

10 A. They had asked if anyone had, like, a
11 litter, and the guys in our aircraft had, like, a --
12 basically, like, imagine a litter but with no poles.
13 Like, they had like a hand strap one, hand carry one,
14 and a crew chief from that Huey, like, hauled and did,
15 like, a fucking CFT 880 run, like two -- like, it took,
16 like, two, three minutes for them sprinting to get to
17 our aircraft. Like, it was pretty far.

18 Q. Okay. Just walking it back just a little on
19 the beach, on the UH position, you did say that you saw
20 a UH on the left side of the flight as you guys were
21 ingressing?

22 A. I saw H-1s. Yeah. So I -- I could see
23 their -- I could see their section, which to me was,
24 like, perfect. That's exactly where we expect to see
25 them. Now, as far as where I saw them positioned, I --

(b) (6)

1 I -- I don't know between IP --

2 Q. Yeah.

3 A. -- and when we rolled out on course where I
4 identified them, but I had them identified, and I
5 called them out visual. Where they were on my
6 windscreen, unfortunately, it would have -- would've
7 been like a -- a product of where I was on my heading.

8 Because if I was rolled out on course from
9 the beginning, they would've been in their holding area
10 to the left. I would assume to the left. I want to
11 say I remember calling out clock position they were
12 moving. I can't remember what direction I said they
13 were moving.

14 BY (b) (6)

15 Q. At what point, when you made this turn right
16 here, where do you think the H-1 was? What were -- or
17 -- or do you remember seeing them (crosstalk)?

18 A. When I -- when we did our power pole
19 (phonetic) and our beep and started converting --

20 (b) (6) Can you label those points
21 as well, if that's what those are? The beep.

22 (b) (6) So again, not to scale.

23 (b) (6) Yep.

24 (b) (6) They would've been
25 trailing behind us to -- as they were going to, like,

1 join up on us. And it wasn't like a join up, like,
2 true escort. It was like, we're just going to fall in
3 on your 5 and 6 and follow you in. They weren't like,
4 joined up like a normal -- like, true escort scenario.
5 It was just to facilitate them being able to follow us
6 in and then them doing like their actions on the
7 objective

8 EXAMINATION

9 BY (b) (6)

10 Q. Yeah.

11 A. -- as required, et cetera. So not -- not to
12 scale, again, but they would've -- the -- the question
13 was where they would've been at as I commenced the
14 turn?

15 Q. Yes.

16 A. Oh, they would've -- they probably would've
17 been -- if this is a mile and a half, they -- they
18 probably would've been a mile and a half to a mile.

19 Q. So they were pretty far behind you?

20 A. Yeah.

21 Q. When you guys passed?

22 A. We -- we -- they were in their holding area.
23 We passed a beam before we -- we were probably power
24 pole when we passed a beam, but they like -- they were
25 -- yeah, I mean, we're going 200 knots, again slowing

1 down, and they're going at the most, like what, 130.

2 Q. Once you made the turn to 90, once you
3 physically made the turn to 90 -- so I'm just trying to
4 put you kind of back in that -- that turn. When you
5 made the turn, do you remember, once you were
6 intercepting final and you went wings level, do you
7 remember seeing them?

8 A. The H-1s?

9 Q. Yeah, on the left?

10 A. No. No, I didn't see them until I turned
11 around.

12 Q. Yeah. Okay.

13 A. And my assumption would be that, don't move
14 on my part, turning around, right? Because, you know,
15 had the confidence that we had altitude separation, but
16 if we're talking about lateral, like that was -- hard
17 to turn around if, like, going opposite directions now.

18 But I -- I turned, and my assumption would
19 be like they were -- they were -- they had just been
20 still, like, inbound. I -- I don't know what they saw,
21 but I would assume, based off of what we, like, planned
22 for and what kind of, like, played out, that they
23 weren't overhead when it happened. They were probably
24 watching it as they were still ingressing.

25 Q. Okay.

1 A. Yeah. Again, because, like, I turned around

2 --

3 Q. It's -- going to be speculation --

4 A. Yeah, it would just be speculation.

5 Q. You don't remember. That's okay.

6 A. They -- they were not -- they were not over
7 us. They were not over us when I started my turn to
8 the right -- to the right.

9 Q. Okay.

10 A. Yeah.

11 Q. That's helpful. This is a -- this is
12 another question, and I -- and I don't -- I'm not
13 intending for you to rehack your previous testimony.
14 That's not the -- but I --

15 A. I understand.

16 Q. -- I don't know that this particular portion
17 was asked, so I'm going to ask it. Do you -- do you
18 believe that Dash-2 missed the power pole?

19 A. Asking me, like, as speculation?

20 Q. I would say, based on your observation of
21 their position, Dash-2's position, what would've been
22 the cause of that? That's a better way to ask that.

23 A. I think weight. That is -- that is what I
24 think. That is kind of, like, why I feel guilty about
25 it, is weight. I didn't make a sugar call. It's not

1 required. It's a nice-to-have. Some people believe in
2 them, some people don't. If we're looking at our
3 numbers for an approach that we briefed, we know when
4 we're going to do it.

5 And even if we don't, and there's a whole
6 notion of Dash-2 keeps up and shuts up, even with that
7 power pole, if you're heavy, the power pole, even in
8 the bucket without 20 percent left in, you can still
9 skid way past your intended pole. You can still be
10 fast at your 1.5 where you're supposed to be. So I
11 can't -- I -- I can't say, sir. I can't speculate that
12 they missed their power pole.

13 At a point, maybe (inaudible) before
14 somebody who, like, definitely jumps on you if you
15 missed that stuff. I would say they didn't miss it,
16 but they were probably confused as to why we were, you
17 know, on a heading change outbound before going
18 inbound. I'm sure they probably understood, based off
19 of, you know, our magenta lines. Like, okay, they
20 punted this one, they're getting back on course.

21 But if I was going to speculate anything, I
22 would say I'd speculate he was somebody that would call
23 a power pole early. Because of us getting back on
24 course and understanding we're heavy, he's like, hey,
25 like, I -- I can almost hear his voice in my head

1 imagining him saying like, let's go ahead and get our
2 separation down. I -- I don't think he missed his
3 pole. That's just my opinion.

4 Q. Okay.

5 A. I think they were -- I think they were
6 heavy.

7 EXAMINATION

8 BY (b) (6)

9 Q. Now you wrote on here Dump Truck 11 and 12.
10 Were these the actual -- were you -- were you going to
11 the northeast part?

12 A. Correct. Yep, that's what that was, sir.

13 Q. (Crosstalk).

14 A. Crow 1 was Dump Truck 1-1. Crow 2 was Dump
15 Truck 1-2. I think I said that from the (crosstalk) --

16 Q. Yeah. I'm sure you did testify to that.
17 Yeah.

18 Just for my own understanding, since I
19 wasn't in there. So they were supposed to land on your
20 right side?

21 A. Yeah. Yeah, inbound to Cape Gambier. I
22 mean, you guys will have it recorded. And if it -- if
23 it's not, inbound either to Cape Gambier, or from Cape
24 Gambier to Subaru, but I'm pretty sure it was inbound
25 to Cape Gambier because I remember water being around

1 me.

2 Me reiterating on AFL Common, which is our
3 intra-flight, saying, hey, just to reiterate, Dump
4 Truck 1-1 go to Crow 1, Dump Truck 1-2 go to Crow 2,
5 because I wanted to land in the spot that was going to
6 be more aft based off of the landing heading, and
7 that's just for wind mitigation. So I did reverse
8 (inaudible).

9 Q. Did they roger and over?

10 A. Yep.

11 Q. Okay.

12 A. Roger.

13 Q. Cool.

14 A. Well, I think he said roger. He
15 acknowledged something said.

16 Q. Yeah. Yes. Yep.

17 A. Okay. So -- so yeah. And -- and I -- I
18 said it again, I'll -- I said it before, I'll say it
19 again, like, that's what crossed my mind when we
20 started our turn final and I saw them was -- we've been
21 talking about it. They're heavy, coming right, they're
22 supposed to be on our right side. So probably
23 overshot, you know, over-correct.

24 I mean, that's like normal conversion
25 pattern coming in from base. You're usually on the

(b) (6)

1 outside, and then you kind of cross over to the inside,
2 depending on your landing, or depending on your landing
3 configuration, where you're going to land, if you're
4 going to land like that. So that's -- crossed my head
5 as to the crossover.

6 BY (b) (6)

7 Q. Let's actually press pause on that. Kind
8 of, like, I just want to ask you a little bit, because
9 I think collectively we've wondered over the course of
10 many different interviews at this time -- at this
11 point, what the intended position of the Dash-2
12 aircraft was supposed to be. And so the -- it sounds
13 like you're saying that the intended position on final
14 to land was Dash-2 Echelon, right?

15 A. Correct.

16 Q. Okay.

17 A. Versus (crosstalk).

18 Q. Yeah. So the intended landing --

19 A. Dash-2.

20 Q. -- was supposed to be the lead aircraft in -
21 - in --

22 A. The northern --

23 Q. The northern position, Dash-2 in in
24 position?

25 A. Yes, sir.

1 Q. In this case -- and again, I'm walking --
2 and this is from two -- in-between two guys that have
3 formed this exact profile dozens and dozens of times.
4 If they were doing a right 90, and they started the
5 turn on the left side, then, I mean, I -- I would -- I
6 would presume that anybody would complete the 90 turn
7 before executing the crossover to the right side.

8 Because I -- I would not -- I would not
9 personally choose to do a 90 tactical approach while I
10 was trying to execute the crossover in the turn. I
11 would wait until we rolled level and then I would make
12 conversion, cross over the right side as we're coming
13 in for landing, because it's a -- it's a pretty -- it's
14 -- it's a pretty sporty turn, right? It's a pretty
15 sporty turn.

16 So in this case, it sounds like they were
17 coming forward of your aircraft, somewhat over-shooting
18 you, and they made the turn. And so if they're making
19 that turn, there may have been -- and this is
20 speculation, I'm just thinking through the
21 possibilities here out loud. But it sounds like there
22 may have been possibly some confusion about, when are
23 we going to cross over, right? When are we going to
24 get on the right side?

25 We're -- we're starting starting the 90

1 degree turn approach on the left side, so when do we go
2 -- when do we go to the right side, right? So you --
3 you were describing that when they made that turn, they
4 were turning and it -- did it appear as though there
5 was going to be, like, an incursion, like they were
6 going to -- they were going to run into you?

7 A. No, I think it -- I didn't think so. Caught
8 -- it caught the co-pilot off guard because, again,
9 you're not really expecting to see Dash-2 eagle view
10 when you're starting your right-hand turn, but I didn't
11 think so. That -- the thought that went through my
12 head was, oh, they overshot.

13 They're going to crossover. They're going
14 to get back to position. Like, that was -- that is the
15 most I thought about it. And I just stayed in my
16 aircraft (crosstalk). Yeah. And -- and I understand
17 what you were saying about, I would do my turn first
18 and then my crossover into position. Don't -- don't
19 know -- forgive me if I don't know if that is, like,
20 procedurally what is correct.

21 My assumption, if I put myself in a Dash-2
22 position, which I've been in several times, and I'm
23 doing the whole falling lead thing, and he's doing
24 something that is kind of like we talked about, but
25 it's maybe not playing out the way we planned. I --

1 I'm just going to try to continue to slow down and get
2 separation on the same side that I'm on.

3 Q. Yeah. Yeah.

4 A. So that is afterthoughts when this happened
5 was, you know, trying to reason with myself, why did
6 this happen? Why did I -- what did I do wrong? What
7 could I have done differently? They -- they were doing
8 what I would've done. I would've -- something is
9 happening, I don't know what lead is doing, lead didn't
10 call their powerful, lead didn't call their -- their --
11 their beep, which don't have to, it's not required,
12 it's not a requirement.

13 And if I cannot slow down with them to get
14 on the inside, or if I can't slow down with them enough
15 to bring my nacelles up while they're continuing to
16 slow down because they're bringing their nacelles up,
17 then I'm going to do is get altitude separation and get
18 lateral separation. If I can't get altitude
19 separation, I'm going to get lateral separation.

20 And I'm not going to try to do a crossover
21 now because I know that in about 20 seconds, 15
22 seconds, they're going to be there, and now I'm going
23 to be inside the turn, and now I kind of -- like, I
24 don't really have any room to maneuver inside the turn
25 because now I'm inside the tighter radius. And like,

1 that's just overall, dare I say less safe.

2 Just I -- I've -- I -- that's -- that is
3 almost, like, instinctually what went through my head,
4 like, that thought process, like, snap, like, flash of,
5 like, a -- saw it over here and I was like, okay, they
6 overshot. They turned out. They're coming up, and
7 they're going to cross over, get back into the
8 position.

9 Q. Yeah.

10 A. That's all I thought of it.

11 Q. So we -- we've thought through that, too,
12 and I think what we've wondered is, you know, why --
13 why did they turn inside to the right? Like why not --
14 why not get lateral separation to the left? Like, you
15 know, what -- what would've -- what would've been the
16 cause for them to turn to the right? And I don't
17 expect for you to know that. This is almost a
18 rhetorical question just to spur thought.

19 A. Well, you mean, like -- turning into the
20 right, like for their position would be my -- my guess.

21 (Crosstalk) stay on this side?

22 Q. Oh, why not just accept landing to the left?
23 Or just -- or just get waved off or --

24 A. (Crosstalk) separation?

25 Q. Wave off, right.

1 A. I've thought about why not wave off, and a
2 lot of people brought that up when we're just talking,
3 trying to process it.

4 Q. Because they -- they -- they -- they turned
5 right, and they kept right. You know? So they -- they
6 kept turning right, kept turning right, to come inside
7 of you. So that -- that's kind of -- that's -- again,
8 not expecting you the know the answer. We're just --

9 A. Yeah.

10 Q. -- just trying to spur thought here, and,
11 you know, try to continue teasing -- teasing it out.
12 Like, why not -- as you described earlier, why not take
13 the lateral separation? You know, get -- get
14 separation for safety, get altitude deconfliction by
15 elevating to -- to get above it, and then -- and then
16 once you, you know -- you know, you have safe
17 separation, make your move to the crossover? And it
18 doesn't appear as though that's what -- that's what
19 occurred.

20 A. Yeah, I -- I -- I can understand, sir. I
21 see what you're saying. Putting myself in that
22 position, I would say it's just having, like, and I can
23 do it mentality and not even, like, in a, I'm going to
24 push an unsafe situation. But like -- you guys are
25 asking the questions, but like, how many times have you

1 had a botched 90 that still was recoverable, and you
2 still did it and got back on course?

3 I don't know. You don't have to answer that
4 question, but like in my head, like, there's been
5 plenty of times that even just like a sim, practicing,
6 like, oh man, like really kind of jacked this one up,
7 but like, I'm going to get back. Okay. We got back on
8 course. I'm fine, I'll -- maybe a little fast.

9 Profile is not -- not to say per the book,
10 but profile is not like, exactly how you want it to be,
11 you know, maybe. And this is beyond the scope of just
12 like, oh, the winds are heavy or your aircraft is heavy
13 so you have to do your nacelles a little bit aft more
14 this time, or maybe you have to start your turn a
15 little sooner, or maybe you convert a little quicker.

16 Like outside of that, just assuming a normal
17 standard temperature pressure, training, weights, day,
18 and you just like punt the right 90, like, it's -- it's
19 still salvageable to some extent. And a -- a 90 -- I
20 was told this when I was at the FRS by Tich (phonetic),
21 like, it's not really a sexy maneuver.

22 Like it -- it is dynamic. It -- it is --
23 you know, it -- you can do a grip and rip depending on
24 how you fly it. But like, you can also fly it, like,
25 pretty benign, and like a very often number of times

(b) (6)

1 when I was first learning 90s that I would end up
2 inside of the course line, right of course line if I
3 was doing like a right 90, right? Because just, like,
4 yeah, I got to, like, bank and rip.

5 Q. Yeah.

6 A. Like, oh, now I'm, like, a 0.4 off of, like,
7 what my course line's supposed to be.

8 Q. Sure. Sure.

9 A. So -- but it kind of almost -- this is just
10 me speaking about me. It almost just, like, kind of
11 tells you, like, okay, there is potential that you can
12 do that. You know, you can do that to the aircraft,
13 put it where you need it. So yeah, if I -- if I'm
14 ending up wide, well, I know I can put a little bit
15 more bank, a little more -- bit more rip in, and a
16 little bit more grip, a little bit more rip in.

17 And I can get back on course line. Not to
18 the degree -- to extent that I'm going to violate any,
19 you know, may tops limits (phonetic), exceed my 60
20 degrees angle bank or like, put myself in, like, an --
21 an -- an unsafe situation. But I also don't ever go
22 flying thinking to myself, I'm going to put myself in
23 an unsafe situation today.

24 BY (b) (6)

25 Q. Yeah. When you were -- when you -- when you

1 were coming in and you -- and you talked about -- and
2 this may be kind of hard for you to talk about, but the
3 last call that you heard from them, was that when you
4 discussed landing positions?

5 A. That was it. That was the last call.

6 Q. Who did you hear over the radio?

7 A. Smeagle (phonetic).

8 Q. Was Smeagle? Who usually talks on the --

9 A. Intra-flight?

10 Q. -- intra-flight? Is it the pilot flying or
11 the pilot not flying?

12 A. It's usually the pilot flying --

13 Q. The pilot flying.

14 A. -- on the intra-flight. However

15 EXAMINATION

16 BY (b) (6)

17 Q. Follow-up question with that is --

18 A. Okay.

19 Q. -- did you -- was Smeagle conducting intra-
20 flight calls for the majority of the flight? So when
21 you guys were doing intra-flight between the two
22 aircraft.

23 A. He did -- he did the majority.

24 Q. Yeah.

25 A. So -- so Lebeau (phonetic) did calls when we

1 were still on the line. She had done calls -- she had
2 done the ramps up call. He had talked to me about like
3 almost, you know, administrative, but still in the
4 scenario stuff. And he was like, hey, we've got a good
5 aircraft, you know, do you want me to reposition?

6 And it was kind of, you know, him being
7 aircraft commander of his aircraft and talking to, you
8 know, me being a sloughy, like, here's what I'm going
9 to do with my aircraft now.

10 So that happens, I would say, from time to
11 time, that whenever you're in a -- in a -- in a flight
12 of more than two or more aircraft that sometimes
13 aircraft commander will make, like, an administrative
14 call, or make a call that they want to ask. Like, hey,
15 I want to ask this. I sometimes pass it on to the
16 copilot. Hey, ask them this because I want, you know -
17 -

18 **Q. Right.**

19 A. But -- but --

20 **Q. I'm just trying to determine, you know, who**
21 **(crosstalk).**

22 A. I -- I would -- yeah, I -- I can only -- I
23 can only speculate.

24 **Q. (Crosstalk).**

25 A. I -- I would assume based off of experience

1 levels and just working relationships that, like, for
2 sure, like, Lebeau was up in controls, just because
3 like she's -- she's young. He's going to give her a
4 chance to go fly it. If it was unsafe, I just -- I
5 would assume he'd immediately take the controls on it.
6 But he -- he made a lot of the calls and I don't know
7 if that has to do with all the factors that you
8 generally probably see, (inaudible) of the pilot
9 flying, anything like that.

10 Q. Yeah.

11 A. A lot of heavy comms, based off comm
12 assignments. If it wasn't even heavy at all, like you
13 said, just flying, I'll handle all the talkies. I'm
14 not sure.

15 Q. Okay.

16 A. But she made -- she made calls on the line.
17 He made, like, two calls on the line. She made like
18 two or three calls on the line, both when I called for,
19 like, hey, I'm going to roll next to the RIO. I asked
20 for the update of the aircraft. He asked for like, how
21 much time we were going to require before we were up
22 aircraft. This was when I was also passing on like
23 troubleshooting stuff.

24 She gave the ramp. He gave the -- he asked
25 about, should we reposition? She gave the ramps up

1 call. He rogered up a couple times when I was telling
2 him where our aircraft was. When we finally got the
3 FCF PFF figured out.

4 He let me know that he had, like, checked
5 off a base and talked -- I want to say he let me know
6 he checked off a base and talked to dealer, and then he
7 let me know that the H-1s were trying to get ahold of
8 me and talked to the H-1s.

9 And they were like, cool, we got the update
10 from you.

11 And then he was like -- what I do kind of
12 remember better is he was like -- yeah, he was like,
13 checked off with everyone, like ready to switch to
14 approach when you are, or -- or -- I think he was like,
15 I'm up approach now. So he like, did the calls he
16 needed to do, and now he was like, up approach
17 (inaudible) flight, which is what I was up on.

18 And like -- I was like, good, copy about the
19 check off.

20 And then they like checked us off approach.

21 So I was like, sweet, now let's go.

22 Or no, he was -- he was already tat. That's
23 what he says. He was already tattoo over eight.

24 He was like, I'm already up tat, when you're
25 ready.

1 I was like, copy. Then I got switched off
2 approach. I was like, perfect timing. Now I'm up tat.
3 And I tried to do a positive switch to tat.

4 He was just like, you don't need to do that.
5 And then I was like, we're already up tat.
6 And then -- and then, yeah.

7 **Q. He told you you didn't need to do that? Did**
8 **you bring (crosstalk)?**

9 A. No, he said -- he said -- I didn't. Just
10 said we were both going to be up tat. But I tried to
11 just do it for like the warm and fuzzy. But he had
12 told me he was already up tat. And then when I got
13 switched off of approach, I checked in on tat.

14 I was like, look, that dump truck only fly
15 checked on tat, too.

16 And then when the fell, he was like, we're
17 already in.

18 I was like, copy.

19 And then -- and then yeah, I checked in on
20 tat, got ahold of the H-1s, and then on AFL. Yeah.
21 That would've been about the time I was like, hey, just
22 to reiterate, we're going to Crow 1, you go to Crow 2.

23 And then copy, or what -- whatever
24 acknowledgement he gave.

25 Sorry if I'm not speaking up.

(b) (6)

1 (b) (6) No, that -- you're good.

2 (b) (6) Yeah. That was -- that
3 was the last call.

4 (b) (6) I don't have any more
5 questions.

6 EXAMINATION

7 BY (b) (6)

8 Q. I do have just one or two follow-ups.

9 A. Yes, sir.

10 Q. How many times had you flown with H-1s
11 previously?

12 A. Major Lewis?

13 Q. H-1s.

14 A. Oh, H-1s? Once before? Flew with Tigers.
15 I've flown with Tigers before.

16 Q. So not H-1s? You flew with Australian
17 Tigers?

18 A. Yeah. Flew with Australian Tigers.

19 Q. Yeah. Just for the recording?

20 A. No, I've -- I've -- I've -- I've flown with
21 H-1s before for RIMPAC (phonetic).

22 Q. Okay.

23 A. I -- I -- I've done -- I've flown with H-1s
24 before, for sure. I'm trying to remember if I flew
25 with them before RIMPAC. Oh, I flew with them at least

1 once, Murphy (phonetic) 21. Define with them?

2 Q. Like out here, since they got out here.

3 A. Oh, since they got out here?

4 Q. So I -- I have two -- two questions here.

5 One is generally --

6 A. Generally?

7 Q. -- as a pilot, have you flown with H-1s?

8 A. Yes.

9 Q. Did you do the planning with that?

10 A. Yes.

11 Q. Or were you co-pilot? What was your role in
12 that?

13 A. Both.

14 Q. Okay. And then approximately how many
15 times?

16 A. Thinking back to -- I don't think anything
17 in K Bay (phonetic) when they were still there. So
18 thinking back to Murphy 21, twice, because there was a
19 large exercise that we did down in Bradshaw, and we
20 flew with them again in Bundy once, and then we flew
21 with them for RIMPAC.

22 Which the big -- the big air assault
23 (phonetic) is what comes to mind. It's like the big
24 visual I have. But it might've been more than once
25 over the course of RIMPAC. And then Tigers out here.

1 So once with the Tigers over deployment, this
2 deployment, and then this was my first time this
3 deployment flying with them.

4 Q. Okay. And first time flying with this tat
5 (phonetic) then, obviously?

6 A. Yes.

7 Q. Okay. Anything else?

8 A. (No audible response).

9 Q. Okay. The same warning I gave at the end of
10 the first interview, right? You're advised this is an
11 ongoing investigation. Please don't discuss your
12 testimony with any other potential witnesses.
13 Obviously, there's other investigations. You can speak
14 with any other duly appointed investigative body. Any
15 questions?

16 A. No, sir.

17 Q. Okay.

18 (End of Audio Recording.)
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(b) (6)

CERTIFICATE OF TRANSCRIPTIONIST

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I, (b) (6), a transcriptionist

located in Charlotte, North Carolina, hereby certify:

That the foregoing is a complete and accurate
transcript of the digital audio recording of the
proceeding in the above-entitled matter, all to the
best of my skills and ability.

I further certify that I am not related to any
of the parties to this action by blood or marriage and
that I am in no way interested in the outcome of this
matter.

IN WITNESS THEREOF, I have hereunto set my hand
this 20th day of October, 2022.

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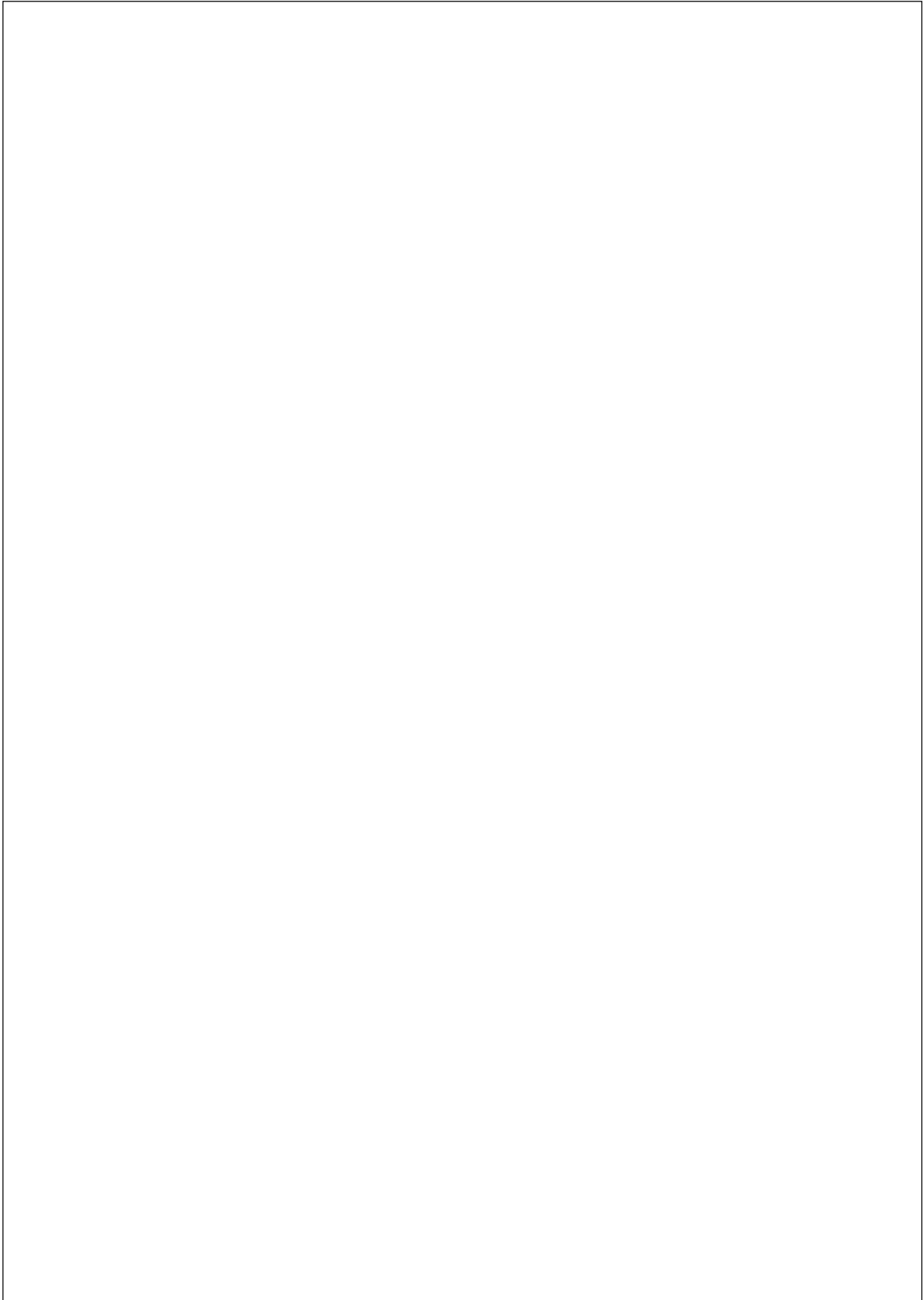
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Transcript of Audio File:

COMMAND INVESTIGATION RE: AVIATION MISHAP

INTERVIEW OF (b) (6)

TAKEN AT ROYAL AUSTRALIAN AIRFORCE BASE DARWIN

MONDAY, SEPTEMBER 4, 2023

Audio Runtime: 1 Hour, 5 Minutes, 18 Seconds

(b) (6)

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(b) (6)

1 (Beginning of Audio Recording.)

2 (b) (6) So just a reminder of kind of
3 the stuff we already went through earlier about this
4 being a command investigation. This interview is being
5 conducted on 4 September at RAAF Darwin with (b) (6)
6 (b) (6). And kind of the last -- right before we begin
7 the Proxy Act advisement, you filled out the
8 questionnaire. Do you have any questions about any of
9 that?

10 (b) (6) No questions.

11 (b) (6) Okay. And then the last
12 thing that I'll -- I'll highlight that I didn't address
13 earlier is that for the purposes of these
14 investigations, it's important to provide information
15 that is complete and truthful. It can be a violation
16 of the UCMJ if you knowingly you provide a false
17 statement under oath. And if you have any questions,
18 you know, just feel free to ask, okay?

19 At this time, I'm going to ask you to raise
20 your right hand, and I'll administer the oath.

21 (b) (6)
22 having first been duly sworn, testified as
23 follows:

24 (b) (6) Thank you. And then, sir,
25 over to you.

EXAMINATION

1

2 BY (b) (6)

3 Q. All right. So we will -- if you could -- and
4 you can start where you want to, whether it's here in
5 the PZ, anything along the way. You kind of start --
6 you start talking, and then if you haven't kind of
7 addressed anything, I'll ask questions along the way.
8 Make sense?

9 A. Yes, sir.

10 Q. Okay.

11 A. So from what I understand, from before we
12 even started flying, we started the planning. The
13 planning started that week, probably early on. I
14 wasn't really part of the planning process. It was
15 mainly -- (b) (6) was spearheading it. Captain
16 LeBeau was the XO for -- for the planning. They had a
17 group chat with the GCE Marines, and they were doing
18 most of the coordination.

19 The plan kept changing around. The GCE would
20 frequently have -- go back and forth on what exactly
21 they wanted to do. One of the COAs was to have -- to
22 be a section but not maintain section integrity and
23 have one aircraft go to one section -- to one LZ and
24 the other to the other.

25 And it -- and then that went back and forth

(b) (6)

1 so much on whether we were going to maintain section
2 integrity or not that at one point, one, I gave up
3 trying to figure out what we were doing and, two, the
4 last word that I got is that we would be breaking up
5 section integrity, and -- but then we didn't. I think
6 that -- that goes to -- there's some lessons to be
7 learned there for both the GCE and the ACE --

8 Q. Uh-huh.

9 A. -- regarding timeliness with the plan.

10 Saturday, the -- the day before, on the 26th,
11 we came in at approximately 1200. We came in. We had
12 the entire crew of the flight come, minus the crew
13 chiefs. But we had two additional pilots that came
14 just to help. We planned extensively in detail for
15 probably -- for another four hours on the off day -- on
16 our off day. Rather, it was more than that. We
17 planned for five hours, and then at 1700 on the day
18 before, on the 26th, we had the combined section brief,
19 which was H-1s and V-22s conducting a brief together.

20 I thought the brief was thorough, but it
21 seemed like there was a disconnect between the H-1
22 section lead and the V-22 section lead under
23 instruction, which is (b) (6) on how detailed
24 they were going to be, and -- and so (b) (6)
25 ended up being the one who did most of the briefing by

(b) (6)

1 default because he thought we -- they were going to go
2 into more detail, rather, and (b) (6) thought
3 there was going to be more wavetops.

4 I thought that the brief was sufficient. It
5 covered all the things that we needed: altitude, air
6 speeds, deconfliction plan, potential weather, slap
7 data, anything of that -- That was covered for both
8 platforms to be aware of. Everyone was in -- everyone
9 was there participating. There was no -- no one was
10 not there. That ended at about -- 1822 was the last
11 time that I remember looking at my watch and going
12 home, going back to my room. So it was about that
13 time.

14 We asked (b) (6) if he still had -- if he
15 still needed any help, myself and Captain LeBeau.

16 We asked if he needed help with anything
17 else.

18 He said, no. He seemed stressed out, maybe a
19 little flustered, nervous about his first section lead
20 event.

21 I went home that night, and it was pretty
22 uneventful. Captain LeBeau and I, we talked about,
23 like, what time we'd be leaving. She told me we'd
24 probably be leaving at 5:30. I said, okay, went to
25 sleep. Probably went to sleep at, I don't know, 2145

(b) (6)

1 that day. I set my alarm for 05 the next day.

2 On August 27th, on 05, my alarm went off. I
3 got up, got changed, got on the phone with my wife. At
4 5:30, I got in the car with Captain LeBeau. She was
5 already in the car. She had the car running. I jumped
6 in the passenger seat. I hang up the phone. We
7 exchanged a few words on our way to RAAF Darwin to pick
8 up the rest of the crew. It was probably 5:40. I
9 think I've checked my phone now, and -- and that's -- I
10 -- at 5:40, I texted (b) (6) saying we were there to
11 pick him up.

12 We picked him up, then we went to TC6 to pick
13 up the crew chiefs. (b) (6) (phonetic) and (b) (6) were
14 the first ones to come out. They were already there
15 kind of ready and waiting for us. (b) (6) (phonetic) and
16 Collart were not there yet. They took a little bit
17 longer. We ended up kind of having to call them. But
18 really, in the end, it ended up they were probably two
19 minutes late. (b) (6) showed up, and then Collart came
20 last. He looked tired, like maybe he had just rolled
21 out of bed, but nothing out of the ordinary for a 6:00
22 a.m. brief.

23 We get to the FRA right on time. We start
24 our brief. The ODO brief kicked off. I believe it
25 kicked off slightly not on time, and I don't remember

1 there being an official time hack.

2 **Q. Okay.**

3 A. They covered local weather for the Darwin
4 area, but not necessarily specific to Melville Island.

5 After the ODO brief, (b) (6) decided to do
6 his section brief in the safety shop, because there was
7 going to be an H-1 ODO brief right after ours. So we
8 walked over. The entire crew walked over to the safety
9 shop. In the safety shop, he kicked off his brief. I
10 thought it was thorough and covered all aspects of what
11 we needed for -- for our flight, our conduct of flight.
12 Nothing noteworthy that I noticed, except one of the
13 questions was that Major Lewis asked about a non-
14 standard 90 that we'd be doing.

15 So for both LZs, we were planning on doing
16 90-degree tacticals, right-hand, and they were both
17 non-standard. They were both not an exact 90-degree
18 turn, but one was more than 90 and the other one was
19 less than 90. And the one that was less than 90, the
20 one that was less than 90 would mean that we would pull
21 less Gs on the turn and therefore it'd be harder to
22 slow down. And if -- if it's -- if you're harder to
23 slow down, it's going to be harder to open the corridor
24 and convert to helicopter mode.

25 So I asked the question if we should adjust

(b) (6)

1 the airspeed to account for that. (b) (6) answered
2 that he would leave that up to each cockpit. It would
3 be at the discretion of the pilots in -- in their
4 cockpits, and I thought that that was a good answer
5 because what we've been -- what we've learned is that
6 Dash-2 needs to follow along in whether -- whatever
7 airspeed that may be. Obviously, you have some
8 responsibilities as far as navigation when that comes,
9 but for the most part, it's Dash-2's responsibility to
10 either keep up or slow down accordingly with lead.

11 A mistake that I made was during that time, I
12 got confused on which -- which one was -- was less or
13 more of a 90-degree. And I thought that the first LZ
14 we were going to was the one we would have to slow down
15 first, which -- that comes into play. And so I kind of
16 made a note or I -- maybe I -- I think it was a mental
17 note, where I said, okay, I think this first 90, I'm
18 going to -- I'm going to go a little bit slower and --
19 to be more conservative.

20 That was the only thing I noted. I walked
21 out. We conducted -- we broke into cockpit briefs. We
22 conducted our NATOPS briefs. NATOPS briefs from
23 (b) (6) was standard, nothing noteworthy,
24 nothing out of the ordinary. I thought it was a
25 thorough brief. He even covered things that he had

1 already covered in the section brief.

2 I was the first one to walk out of the
3 trailer. Dump Truck 1-2's crew, they were outside of
4 the safety shop and they -- that's where they conducted
5 their NATOPS brief. When I walked out, it looked like
6 they were just breaking apart because they had just
7 finished their NATOPS brief. Major Lewis and Captain
8 LeBeau were talking. I asked them if they wanted to go
9 get something to eat, and they said, yes. I looked for
10 my crew chiefs to see if they wanted to go get
11 something to eat, and I think I went to go fill up my
12 water.

13 When I came back out, Captain LeBeau said,
14 we're just going to ride with the XO instead of driving
15 the air crew van. We're just going to all hop in with
16 the XO because there was only four of us going. So we
17 hopped in the car. It was myself, Major Lewis in the
18 front. In the back, it was Corporal Collart and
19 Captain LeBeau. We went to the AAFCANS and we're just
20 chitchatting along the way. When we got to the
21 AAFCANS, somebody said, oh, I don't think it's open
22 today. It's a Sunday. I hopped out the car, checked
23 the door. Sure enough, it was closed. I get back in.
24 Major Lewis asked if anybody wanted to go to the Chow
25 Hall and we all declined going to the Chow Hall. We

1 left and just exchanged some small talk along the way.

2 We got back and myself and Captain LeBeau
3 had, like, a canned coffee that we sell at our gedunk.
4 We each had one of those, she contemplating having
5 another one. I got some snacks and threw it in my bag.
6 I think she -- she might've done the same. But the
7 only thing that I remember seeing her eat was -- was
8 the -- the BOSS coffee. I did not see what Corporal
9 Collart or Major Lewis -- I didn't see the -- if they
10 ate anything.

11 I decided to walk a little bit early, so I
12 think our man time -- I'm going from memory, but I
13 believe it was -- 8:15 was our man time. It -- it was
14 probably about 7:45. I told LeBeau we were walking
15 out. I stopped by the ODO office. I had our PeBL
16 already, but I grabbed the nav bag. I did not check
17 the -- I remember not checking. I don't -- I don't
18 believe I checked it. Sometimes we -- we check to see
19 how good the pubs are, but around here it's been hard
20 to get non-expired pubs, so they were most likely all
21 expired.

22 I walked to -- as I was walking out, LeBeau
23 already had her nav bag, so we ended up walking
24 together. I think I stopped to talk to somebody along
25 the way. I don't know how she ended up beating me to

(b) (6)

1 Flight E. When I got to Flight E, she already had her
2 vest on. She had done her pre-flight inspection on her
3 -- on her vest, and then we -- we talked. She asked me
4 -- as I was doing my -- my pre-flight inspections on my
5 flight gear, she was asking me how she did as the XO
6 and if there was anything she could have done better to
7 improve for next time.

8 We walked to the plane, and she walked
9 straight to Aircraft 15. On my way -- I was a little
10 behind her, and on my way there, I saw that Aircraft 13
11 was being worked on and that was our backup aircraft.
12 They -- it looked like they were doing something with
13 hoses and the fuel, so I stopped, and I asked (b) (6)
14 (b) (6) what he was doing. And he was scared. He
15 looked scared, but he just said he was defueling. And
16 I said that he was doing the right thing, he should
17 keep going. I asked what fuel state he was going to
18 bring the aircraft to.

19 He said he didn't know, but (b) (6)
20 knew.

21 So I walked around to the front of the
22 aircraft, to the side crew door on Aircraft 13,
23 verified with (b) (6) what aircraft state.

24 He said that maintenance control had told him
25 9,500.

1 I thought that was a little high, but that's
2 what they defueled the back-up to.

3 I walked to my aircraft, Aircraft 03. I put
4 my gear down and I began my walk-around. I saw that
5 LeBeau was doing the same thing. She was doing that
6 walk-around on Aircraft 15. I did a walk-around on
7 Aircraft 03, and I asked my crew chief if I could hop
8 in the -- the seat and start the checklist, because I
9 wanted to get the APU on as quickly as possible so we
10 could start burning down fuel.

11 I -- she said -- she said that that was fine.

12 I started the checklist. I was moving slow,
13 but I was being -- I was trying to be thorough with it
14 and not quickly with it. I knew we had time to kill,
15 but I also wanted to get the APU on. Eventually, I get
16 the APU on. I don't remember the fuel state we were
17 at, but if I had to guess, I would say about 9,500.
18 That sounds about right.

19 I -- soon after that, I was still working on
20 the pre-flight checklist and (b) (6) walked in.
21 He told me to take controls of the aircraft. He was
22 going to run the checklist. So he started running the
23 checklist. He was being thorough with it. And I don't
24 remember noting anything abnormal with him going
25 through the checklist.

(b) (6)

1 We -- one of our pre-flight built-in tests is
2 a -- for the FCS, for the -- the height system for the
3 flight controls -- the -- sorry, our flight control
4 system. And we weren't passing, so we kind of had to
5 navigate that. By that time, Major Lewis was already
6 in the aircraft, and they were already able to get
7 Aircraft 15 spinning up, so I guess -- again, if I had
8 to guess, I would say that this was about 8 in the
9 morning --

10 **Q. Uh-huh.**

11 A. --when they had their engines on.

12 We were trying -- we were troubleshooting and
13 coming up with different ideas and different quotas on
14 what we could do. And then at some point, Major Lewis
15 asked (b) (6) what he wanted to do. And he said he
16 wanted to -- he wanted them to go ahead and push and
17 continue on timeline and not be delayed by the lead
18 aircraft. So we decided to swap serials and they began
19 loading packs onto their aircraft.

20 We eventually got our PF pit to pass, and we
21 started spinning up. (b) (6) told them to go ahead, to
22 continue. And Major Lewis said, we're going to --
23 we're going to back up and -- we're going to back up
24 and wait for you at the fuel -- at the fuel pits, since
25 we could pull straight ahead, which meant that even if

(b) (6)

1 they took off five minutes early, we really would be
2 slightly behind them. So there's no point in breaking
3 up section integrity. So we maintained section
4 integrity at that point.

5 I saw -- that was the first time that I had
6 noticed that Corporal Collart was the tunnel crew
7 chief, because before, I didn't know which way they
8 were going to be positioned. So I did see Corporal
9 Collart as they were backing up as the tunnel crew
10 chief. They -- they pulled behind us. They cleared.
11 At this point, we're already taking on our packs. Our
12 packs were pretty quick to load. Our crew chief said
13 we were good to go. And just prior to them backing up,
14 actually, I remember their -- they gave us -- they
15 confirmed which serials they had on their aircraft. I
16 checked off each serial, and then they gave us their
17 ramps-up call, which they said 9.1 for fuel state.

18 We taxied off, called for clearance. We got
19 clearance. We had to hold short a little bit, and then
20 we were given clearance to line up and wait. And then
21 right after line up and wait, we were given clearance
22 to take off. We were moving quickly. We -- I believe
23 we -- we had left the APU on this whole time, and then
24 (b) (6) said, let's not forget when we're at
25 the hold short to turn the APU off, which we did forget

(b) (6)

1 to turn the APU off, so the APU stayed on. I think
2 that was the first time I remembered saying that.

3 Winds -- I checked ADIS. I'm pretty sure I
4 got information echo. Winds were calling 130 at 10.
5 The altimeter setting was 1015. I put -- I spun in --
6 I spun in at the heading bug to the -- to the -- what
7 the wind was calling for, 130. And I told (b) (6)
8 (b) (6) it was Runway 11.

9 He asked what the winds were.

10 And I said it's 130, it's in the heading bug.
11 And I said, I'm pretty sure that means we take the left
12 side of the runway.

13 He goes, yeah, take the left side.

14 So as we're crossing the threshold -- or
15 excuse me, the hold short, we make a right turn to
16 Runway 11. We take the left side of the runway. Our
17 crew chiefs tell us that Dash-2 is in the correct
18 position. They were right behind us, so we put the
19 nacelles to 60. I held the brakes. I was at the
20 controls. And he went through with the pre-takeoff
21 checklist. We completed that. We took off.

22 Prior to that, actually -- this is also
23 noteworthy. Prior to us taxiing, we were still at the
24 line and (b) (6) was running through the -- the
25 checklist. And that's when I ran a perf calc. And I

1 ran a really detailed, good perf calc. I asked him for
2 the basic aircraft weight. He had just checked -- got
3 it from the book. We got that. I added our crew
4 weight of 880. I added our raft of 880 and 180. Then
5 I added -- then I did 300 times 19, which came out to
6 5,700 for the packs, and then I added our fuel state of
7 9,000, which I knew by the time we took off and landed
8 we would be below 9,000.

9 I believe that gave me an 8 percent torque
10 margin on a hoagie, is what I remember seeing. And I
11 remember thinking that we only needed a 5 and that air
12 -- even though Aircraft 15 was heavier, one; I knew
13 Major Lewis and Captain LeBeau were both smarter, more
14 experienced than me, so they would also do a load comp.
15 And I also remember looking when the passengers were
16 loading and looking at them and seeing that they looked
17 pretty thin as far as weight goes. And I didn't think
18 that they weighed 300 pounds each, which -- which was
19 also important because then it gave me the warm and
20 fuzzy knowing that even though we were at a higher fuel
21 state and Aircraft 15 was our heaviest aircraft, if we
22 -- if I got an 8 percent torque margin, we only needed
23 5, I knew that they had -- they had above 5. And by
24 the time we got there, as Dash-2 used more fuel, so you
25 -- they would've been above 5 percent torque margin.

1 Nonetheless, though, we were heavy, and I noticed that
2 as soon as we tried to taxi, the aircraft did feel
3 heavy taxiing.

4 Anyways, back to when we took off. So I --
5 we -- when we took off and I applied power, I noticed
6 that the STOL was quicker than what I was expecting.
7 And I remember thinking, okay. We took off. We kind
8 of jumped off the ground, which was great. I'm like,
9 okay, cool. She's -- she's doing good. She's got two
10 healthy engines. We got power.

11 I maintained pretty -- a slower air speed. I
12 did -- I wasn't going too fast. I knew Dash-2 had to
13 catch up. And I also maintained a low altitude because
14 I knew that they had to get above me before we fully
15 transitioned to airplane mode. So as we're climbing
16 up, I probably maintained 180, 190 on the climb out. I
17 -- I was climbing out at about 1,500 feet per minute,
18 and we were cleared up to 2,000. Soon after we took
19 off, we were cleared up to 2,500, and then cleared
20 direct to Camp Gambier -- Gambier.

21 And it was either Camp Gambier or -- I don't
22 recall exactly where we were cleared to, but we were
23 cleared direct, and then (b) (6) spun in Camp
24 Gambier, so that is where we were navigating to. We
25 climbed up to 2,500, and I sped up to 220 KCAS. He

(b) (6)

1 said -- he said, let's speed up to 240, and then he
2 corrected himself and said, nope, we're already behind
3 timeline. There's no need to rush.

4 So I stayed at 220 and I remember not having
5 -- at that point, I didn't have a waypoint needle yet,
6 so I didn't know exactly -- like, I did not have an
7 exact heading of where I needed to go, so I was kind of
8 -- I -- I went left and then I had to come back to the
9 right, and then finally he gave me -- he was giving me
10 a headings, but not the waypoint needle.

11 Q. Uh-huh.

12 A. And so eventually he turned on the waypoint
13 needle as he was working through radios and navigation
14 and all that. I eventually had a waypoint needle and
15 just started navigating directly. And I remember
16 thinking, I hope my air work isn't too bad, because
17 Major Lewis is going to be calling me out on that.

18 Once we passed Camp Gambier or our last
19 point, it was -- it was the point before Subaru -- IP
20 Subaru, (b) (6) made his Aztec SOP call that we
21 were -- that we were inbound as fragged. And we heard
22 (b) (6), the H-1 pilot, respond accordingly.
23 Passing IP Subaru, we made a right turn, and (b) (6)
24 (b) (6) made his IP inbound call and (b) (6)
25 acknowledged.

(b) (6)

1 Before reaching IP, we had already had visual
2 on the -- on the two skids -- two skid aircraft. I was
3 the last one in the crew to -- to get visual of them.

4 I said, where are they?

5 And both crew chiefs kind of said -- said,
6 3:00 high, or something along those lines.

7 That's when I looked 3:00 high and I saw
8 them. So we did have visual of the skids. So we made
9 that right turn and we're coming in. (b) (6)
10 spun in the course line, and I followed the course
11 line, but I was supposed to be offset by one mile. And
12 he corrected me and said, remember, it's a -- it's a
13 right 90, so you need to be offset.

14 So that's when I made a right turn, and I
15 began coming right. And I think he said something
16 along the lines of, that's too much, start coming left.
17 And then he get -- and then I was finally on the right
18 heading. And he said, see, that was too much of a
19 cutoff. We should have -- now we're a little further,
20 but it's okay. So even though we were a little bit
21 further of the course line, I -- I gave us -- I cheated
22 inside a little bit, and I was coming -- we were slowly
23 coming towards the course line. The last distance that
24 I saw from the course line was 1.18.

25 We were tracking inbound on a pretty good

(b) (6)

1 heading because we had made those left and right turns.

2 Q. Uh-huh.

3 A. I, again, remember thinking, Major Lewis is
4 going to yell at me later. Not yell, just --

5 Q. Uh-huh.

6 A. -- be funny about it, because I sucked. And
7 I remember thinking that. And so we were kind of off
8 parameters. And I remember getting -- so at that
9 point, this is where I was confused on our right turn
10 and if it was going to be less than 90 or more than 90.
11 This turn, it was actually more than 90 degrees, so it
12 would've given us more Gs to pull and more air speed to
13 lose. However, because I was confused, because I had
14 already messed up the lateral distance, I decided to
15 slow down a little bit early to give us time to think -
16 - give me time to think because I think, out of the
17 pilots there, I was probably the weakest link.

18 At 2.2 miles, I pulled power, which is
19 typically done at 2 miles.

20 Q. Uh-huh.

21 A. I pulled power to 20 percent. (b) (6)

22 (b) (6) switched the course line to 090. I saw the
23 course line swapping, and then I -- I saw the CDI
24 coming alive. As soon as the CDI started moving, I
25 beeped, meaning I went to 80 -- 100 percent NR and the

(b) (6)

1 flaps start scheduling down.

2 Once the 22nd tread dot hit the course line,
3 I began my hard right turn. So I pulled right, and I
4 was coming through and I remember thinking that this is
5 working out pretty well because I was a little bit
6 slower and that everything was -- was going pretty
7 well. We're at 300 feet AGL at this point. We're
8 coming around to the right. And I remember seeing 57
9 accel. That's when the gear came down. That's when
10 (b) (6) said, gear's coming. And I kept bringing the
11 nacelles back. I kept bringing the nose up, and I --
12 and something just told me to look left.

13 And when I looked left, that's when I saw
14 Dump Truck 1-2 or Dash-2 aircraft. It looked like they
15 were still in airplane mode, but it looked like they
16 might've been between the 0 to 5. They were definitely
17 still in -- in airplane mode, but it looked like they
18 were already converting. They were coming at us on a
19 convergent course. Maybe if I had taken no action,
20 they would've missed us just slightly, but it was way
21 too close for comfort. I could see their flaps coming
22 down, and so I could tell that they were converting.

23 I immediately pulled power and I said, I'm
24 pulling power and descending because Dash-2's a little
25 too close. And I think that's when (b) (6) looked

(b) (6)

1 over. But I kind of kept looking over and I -- and I
2 saw just enough. I looked for just enough time that I
3 saw their nose coming up. As I was descending, I could
4 also see that it looked like they were trying to pull
5 their nose up. And Major Lewis was too good of a pilot
6 not to know where his lead aircraft was, so he knew
7 where -- where I was in relation to him. And that gave
8 me comfort knowing he wasn't going to hit us, but I --
9 I wasn't willing to kind of take that risk. It did
10 look like they had began converting already at that
11 point on the turn.

12 I know that (b) (6) and I were
13 looking at the same thing, so I kind of shifted my
14 attention forward. I watched them go by when they left
15 my field of view, and I just remember thinking that it
16 was a little -- it -- I forgot about -- about the vert
17 stab, and it was very -- a little too close to the vert
18 stab because my vert stab is above -- above me and
19 their -- and their prop rudders are below them, so it -
20 - it was -- it was very close.

21 I continued my approach and I continued with
22 my straight-and-level, making sure I was -- I was on --
23 on parameters. At this point, I decided to maintain
24 altitude, since I knew that we were going to be coming
25 down anyways, and I probably clicked back to 87 or 88

(b) (6)

1 nacelle.

2 And that's when (b) (6) said, Dash-2 is
3 down.

4 Me and (b) (6) looked at each other and said,
5 what?

6 He said, they just crashed.

7 And (b) (6) and the H-1 said, Dump
8 Truck 1-2 is down.

9 And (b) (6) said, big fireball.

10 We made a right turn.

11 I said, I'm coming right.

12 And then we started coming right.

13 (b) (6) said, clear right.

14 We started coming around. We'd probably
15 gotten to about 180 degree of our turn, maybe even
16 less. And that's when we saw a big fireball, which --
17 which turned into big, black smoke bellowing. And I
18 remember thinking, there's no way anyone survived.
19 This is the deadliest Osprey crash ever, and I no
20 longer want to be flying this aircraft right now.

21 And (b) (6) took controls. He continued the
22 right turn. And at this point we see a Huey. I -- I
23 know that they're above us, because I can see their
24 belly, but they're still a little too close for
25 comfort. The Huey tells us to continue his right --

(b) (6)

1 our right turn. They say, continue right turn. And he
2 also continued a right turn, which meant we were going
3 away from each other.

4 Once we -- we made the right turn, I
5 immediately grabbed my MAGTAB and I sent a message out
6 to the ODO. We came in to land. We had an RVL, but
7 (b) (6) did a great job and landed the aircraft safely.
8 I got my -- the MAGTAB again. Or actually, I
9 immediately looked at the (indiscernible), at our
10 manifest, and looked at all the names. And I saw how
11 young all the Marines might've been based on their
12 EDIPI number and rank and such. And I remember
13 thinking that --how devastating it would be that 23
14 families were about to get the worst news ever.

15 We got on the MAGTAB, sent some details over,
16 or we just -- we just talked to the ODO. I told
17 (b) (6) to take the MAGTAB, because I didn't want to
18 say anything that he wouldn't like, and we just kind of
19 sat there. I was afraid that the infantry guys would
20 want to run out. I asked if they saw anything.

21 (b) (6) said, yes. We made sure that our crew was
22 okay, and then we just had to sit there and do nothing
23 for an hour. I have some information on post-crash,
24 too. I don't know if that's relevant.

25 Q. Okay.

(b) (6)

1 A. We sat there and, obviously, we -- we
2 listened to the -- all the radios and we were following
3 along on the frequency changes. (b) (6) he assumed as
4 on-scene commander. Yeah, he did a great job. He
5 contacted departure. He made his emergency calls. We
6 eventually had -- I had a decent timeline. I started
7 taking down a timeline, and I -- a few things that I
8 remember is that as soon as we landed, we touched down.
9 I'm sure that this is -- this will be factual
10 information that we'll be able to pull from -- from the
11 aircraft's data, but we were weight on wheels at -- it
12 was -- I believe it was 0001 Zulu, which would equate
13 to about 0929 local time. I wrote that down.

14 By the time I looked at my watch, it was
15 already 0930. At 0940, they said, three survivors.
16 Three more survivors are coming out, so a total of six
17 survivors that I wrote down at 0940. The rescue
18 helicopter was already making contact with us. I could
19 hear them -- them calling over the radio. I started --
20 I -- soon after that, I started hearing (b) (6),
21 which was the company XO, (b) (6) on
22 the radio. So he was in -- in the crashed aircraft.

23 He came on, and there was a C-130 that was
24 taking off. It was like a -- they just -- they were
25 just going to be taking off just to be overhead. They

(b) (6)

1 said they'd be taking off shortly. I ended up writing
2 down their takeoff time. It was probably some --
3 sometime around just after 1000.

4 They took off. They were established at
5 10,000 feet. The -- we had a total of three rescue
6 helicopters. By the end, Watson reported 20 survivors.
7 Three air crew were unaccounted for. And based on
8 their position, I knew it was going to be the tunnel
9 crew chief and the two pilots.

10 It was probably about 45 minutes to an hour
11 we were sitting there thinking of different COAs --
12 COAs of what we could do, and we ended up saying, let's
13 -- I think we received a message from the ODO saying
14 that we could -- we could head back. We could RTV
15 whenever we could and drop the Marines off to go back
16 out and pick up the survivors. So we asked for
17 permission. There was a Cobra, like, relocating from
18 one side of the airfield to the other. The on-scene
19 commander at that time might have been (b) (6) or
20 (b) (6).

21 They said to stand by. They ended up
22 clearing us to take off. We took off with our 19
23 packs. I remember thinking we were still pretty heavy,
24 but we took off with no issues. It was an uneventful
25 ride back. We landed safely, probably about 10:30 in

1 the morning.

2 Q. So thank you for that. Very good detail. I
3 appreciate it, and your ability to recall is -- is
4 impressive. And I say that in a good way, and then
5 obviously in an unfortunate way. Let's go back to some
6 mission planning questions, and we'll kind of cycle
7 through some of the things you -- you kind of brought
8 out and we'll try to delve in a little bit more here.

9 So can you explain why, or do you know why
10 there was a desire to do a non-standard 90 to the LZ?

11 A. I don't know the exact reason, but I know
12 that during the brief, they briefed that there was an
13 HA or a BP. It was called, maybe, HA Cheetah.

14 Q. Okay.

15 A. And they left it on the objective area
16 diagram. And I remember thinking, why -- why would you
17 --

18 And they said, oh, this is holdover from --
19 from a previous mission, or something along those
20 lines, or the Australians use it. We're not going to
21 be using that. That won't be a factor. So I didn't
22 know necessarily why they selected the points, but it
23 seemed like there was a -- a reason why they had
24 selected the points. And it seemed like the -- the
25 ingress heading was based off of Subaru, so I think

1 that that's why they decided to do non-standard.

2 **Q. Okay.**

3 A. And I think something that's important to
4 note is I --

5 **Q. Yes.**

6 A. I did say that they were non-standard -- one
7 was less than 90, one was more than 90. This was
8 actually the less sporty of the turn --

9 **Q. Okay.**

10 A. -- which meant that if I slow down -- if I
11 was flying a slower approach than normal --

12 **Q. Uh-huh.**

13 A. -- we would've been in a very comfortable
14 position to make the turn and -- with plenty of Gs to
15 lose air speed --

16 **Q. Sure.**

17 A. -- and convert in time.

18 **Q. Yeah, I understand. Okay. So let's go back**
19 **to the briefing here a little bit, and then take me**
20 **through -- what was the battery fuel that was briefed?**

21 A. I believe 7,500.

22 **Q. Okay. And I just want to confirm that. And**
23 **so what -- what -- what I heard saying, at least on the**
24 **backup aircraft, was a 9.5 and you got in the plane,**
25 **you were at a 9.5 in your bird, as well; is that**

1 **accurate?**

2 A. Correct. When we called -- I think when we
3 when we did our ramps-up call, I remember -- oh, yeah.
4 I said that, 9.1. Yep.

5 Q. Yeah. Okay. And then you talked through the
6 -- (b) (6) did do -- or (b) (6) did do a perf
7 calc?

8 A. I did.

9 Q. You did the perf calc. Okay. My bad. Okay.
10 And what you saw on your detailed perf calc, you said
11 you were roughly 8 percent in a hoagie at the LZ?

12 A. Negative. At the current field state that we
13 were at. Meaning at the L-Z we would have more than
14 that.

15 Q. Okay. Okay. Thank you for that
16 clarification. Aircraft -- Aircraft 15, heaviest
17 aircraft. Is that pretty -- is that -- is everybody
18 across the command, all the pilots, as you're -- as
19 you're doing mission planning, does everyone know
20 Aircraft 15 is the heaviest aircraft?

21 A. Yes. That is very common --

22 Q. Okay.

23 A. -- common knowledge --

24 Q. Okay.

25 A. -- amongst pilots and maintainers alike.

1 Q. That would explain -- okay, so the whole --
2 whole command, anyone that's associated with the
3 airplane, knows it?

4 A. Yeah. So it's a -- a it's a DoN LAIRCM
5 aircraft --

6 Q. Uh-huh.

7 A. Which is a laser for aircraft survivability.

8 Q. Yep.

9 A. And it has two big lasers on the back side
10 near the ramp. And when it's sitting on the line,
11 there's a big -- big, red cover that goes on top. So
12 it's very easily noticed that it's a different-looking
13 aircraft, and therefore, everyone knows it has more
14 equipment --

15 Q. Uh-huh.

16 A. -- and more weight to go along with it.

17 Q. Okay. Is it the only DoN LAIRCM aircraft?

18 A. It is.

19 Q. Okay.

20 A. The other aircraft that is known around the
21 squadron is Aircraft 03 --

22 Q. Uh-huh.

23 A. And everyone knows that Aircraft 03, the
24 aircraft that I was at --

25 Q. Uh-huh.

1 A. That was giving us issues with the pre-flight
2 test, it's common of Aircraft 03 to receive those
3 issues, so when the news spread that there was a
4 mishap, everyone immediately assumed that it was the
5 poo poo bird on the --

6 Q. Okay.

7 A. -- on the line, the one that always gives us
8 issue, which is 03.

9 Q. Okay. All right, so talk me through here a
10 little bit. So I'm -- I'm tracking -- there's delays
11 in the flight log on the line, roughly five, 10
12 minutes. Taking off out of here, pretty standard,
13 right? And then you're departing out of there. You
14 said 2,500 feet, is what I recall, reading 220 knots.
15 Hey, speed up. No, slow back down. So the flight was
16 good there. You're not coupled up. You're just hand-
17 flying everything, right? What do you -- what air
18 speed were you flying in the descent down to get down
19 below whatever your coordination apps were?

20 A. Oh, yeah. So I believe it was Camp Gambier.
21 Camp Gambier is when we began our descent. It was --
22 it was a pretty slow descent. I pulled power, but I
23 remember wanting to maintain 220, so I was fighting the
24 power to maintain 120 and kind of trim down, probably.
25 I think -- actually, now that you mention it, I

1 remember seeing 2,000 feet per minute --

2 Q. Okay.

3 A. -- on the descent, I remember coming through
4 1,500 feet. I called out, 1,000 feet left, or 1,000
5 feet to go.

6 Q. Uh-huh.

7 A. And I leveled it off a little early, so
8 leveled off probably -- coming around to the left at
9 like 500. At Subaru, he told me to continue down to
10 300 or -- yeah, when we saw the skids --

11 Q. Uh-huh.

12 A. -- we made visual with the skids. We knew
13 that they were going to be at 900 and 1100,
14 accordingly. I actually -- I remember focusing on my
15 VVI --

16 Q. Uh-huh.

17 A. -- at that point. I couldn't tell you what
18 our rad alt was reading.

19 Q. Okay.

20 A. I don't recall that.

21 Q. Okay. But you do remember flying 220 knots?

22 A. Yes.

23 Q. Okay.

24 A. And pulling power at 2.2.

25 Q. Okay, cool. Do you happen to remember

1 looking at DNE air-to-air TACAN between you and Dash-2?

2 A. I remember looking at one point or another.

3 And I couldn't tell you where I was.

4 Q. Uh-huh.

5 A. But I do think it was already overflying

6 Melville Island and I saw 0.3.

7 Q. Okay.

8 A. So any last distance that I saw was 0.3.

9 Q. Okay. Just give me a second here. And do
10 you -- so sugar calls. You know what? When I say that
11 -- use that term, do you -- do you guys -- is that --
12 do you use sugar calls?

13 A. Negative.

14 Q. Okay, so no sugar call is made when you pull
15 power or anything like that. I just wondered. And --
16 and that is not -- and as a standard thing within the
17 command, you don't -- you don't make a sugar call?

18 A. Correct.

19 Q. Okay, got it. I just want to make sure I'm
20 understanding. So I asked in the -- the questions from
21 you guys, (b) (6) (phonetic) and -- and really what I'm
22 asking for there is, did you -- let's -- let's just go
23 away from the brief. Let's talk about any bird
24 activity you saw in the area as you're flying into the
25 objective area, other than the two H-1s, you know,

1 biological birds that are out there. Did you happen to
2 recall seeing any of those?

3 A. Yeah, absolutely.

4 Q. Okay.

5 A. Yeah, I saw -- and I think at one point
6 throughout the flight, we even had one that came pretty
7 close. It might -- it might've been, like, on our
8 takeoff, once we take -- took off the RTV. There was
9 one that -- that came pretty close.

10 Q. Uh-huh.

11 A. And I remember thinking -- or based on the
12 situation, and -- well, now I'm just drawing
13 conclusions, but --

14 Q. Okay.

15 A. Yeah, I absolutely think that a bird could
16 have been a factor. There's birds around here.

17 Q. Yeah, I'm not asking that. I'm asking, did
18 you see any birds over --

19 A. Yeah.

20 Q. -- Melville Island that you recall?

21 A. Yes.

22 Q. Okay. Okay. And I don't -- I don't ask you
23 this to make it painful, but if you can, just talk me
24 again through when you say "conversion," the -- the 1-2
25 is converging -- converging course with you, can you

1 **define that a little bit better for us?**

2 A. Yeah. I said "colliding course." I do think
3 that had I not taken an action, we more than likely
4 would've collided. And I can't tell you that for
5 certain --

6 **Q. Uh-huh.**

7 A. Because one, I think my memory -- after
8 traumatic events, we all know there's studies that are
9 done based on -- on memory recall.

10 **Q. Sure.**

11 A. And a lot of times what we -- what we
12 remember and actually happened are very different. So
13 I understand that my memory may not be accurate, but I
14 do think that we were on a colliding course --

15 **Q. Okay.**

16 A. -- had I not acted and had Major Lewis not
17 acted, because I also do think that at that same point
18 that they were turning towards us --

19 **Q. Uh-huh.**

20 A. -- he would've raised the nose. But I think
21 I reacted quicker and maybe pulled power. That way, I
22 started seeing the belly of the plane come -- as I was
23 descending, I started seeing them come up, but it did
24 look like they were -- they were also coming up as I
25 was descending.

1 Q. Uh-huh.

2 A. And so they were kind of doing one of these.
3 And I didn't know where they were going --

4 Q. Yes.

5 A. -- after that or what -- what happened, but I
6 just kind of had to focus on my own approach.

7 Q. Yeah, absolutely. Understood. Okay. Do you
8 happen to recall Crew Chief says -- you were in that
9 position or, I guess, prior to that position, do you
10 remember Crew Chief saying where Dash-2 was at all?

11 A. I asked before the right turn --

12 Q. Uh-huh.

13 A. -- where he was. And he said 7:00 --

14 Q. Okay.

15 A. -- which is where I expected him to be.

16 Q. Okay. Okay.

17 Okay. All right. We've covered the things I
18 want to talk about with regards to the flight itself.
19 Other things I kind of want to talk about today are
20 command culture. So in -- in -- in the sense of super
21 safety-conscious, super aggressive operationally, more
22 focused operation, more focused maintenance-wise,
23 because every command has its own unique kind of
24 personality, right? I'm just trying to get a sense
25 from you what you -- what you get a sense of about the

1 command culture here.

2 Is it even? Is it kind of slide heavily --
3 heavily toward operations or maintenance, or is it a --
4 in your opinion, is it a balance between the two? Does
5 that make sense?

6 A. It does, sir.

7 Q. Okay.

8 A. Yeah, I guess, like every good answer in the
9 Marine Corps, it starts with, it depends.

10 Q. Sure.

11 A. I think I've seen it both ways. I've maybe
12 seen it to where we're working a lot --

13 Q. Uh-huh.

14 A. -- meaning, we're -- well, right now, we're --
15 - or right before the mishap, we were working 12-hour
16 shifts. Before that, we were working 10-hour shifts,
17 six days a week. And we -- we -- there was a shift
18 there. We -- the Marines decided that -- I think as a
19 whole, there was kind of this shift into wanting 12-
20 hour shifts. That way, you get two days off. I think
21 that might've been -- there was definitely some
22 cumulative fatigue that I experienced.

23 Q. Uh-huh.

24 A. But it -- I think I experienced it more
25 working six days a week, vice 12. So the 12 was

1 actually better, which that meant it benefited the
2 maintainers.

3 Q. Uh-huh.

4 A. Because the maintainers work way more than we
5 do, so it -- and I remember thinking -- or I -- I know
6 that they probably appreciated two full days off. Do
7 we favor maintenance over operations? It seems like
8 it's -- it's a -- it's a constant battle. I don't work
9 in either.

10 Q. Uh-huh.

11 A. I work in safety.

12 Q. Uh-huh.

13 A. Therefore, I kind of have that safety
14 mindset. I'm surrounded around that.

15 Q. Yeah.

16 A. And when the DOS and the -- or the ASO sign
17 the schedule, they're very thorough. They're very
18 picky. And we -- there's often arguments with
19 operations. I shouldn't say often, but I have
20 witnessed arguments between safety and operations,
21 because they would catch things that they shouldn't
22 have been catching. You know, for example, somebody
23 who was coming off of 24-hour duty, right into an ODO
24 shift or something like that. Or they would have an
25 ODO shift at night, and then the next morning they

1 would have a class or some sort of event. I can't
2 recall witnessing anything that was, like, flight-
3 related that just didn't make sense.

4 Q. Okay. So recently, you guys have a
5 (indiscernible) that goes on Canberra. You guys have
6 the air show. Did you get a sense as you were getting
7 ready for Predator Run like there was a -- much more of
8 a focus to get ready for Predator Run or was it -- like
9 everything else that was kind of distracting the
10 squadron? Just trying to get a sense from -- from your
11 perspective, was it solely on Predator Run or was it,
12 you know, because you're doing all these different
13 things, was it kind of distracted across the community?

14 A. Actually, I noticed -- I did notice something
15 like that, but it was actually in Sherger for Talisman
16 Sabre --

17 Q. Okay.

18 A. -- when we took six aircraft out there.

19 Q. Uh-huh.

20 A. Sure. There was -- there was a maintenance
21 push to get six aircraft up and running.

22 Q. Uh-huh.

23 A. And it was a -- it was a victory when we did
24 do that.

25 Q. Yeah.

1 A. We were able to -- to -- to conduct that six-
2 ship fly-off. When we got there, there was a MRH -- an
3 Australian MRH mishap, where they crashed --

4 **Q. Uh-huh.**

5 A. -- and all four aircraft went down. At that
6 point, we took a safety pause.

7 **Q. Okay.**

8 A. And I believe it was, like, MRF-D as a whole
9 decided to conduct a end-of-exercise for Talisman Sabre
10 and RTB early. So we -- we returned -- we returned
11 early. The Aircraft 15 at Talisman Sabre -- I could be
12 wrong if it was Aircraft 15, but I'm pretty certain it
13 was Aircraft 15, actually stayed back on Talisman Sabre
14 at Sherger for one day because it was not an up
15 aircraft, so they had to kind of work through it, make
16 sure it got up and -- which it did, and they flew back
17 safely.

18 And then after that, the --

19 **Q. Yeah.**

20 A. Oh, I'm sorry. So just to --

21 **Q. Yep.**

22 A. -- continue that train of thought. The
23 reason why we ended that early was because there was a
24 push to -- to maintain hours on the aircraft and light
25 maintenance, I guess, if you will --

1 Q. Uh-huh.

2 A. -- for IPE. So the focus then shifted
3 entirely. They said, okay, Talisman Sabre's not even,
4 like, that big of an exercise. Let's focus on IPE
5 because it's way bigger, so let's conserve those flight
6 hours for IPE.

7 Q. Okay.

8 A. That was a deliberate decision that was made.

9 Q. Okay. So from what I'm hearing you say, what
10 I get a sense of from your comments is a -- a -- a good
11 balance between operation -- operational requirements
12 here within MRF-D construct and -- and flying to get --
13 you know, flying to support missions, but also when
14 it's time to do maintenance and make sure you got a
15 healthy aircraft, you make sure you got a healthy
16 aircraft.

17 A. That's correct.

18 Q. Yeah.

19 A. I would say that if I did have a complaint
20 for not -- from anybody not providing what they needed
21 to provide, it was the command element not providing
22 the support equipment we needed necessarily at the
23 right time at the good speed.

24 Q. Yeah.

25 A. Which -- I think that could have contributed

1 to things like basic, basic things that they were just
2 incapable of conducting their job or doing --
3 performing their job at the right time.

4 Q. Uh-huh.

5 A. They were also working, like, 40 hours a week
6 at most, taking their sweet-ass lunch breaks and
7 getting two days off a week. They were getting their
8 96s --

9 Q. Uh-huh.

10 A. -- and -- while we were still working, and I
11 think that led to a lot of frustration. And yeah,
12 maybe Marines were having to go above and beyond with
13 everything else. And I'm not there today on the
14 maintenance side, but yeah, if they're -- if they're
15 having to worry about bugs in their room or if their
16 water's dirty or anything like that, yeah, that could -
17 - that could affect the -- the maintenance that they're
18 doing.

19 Q. Sure.

20 A. Quality of maintenance.

21 Q. So -- I understand. So the -- your comment
22 about the frustration, is that across -- I mean, that's
23 what you sense from across the -- the command?

24 A. Easily.

25 Q. Okay.

1 A. Yes.

2 Q. Okay. Okay. So you kind of answered one of
3 my questions; what was the relationship between the ACE
4 and the command element? I think we kind of covered
5 that. What about the ACE and the GCE? You know, you
6 started off with a little bit of the comment about the
7 GCE continued to change their scheme of maneuver, what
8 they wanted to do, what they didn't want to do. And
9 that, you know, we're -- obviously as a self-support,
10 we're at the end of the tail on that thing, like, hey,
11 what do you -- what do you want to get accomplished?
12 I'll tell you if I can or can't kind of thing.

13 Is that a -- was that a normal occurrence or
14 is that pretty -- is that kind of back and forth? Not
15 in the -- in the good way of, like, hey, I need to get
16 36 packs on the deck. I can do that, or I can't. I
17 can do that in two aircraft. I can do that -- I mean,
18 how many other aircraft? Was the GCE's inability to
19 kind of settle on a scheme of maneuver and how they
20 wanted to accomplish their mission, was that pretty
21 standard since you've been out here or is that
22 different?

23 A. I don't think I can accurately answer that
24 question.

25 Q. Okay.

(b) (6)

1 A. I think what I can say is that, that day, for
2 that mission, it seemed like (b) (6) was under
3 instruction, (b) (6) was under instruction, and
4 I had the sense that the GCE Marines were also under
5 instruction.

6 Q. Okay.

7 A. And -- and with that, it made everyone kind
8 of on the -- unable to really navigate the ever-
9 changing plan.

10 Q. Okay. All right. A little bit about you and
11 then some -- about the ready room here. How did you
12 feel about the flight hours you've had with Gibbs
13 (phonetic) since you've been out here? And obviously
14 as an aviator, right, there's never enough flight hours
15 for -- for -- you know, I can never get enough flight
16 hours, but -- and based on what you were doing back at
17 home versus being out here, if you can kind of put it
18 in that context?

19 A. Yes, sir. Yeah, there's a -- my hours -- my
20 flight hours, which you can pull from M-SHARP, have
21 significantly increased since I've been out here.

22 Q. Okay.

23 A. And it's probably the most proficient I've
24 ever felt in the V-22.

25 Q. Okay. When was the last time you had done a

1 90 tactical approach?

2 A. I think that probably would've been on a
3 night flight that I had with (b) (6) (phonetic).
4 It was a low light flight. Actually, that -- it might
5 have been a high light flight. Either way, it was a
6 night flight. If I had to guess, maybe weeks prior to
7 that. Two weeks.

8 Q. Okay. Do you guys normally do a lot of -- do
9 you do all the profiles, or do you generally do
10 straight-ins or does it -- you know, it's dealer's
11 choice, like, you've got to do just a training or,
12 like, a proficiency flight? If you're not doing a
13 mission for GCE, do you guys practice all those
14 different approaches, or is it strictly straight-ins
15 like 90 percent of the time or --

16 A. Straight-ins are our bread and butter.

17 Q. Yeah.

18 A. I would say that the next approach that we do
19 most often is a 90-degree.

20 Q. Okay.

21 A. And then 180 is probably done on a day-to-
22 day, but not necessarily in tactics, meaning, hey, I'm
23 -- I need to go from airplane mode to a landing profile
24 and the runway's right there, so we're just -- it -- it
25 just -- we're flying the downwind.

1 Q. Yeah.

2 A. And it's just more natural.

3 Q. Right.

4 A. So I would say that that one is -- is just
5 something that we do because we have to --

6 Q. Uh-huh.

7 A. Whereas the other two, we practice more to it
8 because they are more tactical.

9 Q. Okay. All right. So I got your -- how you
10 feel about it. What was the general sense of the ready
11 room, if you could? I -- I don't need you to -- I
12 guess, you know, I don't need you to speculate, but was
13 there a, like, we're getting more flight time out here?
14 Did you feel like -- to your point, like, I felt more
15 proficient? What was the kind of the sense from the
16 ready room about how many flight hours you were
17 getting?

18 A. I think if you were to ask the ready room as
19 a whole, you would -- the sentiment would be the same
20 as mine.

21 Q. Uh-huh.

22 A. That this is the most flight hours we've
23 gotten. This is the most proficient we've been.

24 Q. Okay. In relation to -- switching topics a
25 little bit here. In -- in relation to the -- coming

1 out here for MRF-D, was there -- because you're a
2 ground safety officer, right? You get a -- you're
3 going to get a sense across the command about the
4 complacency getting towards the end of the -- the
5 deployment out here, getting ready to start to plan on
6 retrograding aircraft and personnel back home. Was
7 that -- did you get a sense of a complacency or a
8 desire, like kind of smelling the barn, you had to get
9 home, and, like, or was it still mission-focused on
10 day-to-day operations, whether it's line aircraft or
11 working on maintaining aircraft?

12 A. I don't think there was a complacency,
13 necessarily. We had -- we had some people get swapped,
14 so there were some people that were actually fresh.

15 Q. Okay. Okay.

16 A. Maybe not maintainers, maybe not a lot of
17 maintainers. But I conduct the FPCs, Forest
18 Preservation Council.

19 Q. Yeah.

20 A. And that is addressed. We've sent people
21 home that were no longer -- maybe they were hurting, or
22 the maintenance was too much. And so we kind of had to
23 make the hard decision, hey, would you like to go home?

24 Q. Uh-huh.

25 A. If the answer was no, then, okay, well, we

1 decided we're sending you home.

2 Q. Okay.

3 A. So a lot of people have been here for four
4 months already. Some ADVON has been here for a little
5 bit longer. It's tiring. I don't think they were
6 complacent by any means. We're still -- we still have
7 two months left to go, so --

8 Q. Yeah.

9 A. We're not necessarily at the tail end of it.

10 Q. Okay. Copy. Last question for you. Safety
11 of the aircraft -- do you feel safe on the aircraft
12 based on maintenance practice that you've seen and
13 you've operated with here?

14 A. Yes. There's one comment that stands out
15 that was one time -- and -- and it was just -- this was
16 month -- maybe a few months ago.

17 Q. Uh-huh.

18 A. But it was -- it was, let's make sure to
19 fight the aircraft. And so if you say that with no
20 context, it sounds very bad. However, the context
21 behind it was exactly what we did that day, which was
22 there's a pre-flight test that's not passing. Okay,
23 let's figure -- let's figure out what's not passing.

24 Q. Okay.

25 A. And so now we have to understand, we have to

1 have system knowledge.

2 Q. Uh-huh.

3 A. While we have to ask our crew, we have to ask
4 the maintainers and figure out, why is it not passing?

5 Q. Uh-huh.

6 A. And is this something that it can pass? So
7 that -- once -- I -- I didn't question that comment at
8 first, but then once clarified, it made sense to me.

9 Q. Yeah. I equate that to you working the
10 problem, but --

11 A. Okay. Yeah. Yeah.

12 Q. Yeah, fighting through the issues.

13 A. Yeah.

14 Q. Okay. Okay. Thank you for your comments and
15 your -- what you remembered here and your comments here
16 today with me. Is there anything else that you --
17 that's come up that we haven't asked that, you know, as
18 we were -- as I was asking you questions that may have
19 popped in the back of your head that you might want to
20 bring up?

21 A. I think the only thing is that it's
22 surprising. Major Lewis was probably one of our best
23 pilots. Captain LeBeau was probably one of our best
24 co-pilots. She was the smartest one.

25 Q. Uh-huh.

1 A. So I think that's an important factor to know
2 that the decisions that they made, for example, making
3 a right turn, converging to where they knew where lead
4 aircraft was --

5 **Q. Uh-huh.**

6 A. That's surprising, because he knew we were
7 there. But maybe he knew that lead aircraft was there
8 and he didn't know where the H-1s were, and so that's
9 why he didn't make a left turn. But I -- I always felt
10 confident the entire time until -- it was very
11 surprising to see that they had crashed, because I felt
12 very confident that they knew exactly what they were
13 doing. Yeah. I guess that's not very pertinent to the
14 investigation, but anyways, they're -- they're real
15 people.

16 **Q. Yeah. Is there anyone you would -- you know,**
17 **in that objective area that you think that they might**
18 **want to talk to?**

19 A. Are you guys doing this with the H-1 pilots
20 that were there? Okay. I think they will -- they --
21 they have -- they're going to have the most -- probably
22 the most assay on what happened. I think the story,
23 obviously, that you're going to get their side. But
24 no, they -- they -- they were -- they did very good
25 job.

(b) (6)

1 (b) (6) Okay. All right. Did I
2 miss anything?

3 (b) (6) I don't think so, sir.

4 EXAMINATION

5 BY (b) (6)

6 Q. One question from me. Does the command
7 element have any role in planning these types of
8 missions that you've seen?

9 A. We plan the flight portion, right?

10 Q. Yeah.

11 A. But I wouldn't expect them to be -- I mean,
12 as -- as leaders in the military, the buck stop
13 somewhere, right? So if we -- we can't say that the
14 ACE and the GCE were in charge, the command element is
15 in charge of --

16 Q. Yeah. Yeah. I -- I'm asking specifically
17 about the -- the planning process.

18 A. The flight planning process, like --

19 Q. The -- for the entire mission.

20 A. I don't -- I don't know if I --

21 Q. If you -- if you don't, that's fine.

22 A. Yeah. I -- I don't know, and I don't think I
23 can answer that accurately.

24 Q. Okay. Yeah, that's fine. Okay. All right.
25 Same warning I've given you a couple of times now,

1 right? You're advised this is an ongoing investigation
2 and you're directed not to discuss your testimony with
3 anybody outside of the duly appointed investigating
4 officers. So obviously, if any of these are appointed
5 to the investigation --

6 A. Okay.

7 Q. -- so you can talk with them.

8 A. Okay. From -- from my understanding, the
9 facts that -- the facts that I have experienced or
10 lived through, those are my -- my facts, right? So
11 that's something --

12 Q. Correct. But because it's an ongoing
13 investigation, you shouldn't be discussing, like, your
14 testimony. Like what -- so you talked earlier about
15 memory and how that can -- that can change sometimes.
16 Talking with other people about what you observed --

17 A. Uh-huh.

18 Q. -- can also change your testimony, and we're
19 trying to gather each individual's perspective on it,
20 so --

21 A. Oh, I see. So -- okay. Well, is your
22 concern mainly that or is it, like -- I mean, it's
23 important for me to vent. It's important for me --

24 Q. Yeah. Yeah.

25 A. -- to vent.

1 Q. I'm not telling you not to process the
2 experience you've been through --

3 A. Okay.

4 Q. -- by any stretch of the imagination. You
5 know, definitely don't --

6 A. Don't be spreading rumors.

7 Q. Exactly. Don't spread rumors. Don't talk
8 about -- don't be comparing notes with -- about your
9 testimony with any of the other witnesses.

10 A. I see.

11 Q. Like that.

12 A. Because we don't want to -- actually, (b) (6)
13 (b) (6) was the one I -- I said something, like, hey,
14 like, let's talk through this, you know, because I want
15 to -- you know, like were we -- you know, were we --
16 was I -- anyways. I -- and he -- and then he even
17 said, no, let's not skew each other's testimonies and -
18 - okay.

19 Q. Yeah.

20 A. So I think that's the -- the concern. I --

21 Q. It is.

22 A. I just want to make sure.

23 Q. That's the concern.

24 A. If I called my wife and, like --

25 Q. No. Talk to your wife, right?

1 A. And you're, like --

2 Q. If you need to talk to the chaplain, go talk
3 to the chaplain.

4 A. Okay. Yeah. Yeah.

5 Q. Okay. All that's -- you need to talk to many
6 medical providers, that's all --

7 A. Okay.

8 Q. -- legit and encouraged. I'm not trying to
9 dissuade you from doing that at all. More your
10 testimony --

11 A. Sure. I understand.

12 Q. -- and, like, the factual recollections of
13 what occurred. Does that make sense?

14 A. I understand. Yes, sir. Thank you.

15 Q. Any concerns about it?

16 A. No. No, it's good.

17 Q. Because I want you to come to us --

18 A. I don't want to get arrested out nowhere and
19 --

20 Q. No. No, no, no, you're not going to get
21 arrested.

22 A. -- and get court-martialed.

23 Q. No.

24 (b) (6) Thanks --

25 (b) (6) Gentlemen, thank you.

(b) (6)

1 (b) (6) Could you -- you guys could --

2 (End of Audio Recording.)

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CERTIFICATE OF TRANSCRIPTIONIST

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I, (b) (6), a transcriptionist

located in Charlotte, North Carolina, hereby certify:

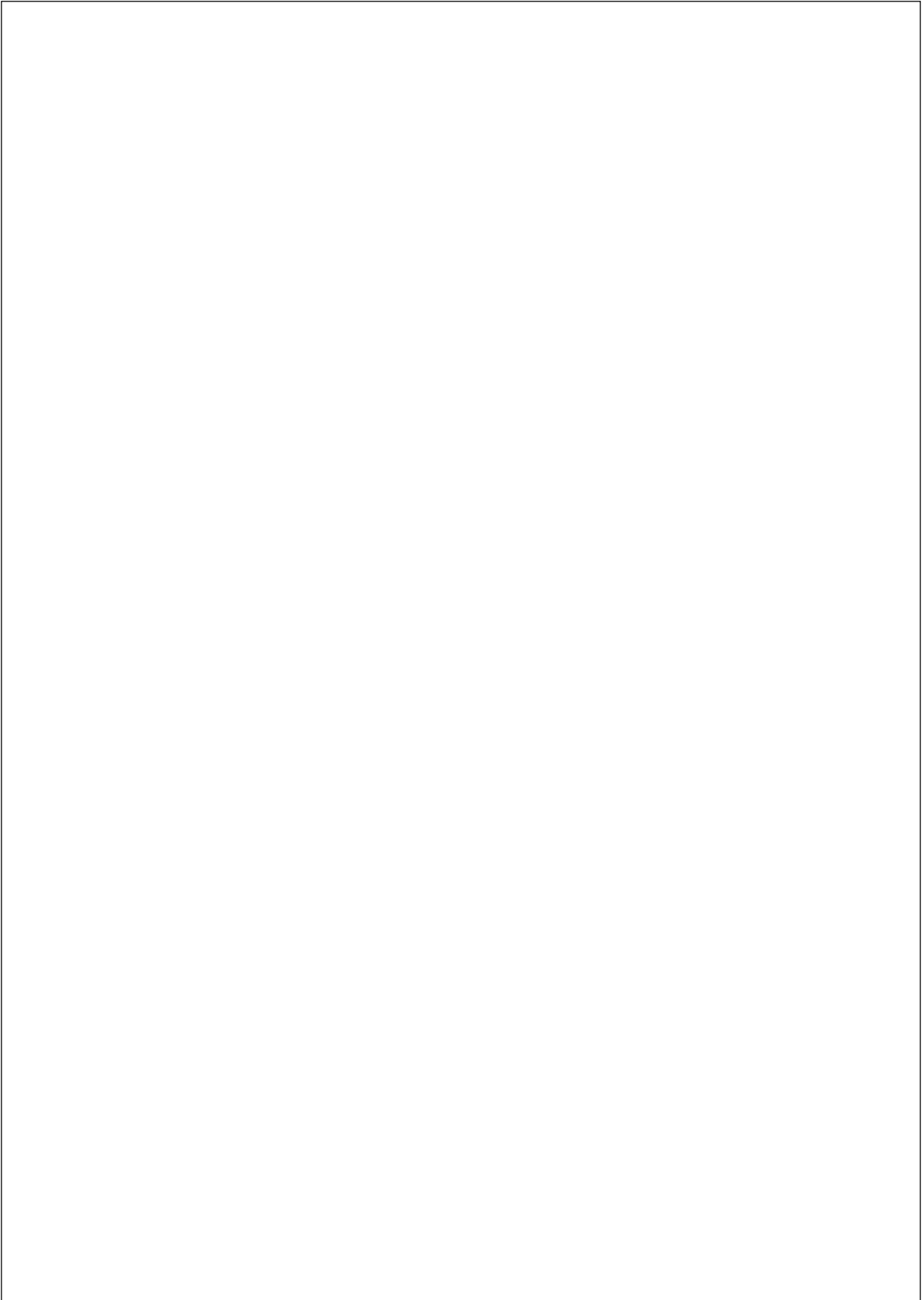
That the foregoing is a complete and accurate
transcript of the digital audio recording of the
proceeding in the above-entitled matter, all to the
best of my skills and ability.

I further certify that I am not related to any
of the parties to this action by blood or marriage and
that I am in no way interested in the outcome of this
matter.

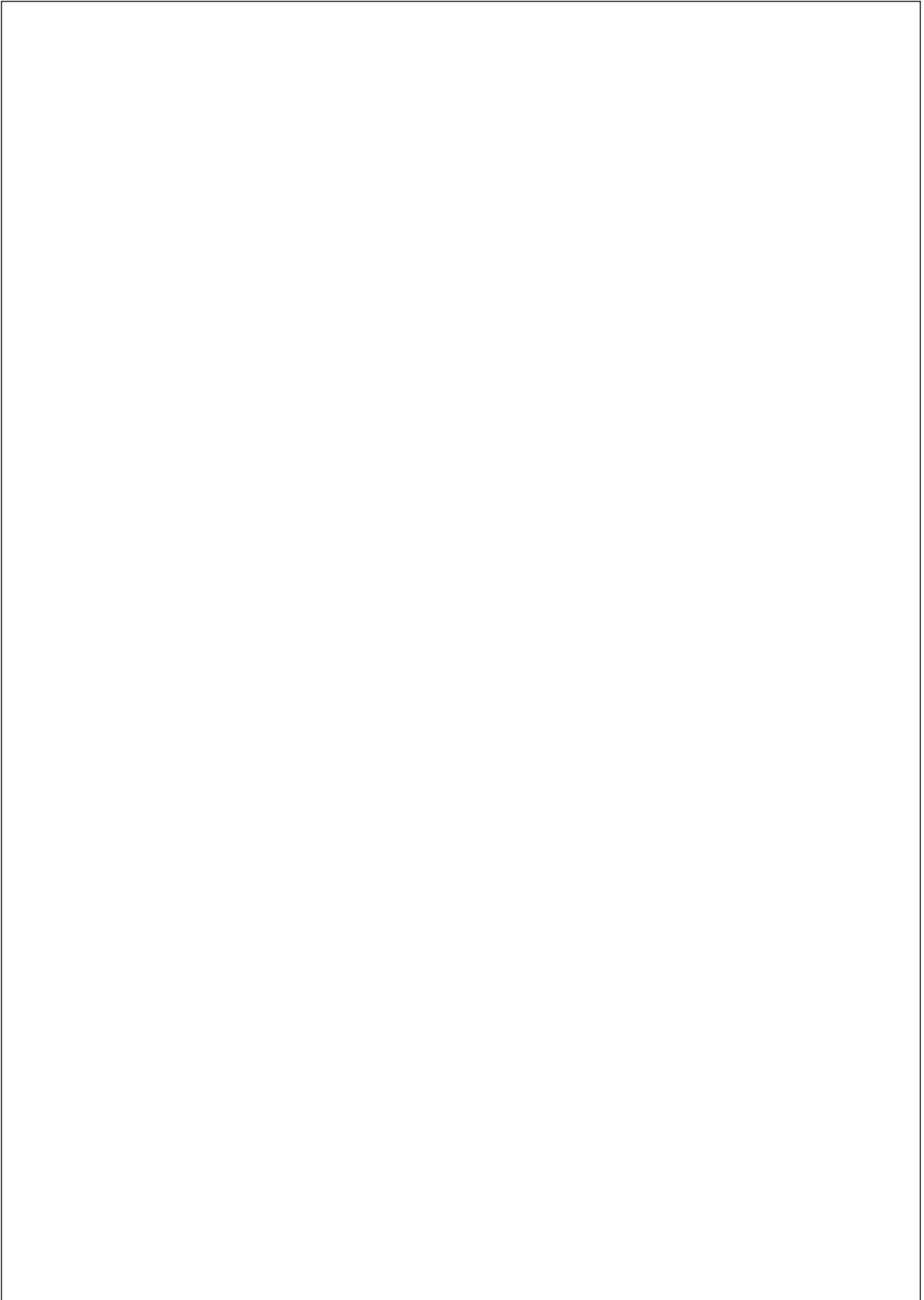
IN WITNESS THEREOF, I have hereunto set my hand
this 19th day of October, 2022.

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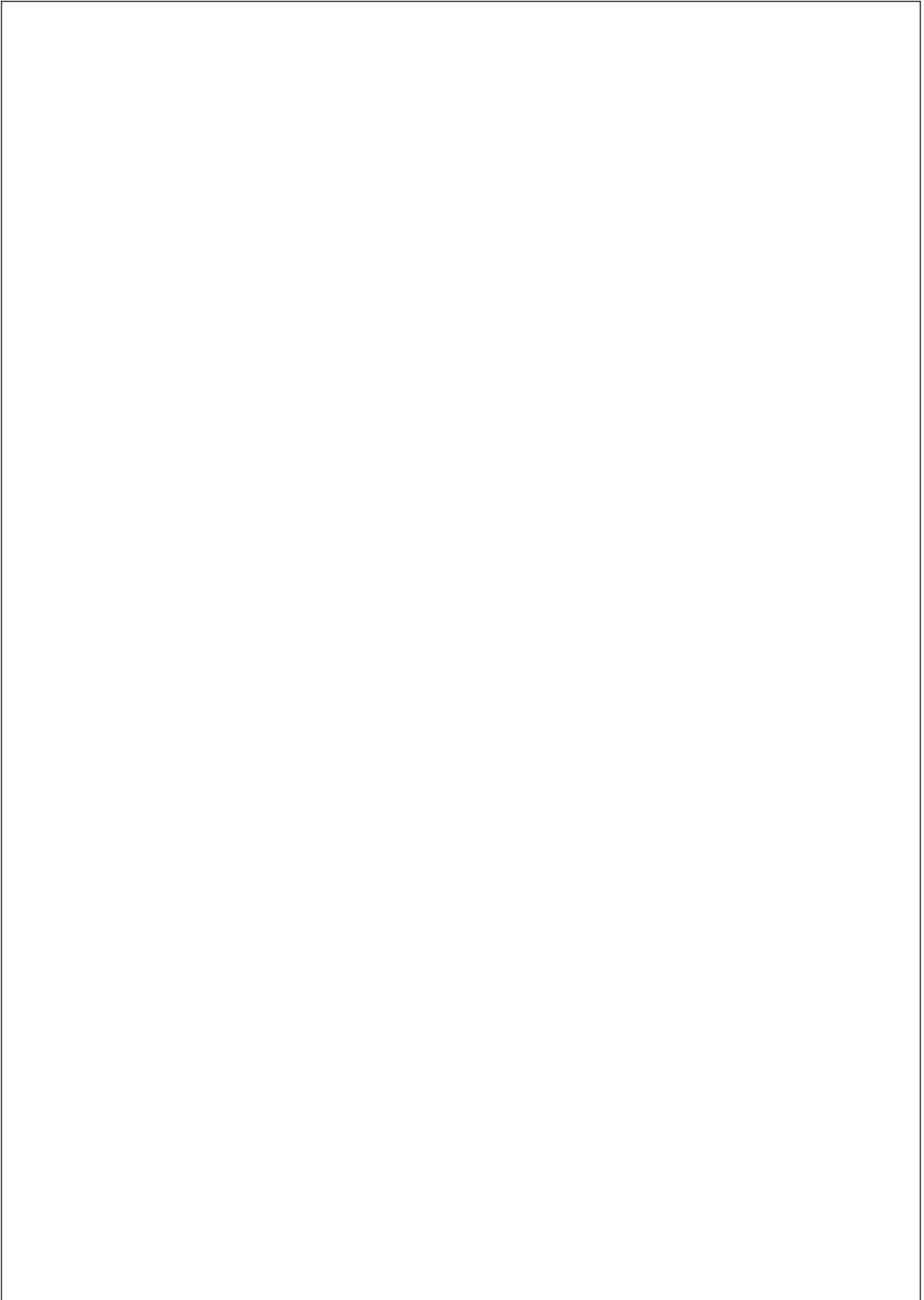
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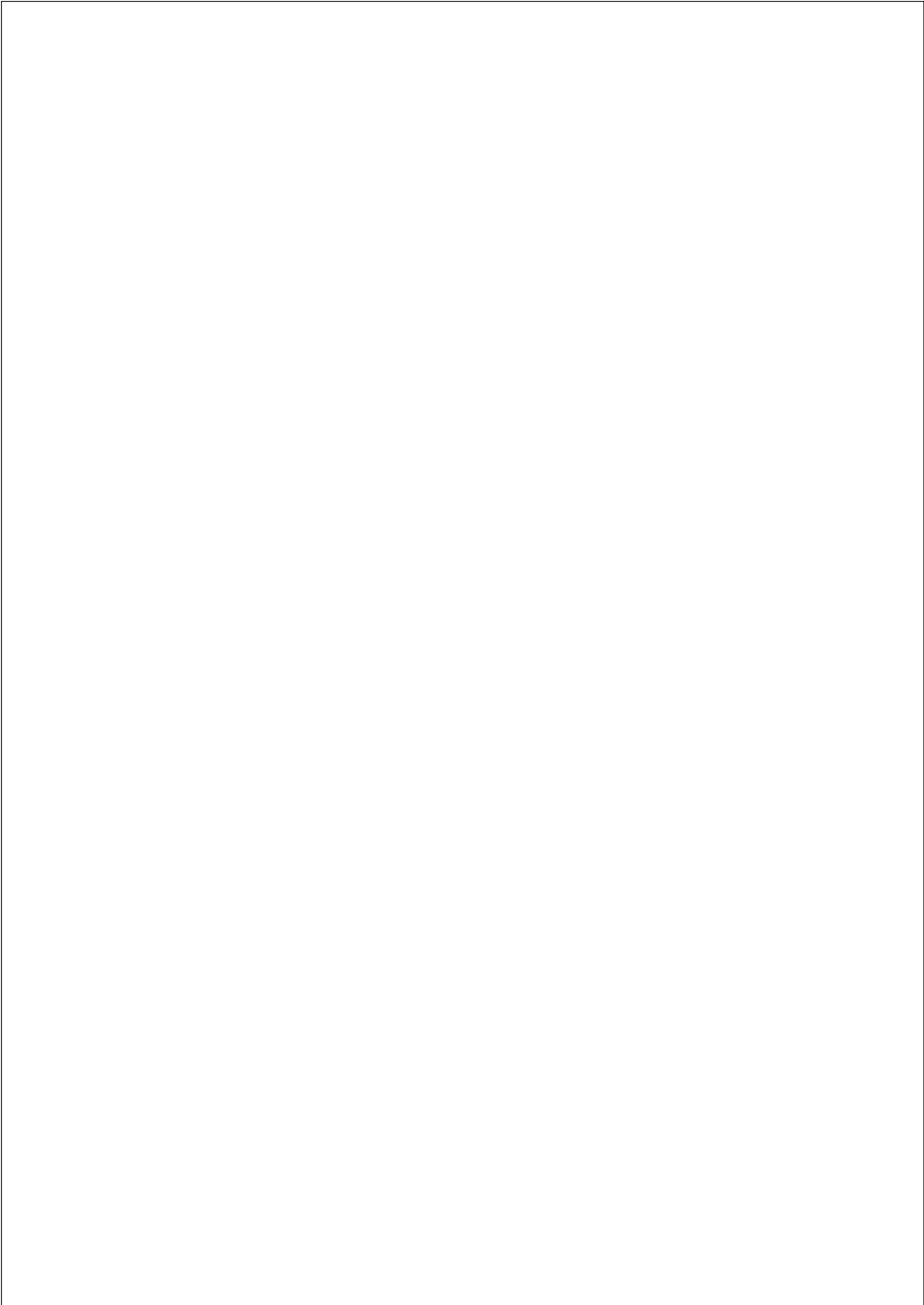
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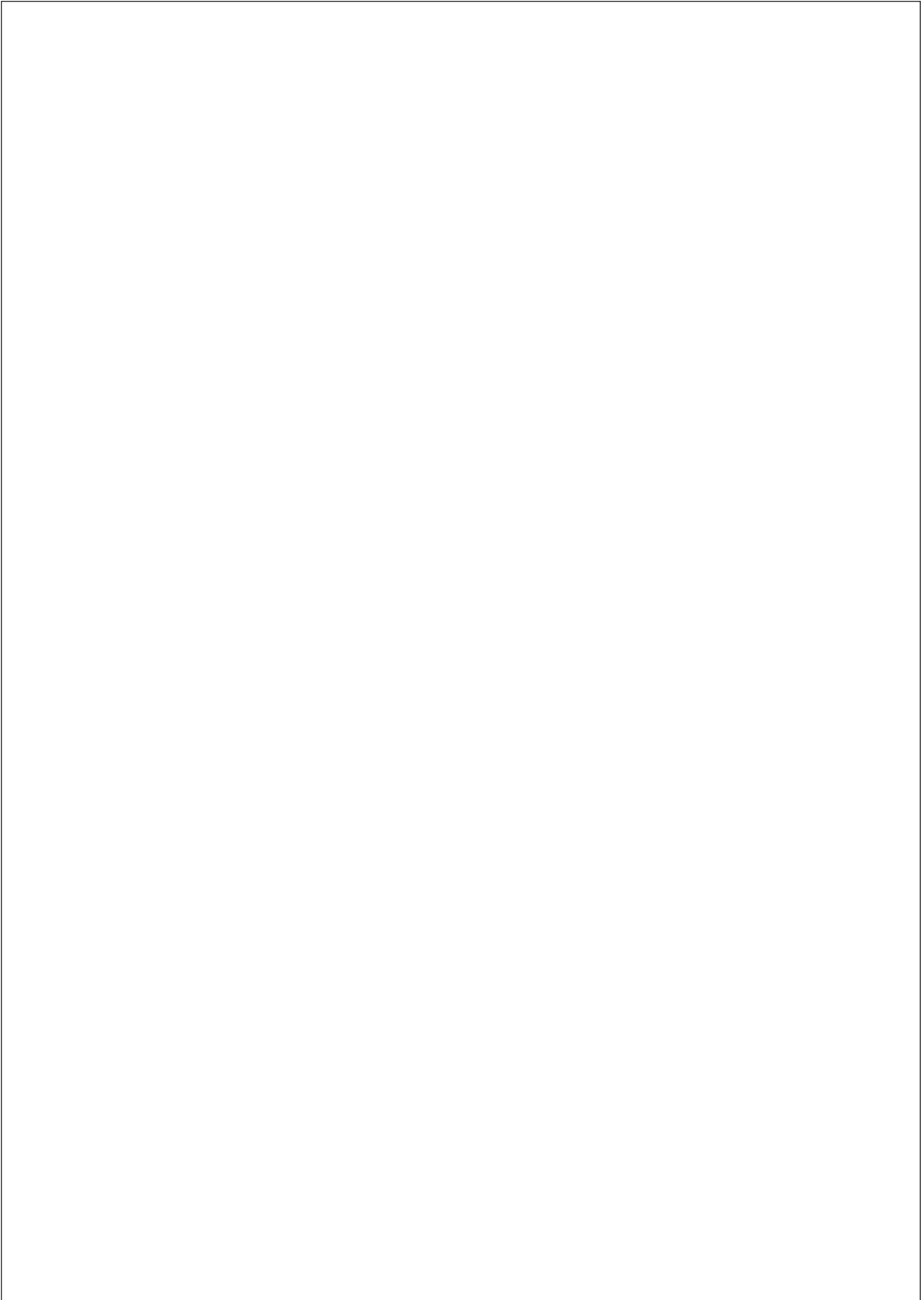
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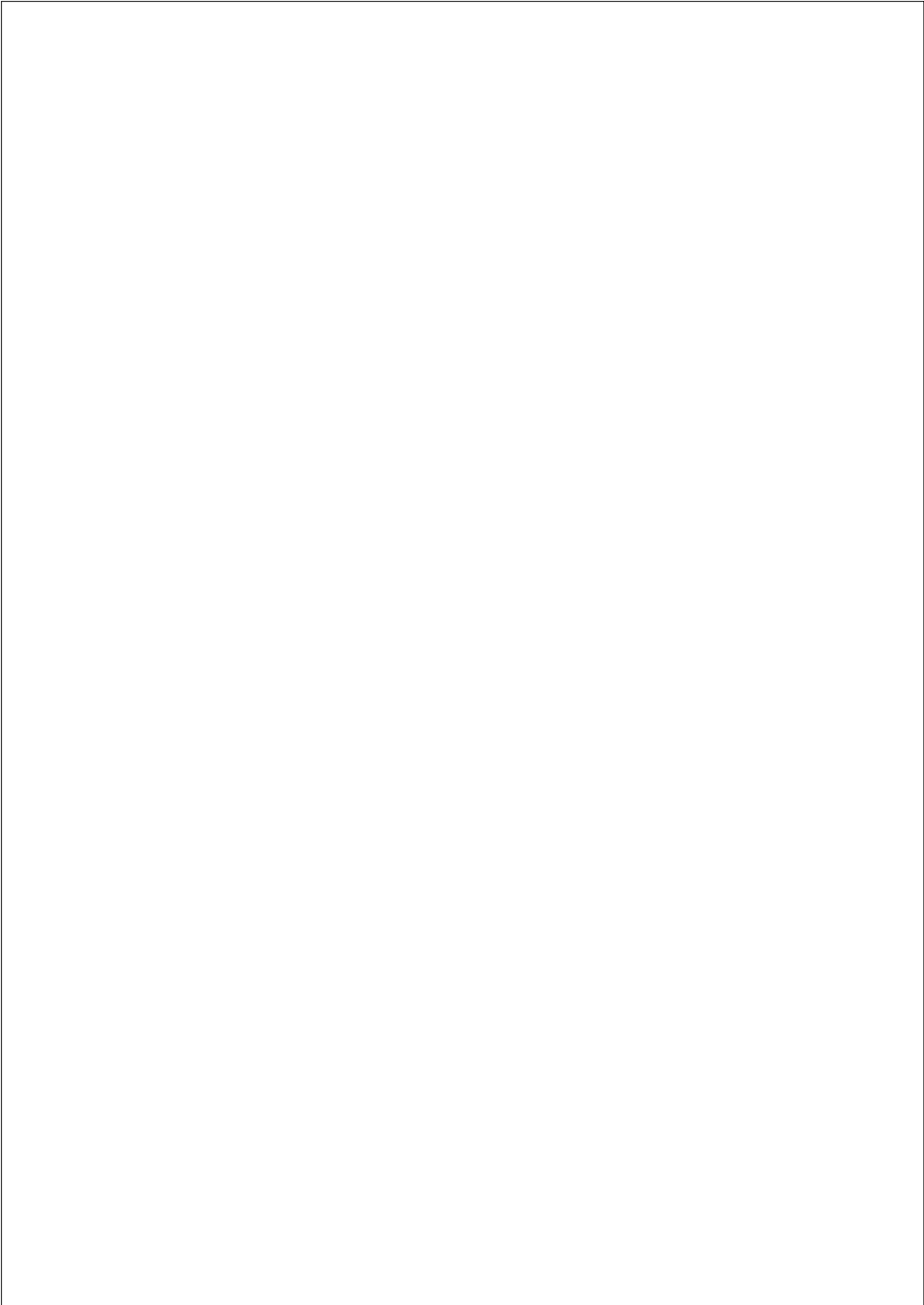
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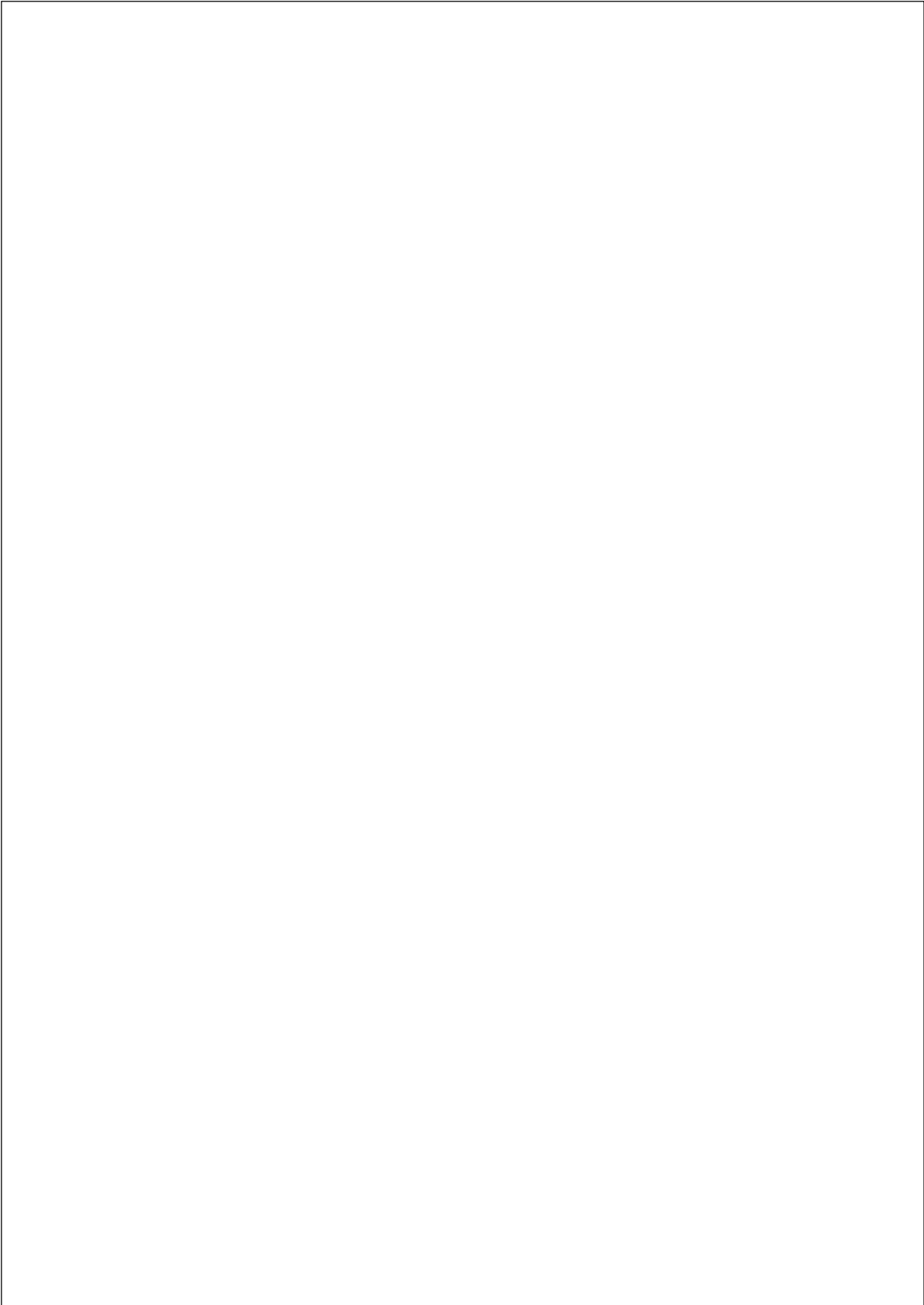
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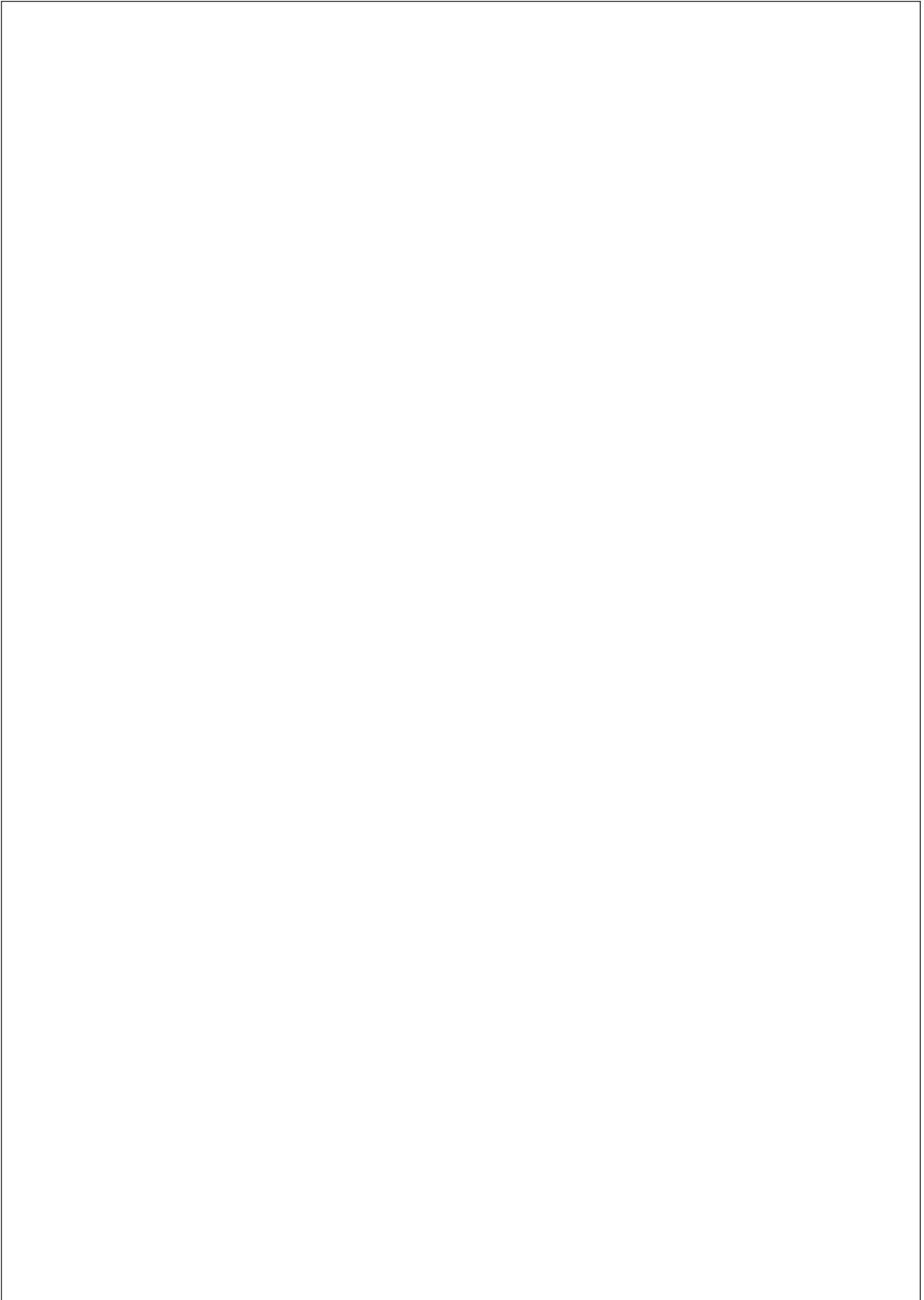
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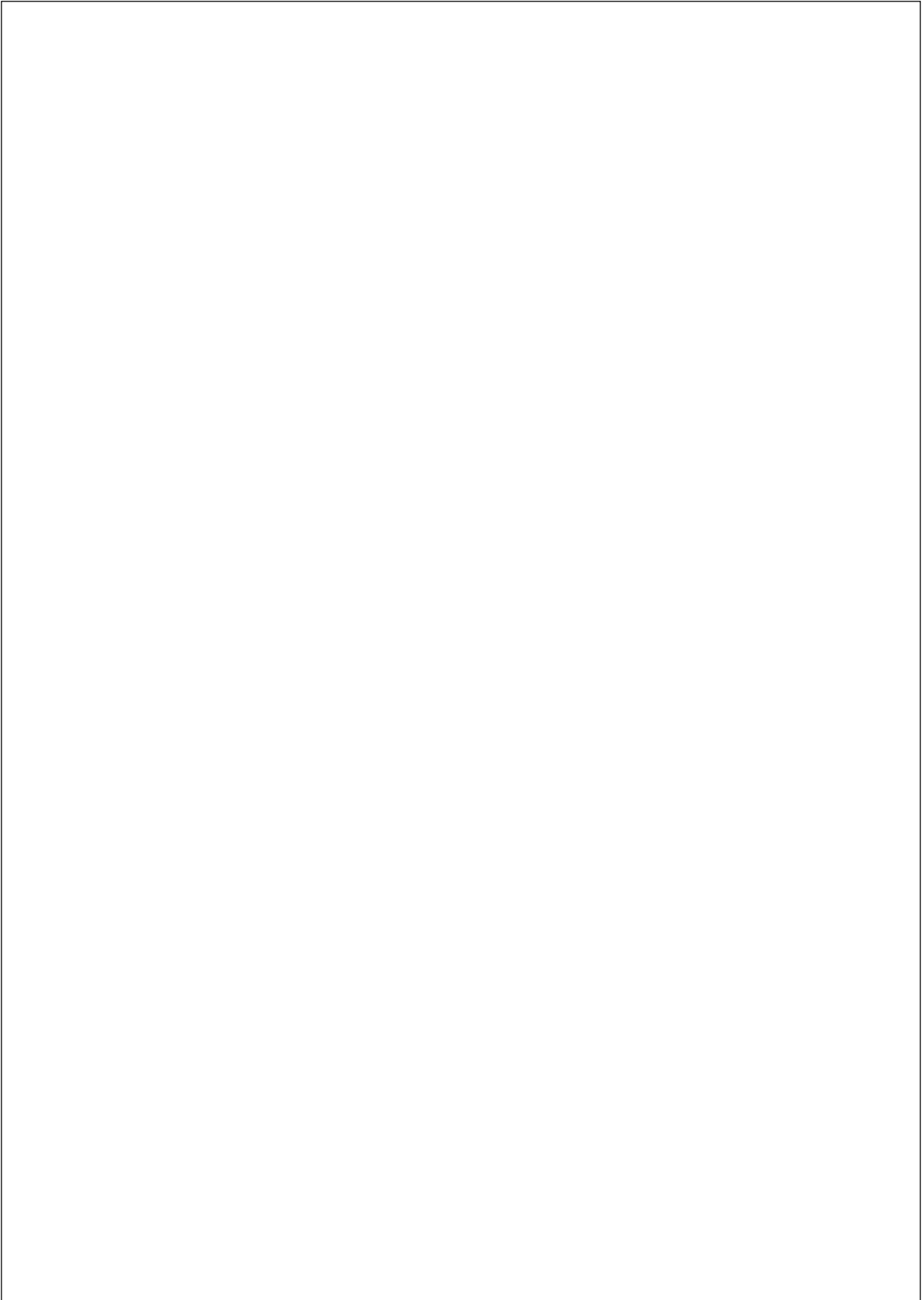
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Enclosure (20) Vol. 2

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Transcript of Audio File:

COMMAND INVESTIGATION RE: AVIATION MISHAP

INTERVIEW OF (b) (6)

TAKEN AT ROYAL AUSTRALIAN AIR FORCE BASE DARWIN

THURSDAY, SEPTEMBER 14, 2023

Audio Runtime: 18 Minutes, 40 Seconds

(b) (6)

1	INDEX OF EXAMINATION	
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(b) (6)

1 (Beginning of Audio Recording.)

2 (b) (6) Good afternoon. It's
3 approximately 12:10 on 14 September 2023. We are back
4 aboard Royal Australian Air Force Base Darwin. Present
5 in the room is the witness, (b) (6) myself, (b) (6)
6 (b) (6) (b) (6) and (b) (6) Prior to
7 turning on the recording, I reminded (b) (6) about
8 his rights in the Privacy Act and the statement that he
9 signed previously. He did not have any questions about
10 that. (b) (6) I remind you that you remain under
11 oath from the -- the previous interview we conducted
12 with you.

13 Do you have any questions about that?

14 THE WITNESS: No questions.

15 (b) (6) Okay. Am I saying your name
16 right? Is it (b) (6)

17 THE WITNESS: (b) (6), correct.

18 (b) (6) Okay.

19 THE WITNESS: Yes, sir.

20 (b) (6) (b) (6), over to you.

21 (b) (6) Cool. All right. I don't
22 think we've met yet. (b) (6)

23 THE WITNESS: (b) (6)

24 (b) (6) Thank you. Yeah.

25 THE WITNESS: Good to meet you.

(b) (6)

1 (b) (6) I guess we had a different
2 interview team last time, right?

3 (b) (6) Yeah, yeah.

4 THE WITNESS: Yeah.

5 EXAMINATION

6 BY (b) (6)

7 Q. So I'm a -- an Osprey by training. I was at
8 163, and I did three years at 204. So just for your
9 occasion, I --

10 A. Okay.

11 Q. -- and (b) (6) he's a (inaudible) guy.
12 And then I'm an Osprey guy. So we got some knowledge
13 on Osprey stuff when we speak about it, so -- yeah. So
14 like (b) (6) mentioned, we kind of just want to
15 get an idea on your perspective of -- of the -- the H-1
16 specifically during the approach coming in. So if you
17 can kind of just go back to, you know, check one, prior
18 IP inbound, when you first picked up the H-1s, and then
19 just kind of talk through the approach and your
20 perspective on their positioning --

21 A. Yeah.

22 Q. -- for -- for us.

23 A. So during the briefing process, altitude
24 separation was very clearly defined. The Ospreys were
25 supposed to be remaining IP inbound at 300 feet. And I

1 say that not from memory of the brief, but I say that
2 from memory of what I know that we do a (inaudible).
3 However, I do know that they were going to be stepped
4 up significantly. Actually, I think we might've been a
5 little -- our -- our altitudes were -- were separate.

6 What I do know for a fact is that the H-1s
7 were supposed to be at 900 feet and 1,100 feet. That
8 was kind of their altitudes that they were given.
9 Yeah. We first saw them just prior to the IP, or maybe
10 at the IP. Somewhere near the IP is when we saw them.
11 It could have been even prior to the -- to IP Subaru
12 (phonetic). We first picked them up. We were coming
13 in. I don't remember what heading, but I know we
14 picked them up at the 2:00 -- 2:00 moving to the 3:00.

15 I didn't -- I was the last one in the in my
16 aircraft to see them. I think the aircraft commander
17 was the first one, right seat. He saw it first,
18 pointed -- called it out. The tunnel crew chief looked
19 out the window and saw it. And then the ramp said that
20 they saw it. And then I was the last one to see it.
21 They looked like they were maybe co-altitude at that
22 point.

23 Once we went IP inbound, I believe that's
24 when we -- we began to descend. Once we turned IP
25 inbound, I focused on the approach. I wasn't

1 necessarily -- I knew that we had altitude separation,
2 so I wasn't necessarily focused on them anymore. We
3 kind of had eyes on them, but I focused on the approach
4 at that point. I knew that there was other people
5 looking out -- out at them, and I didn't want to be
6 looking at the same thing.

7 We continued doing the approach. We've -- we
8 talked last time about how the approach was less than
9 per the book. There was just some confusion on my part
10 on -- he spun in the -- the course that we were
11 supposed to be on. And then I followed the magenta
12 line like a good co-pilot. And he reminded me that I
13 had to be to the offset.

14 So we -- as we made a right turn, I got on
15 the course line. And then we immediately had to make a
16 left turn as he reminded me about the offset, so we
17 kind of did a zigzag. As we're coming off to -- as we
18 continued that left turn to get our -- our lateral
19 separation, we made -- we then made a right turn to get
20 back on course line. And as I stated last time, I
21 believe the last point that I saw or -- lateral
22 separation was 1.18 back to the H-1s.

23 **Q. There was separation from -- from the --**

24 **A. Course line.**

25 **Q. -- from the course line, the universe course**

1 line.

2 A. Correct.

3 Q. That was prior to the switch to your right
4 for the course correction?

5 A. That's correct. That's correct. This is
6 prior to two miles. Because I was behind the approach,
7 it -- it -- I felt behind. And again, it was less than
8 ideal, the whole -- the whole situation. I -- I wanted
9 to slow down and give myself time, so I pulled power at
10 2.2, but we had good separation. Dash-2 was at the
11 7:00.

12 I asked in the ramp. I was the one that said
13 it. I remember looking down seeing 0.3. That's the
14 last known position that I had of them until I saw them
15 in the turn. The H-1s, based -- I -- I don't remember
16 seeing them. But based off of everything that --
17 during planning and when I -- where I saw -- where I
18 did see them after the crash, I imagine at this point,
19 they -- they might've -- they must've been at the 12:00
20 or maybe the 11:00. And the -- so as we're coming in.

21 After we made the right turn for the right 90
22 -- I guess I did -- I -- I did see them prior to the
23 right 90, and I knew that that we had some separation,
24 but I don't have a good, clear memory of their -- of
25 where they were. But I -- I -- I knew I felt confident

1 that we had the altitude separation.

2 We made the right turn for -- for the 90. I
3 converted. When I saw them again, was when we had --
4 we had already heard that dash-2 had gone down, so we
5 continued the right turn to look back behind us. And
6 we were in conversion mode at this point. That's when
7 I saw them again, for sure. And at this point, I saw
8 two aircraft.

9 The Huey was higher -- or excuse me, the
10 Cobra was higher, which looked like it might've been
11 the 1,100. The Huey was lower, which I imagine was the
12 900. But from my memory and thinking about what
13 altitude I might've been at, it looked like they were
14 probably a little bit lower than that. I made that --
15 I continued that right turn.

16 And then the Huey, which now I know is
17 (b) (6) (phonetic) aircraft, was coming --
18 coming -- we -- we -- we were both in -- on the same
19 path. However, we were separated by both distance,
20 time, and altitude. And he said over the -- over a
21 common frequency to continue the right turn, so we
22 continued the right turn. He continued his right turn.
23 We came in to land, and he continued his orbit. He
24 eventually came up -- came over to land.

25 **Q. But at 90? You said you saw him potentially**

1 at that 90. You felt comfortable with their altitude
2 separation. What about their lateral separation?

3 A. I can't speak confidently on that. I can't
4 speak confidently on -- on their -- on their altitude
5 or lateral. The reason is because I don't remember --
6 I don't have a clear memory of seeing them. And I also
7 don't know because I knew that dash-2 was on my 7:00.

8 I don't know if there was a -- and -- and
9 they were stepped up at this point because of -- we
10 were about to go -- well, yeah, yeah. Because we're at
11 300 feet, so they were stepped up. So now -- yeah, I -
12 - I'm not able to speak confidently to that, to -- to
13 know for sure that there was an altitude and lateral
14 separation to Dump Truck 1-2.

15 Q. Okay. In that turn, I know that you were in
16 the left seat, correct?

17 A. Correct.

18 Q. That Dump Truck 1-2, at that point, I -- I
19 believe you mentioned that they were a little bit
20 further ahead of you guys? Like they were kind of
21 switching to the lead position, if you will.

22 A. Okay.

23 Q. Right? Is that accurate?

24 A. That was after my turn, my right turn, but
25 yes.

1 Q. Yep. And you saw them kind of coming forward
2 a little bit?

3 A. Correct, yeah.

4 Q. Before they -- before they started their
5 right turning to you?

6 A. That's correct. Correct.

7 Q. Can you, kind of, tell me, were they in
8 airplane mode? Were they conversion mode? Their angle
9 bank? You may have already gone through this, but just
10 for my recollection.

11 A. Yeah, that's okay. I think a -- a lot of
12 this -- it's a mildly traumatic event. I think we can
13 agree on that. And I think my memory fades, and it's
14 like remembering a -- a dream. It's very difficult.
15 And the -- so what I think is my memory and what I
16 think maybe my brain attached some details to that. It
17 could be fuzzy.

18 However, I do remember as I'm making the
19 right turn, I was already on my final heading of 090.
20 I was -- I had completed my turn, and the gear was
21 already down. And I know we were above 16 SL. Because
22 when he put -- when he said gear down, I made sure to
23 click up to above 60. And something caught my
24 attention to my left. So when I looked to the left, I
25 see dash-2 coming, it looked like they might've been

1 slightly above me, but it's -- it -- it -- it was very
2 difficult to tell.

3 It looked like we were -- we -- we could have
4 collided. That's when I pulled power and descended.
5 They were still in airplane mode, but they could have
6 been in that -- I -- I tried -- I tried looking to see
7 if they were coming up. I looked at -- quickly looked
8 at the prop speed. And I'm like, okay. I'm not going
9 to be able to tell we're 84 or 100 percent.

10 So I looked at the flaps. I saw the flap
11 scheduling, so I knew they had beeped already. But I
12 also knew that, at that point, they were already behind
13 the curve, so they would've needed to -- to wave off or
14 something. Descended -- they're still coming around at
15 me. As I'm descending, I'm seeing more of their belly.

16 **Q. Did you see their landing gear?**

17 A. No. Oh, yes. It was still up.

18 **Q. It was still up?**

19 A. Yeah. It was still up, for sure, because
20 they were still in a plummet.

21 **Q. Uh-huh.**

22 A. Which makes sense.

23 **Q. Yeah.**

24 A. So they could have been in that -- in that
25 zero to five. Where after you beep, it takes -- it

(b) (6)

1 takes a second to spool up and come up to above five in
2 SL. And so I'm seeing more of their belly now. I see
3 a flaps. And I know that it -- it did -- it did seem
4 like they were trying to pull their nose up because
5 they knew I was -- because they knew I was there.

6 So they were -- they were trying to pull
7 their nose up and coming around. The aircraft
8 commander said he -- he saw it, and then everybody kind
9 of chimed in, I think. And then that's when I said,
10 okay. If everybody's focused on that, I need to focus
11 up front, so I switched my attention back to the --
12 directly in front of me.

13 Q. Okay. That's very helpful. Thank you. I
14 know it's not easy. I appreciate it.

15 (b) (6) Okay. (b) (6)

16 (b) (6) Yeah.

17 EXAMINATION

18 BY (b) (6)

19 Q. Was there any delay in the interception of
20 final course line when you made the switch? So
21 (b) (6) I presume, is the one who did the course
22 correction. When you -- when he switched over the
23 course direction to your final -- approach course, do
24 you remember what that approach course was? What the -
25 - what the final approach course entry was?

1 A. I remember --

2 Q. As you were -- as you were coming down.

3 A. -- I -- I remember from the brief. I
4 remember from my LZ study. I don't remember from the
5 aircraft.

6 Q. Yeah. So when he -- when he made the course
7 correction, at this point, you're -- you know, and I'm
8 just speaking procedurally. Once the course correction
9 is made, you're focused on the -- on the PMD because
10 you're -- what you're trying to do is, you're trying to
11 -- you're -- you're trying to calculate your -- your --
12 your turn, right? Your -- your intercept turn.

13 So did you feel as though that was normal?
14 Or did you feel as though that was a little behind?
15 Once the course swap was made, did you feel as though
16 you were -- you were beyond your turn point, typically,
17 that you would -- you would normally see when you're
18 about to make a 90 turn?

19 A. Yeah. So when, procedurally, everything was
20 as expected --

21 Q. Uh-huh.

22 A. -- as I expected it to be.

23 Q. Uh-huh.

24 A. However, as I've mentioned it before, I did,
25 on -- purposely run a slower approach because I knew we

1 were heavy. So after my 2.2 power pull, I pulled it
2 back to 20 percent. Looked back ahead, I was good.
3 Finalized it. It was actually 20 percent. Came back
4 in. Now, I'm focused on my approach, maintaining
5 altitude. At this point, I'm focusing on my VVI. My
6 VVI's steady. He says course line switch. He did it
7 on the glass, so he didn't spin it in. He actually --
8 he had it typed in.

9 Q. Yeah.

10 A. And he punched it in, which gave me, now, the
11 course line going straight across, which was what I
12 expected --

13 Q. Uh-huh.

14 A. -- for the right 90. Once my -- immediately
15 when I saw the -- the course line swap and the CI
16 coming alive, I beeped. Again, because I wanted to
17 kind of stay ahead of things and -- and purposely run
18 the slower approach. When the 22nd trend dot hit the
19 course line, that's when I began my turn. I say it was
20 a -- it was a pretty good turn. So I probably used
21 maybe 45 degrees angle bank.

22 So as I'm coming around, from what I recall -
23 - and my memory could be failing me. However, from
24 what I recall, I do remember being on course line. And
25 right when I was going to look at the heading to

1 finalize and -- and just adjust my -- to get my perfect
2 heading, that's when -- actually, no. Then, he -- he
3 said gear is coming. I was at 57 SL, I clicked it to
4 60.

5 At this point, I'm still looking. I don't
6 remember seeing a distance, but I remember think -- I
7 should've -- I should've looked at the distance,
8 should've looked at the heading. And then that --
9 that's the point where I'm bringing the nose up, trying
10 to slow the aircraft, open the corridor. Corridor is
11 opening. I'm at 77 SL now. Still holding half -- half
12 an SL right back, and then that's when I looked to my
13 left.

14 **Q. Okay. When you looked to the left and you**
15 **could see dash-2 making the turn, could you see a Huey?**

16 A. No.

17 **Q. You could not see a Huey?**

18 A. No, I -- no.

19 **Q. Do you remember at any point seeing a Huey on**
20 **the -- on the turn -- at the turn point or on file?**

21 A. No.

22 **Q. Okay. Do you remember seeing a -- a Huey**
23 **when you guys made your 360-degree turn?**

24 A. Yes.

25 **Q. And where was that?**

(b) (6)

1 A. So as we're approach -- approaching the 090
2 course line, 22nd trend dot, I begin my turn. Now, I'm
3 on that right turn. The gear comes down. The SLs are
4 coming up. I'm slowing down. Dash-2 is coming. I
5 descend. Dash-2 goes -- it looks like it barely
6 cleared the vert stab.

7 My crew -- the -- the ramp crew chief says
8 dash-2 is down.

9 We say, what?

10 And then (b) (6) comes on and says, dash-2
11 just crashed.

12 And the ramp crew chief's -- my ramp crew
13 chief, (b) (6) said, big fireball.

14 So then me and (b) (6) looking at each other.
15 We said -- he says, I don't see anything.

16 And I said, I'm coming right.

17 Tunnel crew chief clears me right. We start
18 coming around to the right. I don't remember how --
19 how far -- it -- it felt it felt like it -- it would've
20 been about 180-degree, is when -- when I saw them, when
21 I saw the big fireball. However, it could have been
22 less or more than -- than 180. I couldn't give you an
23 exact position. But once we made that, we saw the big
24 fireball, saw the smoke. It was bellowing up to co-
25 altitude with me. And then that's when I saw the Huey.

1 **Q. What clock code then?**

2 A. They were coming from -- they were in a turn.
3 So it looked like they were at the 12:00, because we
4 were -- we were a little -- it was a bit -- I don't
5 want to say scary, but we were -- we were a little too
6 close for comfort. But I think that that might've been
7 my lack of experience. It was my first time flying
8 with skids overhead.

9 **Q. Were they (inaudible)?**

10 A. No. They --

11 **Q. Were they using (inaudible)?**

12 A. -- there was -- no. We were -- so there were
13 -- so even though they were at my 12:00, maybe -- maybe
14 12:00 to 1:00 --

15 **Q. Uh-huh.**

16 A. -- they were in a turn. So because they were
17 in a turn --

18 **Q. What direction?**

19 A. They were in a -- they were facing 090,
20 heading on a right turn.

21 **Q. Uh-huh.**

22 **Maybe turning towards the south?**

23 A. They were turning towards the south.

24 **Q. Uh-huh.**

25 A. And I could clearly see their -- the belly.

(b) (6)

1 So I knew we were below them.

2 Q. Okay.

3 A. And then as I come around, he said continue
4 right turn and -- as he continued his right turn.

5 (b) (6) Okay. Okay. Thank you.

6 (b) (6) Okay. (b) (6) just the
7 same reminder I gave you at the end of the last
8 interview. This is an ongoing investigation. Please
9 don't discuss your testimony with any potential
10 witnesses. There's obviously another investigation
11 going on. You're free to testify there or talk with
12 them, okay?

13 THE WITNESS: Roger.

14 (b) (6) Any questions?

15 THE WITNESS: No questions.

16 (End of Audio Recording.)

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(b) (6)

CERTIFICATE OF TRANSCRIPTIONIST

I, (b) (6), a transcriptionist
located in Charlotte, North Carolina, hereby certify:

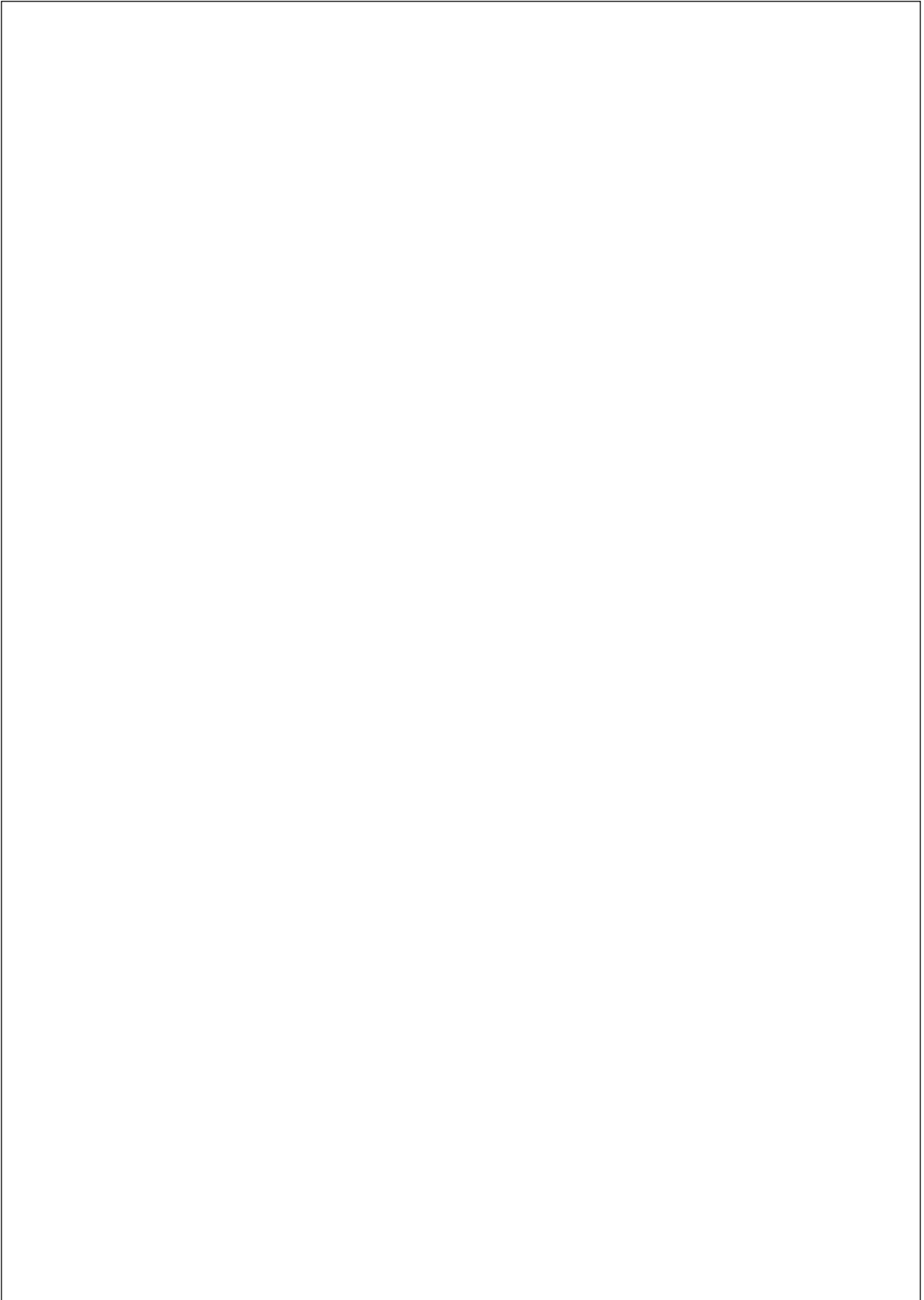
That the foregoing is a complete and accurate
transcript of the digital audio recording of the
proceeding in the above-entitled matter, all to the
best of my skills and ability.

I further certify that I am not related to any
of the parties to this action by blood or marriage and
that I am in no way interested in the outcome of this
matter.

IN WITNESS THEREOF, I have hereunto set my hand
this 19th day of October, 2023.

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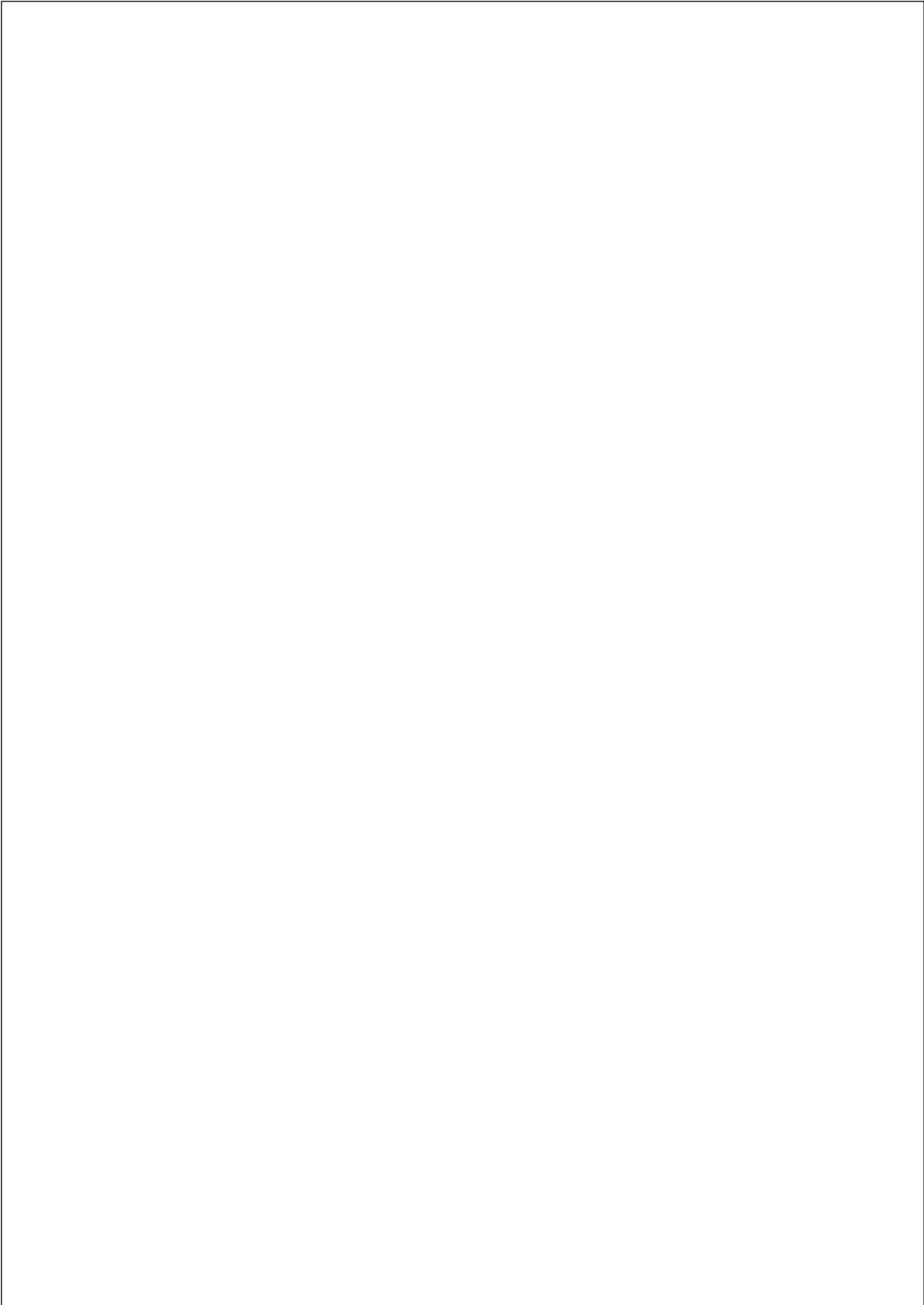
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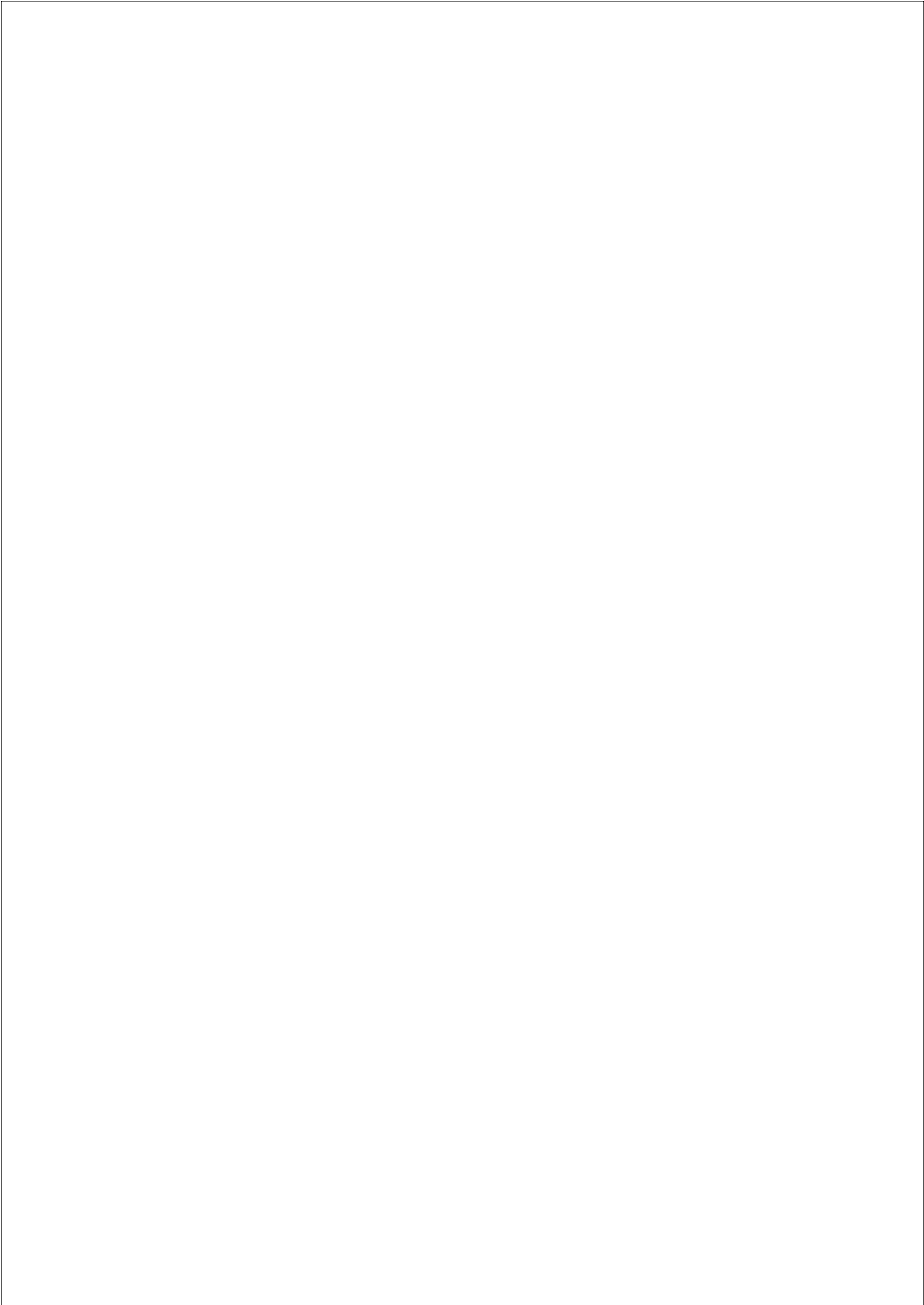
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Transcript of Audio File:

COMMAND INVESTIGATION

INTERVIEW OF (b) (6)

TAKEN AT ROYAL AUSTRALIAN AIR FORCE BASE DARWIN

MONDAY, SEPTEMBER 4, 2023

Audio Runtime: 29 minutes, 26 seconds

(b) (6)

1 (Beginning of Audio Recording.)

2 (b) (6) Okay.

3 (b) (6) Officer (b) (6) thanks for
4 coming in today. I've already gone through some of the
5 kind of preamble script that I've got, but just a
6 couple additional things to touch on specifically for
7 this. All right? So just -- just to get started, this
8 interview is being conducted on September -- what time
9 is it? September 4th at 14:13 at aboard RAAFT Darwin
10 with (b) (6) and the investigating
11 officer, (b) (6)

12 Prior or earlier today we read you that --
13 we went through your privacy act advisement. Do you
14 have any questions about that?

15 THE WITNESS: No, sir.

16 (b) (6) Okay. And then kind of the
17 last thing to touch on is I'm going to give you a note
18 here in a second. So just for testimony like this,
19 it's important to make sure you're giving the truth to
20 the best of your knowledge, right? And as fully as
21 possible. It can be a violation of UCMJ to
22 intentionally make false statements while you're under
23 oath. So just kind of want to advise you about that.

24 And then with that comes, like, not
25 speculating and not saying what -- it's testifying to

(b) (6)

1 what you know, right? What you observed, right?
2 That's what we're -- what we're -- we're trying to
3 ascertain right now, okay?

4 THE WITNESS: Yes, sir.

5 (b) (6) Any questions about that?

6 THE WITNESS: No, sir.

7 (b) (6) Okay. I'd ask you to raise
8 your right hand, please.

9 THE WITNESS: Yes, sir.

10 (b) (6)

11 having first been duly sworn, testified as follows:

12 (b) (6) Thank you. Proceed.

13 EXAMINATION

14 BY (b) (6) :

15 Q. All right. So how we'll do this is I'll ask
16 you to just kind of start where you want to, what you
17 remember, what you recall. It could be, you know, from
18 IP inbound. It could be from flight line. You go
19 through what you remember. I won't stop you along the
20 way. And then I'll follow up with questions then
21 either based on things that you say or things I kind of
22 want to understand a little bit better.

23 Does that make sense?

24 A. Yes, sir.

25 Q. Okay. From the beginning.

1 A. So I guess I'll kind of start at the
2 beginning of the day, from what I remember, kind of,
3 getting out -- getting out here to the frog (phonetic).
4 Got here. I was with Collard actually. We went to the
5 (inaudible), got -- got a couple energy drinks. And we
6 had about five minutes to brief, so we went to brief,
7 and (b) (6) was doing brief for us.

8 And don't really remember a whole lot from
9 brief, just kind of, one of those fuzzy things
10 throughout the day that I don't really remember a whole
11 lot from. But I don't remember anything being any
12 different than the brief we did with everybody that was
13 going to be in the -- the operation the day before.

14 I know they wanted to get out to the
15 aircraft a little earlier because they wanted to try
16 and burn up a little bit more fuel. They wanted to try
17 and get the engines going quicker, just to burn up some
18 fuel because we were heavier than they wanted to be for
19 the day. I think they wanted to be around 7.5 and we
20 were 9.5.

21 So we tried to get out there a little
22 earlier. Didn't really happen. It took us a little
23 longer to get the engines started up because we had an
24 FCS PF bid, was failing pass, so we had to troubleshoot
25 that. But 15 Dash-2 was able to get their engines

1 going before us, and they were just waiting -- waiting
2 for us. I know they loaded their packs first because
3 we were a little behind, us specifically. And that was
4 really our only delay for startup.

5 We -- I -- I went and picked up the packs.
6 I was on the ramp that day. I made sure we had the
7 right serials. Other than that, all that went well.
8 It just kind of took -- took a while to get everybody
9 situated because it was really packed in there. We had
10 to wait to get clearance. We -- we taxied out to
11 holding point Delta, the runway.

12 And we took off from -- I don't remember the
13 runway number, but I know we took off from runway
14 heading for -- stayed runway heading for a little bit,
15 going -- I'm not sure of the runways right there. We
16 were going that way. We took a left turn towards --
17 towards the -- towards the Melville Island. We pretty
18 much flew over the water the entire time on the way
19 there, and Dash-2 was -- we were in combat cruise.
20 Dash-2 was about, like I said, I guess, 0.3 DME about
21 the whole time there.

22 Q. Okay.

23 A. And they were 7:00 on -- from our clockwise,
24 they were 7:00 the whole time, stepped down and really
25 stayed there the whole time. If -- if I remember

1 correctly, we were 2,500 feet altitude. Airspeed, I
2 think it was around 200 KIAS, not 100 percent sure on
3 that.

4 Q. Okay.

5 A. But we were coming into Melville Island. We
6 had a holding point over the water. And I don't
7 remember if we had to hold there at all, but they
8 wanted us to stay there until we had clearance from the
9 guys on the ground on Melville Island to -- to become
10 feet dry, so to go over the land. Once we were feet
11 dry, we had to be 500 to 700 feet MSL.

12 Once we were feet dry on Melville Island, we
13 were going to our ingress point. We were kind of going
14 along the coast. We were feet dry, but we kind of
15 along the coast, and like I said, anywhere from 500,
16 700 feet. I don't remember the exact altitude.
17 Airspeed, I don't really remember that either.

18 But we were -- we did a right 90 coming to
19 the ingress point. We weren't at the ingress point
20 yet, but we did a right 90 to the ingress point. I
21 don't remember if we had gotten to the ingress point
22 yet before. Dash-2 was at our 7:00, like I said, about
23 0.3 to 0.5 DME; stepped down, and that -- this was when
24 they started to kind of go out of what we briefed.
25 Like I said, they -- they were at our 7:00, and we

1 started to transition to conversion mode.

2 And they were on our left side and started
3 to kind of gain ground on us. They went from our 7:00
4 to 8:00. And then from the 8:00, about the 8:00 to the
5 9:00, I lost visual on them. Last I saw them, they
6 were still in airplane mode. And I -- I kind of lost
7 visual, went out on the ramp further, was trying to see
8 if I could see them. I didn't see them.

9 And in that time -- I'm not sure exactly how
10 long it was. Didn't seem very long; five, 10 seconds
11 maybe. And I was looking for them, and I -- I was
12 looking over on the left side of the aircraft. And I
13 saw the shadow of Dash-2 on the ground coming towards
14 our shadow back this way, coming back towards us.

15 **Q. Yeah.**

16 A. And it looked like they were about, kind of
17 even with us, coming towards us. And I -- I couldn't
18 see them yet. I just saw their shadow. Their shadow
19 was coming towards us. And once their shadow had
20 gotten directly on top of ours, then -- then I heard
21 them. And at that time, when I heard them, they were
22 coming back over the top of us, going now the opposite
23 direction of us, coming over our tail. And that was
24 the next time I saw them, but this time they were in
25 conversion mode. I'm not sure what the sail angle, but

1 they were now in conversion mode, going the opposite
2 direction overtop of us. And they were losing
3 altitude.

4 So they were above us, and as soon as they
5 got past us, they started to drop in altitude. I don't
6 remember what altitude we were at when this happened.
7 I -- I would assume probably around 500 feet, since
8 that's where we were supposed to be at. They were
9 going the opposite direction. They weren't nose up
10 yet, but they were going towards the trees. They were
11 still pretty high in altitude, but they were losing
12 altitude fairly fast. And at this point, I was just
13 kind of in, like a, what are they doing? You know, I
14 didn't know what was going on because that was not what
15 was briefed at all.

16 And they were going towards the trees, and
17 they -- as the -- the lower they got to the ground,
18 then their nose popped up. As they were getting closer
19 to the trees, their nose popped up. And I could tell
20 they definitely had full power in because they started
21 to slow down, but they weren't stopping. They were
22 slowing down.

23 And while they were going to the trees, once
24 they got closer to the trees, you know, I saw the trees
25 start to, you know, move from the rotor wash. And the

1 first thing I saw -- their ramp was level, I could see
2 the ramp. Their ramp was level. And the first thing
3 that looked like started to impact the top of the --
4 tops of the trees was the belly, kind of, towards the
5 ramp, because they were nose up like this. And the
6 belly of the ramp started to hit some of the trees.

7 And then what I saw after that was, it
8 looked like, maybe the -- the sails, the bottom of the
9 sails started to hit the tops of the trees off. And
10 once the sails started to hit the trees, it kind of --
11 kind of sucked them into the trees, and they -- they
12 went down into the trees. And as soon as they kind of
13 disappeared, it almost looked like a -- a big, pretty
14 big fireball came out of the -- came out of the woods,
15 from what I saw. And that -- you know, following that,
16 a smoke -- smoke cloud, a fairly big fireball.

17 And I was, kind of, in that shock factor,
18 like, what just happened? I didn't, you know, kind of
19 didn't believe it. And I voiced up to the crew that
20 Dash-2 was down. Obviously, not that they didn't
21 believe me, but you know, I had to say it a couple
22 times because everybody was like, you know, that -- you
23 know, that didn't happen. But once I voiced up to
24 everyone and everyone was aware, we -- some -- from
25 what I remember, we did a couple right-hand circles.

1 We just kind of did a couple circles.

2 The pilot saw the, you know, the crash site.
3 And we were kind of trying to figure out what we should
4 do, and we kind of talked about it for a second. We
5 didn't have a whole lot of time. Seemed really fast,
6 but we decided that we needed to continue with our
7 landing because we still had 23 people on board our
8 aircraft that we needed to get on deck safely.

9 So we continued out with the landing, and we
10 -- we were pretty close to the -- to the airstrip at
11 that point. So we just continued down, and we had a
12 pretty -- pretty good RVL coming in, because there's a
13 lot of dirt on each side of the runway. The air strip
14 was pretty thin. I'd say about a Level 4 because the
15 tunnel did lose visual for a second. I had to pick up
16 calls on the back. But we continued down and put it on
17 -- put it on the deck. And after that, it was kind of,
18 like, getting a breather, figuring out what we were
19 going to do.

20 During this time, our pilots were talking to
21 the H-1s that were flying in the area, and they were
22 already over the crash site and were talking to us
23 about what was going on, what they saw, what they were
24 seeing in the moment. They said there was a pretty big
25 fire around the -- the crash. And I think they told us

1 it was six people that they could see. So we kind of
2 were really worried. We didn't know -- know how many
3 people got out. But we were -- we were on deck for
4 what seemed like forever, waiting to figure out what to
5 do, what we needed to do. And we decided it'd be best
6 if we returned back to base and got the packs unloaded.

7 And it -- we had to wait until the columns
8 cleared up because it was really cluttered. Everybody
9 there, I mean, we had us, H-1s, Search & Rescue. We
10 had everybody on the -- you know, right there. So it
11 was really cluttered. I remember there being a -- a
12 Cobra down the -- on the right side of us on the
13 runway, and then an -- an H-1 on the other side, and I
14 think two Search & Rescue helicopters. So it was
15 pretty packed in the area. So once it kind of calmed
16 down, we kind of gathered ourselves and decided we
17 needed to go back.

18 So once we got clearance to leave, like I
19 said, I don't remember who the -- who was in charge at
20 the time. But once we got clearance from them that we
21 could leave, we -- we lifted off and we kind of
22 followed the same pattern that we did in. When we were
23 feet dry on the island still, we didn't have to wait
24 for clearance to get back into Tower's airspace. They
25 cleared us straight in, so we didn't have to hold or

(b) (6)

1 anything. But this time we kind of took a different
2 route back. We didn't go over the water. We kind of
3 stayed on the shoreline the whole way. So I'm not sure
4 what route we took that time.

5 Q. Okay.

6 A. But we kind of stayed along the shoreline
7 the whole way back to Darwin. And then you know, just
8 talking back and forth with Tower, I don't remember
9 what all was said there. But once we got back, you
10 know, we landed, taxied back to the frog, offloaded the
11 packs. And we -- we weren't sure if we were going to
12 go back out.

13 So we didn't know what was going on. And
14 (b) (6) (phonetic) came in and talked to our pilots
15 and said that we were going to do a crew swap, and --
16 and they were going to go out. So we were waiting for
17 the -- the crew swap. We were in the other crew, just
18 ground spinning, just waiting.

19 And the -- yeah, the crew chiefs got there
20 first. So we switched out with them. And then after
21 that, I mean, it was just -- it was done after that.
22 So other than that, that's kind of how the sequence of
23 events went for me, at least from my perspective.

24 Q. Okay. Thank you for that. What I want to
25 focus with you is, you know, I think you probably have

1 the best vantage point from the IP inbound of location
2 of Dash-2 until you lost them as they came around from
3 your 7:00 to your 9:00. And then, like you said, so
4 that was --

5 If you can, just let's -- well, talk me
6 through that again, if you don't mind. So you-all are
7 in -- from, I guess, from your IP inbound, if you
8 would; is that okay?

9 A. Yes. So the -- we were -- yeah, we were
10 coming in, and when Dash-2 was at our 7:00, this is
11 when we voiced up. I don't remember if they were
12 really replying much. I don't remember hearing a whole
13 lot from Dash-2 that flight.

14 Q. Okay.

15 A. But we --

16 Q. Can I -- I'm sorry. Can I ask you, were the
17 comms -- the -- the -- the comms over the -- in the
18 objective area, were they pretty busy at this point in
19 time? Or were they kind of clam (phonetic)?

20 A. I don't remember hearing a whole lot of
21 comms at this point.

22 Q. Okay.

23 A. I don't think it really had kind of started
24 yet. I think it was when we first kind of were going
25 to insert the packs, but then that's when the exercise

1 really started. So I don't remember comms being packed
2 or anything.

3 Q. Okay. Thank you.

4 A. And -- but I was also thinking that I don't
5 remember hearing a whole lot from Dash-2 that whole
6 flight. I don't think their comms were gone because I
7 feel like I do remember hearing them talk. I just
8 didn't hear a whole lot from them at all. So we did
9 voice up that we were pulling power to convert
10 ourselves and --

11 Q. When you say that, you say that over --
12 InterFlight or InterAircraft that he --

13 A. It should have been over InterFlight, the
14 pilot voicing up that we're pulling power and we're
15 going to convert ourselves.

16 Q. Okay.

17 A. And he -- the pilots, when they started to
18 convert, they voiced up. And I don't remember hearing
19 anything from Dash-2 about converting or pulling power
20 or anything, and I didn't even see them convert. So
21 that's kind of where it kind of confused me.

22 Q. Uh-huh.

23 A. But like I said, once we started to convert,
24 Dash-2 was at our 7:00, and they started to pass us up
25 because we were converting, so we were slowing down

1 pretty fast.

2 They went, you know, like I said, they went
3 from our 7:00 to our 8:00, and then from our 8:00 to
4 our 9:00 is kind of when I lost them there. And that's
5 when I went -- went out further on the ramp to see if I
6 could see them, and I didn't have a visual on them.
7 And I guess five to 10 seconds, if that, time went by.
8 And then that's when I kind of had a visual on their
9 shadow.

10 Q. Okay.

11 A. I still couldn't see them.

12 Q. So when you say "the shadow," can you, kind
13 of, describe, like, is it like they moved towards you,
14 through that, like, origin, like this, like at a 90?

15 A. So we were -- so we're -- we're facing this
16 way, and it looked like I saw their shadow just coming
17 straight at us.

18 Q. Okay.

19 A. Then -- from what I saw, they were coming
20 straight at us, it looked like, and I didn't see them
21 still. And as their shadow got closer, once their
22 shadow was, like, pretty much on top of our shadow is
23 when I heard them.

24 Q. Okay.

25 A. I just heard the noise of the aircraft

1 coming towards us. And at this time, they were coming
2 overtop of us, and they were going over our tail behind
3 us at our 6:00. They were going the opposite direction
4 of us.

5 Q. So directly overtop of the tail on this
6 point?

7 A. Yes. So I think they kind of came over the
8 nose to the wing right there, and they just started --
9 they turned back the other direction behind us.

10 Q. Okay.

11 A. And they were now going over our tail. So
12 they just went straight overtop of us, from what it
13 seemed like. They were going over our tail at our 6:00
14 in the opposite direction, and they were now in
15 conversion mode. The last time I saw them, they were
16 in airplane mode, and they were -- they were going
17 pretty fast, too. They were still going fairly fast.

18 And they were losing altitude at this time.
19 So they were going down. I don't -- I think they were
20 kind of level. They didn't look like they were nose
21 down or nose up at this time. But they were definitely
22 dropping altitude fair -- fairly fast. And as they
23 were going down towards the trees, I saw the ramp was
24 level. As they got closer to the trees, their nose
25 popped up.

1 Q. I got it from there.

2 A. Okay. Thank you, sir.

3 Q. No. Nothing is -- I believe that that
4 visually answered what I'm kind of looking for. All
5 right, let me look through some of these questions. So
6 there's going to be a bit of pause here just to make
7 sure I don't have any questions.

8 A. All right.

9 Q. Okay. So I'm going to switch gears with you
10 to talk a little bit about the squadron and a little
11 bit about the GCE, okay?

12 So how long have you been with the
13 commander?

14 A. I have only been in Darwin, well, just the
15 command in general since about first week of July.

16 Q. Okay.

17 A. I got out of the schoolhouse and went to
18 Hawaii. For about two weeks I was there, and then they
19 sent me out here.

20 Q. Nice.

21 A. And I haven't been here too long. So I
22 mean, I kind of know most everybody now, but I don't
23 know them very well.

24 Q. I understand.

25 A. And I mainly know the flight-line shop

(b) (6)

1 really well and a couple of the officers just because
2 we fly with them often. So it's kind of, I guess for
3 me, it's -- it's a little hard to notice if people are
4 acting out of the ordinary because I don't know
5 everybody too well yet.

6 Q. Yeah. I understand.

7 A. So from the -- yeah, from that standpoint, I
8 did know Collard fairly well. He was one of the crew
9 chiefs I interacted with the most.

10 Q. Okay.

11 A. Just because he was a newer corporal and I'm
12 (b) (6), so he just kind of, like, showed
13 me the ropes of Darwin and how things operated out
14 here.

15 Q. Okay.

16 A. But --

17 Q. What's your sense; positive, negative, kind
18 of neutral, about the -- the -- the command itself?

19 A. I had -- I mean, it -- it seemed very, very
20 positive to me. I didn't -- I didn't have any
21 problems. Everyone seemed fairly nice, I mean.

22 Q. Okay.

23 A. Yeah. I didn't -- I guess it's kind of hard
24 to describe since I'm so new, but I mean, I -- I didn't
25 have any -- I guess the squadron seemed like a good

(b) (6)

1 squadron to me.

2 Q. Okay.

3 A. And it was my first squadron, so I -- I
4 guess I didn't know what to expect, but it was, you
5 know, it was good, you know, checking in, meeting
6 everybody. Everyone seemed very nice. So Sheriff CO,
7 CO was a good guy. And I -- I didn't have any issues
8 so far, at least, you know. No -- no problems with
9 anyone.

10 Q. Okay. So since you've been here a very
11 short time, any -- did you ever sense any undue
12 pressure, in your opinion, undue pressure to execute
13 operations that didn't -- that didn't seem normal or
14 execute any maintenance that didn't seem normal?

15 A. No. I mean, not -- not to me. I didn't see
16 anything like that. Kind of, I noticed, or at least
17 when I was talking to (b) (6) (phonetic), was
18 for that operation specifically, was that it was kind
19 of hard to find the qualified crew chief for that --
20 that kind of mission.

21 Q. Okay.

22 A. She's our most experienced crew chief that's
23 here right now. A lot of our other real qualified crew
24 chiefs are on the boat right now.

25 Q. Right.

1 A. And so that's why she -- she put me with
2 her. She knows I'm our (b) (6) . So she
3 wanted me to be with her since she's the most
4 experienced. And she said she was fully confident.
5 And Collard, he's a seasoned crew chief. He's a good
6 crew chief. So she kind of wanted that to be like his
7 -- what you call it? Like a -- an exposure to certain
8 codes that he would be really getting in the future
9 for, like, instructor codes.

10 So he -- he's flown flights like that
11 before, but more of like a -- an instructor standpoint,
12 kind of, look on it. But it wasn't -- I never really
13 got the impression that they kind of pushed things. It
14 was just in -- in the moment on that mission, it kind
15 of seemed like it was a lot for us, for the people we
16 had available.

17 Q. Yeah.

18 A. At least for the crew chiefs.

19 Q. Yeah. Okay. Thank you for that. All
20 right. Was this your first mission with packs in the
21 back, like GC3s?

22 A. That was my first time ever having a full --
23 full aircraft pack. I've had, you know, a couple packs
24 before. We did a Morelog (phonetic) flight, so we had
25 five, six packs, but never -- never had a full aircraft

1 before. So it was kind of a first for me. That's for
2 sure.

3 Q. Okay. Did you notice any, like, friction
4 in-between, like, you and the aircraft and the GC
5 Marines getting on the back of the aircraft? Say
6 follow your -- your direction or like, hey, put on your
7 stuff, do strap in, all that kind of thing?

8 A. Yes, sir.

9 Q. Have you seen anything like that in the past
10 in your other, like your Morelog flight? Any -- like,
11 any friction at all?

12 A. No, sir.

13 Q. Okay. Just want to make sure. So you got
14 here in July. Okay. I guess the last question I have
15 for you then is: Did you feel safe in the aircraft
16 based on the maintenance that was being done around
17 here?

18 A. Yes, sir. Yes.

19 Q. Okay. Cool. Good to hear. Anything else
20 that has come to mind in the time that we've been here,
21 that maybe you want to bring up, that wasn't in the --
22 the sworn statement here or anything that we talked
23 about, that you might want to -- you might want to
24 bring up?

25 A. Not -- not anything that's really come to

(b) (6)

1 mind, sir.

2 Q. Okay. I -- so one safe ground question I
3 have, I forgot to ask: Bird activity, as you guys were
4 coming in, obviously a little bit harder for you in the
5 ramp, I understand. But did you happen to see any
6 birds as you were transiting into the objective area
7 once you went feet dry?

8 A. Not that I remember seeing. I don't
9 remember seeing any birds or hearing any bird call-outs
10 from the pilots or the ground chief.

11 A. Okay. Awesome. Okay. I think we're good,
12 sir.

13 (b) (6) Same kind of warning that
14 I've given a couple of times now, right? So just
15 you're advised this is an ongoing investigation.
16 There's a couple of them right with the AB as well. So
17 don't discuss your testimony with anybody else other
18 than duly-appointed investigating officers.

19 If people are asking you about it and you're
20 not sure if they're part of one of the investigations,
21 because there's more people associated with this one
22 that aren't here today, you can ask them to see their
23 (inaudible), just like we showed you ours today, and
24 they should be able to produce that.

25 THE WITNESS: Yes, sir.

(b) (6)

1 (b) (6) Any questions for us?

2 THE WITNESS: No, sir.

3 (b) (6) Thank you for your time.

4 (b) (6) Thank you very much.

5 THE WITNESS: Thank you.

6 (End of Audio Recording).

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CERTIFICATE OF TRANSCRIPTIONIST

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I, (b) (6), a transcriptionist

located in Charlotte, North Carolina, hereby certify:

That the foregoing is a complete and accurate
transcript of the digital audio recording of the
proceeding in the above-entitled matter, all to the
best of my skills and ability.

I further certify that I am not related to any
of the parties to this action by blood or marriage and
that I am in no way interested in the outcome of this
matter.

IN WITNESS THEREOF, I have hereunto set my hand
this 19th day of October, 2022.

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Transcript of Audio File:

COMMAND INVESTIGATION

INTERVIEW OF (b) (6)

TAKEN AT ROYAL AUSTRALIAN AIR FORCE BASE DARWIN

THURSDAY, SEPTEMBER 14, 2023

Audio Runtime: 12 minutes, 40 seconds

(b) (6)

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5	By (b) (6)	3
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(b) (6)

1 (Beginning of Audio Recording.)

2 (b) (6): All right. Good morning. It
3 is approximately 1100 on 14, September. We are aboard
4 Royal Australian Air Force Base Darwin. Present in the
5 room is (b) (6), myself, (b) (6)
6 the two assistant investigating officers, Majors Huff
7 and (b) (6).

8 This is our second interview with (b) (6)
9 (b) (6). Prior to turning on the recording,
10 I reminded him that he had filled -- previously filled
11 out a Privacy Act Statement, which we have present with
12 us now. He didn't have any questions about that. And
13 I reminded him that he remains under oath from his
14 previous interview.

15 Anything you'd like to add?

16 THE WITNESS: No, sir.

17 (b) (6) Any questions?

18 Okay. (b) (6).

19 EXAMINATION

20 BY (b) (6)

21 Q. So like (b) (6) mentioned, we want to,
22 you know, really discuss the positioning of the H-1.
23 We've got some questions on that. So I know you were
24 in the lead aircraft coming in.

25 Did you ever see the H-1's at any point

1 during the approach?

2 A. During the approach, I didn't see them. But
3 I knew they were north of us, at least one or two of
4 them. I knew they were north. So the LZ, they were
5 north, maybe east -- or not east, west a little bit, so
6 northwest of the LZ. So in relation to us, that would
7 have been our left side.

8 I didn't know exactly where they were at. I
9 just knew that they were from the 900 feet to the 1100
10 feet range. And that's why we were through -- at 500
11 to 700 feet. So I didn't -- they didn't know exactly
12 where they were. We hadn't really had a whole lot of
13 comms with them yet because the exercise technically
14 had -- I mean, it started, but it didn't really
15 commence, I guess, until the first packs were inserted.

16 Q. Okay.

17 A. So I hadn't -- hadn't really heard a lot in
18 relation to that, besides us communicating with the
19 guys on the ground, on the island, to get clearance, to
20 come feet dry onto the island.

21 Q. Okay. And did you observe, personally, the
22 locations of the H-1's flying around at any point?

23 A. I do not remember seeing any until -- until
24 after everything had happened, once they started
25 circling the crash site.

(b) (6)

1 Q. Okay. Did you -- oh, go ahead, I'm sorry.

2 A. I was -- I'm not sure if anyone else did.

3 Maybe on the -- me being on the ramp, I kind of had the
4 worst visibility for them, probably.

5 Q. Sure. Yeah.

6 A. So I didn't really see them until after
7 everything had happened. But I -- we obviously knew
8 they were there. I just -- I didn't see them until
9 that point.

10 Q. Okay. Did you observe the -- any of the
11 pilots in your aircraft mention the H-1 positions?

12 A. Not that I recall. I don't remember them
13 calling out any -- any friendly traffic anywhere. It's
14 kind of a little bit blurry, like, the smaller details.
15 But I don't remember them saying anything like that
16 until after it had happened, and then that was the
17 first time I really heard them call out any H-1
18 positions, that they were circling the crash site.

19 (b) (6): Okay. All right.

20 (b) (6) Liam?

21 EXAMINATION

22 BY (b) (6)

23 Q. Yeah, I got a couple questions.

24 So you're on the ramp, right?

25 A. Yes, sir.

1 Q. Okay. So you guys were -- you guys were
2 coming in -- coming in for the approach, and I'm going
3 to talk through kind of what we understand. Maybe I
4 can, like, help to kind of help your thinking through
5 what you're -- what you're witnessing, okay?

6 So you guys are coming up from the south.
7 You hit (inaudible). You're inbound. As you're coming
8 inbound, you -- you -- your aircraft made a slight left
9 turn. And what you guys were essentially doing is you
10 guys were making a slight left turn in order to, kind
11 of, make a right turn towards the zone. So you were
12 kind of maneuvering the aircraft to get into a better
13 position for the 90 -- to intercept the final for the
14 approach.

15 While you guys were doing that, do you
16 remember the position of your Dash-2?

17 A. So they were at our -- our 7:00 a step-down
18 pretty much the whole flight. And you know, obviously,
19 in turns, they get a little out of position, but they
20 stuck pretty close to that the whole flight. So --

21 Q. Is that at 7:00?

22 A. -- 7:00 a step-down, you know, about 0.3
23 DME, guesstimate. Then they stayed reverently close to
24 that the whole time. The only time they really
25 switched positions was, I think, when we were coming

(b) (6)

1 feet dry onto the island. They might have done a --

2 Q. Crossover?

3 A. -- a crossover. Crossover, yeah.

4 Q. Okay.

5 A. But they were back at our 7:00 when we were
6 in about --

7 (b) (6) : You're okay?

8 THE WITNESS: I'm fine.

9 (b) (6) Cool.

10 BY (b) (6)

11 Q. So as you guys are coming in, they're --
12 they're roughly 7:00 position. You guys are coming in,
13 kind of make that, like, slight left turn to kind of
14 put yourself in a position where you can make, like,
15 that, right, 90 turn. So as you guys are coming over,
16 you kind of roll out like this.

17 As you guys roll out and you're approaching
18 your point where you're going to execute your 90 --
19 your turn, what was happening with the H-1's is the H-
20 1's started moving towards the point that you guys are
21 going to make the turn and are above you guys, okay?

22 So I'm telling you this to kind of help,
23 like, maybe get you thinking through, like, the actual
24 flight and the movements and everything else that's
25 happening. So they're coming in, the -- the Huey

1 (phonetic) is in a lead position at this point, but the
2 Cobra is in the Dash-2.

3 So you guys are like this, you're coming in,
4 you're reaching, you're getting up towards the point,
5 and they're -- they're flying over the top of you like
6 this, okay?

7 A. Okay.

8 Q. So the Huey is pretty much flying over the
9 top of you. The Cobra turns, so they can take your
10 4:00 position. So they're on the right side of the
11 flight. The Huey comes over the top of you guys. And
12 they're now on the left side of your section.

13 A. Okay.

14 Q. So as you guys get in the position, you guys
15 are kind of making your left turn and then get in
16 position to make that right turn. The Huey is coming
17 up, and they're pretty much parallel to you guys at
18 this point on the left side of your flight.

19 A. Okay.

20 Q. So as you guys make that turn, that -- that
21 right turn, this is the part where I kind of want to --
22 I'm asking you to kind of revision -- put yourself back
23 in there and see -- see if you can remember seeing the
24 aircraft.

25 So as you are going to make that right turn,

(b) (6)

1 first question I have is, at -- at the point where you
2 made the right turn, where you actually made the 90
3 turn to -- to final, where was your Dash-2?

4 A. So when we made that right turn, they -- I
5 feel like they were -- they went -- they were at our
6 seven. They kind of went to our six. But once we were
7 kind of coming out of that turn, they popped back over
8 to the 7:00. And I had a visual on them the whole time
9 until they kind of overtook us. But --

10 Q. Let's stop there for a second, okay? So
11 when they overtook you, okay, and overtaking, just for
12 the reporting, means that they're -- they're coming up
13 to your being, and they're basically coming forward of
14 the lead aircraft, okay?

15 What -- what configuration at that point
16 were they in?

17 (b) (6): So I -- I think we went
18 through this, through the first interview?

19 (b) (6) Yeah, it's --

20 (b) (6) Yeah. No, I know we did.
21 There's a reason I'm asking.

22 THE WITNESS: From what I remember, they
23 were still in airplane mode.

24 BY (b) (6)

25 Q. They're still in airplane mode when they

1 overtook you.

2 A. Uh-huh.

3 Q. Okay. That's okay. So at that point, when
4 they -- when they kind of overtook you, now what I'm
5 asking is if you can try to remember where the Huey
6 was.

7 A. That's the thing, is I don't -- I don't
8 remember seeing any Hueys or Cobras and -- up until
9 after the crash. That was --

10 Q. Okay. Yeah.

11 A. I really wish I could help you there, that's
12 not --

13 Q. No, that's okay. Yeah.

14 A. Yeah. I -- I don't remember having a visual
15 on any of them --

16 Q. Okay.

17 A. -- or really even hearing any comms about
18 them being close to us.

19 Q. Okay. So at this point, their being --
20 they're kind of overtaking you, essentially, like,
21 their -- their -- their rate of speed at this point is
22 higher than yours.

23 A. Yes.

24 Q. You remember them being in airplane mode.
25 It looks like it's coming to a being possibly to the

(b) (6)

1 point where they're overtaking you.

2 A. Uh-huh.

3 Q. And at that point, you -- you don't remember
4 because you do remember seeing that, but you don't
5 remember seeing the position they were in?

6 A. Yes.

7 Q. Okay.

8 (b) (6): All right. Copy.

9 EXAMINATION

10 BY (b) (6)

11 Q. When -- I think, from your testimony, I
12 believe you saw a shift to shadow of the aircraft as
13 they were coming through.

14 A. Yes. Uh-huh.

15 Q. When did you pick them up at the tail of the
16 aircraft? What -- where were they at in relation?

17 A. Once I'd lost visual, once I'd finally
18 picked them back up, they were directly at our 6:00
19 coming over top of us.

20 Q. Okay. So --

21 A. So yeah, they were --

22 Q. They were turning. And then when you picked
23 them up, they were, like, right here --

24 A. Uh-huh. Yeah, they --

25 Q. -- over -- over top?

(b) (6)

1 attitude, do you think they would have hit you?

2 A. So to my understanding, from everything
3 that's happened, was that our pilot saw them on our
4 left side, piloting controls, and he pulled a little
5 bit of power out to drop some altitude, and then they
6 came right over top of us. That was my understanding.
7 I didn't -- I'm not sure if they pulled up at all or
8 what happened with their aircraft. But --

9 Q. So nobody asked the question because that --
10 that helps. That does help that perspective. But
11 let's -- let's say, hypothetically, the pilot, your
12 pilot had not -- who's had the controls, just so we can
13 just -- just so we can recap that?

14 A. (b) (6) was I think it is.

15 Q. Okay. So it's (b) (6) in the left
16 seat.

17 A. Okay.

18 Q. If (b) (6) had not pulled power as you
19 -- as you described, to try to reduce the altitude of
20 the aircraft, if -- if everything had stayed level, do
21 you believe that -- that there would've been a mid-air?

22 A. Yes.

23 Q. Okay.

24 A. Yeah.

25 Q. That helps a lot. That helps -- that helps

(b) (6)

1 a lot. So they're behind you, going the opposite
2 direction, over the top, and did they come down?

3 A. Yes, they --

4 Q. Did you watch it?

5 A. I -- they were -- came over top of us, and
6 as they came over top of us, they were now in
7 conversion mode. Because the last time I saw them
8 before that, they were in airplane mode or just coming
9 out of airplane mode, like, just starting to convert.

10 And yeah, the next time I saw them, I'm not
11 sure what (inaudible) they were at in the (inaudible),
12 but they were in conversion mode at this point, and
13 they were coming over our tail and just going down
14 towards the trees. They were -- it looked like they
15 were kind of level, nose up. They were just level.
16 They weren't nose up or anything at this time.

17 Going towards the trees, as they were losing
18 altitude. As they got closer to the trees, I'm not
19 sure how far away exactly, but then I noticed them,
20 kind of, pitch the nose up, and as they were going down
21 towards them like this, until they started to make
22 impact with the trees.

23 (b) (6): Okay. And --

24 (b) (6) You probably covered most
25 of the stuff already in (inaudible), so thank you for

(b) (6)

1 (inaudible).

2 (b) (6) That -- that actually -- that
3 was great.

4 (b) (6) Yeah. I don't have
5 anything else.

6 (b) (6): Anything else?

7 (b) (6) No, that's it.

8 (b) (6): That's cool. Let me see. We
9 really appreciate your time today. Continue to
10 remember that this is an ongoing investigation. Please
11 don't discuss your testimony with any other witnesses.

12 THE WITNESS: Sure.

13 (b) (6): Thanks.

14 (End of Audio Recording)

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(b) (6)

CERTIFICATE OF TRANSCRIPTIONIST

I, (b) (6), a transcriptionist
located in Charlotte, North Carolina, hereby certify:

That the foregoing is a complete and accurate
transcript of the digital audio recording of the
proceeding in the above-entitled matter, all to the
best of my skills and ability.

I further certify that I am not related to any
of the parties to this action by blood or marriage and
that I am in no way interested in the outcome of this
matter.

IN WITNESS THEREOF, I have hereunto set my hand
this 19th day of October, 2023.

(b) (6)

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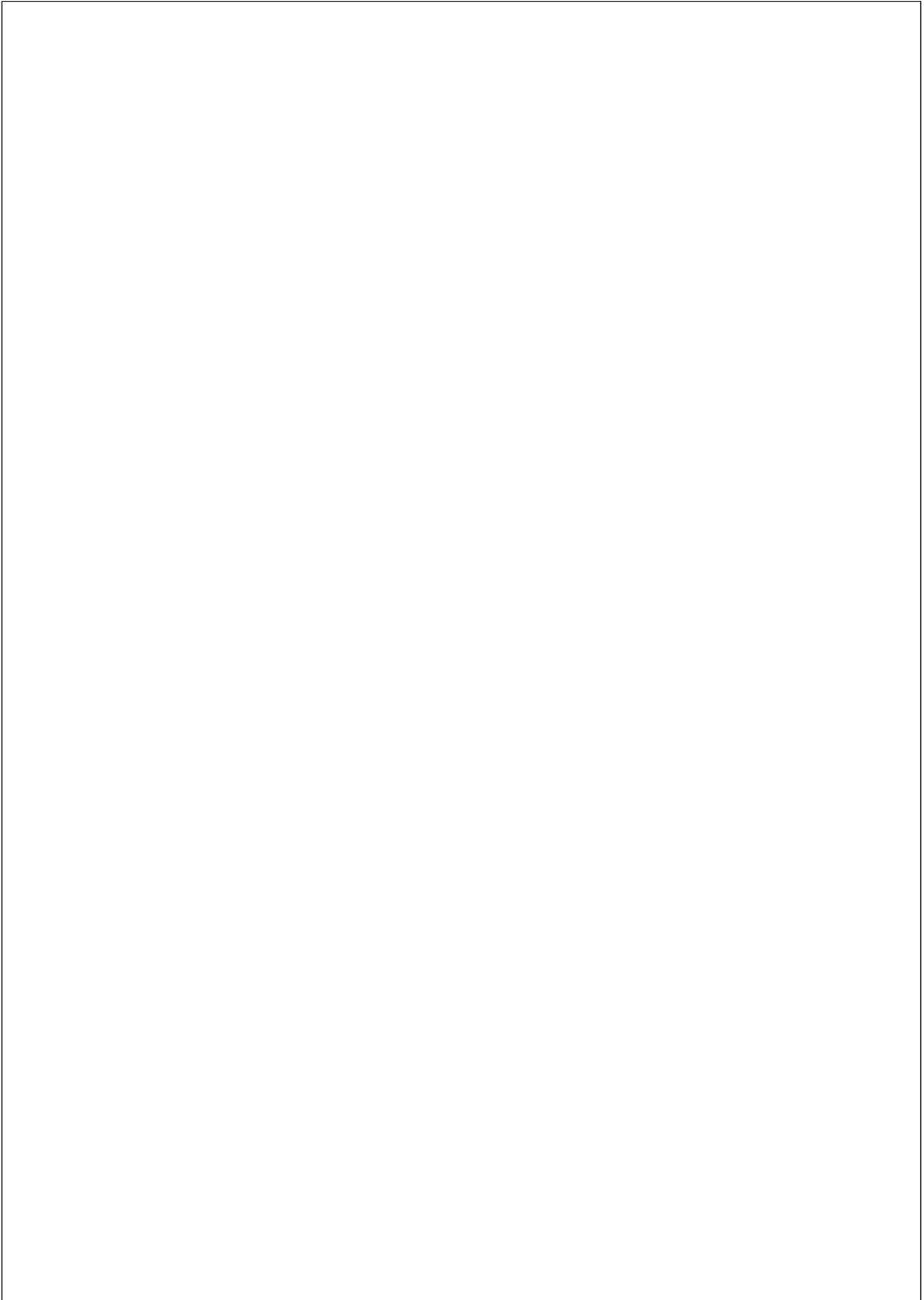
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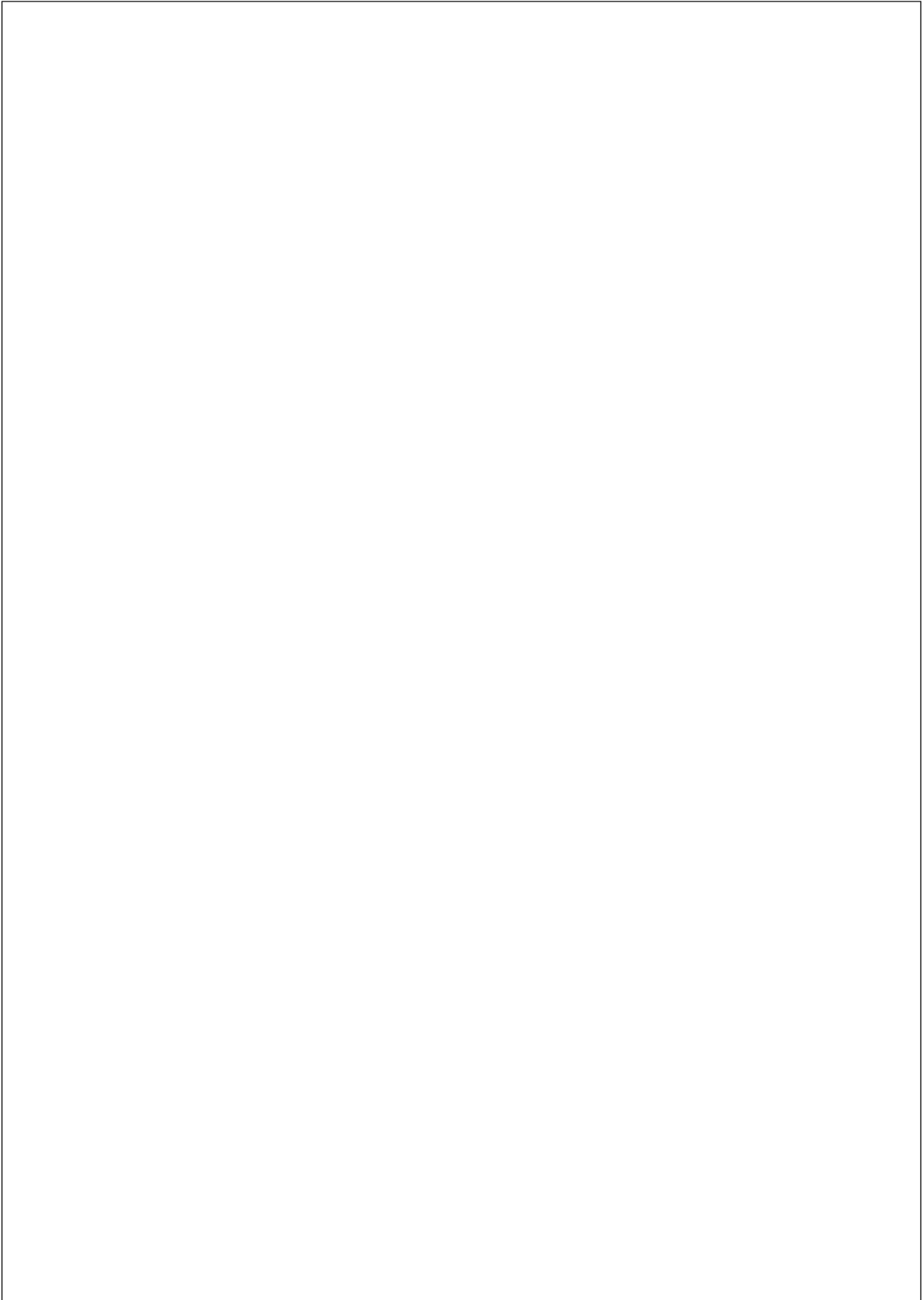
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(b) (6)



Interview Summary of (b) (6), VMM-363 (REIN)

IO

Alright so I want to thank you for your time today I've kind of already gone through the initial script with you but a couple of things I just wanted to touch base on again we went through the privacy act earlier did you have any questions about that OK and then for a command investigation it's important that the information you provide be truthful and complete could be a violation of the UCMJ to provide to knowingly make false statements when you're under oath I am going to administer an oath to you do you have any questions before I do that?

Witness

No sir.

IO

OK can you please raise your right hand do you swear affirm the truth the testimony you're about to give should be the truth the whole truth nothing but the truth so help you god

IO

I'll just turn it over to you and you can start wherever you want to throughout the you can start pre mission planning whatever the case may be and kind of go through what you remember and then I'll take notes or I won't stop you at any point in time to ask questions but let you finish everything that's on your mind and I'm going to circle back and I'll ask you some follow up questions along the way does that make sense?

Witness

Yes sir.

1:20 IO

OK all right please begin.

Witness

So as far as the actual mission it started the night prior with the AFLEFL brief and they coordinated for a 1630 brief and I think it was if I remember correctly Capt LeBeau and the other pilots who came and picked up myself (b) (6) and (b) (6) to bring us in the brief didn't end up starting till about like 1715 ish because they were still trying to get all the products together and all the last little bit things they were trying to do before kicking off the brief so they went through the whole like mission overview of what was going to go on during the flight and then after that was done they coordinated for the next day about 5:45 pick up for the crew chiefs at 10 city and we didn't get there till around 6:00-ish for the brief and then we did our section brief together as MV-22 and then I think around 6:30 the skits did their brief in the writing room as well and then following that we had our cockpit and natops briefs and pretty soon after that we just had to check out all of our gear that we normally do like PFK all that stuff get the bird ready for this mission in particular they wanted us to have three long chords per plane so one for me the other crew chief and then same for the other crew both crew chief AO and then whoever was going to be on ICS so we were kind of like scrambling around trying to find long long chords dash 2 ended up going APU hot before us and then we were still trying to figure out where to find long chords because we have planes on the boat right now and we're kind of like short supplied so I had (b) (6) take two tags out of our PFK and run over to AFI to go check out two chords and then he ended up checking out those cords running one out to the dash 2 plane and then one in my plane and Collart came over to our aircraft asked me if anyone had conducted the passenger brief already for everyone and I said no not yet i haven't got around to it so he went out and gave the passengers you know like the Their own natops brief of the Tech 500. Then from there we were both started up we had like some troubleshooting issues our HPDU kept failing so we kept trying to get the FCS preflight bit to pass and we had a few people out there we had QA and flight liners just trying to get that HPU to pass ended up passing and then from there we loaded our serials onto the aircraft per the planning the serials were they ended up getting switched so my serials ended up on lead aircraft and their serials came to our aircraft and then from there we taxied out I think we were about 30 minutes around there, delayed but not for anything else other than trying to get our aircraft to pass its preflight from there we taxi out got our clearance did a 60 so off the runway and then as far as like what they were doing in the back I had limited visibility of them just cause I was in the tunnel trying to help out with everything else (b) (6) is a pretty new crew chief he got here pretty late he's like straight out of the schoolhouse so I kind of wanted to just handle everything and then I told Collart to do the same because he is the more senior crew member so yeah as I was saying he's like a pretty newer crew chief doesn't have like a lot of experience in the fleet and this was going to be like a kind of more complicated mission for him so but he was able to see more of like Dash 2 and

what they were doing from the back there, I couldn't really see a whole lot just from where I was in the tunnel I don't remember exactly I think we were IP inbound when it happened but (b) (6) told me or just voiced up to the crew well first he said oh shit and then it kind of just went silent and then he said dash 2 went down and the pilot said is this simulated I look out of the crew door, I see a cloud of smoke I couldn't see dash 2 or from what I remember I don't remember but all I see was like smoke and I said no this is not simulated Dash 2 is down and then from there we just went into LZ Crow it was kind of like a really fast 20 minutes like the first 20 minutes was kind of chaotic and I don't remember fully everything, but I just remember we tried to make the safest landing possible in LZ Crow because we still had 19 passengers on board our aircraft and wanted to just make a safe landing then we entered an RBL touchdown and then just went 7575 just stayed there spinning trying to coordinate like what we're going to do from there.

IO

All right thank you for that so and I apologize I smirked because I thought you were when you said oh shit there's so many times you hear that and you're like OK that's not you know what do you what do you try to communicate to me and it just brought me back to the time so I apologize hopefully that didn't and it's not outputting to you in my smirk couple things I want to go back to here so [inaudible] I'll go backwards to the most recent years so you said the first 20 minutes was chaotic you mean the first 20 minutes from the takeoff out of Darwin until into the objective area-

Witness

Until like we touched deck after?

IO

OK.

Witness

Yeah cause that's about all we did pretty much is we took off everything happened and then we landed so there is like a lot of stuff I don't remember and I wish I did because I want to help as much as I can but I don't know I'm sure you understand it gets a little hazy.

IO

Yeah I absolutely understand It gets very hazy especially to your point that it's chaotic and it's a busy aircraft and you were running around prior to that doesn't help as you're trying to you know you're chasing your tail that point on that makes sense to me do you happen to recall the fuel load and I don't know if you put it in here I apologize I have not done a great scan on this fuel load you had on board at takeoff yeah started up at 9.5 OK.

Witness

Right.

IO

Plan a land with LZ at 7.5 all right so you got that covered.

Witness

I don't remember exactly what we took off with it might have been around 8000 lbs but I'm not sure like 100%.

IO

Yeah OK got you OK do you happen to recall as you were transiting into the objective area and coming down did you happen to back up the pilots to have to see what their airspeed was?

Witness

I don't remember exactly their airspeed I'm sorry.

IO

Yeah that's fine I understand do you recall seeing any birds as you at this point in time let's take a step back and make sure I understand where you where you're facing where you're looking as you're coming down into the objective area so you're in the tunnel are you typically where you would be as chief kind of in the middle there.

Witness

Yes sir.

IO

OK copy so you're at I would imagine let's say you're you had leveled off at your lower altitude there's H1's in the overhead somewhere do you recall seeing them?

Witness

I do they were above us we were all at our contracted altitudes I don't remember exactly what those were but yeah.

IO

And you did have visual two of those the two.

Witness

I did.

IO

OK and from your position in the tunnel not on the crew door window.

Witness

Mhm.

IO

OK copy OK so as you as you're walking as you're in that position do you happen to recall from there until you're landing seen any any birds other than helicopters any like no kidding wildlife birds on your out of flight?

Witness

Not that I can remember sir.

IO

That's OK do you happen to recall looking at the any of the the instruments in the cockpit that shows DME between for the air to air tack in between the two aircraft do you recall that at all?

Witness

No sir but (b) (6) said they're about like .3.

IO

OK so .3 at what clock position do you remember any of that?

Witness

When it happened like what side they were on or?

IO

When he whenever he called .3 do you remember what's what what clock position he was saying normally because you're like .3 9 o'clock .3 7 o'clock .3 5 o'clock do you have another call what he said at .3.

Witness

Maybe the 5:00 position but I know like they would cross under and.

IO

OK and this is just me trying to to to make sure that maybe I can you know both do you recall as you're in the tunnel dash 2 overflying you?

Witness

No sir not that I visually saw.

IO

Do you recall anyone talking about it?

Witness

(b) (6) said after the fact that they had overflowed us but I didn't visually see it.

IO

That's perfectly fine I just want to make sure I understand trying to envision where you're sitting and what you're saying so but he said that after the fact after the they had already impacted and was this did (b) (6) say that once you were safe on deck in the LZ and you're talking through it as a crew or is it in that process of that happening do you do you recall that?

Witness

I don't remember if he said anything when we were in the LZ on deck, but he did bring it up after the flight, but they kind of like came over the top and then veered off but not that I remember during.

IO

OK no worries just give me one second here as I look through a couple things OK so let's go back as I'm thinking through this and I'll go skip to so then the PZ here, let's talk through the pack swap so the PZs here they're all loaded up and serials were they weren't loaded on the aircraft before the ultimate decision was to kind of swap priorities right?

Witness

No, they weren't loaded yet, Sir.

IO

OK, anything abnormal with like on your aircrafts, with your packs once you got them on on deck or on on board the aircraft getting strapped and everything?

Witness

No it was a pretty normal loading process.

14:00

I think the only reason we swapped serials was because they were going to push out before us and then they ended up just waiting for us to get up

IO

Copy It wasn't normal so understand 19 packs per aircraft was that normal from your point of view from operations you guys have been doing around here they're pretty standard.

Witness

It's pretty standard sir.

IO

OK OK all right ramp weapon systems did you guys have a ramp mounted weapon system on board with aircraft?

Witness

So they briefed the night prior that we were going to have static 240's from my personal perspective I told them no that I didn't want that only because one it wasn't in the configuration notes to have it and then two I was the only crew member qualified on the 240 so I didn't want to have weapons on the aircraft.

IO

That makes sense because it's just for show and you're not actually functioning you're not doing anything you're not trying to do it.

Witness

Right so everybody was on board with that and then we just took that off.

IO

So I'm sorry so OK I apologize not to go back and forth, but so packs on board, no issues, 19 packs, not a big deal they got strapped in pretty quickly and you said (b) (6) did they gave the packs their brief.

Witness
Yes sir

15:30

Witness
And then I went out and visually made sure they actually got briefed.

IO
OK were they so let's talk about PPE were you were you were they wearing what's the stinking thing you pull up the horse collar thing as you were transmitting across the water.

IO
LPU's.

IO
LPU's thank you.

Witness
Yes we all had LPU's and then so the LPU's were already in the seats at least in my aircraft I don't know about how Collert did it in his aircraft but we had all the LPU's laid out in each seat that they were going to sit in and then they put it on and then just strapped in from there but they all had their own head protection and then one guy on my aircraft was on ICS whether or not he was supposed to be, I'm not sure but yeah.

IO
So what I'm trying to as I think through this with you from IP inbounds was the intent for them to keep LPU's us on until they're on you guys are wheels on deck at that point in the LZ unstrap LPU off as you're walking off the aircraft kind of thing?

Witness
Yes sir.

IO
OK got it.

Witness
That's how we usually do it.

IO
OK give me one second as I take a note of that.

Witness
Yes sir.

IO
And the GCE to your knowledge the GCE doesn't have an issue with being slowed down if you will coming out of the aircraft because they've got to pull off an LPU to get into their tactical kind of game plan once they get on the deck.

Witness
Personally I'm not really sure how they would prefer it I just know like for safety precautions that's how we prefer it done.

IO
Awesome OK thank you for that so from a maintenance perspective, when as I look through this, the defuelling piece, is there a, there's a single defueller on on deck here or is there multiple or how do we do defuelling on the flat line here?

Witness

So 15 was defuelled with an actual truck on that Friday before the flight on Sunday and then for my aircraft aircraft three we did RGR so we just hooked up like the ADGR kit and pushed fuel from that aircraft into another aircraft I think it was 00.

IO

OK that's pretty incredible.

Witness

Typically if there's no fuel truck available or for whatever reason and another aircraft has a lesser fuel load we'll just push that fuel into.

IO

OK from maintenance support was it a standard like full show in that in that morning or was it like a like a skeleton crew out there for mission support prior to support the launch do you remember or do you know?

Witness

On Sunday it was just a regular working day?

IO

All right we talk less about the mishap now couple questions about that at the squadron OK so if you could talk to me and give me your perspective of of the command the culture of the command I'm sure you've been around not the you know some squadron's are heavily operationally focused others are maintenance more maintenance focused some are balanced in the middle some are super safety focused where it's very you know you have very strict requirements and stipulations beyond the kind of normal that what is that you know expected safety things does that make sense so I think if you could give me your sense of that the command culture here with regards to that.

Witness

I would say we're pretty balanced as far as the maintenance and the flight go the flight OPs go and we're also pretty safe from a non-biased point of view I've been with this unit for three years now I've never really felt like I was unsafe ever flying on these planes.

IO

OK good did that change commander to commander maintenance officer to maintenance officer OPsO to OPsO to as you said you've been here for three years it's pretty it's been basically the same thing pretty pretty balanced.

Witness

Pretty balanced I would say I was still new when our CO took command last time but I would say maybe the flight OPs got a little heavier but I was also like going into my first deployment so that could have been normal you know but no nothing ever unsafe that I've I've seen.

IO

OK that's good any new pressure to execute operations no matter what or pressure to sign off an aircraft safe for flight or preflight you know to to ensure you get mission?

Witness

No sir.

IO

No OK I kind of asked about this but I'll ask if maybe in a different way what was your what's your sense again from your experience here in MRF-D between the VMM reinforced the ACE and the GCE what what do you think of that relationship

Witness

Like how we all work together?

IO

Yeah I mean is there friction do you see are the people you know whether you got folks getting on the aircraft or

are they like is there confrontations at times with if you've ever seen that I've seen that where you have some folks who like there's a little bit of friction at the ramp if you will between the Marines that are getting on the back of your aircraft and the like the you for the for example you guys the crew chiefs like hey no you need to put on your PPE you need to kind of do those things.

Witness

Specifically in MRF-D I've never seen anything like that but in Kay Bay there has been like altercations before but nothing like crazy just like you know passengers trying to like walk off the ramp before crew chiefs drop ramp.

IO

So mutual respect between the GCE and the ACE here in MRF-D.

Witness

I've never seen anything otherwise.

IO

That's good to hear all right can you tell me how you feel your flight time has been since you've been here in in Darwin in Australia.

Witness

We're all pretty good.

IO

Yeah OK obviously we'll you know we'll pull up in sharp data and get your hop order one heavy but you're you're feeling confident in the aircraft you know like you get enough flight time to be able to to do all the things you need to accomplish and and maintain the standard.

Witness

Yes sir.

IO

What about the rest of the crew chiefs?

Witness

I would say so sir right now it's been like it's been a lot of us split up just cause we have like dets that go out and people that stay here and so I can't really speak on when other Marines are gone but-

IO

just trying to get it down I'm trying to get a general sense of the effects here's a positive feeling in the crew chief and the AO world they're getting enough flight time to to be proficient in executing a mission and supporting how to fight through or fight their weapon system which is a V-22.

Witness

Yes sir.

IO

OK and you already answered the last question I kind of have, which is you feel safe on the aircraft that you've been flying or flying in through the last three years OK thank you for your your testimony here, both verbally and also written and and I understand there's there's gaps that's OK That's fine that's what you remember and that's all that that matters is the fact that you can provide to us that said there's anything that I didn't bring up or didn't ask that you think might be pertinent in helping this investigation going forward to try to find out even the truth is there anything?

Witness

Not that I know of right now but I feel like as time goes on like maybe there will be it's just hard trying to I feel like I'm kind of everywhere when I go over the whole situation in my head but I'm trying to help the best I can so if I do think of anything else I will come back if that's OK.

IO

Yeah absolutely that's what we're here for any any other individuals I know we're going to talk to (b) (6) anyone else you think the other than the crew that we kind of talked to so far that you think we should reach out to who was a witness?

Witness

I would say the passenger on my aircraft that was on ICS would be a good one.

IO

OK.

Witness

Only because he could hear everything that was going on in my aircraft and in the flight because he was on ICS I would have to reach back and try and find his name and then there was also, I don't know for sure, but there should have been a passenger on the mishap aircraft that was also on ICS that would be a good one to talk to you but as far as like externally to the flight I'm not really sure.

IO

So how do we do that with trying to remember who the who was on ICS?

IO

We're going to interview all the passengers so we just ask them.

IO

OK yeah that's great.

IO

We'll get it that way.

IO

OK OK.

IO

All right cause you know it's not like you see their names or anything so yeah that's easy.

IO

OK all right did I miss anything?

IO

I don't think so sir.

26:51

OK all right thank you (b) (6) we appreciate your time today.

Witness

Thank you sir.

IO

If you can go grab (b) (6) for us.

Witness

Yes sir.

IO

Before they step off (b) (6) and just the same thing and I've I've kind of given a couple of times right it's an ongoing investigation so please only discuss your testimony with duly appointed investigative officers so there's a couple on our team and there's the AMB that you're tracking if you're not sure if somebody's asking me you can ask them to see their appointing order to produce that.

Witness

Yes sir.

IO
Thanks.

IO
Thank you very much appreciate it.

Witness
I hope I was helpful

Interview Summary of (b) (6), 3d Battalion, 1st Marines

0:01 IO

Hi, good afternoon. This interview is being conducted on five September at Robertson Barracks in Darwin, Australia with (b) (6). Prior to turning on the recorder, we went over the appointing order and the role of the investigating officer. Also the room is (b) (6) the investigating officer and myself, (b) (6) as the legal advisor. Prior to turning on the recorder, we went through the appointing order. We discussed the difference between an investigation of the Aviation Mishap Board and the privileged nature of that and how we don't have access to any of it. We also went through the Privacy Act statement, which (b) (6) signed. He didn't have any questions at that time. I'll ask you now if you have any questions about anything we've covered.

Witness

No sir.

0:45 IO

OK. (b) (6) was also advised of his rights regarding making a statement about the origin of injuries in accordance with the JAG instruction. He elected to do so and he filled out the questionnaire. At this point, I'll go ahead and put you under oath. So if I could just have you raise your right hand. Do you swear for the testimony you're about to give should be the truth, the whole truth and nothing but the truth. So help you god?

Witness

Yes Sir.

1:09 IO

All right. Thank you, Sir.

1:11 IO

OK. Thank you, (b) (6). We appreciate your time today

1:14 Witness

Yes sir.

1:15 IO

In your own word, just kind of described you know, from hopping on the aircraft until probably until post impact.

1:24 Witness

OK, so we got on the aircraft. I remember I was pretty close to the front of the line. We were one of the first serials in there. We were going left, right, left, right, but I kind of doubled up next to my JFL pig (sic) so we could talk. We were intending to be able to listen to Tad in flight, so we had better, you know, SA when we got down there for the handoff. So I sat next to him on the right side and I came in. There was an empty seat on the right side up there for the crew chief and then my mortar section leader, (b) (6) was in that first seat on the right side. (b) (6) was next to him. I was next to him and then (b) (6) was next to me. And then on the other side it was (b) (6), the RO, the XO, and then my machine gun section leader (b) (6). And then (b) (6) was right across from me. I don't really remember anything past that. I mean I was sitting in there, we'd gotten the brief with the in the LP, us there like kind of show how to put them on again. I remember when I first got on I was like tinkering with a little bit flipping the, the nozzle to turn it on and like checking to make sure it was pressurized and full. We got in there, took our packs off, sat, sat in, buckled up and then we were kind of sitting there for a while as everyone behind us was filing on and getting set. The door was open in the to the cockpit. I remember seeing both pilots like touching buttons and doing stuff. And then the crew chief was kind of flipping through the manifest, checking with the cockpit, looking back, talking to crew chief in the back. Crew chief in the back was getting thumbs up for everybody that we're all that, we're all in. And then after everyone was all in, heard the rotors start going. I

expected us to like lift off right from there, but we started taxiing. We started like backing up and then and then taxiing. At some point during the taxi, I remember looking out either a window or the back. I wasn't near any of like the actual windows, so most of my reference points were out of the back. And I remember seeing the other bird there as well. So new or flying with two, yeah. Then got to the runway, kind of started going and took off, came up just getting altitude. All pretty like standard stuff. Remember feeling the rotors go, go into plane mode, then we're kind of cruising and still getting altitude. Remember going feet wet and then it was and then it was pretty, it was pretty smooth from there. I think we were getting altitude and there was like some turbulence, but after we were over the water, I think we were like high enough up and going fast enough that it was pretty smooth.

It was, it was a pretty like straightforward flight until we got over ground again. I think that's when the escort flight was close enough to the objective to start seeing things. So XO was on the cranial, so he was passing us information, myself and my JFO. So the first thing he said was they see people on the runway. So I was talking about JFO and he was like there's five of them. I started talking to him and telling him hey, like we got to be ready for the handover as soon as you touchdown. Like be ready to to start giving guidance, terminal guidance as soon as as soon as we're off and I get this battle handover. And then the XO said they don't have any weapons. So we're like, OK, that was really the last thing that he said to me about, like what he was hearing on the cranial. I know he's talked to me about, like, what they were saying, but he didn't, He didn't say anything else to me out loud. So we came in over the land and then we started making some maneuvers.

And in my head I was thinking, they're kind of doing the basic maneuvers because of the situation on the ground. It seemed pretty normal. I'd been in at Osprey before they did that. So I didn't. I didn't think anything of it too much. I actually remember thinking because we were flying kind of over the Charlie Company 5 IR that was that was going to work with us. And I remember thinking like they must be looking at this. I think it's like pretty cool. It's like we're coming like [expletive] do the thing. It's really making some maneuvers. I remember we made a left a Left Bank and then we went wings level and then we made a right bank that was kind of like the same bank angle ish as the Left Bank. And then when wings level like for like a like short amount of time and then went right back over to the right and on that last right bank I remember like feeling like we were like at like 90°. I don't know if this is true, if like my memory is like playing tricks, but I like, I distinctly remember in my head (b) (6) the rear crew member. It looked like he was laying kind of across the side, like across the side of the of the ramp there looking out the back. And I remember thinking like it looks like he's standing straight up and that was like the first kind of hint. I guess in my head that like something might be going wrong. The next one was as we were in that bank like usually like when we're making maneuvers in the Osprey, I can feel like it pushing back into my seat. And I feel like we're moving forward and it feels like a roller coaster almost. But kind of like as we're making that bank and we and we hit it, it felt like instead of us moving forward it felt like we'd started spinning and like looking out the back. This could be my mind playing tricks on me again. But it it just felt like the sky and the clouds were moving past faster than what I'd normally see out of the like a turn looking at the back of the Osprey. And I lost that feeling of like like being pushed into my seat from from like what I was told talking to other pilots the like if you're making a bank and maintaining altitude you feel the G force but if you make the bank in your in your losing altitude, you start to not feel it. So I'm -

IO

yes, I understand.

9:27 Witness

So yeah, I remember that. And then shortly after that spinning feeling, we pulled up. I don't really have very much reference of like of like the orientation, but I remember we like feeling like pulling up hard. And we were like, we were like closer than I've ever been to trees before. I kind of went back into like, thinking, like, OK, these are just maneuvers. But, like, we, like, are pretty. Like we're pretty close to trees right now. And that lasted short. Like, I couldn't give you a time, but it was like a split second where I was thinking like, oh, wow, like this is intense. We're pretty close to trees. And then I felt us hitting trees and it felt like, almost like a like a speedboat. We were like, we were like, we were like hitting the tops of trees and, like, riding along the top of the trees. That's when I realized that we were going down and like it was not recoverable. I don't think that I fought the entire time that we were going down, but like, that's when it was like going like in my head, like we're not making us the airfield, like we're going to crash. It felt like we were hitting the tops of trees for like a couple of long seconds. I could still because I was looking out the back like the entire time. It's really the only like port that I could look out of. I could still see the tops. I could still see like the sky and the tops of the trees for like a

like a while. And then it just felt like we kind of just like went down and hit the ground. We hit the ground. I don't remember hitting my head or losing consciousness. It didn't feel very.

I think I was in shock. Because I expected more. Hit the ground and grinded to a stop pretty quick. Wave of dirt came in from the back. I remember that then everything was black for 1 or 2 Mississippi. I looked towards the cockpit. The door was closed. I think I remember seeing the door shut. During the flight it was swinging while crew chief was in and out. Side door was open. And huge orange flames coming in. I don't remember anyone screaming or anything. The XO and I started yelling to get everyone out. I didn't know how much time we had. I just kept yelling get out until I was out. I saw a marine still in his seat. Don't know how he got out. I don't remember if they were still buckled. I just remember him being out. I don't remember the ramp being there. So, it was a huge gap and we had to dump down. Lucky the ramp sheared off since they had it mostly closed. I thought (b) (6) was on his back, but I'm less certain now and think he might have been face down. I remember seeing the flight suit and white helmet. I grabbed his flak and tried to pull him. Couldn't see anything below his shins. I don't remember how, but he was free all of a sudden. (b) (6) cut or detached his gunner's belt, and we dragged him away then his helmet mic got stuck and we unhooked it. He got stuck on a tree. Felt like the heat was blistering my face. I don't remember his eyes being open, not fully awake. Maybe moaning. Then I remember (b) (6) directing us further to the CCP. Somebody grabbed his legs and helped us move him. (b) (6) (b) (6) maybe. Got accountability. 2 were missing. I started to panic a little, then realized they were making rounds of the aircraft. A lot of fire on the right side. Couldn't see the crew door at all. Black smoke coming up and blowing over the cockpit. Couldn't see the cockpit at all initially. Waited for the wind to clear. I saw clearly into the right side of the cockpit and saw the joystick. Black in the flames. Right side Seat looked empty. We looked around to see if anyone was there. There was nobody. Timeline mushes together. A lot of CASEVAC actions. (b) (6) was talking and responding. Could hear gurgling sounds very clearly. Coughing up blood. Was propped against his flak. Struggling to breathe. All he has was an IFAK. Cut open his shirt. No external marks. Everything slowed down after (b) (6) got lifted out.

IO

How many times were you on an osprey?

Witness

Couple at tbs, couple at IOC, once or twice since the fleet. Steel Knight was the last time.

IO

You said you tested your LPU. Do you recall the oxygen level. Do you recall anyone saying theirs was not full?

Witness

It was full. No. Collart gave us the brief. And explained getting news one. Nobody switched theirs out.

IO

Did you hear anything from the cockpit?

Witness

No. Others say they have, but I didn't.

IO

Did you see them going through anything?

Witness

Collart going through the manifest. Then back in his pocket.

IO

Do you remember anything else?

Witness

No. he had his hands on the top of the door in the cockpit for a while, but don't recall him pulling anything out.

IO

Listen to tad, hear anything?

No.

Interview Summary of (b) (6), MAWTS-1

0:02 IO

All right. Good morning. This interview is being conducted on 28 September 2023 at approximately 11:30 AM aboard Marine Corps Air Station Yuma. Present in the room are myself, (b) (6) the legal advisor for this command investigation, (b) (6) the investigation officer, and (b) (6) here as the witness. Today, prior to turning on the recording, we covered the contents of our appointing order. We discussed the purpose of this command investigation, the differences between this command investigation and the ongoing safety investigation in the AMB. We discussed the privilege nature of statements made to the AMB and how that privilege does not apply to this command investigation. (b) (6) also had an opportunity to review his revised rights under the Privacy Act. He signed that Privacy Act statement, didn't have any questions about that. And then finally, we talked about the importance of testifying based on his observations rather than speculation. (b) (6) Anything you'd like to add?

1:07 Witness

No, Sir.

1:08 IO

OK. At this time, I'd ask for you to raise your right hand. Do you swear that the testimony you're about to give should be the truth, the whole truth, and nothing but the truth, so, help you God?

1:16 Witness

Yes, Sir.

1:17 IO

Thank you, Sir.

1:18 IO

OK, (b) (6). So, thanks for being here today. For the record, please just state your name, your full name, what you do for a living right now and then why you were on in Australia.

1:28 Witness

Yes, Sir. I'm (b) (6). I am a (b) (6), and I was on General Fleet Support to MRF Darwin in support of HMLA 367.

1:38 IO

OK, thanks, (b) (6). So, if you can take us, you know, you can start wherever you want to from what you remember from the day of the mishap and then we'll go from there.

1:47 Witness

Yes, Sir. So, I would actually like to start the night prior. We did a confirmation brief. So, we did a confirmation brief, basically. So, all of the assault aircraft crew members were there, along with the EFL, which was the element that I was participating in. So, we did a brief the night prior. I don't remember specifically what time, but it was afternoon, normal working hours. It wasn't late. We departed. I went back to my room, woke up in the morning pretty early. I believe the brief for the day was at 6:30 AM.

2:23 Witness

I picked up the (b) (6), who's an HMA 367 crew chief from the building on base on my way to the briefing spaces, picked him up. We went straight to the brief, showed up in the morning, we did it basically a cleanup brief with all players for the element, for the two separate elements, but it was really just an EFL specific brief in the morning that that we covered. So, it's just H1 cruise. After that we departed to the flight line. I remember business is normal. We conducted a preflight of our aircraft. I do remember there was a delay out of the line. I remember we had a #1 engine failed to start. We troubleshooted the aircraft which kind of delayed our timeline. So, we launched staggered and that's specific to the H1 section and the Cobra took off first departed RAF Darwin. We were able to troubleshoot our #1 engine fail to start, but on subsequent starts I believe we had

an EGI fail. We shut all the way down, started back up after Avi did their troubleshooting, and we launched in an FMC aircraft. No degraders. So, I remember we transited towards Melville Island northbound. We rejoined our section in vicinity of the objective area. We did a sensor sweep of the airfield, the plan landing point for the assaults with nothing significant to report. We picked up some of the and it was deemed in our section to be the exercise control. So, there was no sort of like you know, red players or anything like that. It was just some of the com vehicles and then some ADF personnel on decks. But zone was clear. I remember we had the section of V22s check in as planned and then we pushed to the pre-planned HA where we were going to affect our rejoin V22s. They called IP inbound and we maneuvered to join on the assault flight. We kind of swap sides because they they kind of float in from southeast to northwest, kind of made a turn N at the IP or the IP. Essentially my aircraft set up on the 7:00, the Cobra was on the 5:00 and the V22 section was in a staggered left formation flowing northbound. They hit their kind of turn to final and I I specifically remember they were staggered left and then they were making a turn to the east. So, they were turning right in their section and from my viewpoint what it appeared to me is that the Dash 2V22 had it appeared that they overshot their landing heading and had a significant amount of closure on the lead aircraft, the lead V22. Somebody in my crew, I don't know if it was me or if it was our signer, had made a call because shortly after that it appeared as if the Dash 2V22. I think I said Watch 2 because they had sort of a strange flight profile and they were hard to tell from my vantage point. I could see both aircraft the entire time, but I couldn't tell if they were level or slightly below lead. It appeared as if like the right wing dropped significantly and they made a very abrupt right-hand turn. Almost, I would say just shy of 180° and then started flowing westbound, so, basically 180, a little less than 180° out from their final landing heading. At that point we have verbalized it over ICS, not over inner flight or anything. And I think our signer said, you know what's to doing because we didn't hear a wave off call or anything. There was nothing that was transmitted external to any of the players in the objective area. And then I remember just watching that aircraft to see what they were doing. They rolled wings level and continue to descend and that was a dump truck. V22 continue to descend. There were wings level the entire time and then I pretty sure my signer was he then kind of over ICS was I think they're going down and we saw the V 22 impact the top of the trees with a significant amount of forward airspeed still. And I would say from the time that they touched the top of the trees to their final point on the ground I would if I had to guess was about 250 to 300 meters and and so, it wasn't straight down there's still some forward airspeed quite a bit on the aircraft. I then remember we we saw flames almost immediately and then black smoke. And so, I went eyes up away from the the scene of the crash and noticed that the lead V22 had then turned around to see what had happened. I told so, I told my pilot I don't think lead sees us, please tell you know, climb, climb, climb, tell them to turn around. And then our Cobra had climbed maybe 1000 feet above us and that all happened very very instantly. But I had visual of both aircraft. Initially, My signer (b) (6) kind of took on on scene commander responsibilities. He flowed the lead V22 back to the planned landing site to then land on the runway and then we began both Hybrid Cobra, Low Bird, Huey, we we began clockwise orbits around the crash site.

8:11 Witness

We were low, they were high. I'd say we probably had 750 feet of separation. And then the my Co pilot said I have people to you know I see people on the ground. All of us were very focused at this point because we had our separation. I'm trying to get a head count on the people that were departing the aircraft. And then I remember asking my pilot because he was the WTI and I know the other Cobra pilot was it was like a brief and lead exercise. I remember asking like do we want to flow the Cobra back for fuel to extend our legs. We had a conversation on aircraft and it made sense at that time to leave the Cobra with the on scene commander roles and then my aircraft departed back to the runway and landed to roll down and conserve fuel so, that we can bingo to get as much of the time on station as possible. At that time we landed on deck. I exited my aircraft and ran over to the exercise control. I don't remember rank but believe his name was (b) (6) or something very very similar (b) (6). I made contact with him. I notified him that there was an aircraft, that it went down actual and that the exercise was over and he needed to recall all of his red players immediately. And if they had the ability to push basically due West, two clicks to the scene of the crash because we had survivors. He understood, he like kind of got on the radio and you could tell there's like kind of you know, beehive at that point, everybody running around, They all sort of consolidated. And then I basically ran back and forth from our aircraft for plugging ICS, any updates and then run back. The initial push I believe was I think 5 and then maybe a wave of four ADF personnel by foot basically due West to the scene of the crash.

10:01 Witness

Shortly after that I do remember there was an ADF 1:30 that checked in over guard to notify us that they could be radio relay from basically Melville Island to RAF Darwin to Darwin to flow assets in and out of the objective area. I also remember I can't, I think it was 3 or 4, all separate. But ADF Life Flight, not ADF. Sorry civilian

Australian Life Flight helicopter showed up. The timeline gets a little funny Sir, because I can't remember if it was the second time we launched or the while we were still. I believe it was the second time that we launched. But I remember there's a Life Flight helicopter then that hoisted in for in Flight paramedics to the scene of the crash. They were sort of like offset southeast of where the actual impact site is where the Marines had all consolidated and shortly it wasn't shortly after the impact. I don't know like a timeline I would say 15 minutes the GC on board had actually come up comms on the pre-planned TAD to coordinate that they were trying to consolidate like everybody that had survived the impact and passing headcounts and things like that. We basically swapped roles for on scene Commander because we had a second section mix section of Huey and Cobra show up for kind of like cast support for the actual the plans raid of Melville Island. And so, we basically just relayed on scene commander roles, battlefield handover type of thing to make sure that you know everybody had good essay on what was going on and then just bounce back and forth to get fuel.

11:52 Witness

When we went back to RAF Darwin initially for the first time after the mishap, we hit the hot pits and I remember we took (b) (6) he was the I believe he was like the battalion XO or Co I'm not 100% sure but we took MES's and water. We grabbed some litters at that time and then grabbed. There's a major from the GCE who I believe was on the lead V 22 to go back out to Melville Island. Same kind of thing show up on scene commander role kind of making sure that there was at some point I think I believe there's a police and maybe AI think there might have been both police king years showed up at some point and so, they were kind of directed to logger at an airfield to the West kind of stay out of the objective area. And then we just kind of ran the responsibilities of flowing in the life flight helicopters and then landing them on deck and shutting them down to conserve fuel. At this point it had been a significant amount of time we dropped off the GCE major kind of at this.

13:01 Witness

There was a hard structure on the airfield with the exercise control and then the ADF was able to mobilize several vehicles to actually push back to the crash site initially. I remember when the GCE member came up over the TAD frequency he had passed 3 casualties initially I believe it was one urgent, one urgent and I think he passed 2 priority but I can't remember. I think it was like a (b) (6) Then the urgent was having trouble (b) (6). The ADF they pushed vehicles back and were able to load in two separate waves all remaining members of that aircraft but it was 2 separate waves to get them all out and then they prioritize the casualties in the life flight aircraft and then depart Melville Island runway and at the actual runway is when they the inflight paramedics. It wasn't you know Navy Corpsman or anything it was the actual Australian paramedics kind of reevaluated everybody. I think an ambulance had showed up at some time and then they basically categorized more casualties at that time that needed to make it back to the hospital. And I I I don't remember a specific number but I do remember they were split up among the flights. I think the urgent went out alone and I believe it was three or four that departed and then I don't remember how many more. So, then after that we were basically the last Marine Corps aircraft on station. We had sort of cleared out the runway and there are still several Marines on deck from the mishap. One of the UES had brought in the squadron ASO and I believe the QA chief for some like on scene sort of investigatory sort of stuff and they were upcom. So, we relayed to them to make sure that they understood that we were departing now and that there was going to be no marine air on station. But we were notified by the C 130 that like the MRF-D chain of command had notified all H1's to depart the area and we were RTV. We had to go home. We hung out for maybe 10 minutes after that just to ensure that the ASO on deck was very clear that we were departing because it had already been brought up that there was some communication issues back to RAF Darwin, just, I don't know if it was cell phone service.

15:31 Witness

There was there was no over the horizon capability And so, we just very plain speak, OK, we have to depart. We're RTB. There is no Marine core aviation here to take you home and I don't remember how many of the GC remained on deck at that time. And then we departed back to RAF Darwin and then collectively as a crew made the decision we needed to hit the hot pits before we shut down to ensure that all in the event we were re tasks we had a full bag of gas to do what was ever what was required.

16:02 IO

OK.

16:04 Witness
Yes Sir.

16:04 IO
And that's very detailed (b) (6) Thank you for that. Thanks. Thanks for the the amount of energy and effort and mental, you know, mental capacity you have to kind of relive that and and give me the details. I need some things I want to circle back to with you. So, where were you? Where were you seated in in the OR kind of stationed, if you will. And you're you're Huey.

16:32 Witness
I was on the right side.

16:33 IO
Right side, right gun.

16:34 Witness
Yes, Sir.

16:39 IO
OK. So, I want to go back to the objective area. So, you guys do your sensor sweep. Everything's good. You're falling back out to an HA. What do you remember what the HA was called?

16:50 Witness
I don't sir. I know that it was southwest of the air.

16:52 IO
Southwest, one second. So, you're in there, they call their, you know checkpoint prior they make the call, you're like, hey continue established, they call IP inbound as they were coming IP inbound. I'm tracking that you they're on a left Echelon formation or a staggered left as you as you communicated it at this point in time you're how were they going pretty fast to get in there or like so, is it, can you kind of describe that closure rate from your perspective?

17:28 Witness
Absolutely. So, this had come up in the brief as well just because each one's you know airspeed to V 22. So, we had, we had planned for them to basically join when they were in conversion mode. So, they came in, they were still in airplane mode kind of pushing northbound, we were anticipating that. So, when they sort of started their conversion, so, they were staggered left or echelon left and then we were also echelon left kind of pushing N westbound to essentially cut off their flight path. And then our Huey crossed to the outside of the formation at the 7:00 to join and we almost took sort of tack lead because then the Cobra on the inside of their turn slowed down South. We were sort of in attack league position. So, we were forward of our elite aircraft but attached at the 7:00 and the Cobra assumed the 5:00 for attached escort into the zone. OK And they were in conversion mode at that time.

18:27 IO
They both were in conversion mode, yes, as you see it. OK. So, as they're making their right hand turn to final and you're sitting in the right seat here. So, this is a really good vantage point for you. I would imagine you soon you're at 7:00, you're looking out to your right hand side. So, as you see the dash 2 or or the dump truck 1-2 aircraft maneuver, can you just kind of talk me through that again?

18:57 Witness
Yes, Sir.

18:57 IO
So, you can.

18:58 Witness

Yes, Sir.

18:59 Witness

So, both aircraft turn to final.

19:02 IO

Yeah.

19:03 Witness

Lead rolled out and it appeared just, I don't know, I can't speak to like V22 Tactics, but it appeared to me as how we would conduct an overrun sort of Dash-2 overshoot their landing heading and they had a significant amount of closure and in my experience we would just then increase altitude across the outside and join. But that that sort of never happened. It was the the increased closure rate with sort of, I wouldn't say like a oh it was it was a converging flight path but it wasn't anything that was. I don't know how to describe it. It was because they were kind of like level or maybe slightly below. It didn't. It never appeared that they were going to conduct an overrun. It was just at that point it looked like they and I don't know maybe turn to avoid. It's very hard to turn explain because it was just a very abrupt right hand turn with sort of like. It really, they really rolled it over a hard wing flash.

20:05 Witness

Yes. And I was anticipating either for them to come left or to climb to then. And I don't know if maybe just I, it was hard to tell from my vantage point, you know, what was happening because it was unbriefed and so, everybody was just watching to see what was going on. OK, if that makes sense.

20:23 IO

It does. Do you recall them as of making that that wing flash to either avoid or the potential overrun? Did they do you ever recall them rolling back wings level at some point in time?

20:33 Witness

Yes.

20:34 IO

OK they did.

20:35 Witness

So, they're kind of nose went up, right wing dropped and then they rolled out. So, they did a right hand turn with their right wing down at maybe just shy of 180° if I had to guess maybe 150. It was almost a reciprocal heading. And then once their nose was almost 180 out, they then rolled wings level and continue to descend.

21:01 IO

But no time in between the first initial kind of wing flash did they roll. Do you remember recall them rolling back wings level before they turn again?

21:05 Witness

I do not.

21:06 IO

It's OK.

21:09 IO

Do you recall if you were looking at their, if you're, you know, quitting 1/3 their nose position? Do you ever recall their their nose being at 12 pointed towards you guys?

21:25 Witness

That's hard. I think it would be speculation because I don't remember, but I do remember having a sense that they were flying sort of towards us. Yes Sir, but but they were lower than us. We had a significant amount of altitude separation. But I do remember their nose pointed at us and thinking that that was very bizarre, but I don't. It wasn't as if they were flying at us.

21:44 IO

OK, cool. Speaking of altitude, do you happen to recall, obviously your focus on this, you're not inside the cockpit and typically a crew, we're not talking about what altitude we're at, but is there any sense for you that you guys had there was any descent from your flight, your aircraft, are you flying into the objective variant?

22:02 Witness

I don't remember that there was any descent. And I do remember that it was brief that the escorts would be at 7:50 and the assaults would be at 500 is what I remember right now.

22:10 IO

OK.

22:10 Witness

OK For altitude deconfliction.

22:12 IO

Gotcha.

22:13 Witness

Yes, Sir. But I don't remember our aircraft descending at all.

22:15 IO

OK, thanks. OK. No wave off call?

22:26 Witness

No, Sir.

22:27 IO

Do you recall seeing any birds in the objective area at all when you were flying around that whole time? Like any buzz, you know, like around here there's buzzards, you know,

22:46 Witness

I do remember seeing not that day, though, but I can't remember if it was maybe a previous flight. But now that you brought that up, I do remember. I can't remember if it was while We were kind of like elevated on scene commander roles. But I can't say that I specifically remember birds that day significantly, Sir.

22:58 IO

OK All right. Let's talk about the last few seconds and before the aircraft that starts to impact the trees. Do you, do you recall anything about, do you ever remember seeing the gear go down or seeing that you know what it looks like when the gear comes down or gears down An Osprey, right.

23:21 Witness

I'll be honest, I don't remember, Sir.

23:22 IO

OK, no worries. What about nose attitude as they're coming towards the trees. Do you recall what that might have looked like?

23:29 Witness

Yes, Sir. It looked very much level. It it was not. I don't remember it being like nose down or anything. It looked very much level.

23:38 IO

OK.

23:40 Witness

Which wise, Which looking back, I think is why it took our crews so, long to understand that there was something wrong because it did not look once they rolled wings level, it nothing looked out of the norm.

23:50 IO

Yeah, OK, That's that's important. Thank you for that. That helps me. Give me one second. I'm sorry. OK. And you, as you talk through post impact, everything's good and what you the one thing I want to make sure time space wise. I mean, you weren't taking notes of anything like hey, when things have happened. So, from there on, it's kind of like just a sense of how long it took.

24:27 Witness

Yes, Sir.

24:28 IO

Get those Marines from the mishap site, the crash from the crash site if you will, back to the airfield to get preprocessed re triage and push back out via the medevac. The contract medevac folks.

24:42 Witness

Yeah, yes Sir.

24:43 Witness

So, I know as a crew we spoke about it because I know our pilots were very deliberate in time stamping everything that happened, but in the moment I was not. That was not my primary task. I don't remember specific times.

24:55 IO

Understand. So, this circle back to the brief, anything in the EFL combined EFLAFL brief the night prior that that struck you as is let's take a step back from that. How many, how much, how many operations have you done with Ospreys in the past let's let's kind of establish that

25:16 Witness

I have, I've done two MEUs VMM command done several WTI. So, I would say that I have a significant amount of time on stations with V22 Ospreys.

25:26 IO

So, based on that anything abnormal that came out of the AFLEFL brief that as you were sitting there to absorbing that information for the flight that was going to occur the next day, nothing seemed pretty normal, standard, yes.

25:40 IO

Any questions that were asked or brought up during in like in the post brief question and answer period from you know pilots, aircrew regarding the flow of aircraft into and around the objective air that day,

25:53 Witness

nothing that I remember Sir.

25:55 IO

OK. I think that's all I got for you. Got any, you got anything just a few serious and some of this is just kind of context, right. So, you said you were out there on general fleet support. Can you just describe what that means generally?

26:12 Witness

Absolutely, yes Sir. So, for fleet support for the building So, the fleet can submit fleet support for anything in the course catalogue that requires A MOTS 1 instructor. For the Huey community that is Defensive Air Combat Maneuvering Instructor and Night Systems Instructor, General Fleet Support is what these squadrons can submit for a essentially. So, I am MOTS one staff, but I am a weapons and tactics instructor that can then fly with the requesting unit to to to sort of augment their instructor core.

26:45 IO

Great. Thanks. How long were you out there in Darwin for

26:46 Witness

16 days.

26:48 IO

And do you remember when you got there?

26:55 Witness

I'm sorry I don't.

26:56 IO

Do you remember when you left the

26:59 Witness

31st, I think yes Sir, 16th I think I got there 31st I left. I should know this because I just did DTS.

27:10 IO

So, just trying to gain a kind of a sense of, and I know you left fairly shortly after at least two days after. OK, yeah, just trying to get a sense of how long you were there, how long you were around the squadron for 16 days. So, where you're in understanding that your role out there was to provide some instructor augment support to the HMLA det primarily.

27:35 Witness

Yes Sir, I flew most nights with students with the HMLA detachment.

27:39 IO

That was did you have a ton of interactions with the VMM side of the house.

27:44 Witness

I didn't have a ton of interactions really outside of the AFL combined brief. The maintenance locations were separate OK, and majority of my time was spent on the flight line sort of in the flight line spaces and not in the operations area.

27:57 IO

Got it. With that context then, were you able to get a sense of what the like, what was the sense of the unit when you got out there as far as were they burnt out from up tempo? Were they, you know, what was your sense of kind of the climate when you got there on deck,

28:18 Witness

the climate. And now it's this is my first experience with MRF-D, so, I didn't really know what to expect. And so, I one thing that stood out to me is when I checked in, I did a its standard for any time. Lots one goes to unit to do a commanding officer. In brief, the commanding officer was off deck for the VMM. And so, I had in brief with (b) (6). Who was this? He was the, I guess the acting commanding officer at that time. And that meant a lot to me because it was ownership that it wasn't just an HMLA det out there. It was a squadron of Marines. And that did stand out to me. Yes Sir.

28:59 IO

Was the XO off deck when you checked in there?

29:02 Witness

I yes Sir because (b) (6) was the only one when I remember in briefing that he said he was the acting. See I don't know specifically where everybody else was. I know that there was a V 22 det that had gone to an air show and then there was AV 22 couple aircraft on the ship and I, I don't know specifics of who was where. Let me hop in here micro quick.

29:25 IO

Was this the first time as you were there that they were like combined flight between H1's and V22's?

29:33 Witness

Yes, Sir.

29:34 IO

OK.

29:35 Witness

Yes, Sir. It was the first day of I think the exercise was called Predator run, if I remember correctly. Yes Sir. I'm pretty sure that was the first first day that I experienced. I don't know if there was combined operations prior to me being no that's what. Yes, Sir. just to focus on you and sorry Sir.

29:51 IO

Yeah, go ahead. Any other sense of their culture, anything else that stood out to you when you got on deck out there?

29:57 Witness

No, Sir. like I said I my main interactions were with the HMLA detachment. I I didn't prior to the brief. I really didn't have much interaction at all other than the just the in brief.

30:10 IO

Anything that stood out to you from just a so, like, I'm asking these questions because your kind of an outsider who was there for a short period of time just trying to see like and and you've been around a while then with a couple of different squadrons and whatnot. So, like just from your experience, anything that stood out to you from a safety perspective, cultural perspective and OPS tempo perspective, you kind of understand what anything that stood out to you or was surprising or was comforting to see. Yeah, good or bad. Yeah, not just looking for that, just like baseline, you showed up to a squadron in deployment. You've got some experience. What was your sense of it?

30:53 Witness

So, and this is obviously just speculation from my time, but I did think that it was strange. So, I know that the H1 detachment, they had like several aircraft in phase, which I thought was strange because I wasn't tracking. They were flying a significant amount of hours. So, I guess the plan was to like send aircraft out and then phase them. I know, and that stood out to me because that I wouldn't say that as normal. I know that they had a bad transmission in Huey. They were working through some maintenance things, like there was an aircraft that had burned in it, burned up like 5 or 6 inverters and then they had cracked a tilt ball, which is pretty significant maintenance effort.

31:37 Witness

It requires a replacement of the top case. So, I know that the 81 Detachment Health, the Cobras were doing pretty good. I know the Huey's; I believe the entire time I was there I only flew in one you know for a four-plane det. So, I think I was scheduled to fly in one and it might have gone down for something, or we may be rolled to a backup. But that was one thing that I'd say from the HMA side that I did think was maintenance and stuff. It wasn't anybody's fault necessarily. It wasn't. I thought the maintenance department was very strong, but that obviously my when I see that stuff, I'm worried about perceived pressures and I did not ever get that sort of vibe that we have to make these aircraft up.

32:17 IO

You said a cracked ball, Tilt ball.

32:20 Witness

Yes Sir. That's the control surface for the Swash plate. For us. It's OK a big it's a hot ticket item right now in the Huey community. Yes, Sir.

32:33 IO

Was there any frustration from them that you got or you heard regarding Blackbox and shipping and getting stuck in the AG inspection side of things?

32:43 Witness

There was a little bit because I kind of brought it up pretty early on. There was there were not like 10 seats per Huey and that's kind of every time we do a detachment. I think that's sort of your like things that you think about. And I guess there have been some frustrations where the aircraft got deconfigured for the ag inspection and then not reconfigured because they've been inspected. It wasn't a deal breaker for any sort of missions. But I remember there was a little bit of frustration about the ag inspection. Yes, Sir.

33:16 IO

I feel like we're talking guns now, asking questions is there. That's my cue you talked about. And then I've got the written statement you sent us as well which we really appreciate you taking the time to put that down for us. In it you said when you talk about the cell position as the aircraft is just saying you said they're still turning, and you said they were in conversion mode when they made that right bang today. Do you remember what position the cells were in when they when they did go down,

33:49 Witness

no change, so, conversion mode.

33:50 IO

OK. And then you already asked about the gear. I want to go back a little bit to kind of the morning pre-launch you talked us through the H1 briefs and everything like that and you may not have had any visibility on it or not. Did you see any of the V22 crews do their briefs that morning?

34:11 Witness

And I'm tracking on kind of the separation of space and whatnot I did not that morning that I remember, Sir.

34:16 IO

OK. Would I guess would it have been natural for you to see them like do their NATOPS briefs or any of their other briefs or were they so, separate that you wouldn't have even known if they'd done it or not or if you'd seen it.

34:30 Witness

I did not see them but my understanding was that there was only one ready room because I know they shared an ODOI don't specifically remember seeing them because our I saw the crews like in and around the area but I'm not tracking what time their brief was that morning Sir. OK so, we just did a EFL sort of clean up brief in the morning passed out products and then departed that area. And so, it was very much we went over there and then I went and signed off like gear and preflight a plane.

34:53 IO

You remember what time you do. You remember what time you were planned Departure was.

35:01 Witness

I don't I know. I want to say around 8:00, but I don't remember, Sir.

35:04 IO

You remember what time you actually got off the ground?

35:07 Witness

I don't, Sir. OK, Sir, Sorry.

35:16 IO

Just let me give me a SEC to go through my notes to make sure You've been around the Marine Corps long enough that I assume you've seen or been around a mishap previously. What was your impression on the squadron's reaction to the mishap? Like kind of immediate action, drill type stuff, anything that stood out to that as good or bad.

35:59 Witness

So, being sort of on scene Commander, the Cobra pilot I believe was a WTO or section lead which is not junior but a junior instructor in the HMA community. So, my from my perspective the way that he was able to handle his aircraft and his role as an on-scene Commander I thought was spoke a lot to the unit, just the professionalism and how well he kind of orchestrated the objective area to make sure that everybody was safe and everybody was flowing in. That stood out to me because it's. I wouldn't say that as normal to have that sort of ability in that essay and that assertiveness when people are telling you they're coming and things like that. I believe his name is (b) (6). I don't know call sign I think that's his name. I'm not 100% sure. I think his Co pile was like (b) (6) who I know is also a pretty junior and the only reason I remember that name is he was (b) (6) that came up in conversation. So, yeah that's that stood out to me that his just kind of ability as far as the way that the mishap was handled, we actually got our flight window was extended so, I didn't have any sort of FaceTime. I was completely removed. OK. But that night I did get interviewed by the aviation mishap board and it was AV 22 (b) (6) and then (b) (6) you were in the room OK. But I know that that all happened kind of like it seemed like it happened when it should. It was all very methodical and pre planned.

37:33 IO

OK. Anything else? OK. Anything else that we haven't asked you about that you think might be important?

37:45 Witness

Yes, Sir. And I apologize. It was not in my formal statement. I left out that we had a (b) (6) CommStrat in our aircraft that was filming. I didn't write that in my formal statement, but I think that is significant. I don't know. I didn't review any film. I have no idea what he captured, but I do know that he was rolling in the objective area.

38:01 IO

We talked to him. Appreciate that. Thank you. Is that it?

38:05 Witness

That's it, Sir.

38:07 IO

Anybody else you think we should talk to? Just from your recollection of who was there, just to make sure we we've done a ton of interviews there already obviously. But anybody specific that stands out to you as definitely need to talk to?

38:20 Witness

No, Sir. The others. So, the Cobra crew that (b) (6) I spoke of was their aircraft commander, (b) (6) was mine and he was on the right side of the aircraft with me. I would like the a better observation point than our Copilot. So, as long as you've talked to them, I think that's it.

38:43 IO

Very good. Got the last warning that I give to every witness? Right. Your advice that this is an ongoing investigation and directed not to discuss your testimony with anyone outside duly appointed investigative bodies. Right. So, the AMB is still going on. This investigation is still going on. Obviously. Discuss your testimony with them, but just not with any other potential witnesses. Which you being out here shouldn't be too much of an issue. Any questions?

39:12 Witness

No, Sir.

(b) (6) .

(b) (6)

(b) (6)

0615-Picked up (b) (6) from billeting on RAAF Darwin

0630-Attended EFL cleanup brief at the FRA briefing space

~0715-Transited to Snake Farm to check out flight gear and tools required for flight.

~0745-Walked to aircraft and performed preflight.

~0815-0845-APU start/during engine start experienced number 1 engine failure to light off/troubleshoot with successful subsequent engine start/EGI failure occurred-AVI troubleshoot with no improvement/completely shutdown and restarted with no system degradations/Lead Cobra launched slightly behind timeline @ about 0835 and we launched about 15 minutes late around 0845

~0900- rejoined the flight in the objective area/conducted sensor soak of LZ/NSTR other than some exercise control ADF vehicles.

-“Dump Truck” section of V-22s checked in/ “LZ Ice” call made with updates of ADF vehicles parked in the area but runway clear

-“Dump Truck” flight calls pushing and is heading northbound/H-1 section maneuvers to catch them enroute to LZ and attach at the 5 and 7 o’clock as briefed

-Lead Cobra slows down to attach at the 5 o’clock inside the turn and our -2 Huey takes tac lead to push ahead and cross over the MV-22 section to join at the 7 o’clock

-MV-22’s were both in conversion mode as they hit the turn to final and are in a staggered left formation traveling northbound to make an approximately 90 degree right hand turn to and eastern final

-From my position attached at the 7 o’clock and crewing the right-hand side of the UH it appeared as if the dash 2 MV-22 “Dump Truck 12” overshot the landing heading, had a significant amount of closure on the lead MV-22 and were level or slightly below the lead aircraft. I noticed the closure and made a call over ICS “watch 2”. “Dump Truck 12”, with continued closure, then made an erratic near 180 degree righthand turn with a slightly nose up attitude. The right wing fell rapidly while descending in the turn and “Dump Truck 12” was now almost on a 180 degree reciprocal heading west bound. They rolled wings level and continued to descend and UH signer made a call “what is two doing?” since no “wave off” call had been made by “Dump Truck 12”. “Dump Truck 12” then descended through the trees and impacted the ground with a significant amount of forward airspeed-tops of trees to impact on the ground was approximately 300 meters and both NACELs were still turning on the descent. “Dump Truck 12” was immediately engulfed in flames.

-Post impact lead AH climbed significantly, and "Dump Truck 11" waved off to turn and inspect the crash site. UH signer directed "Dump Truck 11" to land at the prebriefed LZ on the runway. H-1 section began to orbit the crash site and witnessed Marines running out the back of the wreckage.

-AH took over on scene commander responsibilities, call was made over guard and UH flowed to the runway LZ to roll down on deck and conserve fuel/ Immediately after landing I ran out of the aircraft to notify the ADF exercise control of the event and directed him to send ADF personnel by foot 2 kilometers west of the airfield through the forest to provide assistance to the survivors as there was no road or direct access to the crash site. I ran over to "Dump Truck 11" on deck and grabbed several litters and passed them off to the ADF pushing to the crash site.

-GCE came up on the pre briefed TAD frequency and was embarked on "Dump Truck 12" he passed that they had accountability of 20 with 1 Urgent Casualty and 2 Priority Casualty and 3 missing.

-ZMIST passed for urgent had casualty in and out of consciousness with trouble breathing/1 priority with broken rib/ 1 priority with broken leg.

-First asset to check on was an ADF C-130 @10k that assisted with radio relay to RAAF Darwin Approach

-3 civilian life flight helicopters flowed out to the objective area/the first on scene hoisted in 4 inflight paramedics to the crash site/others were directed to land on LZ runway and conserve fuel.

-2 fixed wing assets (king airs) checked on and were directed to flow to a neighboring airstrip to wait for tasking.

-Planned section of H-1s arrived/battlefield handover was conducted and we flowed back to RAAF Darwin for fuel/We grabbed water jugs and MREs along with a GCE Major and flowed back to objective area where we landed and rolled down to conserve fuel. I staged MREs and water at a shed near the runway. ADF was able to push vehicles through the woods to crash site and conducted several waves to reposition GCE to the airfield. All GCE Marines, casualties, and inserted paramedics were transported to airfield via trucks and were accounted for with 3 missing. Casualties transported to Darwin hospital via civilian life flight helicopters. We stayed on station and conducted on scene commander responsibilities and coordinated with ASO inserted. We were then notified all H-1s were directed to RTB and were the last H-1 to push back to RAAF Darwin.

(b) (6)

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Transcript of Audio File:
COMMAND INVESTIGATION RE: CLASS A AVIATION MISHAP
INTERVIEW OF (b) (6)
TAKEN AT LARRAKEYAH DEFENCE PRECINCT
SEPTEMBER 2023

Audio Runtime: 1 hour, 15 minutes, 57 seconds

(b) (6)

1 (Beginning of Audio Recording.)

2 (b) (6) All right. I'm (b) (6)
3 I'm part of the JAG investigation. We've got (b) (6)
4 and (b) (6) here as well. I'm just going to
5 read a couple more items here. We are recording, just
6 so you know. You might have a future date or may
7 already have been interviewed as part of the aviation
8 mishap board. This is a separate inquiry. This is a
9 command investigation.

10 No statements that you made as part of that
11 inquiry will be provided to the command investigation
12 team. Statements made as part of the aviation mishap
13 board are privileged and the command investigation team
14 does not have access to them. Those statements will be
15 used for safety purposes only. Prior to me giving this
16 interview, you were advised of your rights under the
17 Privacy Act, and if applicable, about your rights
18 regarding the origins of any injuries you sustained in
19 this incident.

20 Do you have any questions about the
21 documents pertaining to the AMB?

22 (b) (6) No questions.

23 (b) (6) Okay. It is important that the
24 information you provide is complete and truthful. It
25 is a violation of UCMJ to knowingly make a false

(b) (6)

1 statement under oath. Do you have any questions?

2 (b) (6) No questions.

3 (b) (6) Okay. Okay, please state your
4 name.

5 (b) (6) (b) (6)

6 (b) (6) Okay. And what was your role?

7 (b) (6) I was the escort flight
8 lead on the day of the mishap. So I was the main
9 escort flight planner, as well as the section lead on
10 station at the time of the mishap. And then I was the
11 subsequent first on scene commander in the aftermath.
12 My Dash Two was (b) (6), who's a significantly
13 more experienced pilot, but he is kind of on the PTO
14 ops side, so was involved in some of the initial stages
15 of planning and obviously helped me out a lot as on-
16 scene commander, but on the flight schedule and
17 everything, I was the Section 8 EFL.

18 (b) (6) Okay. And was this a section
19 lead under your training for you?

20 (b) (6) No, sir. This is just --

21 (b) (6) In your --

22 (b) (6) -- another rep. I picked
23 up section lead couple months ago, so still relatively
24 junior section lead, but no.

25 (b) (6) Okay. All right. So I'm just

(b) (6)

1 going to roll through these questions. To the best of
2 your ability, you know, help us understand your
3 perspective and your observations. Again, you know, if
4 there's other information that is to -- to you, and if
5 you believe that it's appropriate to discuss, then
6 please, please do so, even if it doesn't necessarily
7 directly have anything to do with the aircraft crashing
8 itself. So if there's other areas that you believe,
9 you know, contributed to this, then we're interested in
10 hearing that as well.

11 So just going through the questions, re-
12 tracking or aware of any deficiencies, personal
13 performance factors with the crew on board of Dump
14 Truck 1-2?

15 (b) (6) I was not. My main
16 interaction, this might lead more into the next
17 question, were the planning process, especially the day
18 prior. And I was mainly working with (b) (6)
19 and Dump Truck 1-1. He was doing a section lead under
20 instruction event as the AFL, so most of my planning
21 was with him. Captain LeBeau was the mishap co-pilot,
22 and she was his mission XO. So I had some interactions
23 in passing with her just in getting products done,
24 getting the brief set up later that day. It was the
25 day prior that we did the AFL, EFL brief.

(b) (6)

1 And I noticed nothing out of the ordinary
2 with her, just normal demeanor, very helpful, no
3 concerns. And then the only interaction I had with
4 Major Lewis the day prior was in the brief itself when
5 he asked, like, questions in the end of the brief. So
6 nothing seemed abnormal or were noteworthy based on my
7 interactions with them. And then I don't even think I
8 saw them the morning of the mishap. I just, again,
9 walked in on (b) (6) and Dump Truck 1-1's
10 flight's -- crew brief as I was signing for the
11 aircraft, but other than that, I didn't see any of the
12 assaults beforehand.

13 (b) (6) So Major Lewis was not present
14 for the planning?

15 (b) (6) He may have been when I was
16 -- because me and (b) (6) were kind of hobbying in and
17 out of the ACE planning spaces in Robertson Barracks to
18 do final GCE coordination, but in that initial, you
19 know, product generation stuff, Major Lewis was not
20 there that I saw.

21 (b) (6) Okay. Okay, from an IMSAFE
22 perspective, do you believe or have evidence that the
23 crew in this case, and that could be any of the crew
24 members, was not in accordance to the requirements of
25 IMSAFE during the flight?

(b) (6)

1 (b) (6) I have no reason to believe
2 that. The combined EFL, AFL brief started about 15
3 minutes later than anticipated. So we started it at
4 1715, brief was done at 1800, and we're -- about 1815,
5 we were complete with questions. And then I know their
6 flight schedule section briefs the next morning for
7 0600, but no, nothing of note.

8 (b) (6) Okay. Would you -- have you
9 observed, on any previous flights, any violations of
10 IMSAFE? And that doesn't necessarily mean just for,
11 you know, this crew. It could be, have you made any
12 observations of violations of IMSAFE previously?

13 (b) (6) No, I have not noticed any
14 violations. And if anything, the V-22 ops department
15 has had a more conservative interpretation of crew rest
16 standards than I'm used to in the squadrons I've been a
17 part of, so I've noticed nothing.

18 (b) (6) Okay. How would you describe
19 the behavior, demeanor of the crew, both your crew in
20 your section and then the Dump Truck crew, during
21 mission planning through actions prior to the mishap?
22 What was your interpretation?

23 (b) (6) Nothing abnormal.
24 Everybody was very helpful. It was obviously a big
25 effort, kind of had the entire ready room helping out,

(b) (6)

1 because this is the whole reason H-1 was -- were out
2 here, was for Predator's Run and kind of helping me out
3 with the EFL stuff. So (b) (6), and (b) (6), and (b) (6) were
4 all being very constructive, being very helpful, no --
5 nothing abnormal as far as their demeanor goes. And
6 then previously spoke to (b) (6) and (b) (6) and Lewis,
7 nothing noticed out of the ordinary.

8 (b) (6) Okay. Going to kind of some
9 environmental considerations, do you recall the
10 direction and speed during this type event?

11 (b) (6) I do. Winds were strong
12 out of the east. I remember my LAAD's probe indicating
13 20 knots directly out of the east. I had considered
14 bringing that information up when they called
15 checkpoint prior, but it was as forecast. That's what
16 we had briefed the day prior, was strong winds out of
17 the east, but that was consistent throughout the day,
18 was like 20 knots on my wind on the MFD, pretty much
19 direct out of the east.

20 (b) (6) Okay. What about the SLAP?

21 (b) (6) SLAP data? I don't recall
22 the specific numbers, but I do recall briefing it as
23 high in the sky and not being a factor for
24 survivability considerations, like you can't hide from
25 MANPADS that were also loss of visual contact

(b) (6)

1 considerations. I distinctly remember at the AFL, EFL
2 brief saying it was not going to be a factor for the
3 hours of 0900 to 1300 when they were going to be on
4 station with us.

5 (b) (6) And when you were out there
6 executing, was that the case?

7 (b) (6) Yes.

8 (b) (6) Those were observed?

9 (b) (6) Yes, sir.

10 (b) (6) Okay. Even at 9:30, that --
11 which doesn't make sense? I'm just trying to make
12 sure.

13 (b) (6) Yeah.

14 (b) (6) Yeah, okay.

15 (b) (6) I don't recall this one
16 being a factor.

17 (b) (6) All right. What about the
18 visibility? Can you describe the visibility that day?

19 (b) (6) Initial visibility was
20 good. Cab okay, is what it was forecast. The time of
21 the mishap, I recall. Normally there's a lot of smoke
22 around here that can kind of degrade, but on ingress it
23 -- there were no, like, additional fires. Coming back
24 the second time, I had noticed there was additional
25 fires separate from the mishap smoke.

(b) (6)

1 So as the day progressed, there was a fire,
2 like a lot of smoke in the vicinity of the southern
3 part of the island, but then once you were overhead the
4 objective area itself, it was back to unrestricted, but
5 at the time of the impact itself, no. Well, let me --
6 let me -- no degradations in the objective area. I do
7 remember it being hazy coming off of RAAF Darwin and
8 then clearing up as you got further over the ocean
9 closer to the island. I couldn't give you a specific
10 number, though. I think the forecast in the ATIS was
11 calling unrestricted.

12 (b) (6) And then can you describe the
13 bird activity? So was BASH briefed? And then if you
14 can recall, do you recall bird -- seeing bird activity,
15 seeing any birds while you guys are out there in the
16 objective area?

17 (b) (6) So we did not brief any
18 BASH status. That's not something I've really heard
19 briefed since like T-6s. And then as far as activity
20 in the objective area itself, nothing noted abnormal.
21 We were maintaining a high, like medium altitude
22 profile. So we didn't even really have any near misses
23 or anything that you'd expect to see on a normal day of
24 flying. And then I don't recall seeing any significant
25 bird activity as we were doing our sensor work for the

(b) (6)

1 zone itself. So short answer, no. No birds noted, but
2 BASH was not briefed.

3 (b) (6) So forgive me for re-asking the
4 question, but did you see any birds?

5 (b) (6) I can't remember seeing any
6 birds.

7 (b) (6) Okay. Can you describe --
8 we're going to go missing -- like, mission planning,
9 mission consideration. So can you describe what the
10 mission was that day?

11 (b) (6) Air assault, two separate
12 objective areas. So we're going to have the V-22s drop
13 off a platoon reinforced to Pickertaramoor, which we
14 were calling Objective Cheetah. And then originally it
15 was going to be C-27s. C-27s fell out, so the V-22s
16 would continue to fill in the rest of the company to
17 Objective Alpaca farther out to the north in the
18 vicinity of Maxwell Creek. So overall company level
19 insert via Osprey with H-1 coverage, EFL into cast sort
20 of profile for us. And then they'd be doing, like,
21 patrol base ops for the next day until they were
22 relieved and placed by first brigade of the
23 Australians.

24 (b) (6) Was that the original plan?

25 (b) (6) Yes.

(b) (6)

1 (b) (6) It was?

2 (b) (6) Well, so like I said, the
3 C-27s fell out. So originally the Ospreys were going
4 back and forth on which zones, how many waves, who was
5 going to be on board, until maybe call it 18 hours
6 before launch, just as far as the specifics of who was
7 going where.

8 (b) (6) Can you talk a little bit more
9 about that?

10 (b) (6) Yes, sir. So we did our
11 initial planning on, I think Thursday afternoon, just
12 running through ASAC SOP, GC coordination stuff with --
13 over at Robertson Barracks with the Lima Company
14 Commander, (b) (6), and fires representatives,
15 just GC leadership. And then we were all in the same
16 room with the H-1s and the Osprey planners.

17 I kind of forget how it went specifically,
18 but the initial game plan was fixed wing insert to
19 Objective Alpaca, which is Maxwell Creek to the north,
20 and then V-22 insert to the south, that Objective
21 Cheetah. And it was originally going to be a simul
22 insert. So a lot of the planning on the H-1 side of
23 the house revolved around GCE intent. Do you want two
24 H-1 sections, one over Alpaca, one at Cheetah, or do
25 you want one at Alpaca, and then we'll UEO sections for

1 continuous coverage?

2 Half -- at the end of that meeting, the C-
3 27s fell out, so they kind of had to reshuffle the
4 whole deck as far as the landing plan. Initially, the
5 GCE leadership was electing to go for simul inserts
6 still, but with one Osprey going to Alpaca, one Osprey
7 going to Cheetah, and then probably having the H-1s
8 over Alpaca for that insert. And then if we needed to
9 get pulled for cast coverage down to GO, we would do
10 so.

11 So that was the game plan for most of the
12 day Saturday until -- actually, no, most of the day
13 Friday. And I think early Saturday, late Saturday
14 morning, they were like, no, that's too complicated.
15 We're going to simplify this, sent the pure two V-22
16 section to Cheetah first, the H-1s will be overhead.
17 Stay on for follow on cast coverage, bingo out,
18 separate H-1 section goes to Alpaca, sensor soaks the
19 zone for that same V-22 section to filter in and do
20 that insert.

21 So that was the game plan for the actual
22 brief itself, was everybody that's going to Cheetah, go
23 to Cheetah first, and then we'll route everybody into
24 Alpaca afterwards with that company minus once Cheetah
25 is on deck. Does that kind of clarify it?

(b) (6)

1 (b) (6) Yeah. So how many people were
2 involved in those conversations that were changing back
3 and forth and --

4 (b) (6) The planning?

5 (b) (6) -- with the GCE? Yeah.

6 (b) (6) A decent amount of people
7 were involved in the conversations. Obviously, me and
8 (b) (6) were at the forefront with (b) (6). And
9 then I think (b) (6) was working with (b) (6)
10 (b) (6) and his, you know, battalion commander, kind of
11 finalizing approval and figuring out what the intent
12 was there. And then yeah, the (b) (6),
13 (b) (6), who was the XO, and (b) (6)
14 was the arrow, all very involved every step of the way
15 to make sure we were all on the same page about what
16 the plan was and then kind of air deconfliction plan
17 moving in. Yeah, does that --

18 (b) (6) Okay. Yeah.

19 (b) (6) Does that answer it?

20 (b) (6) Yeah.

21 (b) (6) Okay.

22 (b) (6) Thank you. So what was the
23 intended length of the mission? You guys briefed it.
24 What was the time window?

25 (b) (6) So intended window was

(b) (6)

1 roughly six hours of flight time for the H-1s, roughly
2 four hours for the Ospreys, to be able to cycle through
3 all of those. So my section, which was going to be the
4 Cheetah section, was going to take off at 0830, stay on
5 station until bingo, come back and then cycle through
6 for -- kind of follow on cast, follow on EFL with our
7 land time being, I think 1430.

8 Other section of H-1s going to be taking off
9 at 0930, and then similarly landing around 1430.
10 Ospreys were -- I don't remember the exact time when
11 they thought their last insert would be complete, but -
12 - and then they were going to do about 30 minutes of
13 contingency holding, but it was a roughly around four
14 hours of flight time, was the plan.

15 (b) (6) Okay. The PZ, can you describe
16 the PZ? Where was it? Can you also, if you don't
17 mind, helping me understand, like, the organization of
18 the PZs? Was there a dedicated MACO? Was there a
19 makeshift gate? Was it established by serial and
20 stick? You know, how was the PZ operation?

21 (b) (6) Yes, sir. So the PZ is
22 probably the part of the mission that I have the least
23 awareness on. I frankly wasn't paying very close
24 attention in the brief. I know it was out at the FRA,
25 just right here at RAAF Darwin. And I know they spoke

(b) (6)

1 to the MACO considerations and the PZ diagram was part
2 of our mission planning products, but really beyond
3 that, I can't speak too in detail about the PZ
4 operations.

5 (b) (6) Okay. When they briefed the PZ
6 ops and they discussed their bunk place travel, was the
7 PZ ops integrated into their bunk place travel plan?

8 (b) (6) I believe so. Again, I
9 don't really remember that short in detail.

10 (b) (6) That's okay, but clearly, you
11 know, not enough for you to remember?

12 (b) (6) That's true, sir. I might
13 chalk that up to me being --

14 (b) (6) Not paying attention?

15 (b) (6) Yeah. I mean, trying to
16 think through my next part of the brief too for the
17 AFL, EFL stuff. It didn't have any bearing on the H-1
18 side, so yeah, I wasn't really paying attention.

19 (b) (6) Okay. Fair. What would have
20 been considerations for fuel on board that had to take
21 off from Darwin? So that would include the PZ and the
22 landing zone. You know, I do care about what it was
23 for the H-1 section. I obviously care what it was for
24 the V-22, so feel free to brief both, you know?

25 (b) (6) Yes, sir. So taking off,

(b) (6)

1 the H-1 side, there were no specific concerns with
2 taking off with a full bag of gas. Again, the idea was
3 to maximize our coverage and we weren't going to be
4 tasked with landing the Huey or anything to that
5 effect. So it was really just maximizing endurance for
6 our time on station, so we took off with a full bag of
7 gas. My weight and power had greater than a 10 percent
8 margin coming out in landing, so nothing of
9 significance.

10 (b) (6) Were you guys using -- were you
11 using aux tanks?

12 (b) (6) No aux tanks.

13 (b) (6) Okay.

14 (b) (6) Just at allow 61, allow 68
15 in the HML. On the Cobra and then the UA, I think had
16 two rocket pods as well. The Osprey side, the one
17 thing I do remember on this was I was working late
18 Friday night with (b) (6) We were the last guys in
19 the planning space and he was just kind of cleaning
20 stuff up. And he was frustrated that the bow had
21 initially miscalculated the fuel required in his own,
22 so he alluded to some margin that they required for
23 power going into or out of a zone for training.

24 So for training missions, I don't remember
25 if it was 5 or 10 percent or what it was, but initially

(b) (6)

1 she had messed up the calculation and he had already
2 told control to defuel the V-22s appropriately so that
3 they would have the appropriate power. And I don't
4 remember if it was too much or not enough. I think it
5 was they had defueled them too much and they put more
6 fuel back in, but this was all something I got in
7 passing.

8 All I can say in confidence is -- say with
9 confidence, is that it was a consideration in that he
10 was doing calculations related to it, but no, I don't
11 really remember anything specifically -- specific to
12 the PZ or specific to the LZ related to their power and
13 fuel requirements.

14 (b) (6) Okay. Can you recall how many
15 acts were intended to be loaded on the aircraft and if
16 there were any changes, if there were any known
17 discrepancies that you're aware of, you know, both in
18 planning and in execution when you were walking on the
19 plane?

20 (b) (6) I know that was finalized
21 the night prior. And for Cheetah, it was going to be
22 19 Marines per aircraft for 38 total in the zone. That
23 was something we briefed to as far as the ramrod and
24 what I was expecting to hear from them. Fast-
25 forwarding to when I'm on station, giving them the

(b) (6)

1 cherry or ice call, they call checkpoint gambier for IP
2 Subaru. They had admitted their altitude and as
3 fragged or with exceptions.

4 So I confirmed -- confirmed as fragged and
5 say altitude. And they said 700 MSL as fragged. I
6 found out after I landed that they had actually flopped
7 the serials on the aircraft, so it was the same serials
8 and same personnel going into the zone, but originally
9 the crew that Dump Truck 1-2 was carrying was supposed
10 to go into 1-1, and vice versa. So that wasn't
11 transparent to me until after I had landed at the end
12 of the day, but other than that, no. Nothing of
13 significance for the loading plan.

14 (b) (6): So the as fragged, the report
15 as fragged, what is the relevance of the reporting as
16 fragged when they checked in to you?

17 (b) (6): Mainly, that accountability
18 piece, the how many people am I expecting to get into
19 the zone so that I can track it as EFL. And, I don't
20 know, any, like, degradations to the aircraft. Are you
21 single or are you section? Like, anything that is not
22 as briefed, you would say with exceptions.

23 (b) (6): Did you report back the status
24 of the mission when they reported as fragged? Was
25 there any relay communication from you to anybody else?

(b) (6)

1 (b) (6): No. So part of the comm
2 plan, and I know this goes into some of the following
3 questions, but we were supposed to reach out to -- I
4 don't know what the name of -- it's like their DASC
5 equivalent, Dealer is the call sign. They had TADC
6 prior, all tertiary. And as soon as I switched off
7 tower -- I was the only aircraft on station initially.

8 I took off as a single and we tried every
9 three -- we tried all three nets, both cipher text and
10 single channel plain text, and were no joy, despite
11 being relatively high altitude, being pretty much right
12 over -- not over Robertson, but we would've had
13 significant good line of sight to Robertson on the way
14 out. And we got no return on that. So long story
15 short, no, I did not report up the as fraggd with the
16 exceptions thing.

17 (b) (6): Thank you. What was the
18 landing plan for the Ospreys?

19 (b) (6): Yes, sir.

20 (b) (6): Could you describe that? Yeah.

21 (b) (6): So it was a going to be a
22 90 degree approach to the zone. You actually have the
23 map up here, so it's easier to talk to the map. I'll
24 try to be as verbal for the recording as possible. The
25 landing plan/objectiary plan, they were to approach

1 Cape Gambier. We were calling it Checkpoint Gambier as
2 our checkpoint prior. I was going to be established in
3 Shelby, which is this HA directly to the south of the
4 LZ.

5 They were going to give Checkpoint Gambier
6 IP Subaru, which is anchored on kind of an inlet
7 directly to the south of Pickertaramoor Airfield. And
8 then they would truck from south, to north, to
9 Pickertaramoor for a 90 degree approach into the zone.
10 The landing would effectively be either online left or
11 echelon left with lead landing to the south -- excuse
12 me, with Dash Two landing to the south, lead landing to
13 the north.

14 And in conversations after the fact, I don't
15 -- I misunderstood. I don't know if they communicated
16 it a different way. I thought lead was going to go to
17 the northernmost spot. I thought they were going to be
18 landing echelon right, but the landing plan was a 90
19 degree approach into the zone, so from Subaru to the
20 south, right-hand turn, and then landing one next to
21 the other perpendicular to the runway. The runway is
22 roughly north to south and they were going to be
23 landing into the winds coming from the east.

24 So conversion to helicopter mode was going
25 to be with -- in accordance with what I -- my

(b) (6)

1 understanding of the standard was, which was two
2 clicks, one mile out from the zone. Yeah. Any other
3 details? I'm trying to --

4 (b) (6): Yeah. So just want to make
5 sure, just want to clean it up a little. So they were
6 approaching from the south, IP Subaru, and as they were
7 approaching, they were really approaching from the
8 southwest?

9 (b) (6): Yeah, so southwest to
10 Subaru.

11 (b) (6): Yeah.

12 (b) (6): And then from Subaru to the
13 LZ. Basically, directly north and then arcing 0.7 to
14 0.5 in for that 90 degree.

15 (b) (6): And the 90 turn would've been
16 west to east, turning into the wind? That was the --

17 (b) (6): Yes.

18 (b) (6): That was the plan, right?

19 (b) (6): Correct.

20 (b) (6): Okay. Okay. What about the
21 formation? What did they brief for the formation; do
22 you remember?

23 (b) (6): I don't recall.
24 Effectively, like crews, combat crews, was my
25 understanding of what they were going to be in. Yeah,

(b) (6)

1 I don't remember specifically.

2 (b) (6): Okay. We'll come back to that.

3 Can you describe the planned -- ground tactical plan?

4 Once they got on deck, what was the intended ground
5 tactical plan?

6 (b) (6): Yes, sir. The ground
7 tactical plan was that the platoon reinforced was going
8 to get off the Osprey. And then you have roughly half
9 of the force that was going to transit walk north to a
10 blocking position on the north side of the airfield.
11 And the other half was going to set up a blocking
12 position on the southern side of the airfield,
13 basically on the road that leads into the airfield from
14 the college.

15 From there, once security established, they
16 were going to start doing patrol ops. And that was
17 about the extent of my understanding of the ground
18 tactical plan at Cheetah. Alpaca had a separate plan.

19 (b) (6): What about the refueling plan?
20 So is there -- what was the contingency, I guess, for
21 multiple locations for refueling, if there was one?

22 (b) (6): So for the H-1 side, like I
23 said, we were just going to be flying out until the
24 conservative bingo, getting back into tower's airspace.
25 The main control points are to the south of tower, so

(b) (6)

1 we were expecting to have to arc around tower's
2 airspace and come in through the south. So that's what
3 our bingos were based off of. The Ospreys, like I
4 said, had considered power margins coming into the zone
5 and their respective weight. So they didn't take off
6 with a full bag and then planned to refuel at the PZ on
7 one of the subsequent waves during PZ ops.

8 I don't remember specifically where, but I
9 do remember it being incorporated into the master
10 timeline and looking at if my fuel hits were going to
11 be delayed, because we all have to refuel at the same
12 hot pits. So I remember looking that and seeing that
13 they were refueling, but it not going to be a factor
14 for my section, but that's the extent of what I recall
15 on their refuel planning.

16 (b) (6): Okay. For -- with the H-1
17 platforms, there's an audio and a video recording
18 capability via the TSS and the Bright Star, and then as
19 well as audio recording. Can you describe your
20 squadron's SOP for activating the audio and video
21 recording and when you use those?

22 (b) (6): Yes, sir. So we recently
23 changed squadron SOP recently. I don't think there's
24 anything beyond DVR, digital voice recorder. I don't
25 think there's anything beyond the DVR shall be included

(b) (6)

1 on all flights. So we had initialized the DVR for both
2 aircraft. And I think also the remaining section, it
3 was in our aircraft and recording. We had -- I had hit
4 record initially prior to the assault showing up on
5 station, just as I was recording, like, targets of
6 interest in the vicinity of the LZ, just for, like,
7 debrief purposes and exercise control items, like which
8 vehicles I was captured at which point.

9 Once the rejoin had started, I came on
10 controls to do the rejoin and lost situational
11 awareness on where the sensor was and what it was
12 recording or if it had stopped recording. Ultimately,
13 from my understanding, we did not -- it was not
14 recording at the time of the mishap. I wasn't able to
15 pull footage at the end. I had given it directly to
16 the A and B, but from what I understand, Dash Two had
17 their DVR recording at the time of the mishap.

18 (b) (6): Yeah. So they were Bright Star
19 recording video?

20 (b) (6): Bright Star was recording,
21 the TSS was not at the time of the impact. And I think
22 it just ran out of room on the DVR.

23 (b) (6): Okay. And the --

24 (b) (6): Here.

25 (b) (6): Thank you. All right. For

(b) (6)

1 mission briefing, you mentioned this somewhat earlier,
2 but if you can just describe it kind of in detail?
3 Were all crew members participating in the mission at
4 the brief, to include escorts?

5 (b) (6): Yes. All personnel,
6 including crew chiefs, were at the combined AFL, EFL
7 brief the night prior.

8 (b) (6): And then to your knowledge, the
9 next morning, was everybody present for the brief at
10 0600, for both separate sections?

11 (b) (6): My understanding is, yes.
12 Again, I didn't witness firsthand. I didn't see
13 anybody at -- from the 1-2 flight. By the time -- our
14 brief was 30 minutes after, so by the time my section
15 brief had completed and I was on my NATOPS brief -- or
16 excuse me, I was signing for the aircraft, I walked in
17 on the 1-1 flight executing their NATOPS briefs.

18 (b) (6): Okay. So you weren't aware if
19 a section brief for Dump Truck 1-1 occurred?

20 (b) (6): It did.

21 (b) (6): It did?

22 (b) (6) Well, I didn't witness it
23 firsthand, but they were going to meet at 0600 the next
24 morning cover a section brief.

25 (b) (6): Got you. Was an ODO brief

(b) (6)

1 provided the morning of prior to for both sections?

2 (b) (6): Yes. Again, I can't speak
3 firsthand to theirs, but we definitely got an ODO
4 brief.

5 (b) (6): Okay. During the ODO brief,
6 was forecasted weather for the objective area on
7 Melville Island provided to include SLAP, wind
8 direction, speed, and BASH?

9 (b) (6): SLAP was covered in the
10 operations brief I had done the day prior, winds were
11 covered. BASH was not for the ODO brief.

12 (b) (6): Did the brief presented deviate
13 any way from the planned mission? If so, what and why
14 did the ODO brief deviate from the --

15 (b) (6): Oh, the ODO brief? Yeah.

16 (b) (6): Did it drive to a change in the
17 brief?

18 (b) (6): It did not.

19 (b) (6): All right. Was the plan to
20 approach profile briefed in the EFL, AFL brief, the --
21 briefed in accordance with the MV-22 maneuver
22 description guide standards, which I don't expect for
23 you to know what that is, but do you remember them
24 briefing their approach?

25 (b) (6): They briefed that they

(b) (6)

1 would be doing a 90 degree approach into the zone. And
2 I recall it being a 0.5 to 0.7 arc, is what they spoke
3 to, but yeah, unfamiliar with the MDG profile.

4 (b) (6): Was it video -- was there a
5 slide deck that visually depicted what the approach
6 would look like?

7 (b) (6): No.

8 (b) (6): No?

9 (b) (6): I don't think so.

10 (b) (6): And on your objectory diagram,
11 did it include the approach profile?

12 (b) (6): No.

13 (b) (6): Okay. Were NATOPS crew briefs
14 conducted for all crews; do you remember?

15 (b) (6): To my knowledge, yes.

16 (b) (6): Were risk assessment worksheets
17 filled out in accordance with squadron group and wing
18 standards?

19 (b) (6): Yes.

20 (b) (6): Was the -- what was the
21 assessed risk associated with this mission and why?
22 And from your perspective is totally fine, okay?

23 (b) (6): I don't remember
24 specifically if it was low or medium. If it was
25 medium, it would've been because it was a tactical

(b) (6)

1 event with multiple air players. I do recall
2 identifying on the raw, the primary risk being mid-air
3 collision, just due to the number of air assets that
4 were out there, mitigated with thoroughly briefed
5 altitude, lateral, and time, and deconfliction.

6 (b) (6): Okay. Did any abnormal
7 activities, i.e., like interruptions to phone calls or
8 text messages occurred during the brief that could have
9 distracted air crew from the brief?

10 (b) (6): Short answer, no. It was a
11 lot of people in the ready room, so it did get
12 progressively warmer as the brief went on. Obviously,
13 I wasn't an audience member, but I could imagine that
14 bearing on people. It's a 45-minute brief. And then
15 my alarm, I had set for 1800, because I knew their
16 section briefs were 0600 the next morning, and I wanted
17 to expedite.

18 So that alarm started going off in the red
19 wrist to force, like near the end of the brief. And
20 then we had about 15 minutes for questions. So no, no
21 phone calls in the middle of the brief itself, but I
22 did have my phone alarm going off to remind people that
23 we had to wrap it up for rest.

24 (b) (6): Can you describe what you --
25 what and if you do to brief on C commander

(b) (6)

1 responsibilities?

2 (b) (6): It wasn't something we
3 briefed in detail. It's -- I -- kind of an assumption
4 that the EFL is responsible for it. We had briefed
5 objective area contingencies, including TRAP and
6 CASEVAC, in which it was, you know, the H-1's role.
7 You know, do the coordination with the notional DASC
8 player to, you know, route TRAP assets into the
9 objective area. And then they'd assume, like, rest or
10 responsibilities, but beyond that, nothing in detail
11 brief for on scene commander.

12 (b) (6): Do you keep beta on scene or a
13 checklist with you?

14 (b) (6): I did.

15 (b) (6): Can I ask a question?

16 (b) (6): Yeah, absolutely.

17 (b) (6): What's the SOP crew or crew
18 rest period?

19 (b) (6): SOP crew rest for the
20 squadron is 12 hours, from my understanding. CNF,
21 eight hours of uninterrupted sleep with time for meal
22 and transportation and rest. So that's why I was
23 touchy about going past 1800, but again, based on the
24 interpretation -- I'm -- frankly, it's been a point of,
25 I wouldn't say confusion, but inconsistency between

(b) (6)

1 first and third. Are we under MEF? Are we under MAC
2 36, MAC 24? But my understanding is the Ospreys try to
3 hold to a 12-hour crew rest standard, to the maximum
4 extent possible.

5 (b) (6): Okay. Thanks.

6 (b) (6): And with this, are you -- did
7 you observe a violation in 12 hours? Did you observe
8 crew members that were beyond 1800?

9 (b) (6): As I mentioned, the brief
10 went until about 1815 with questions.

11 (b) (6): So yes?

12 (b) (6): Yes, sir.

13 (b) (6): Okay. For mixing -- mission
14 execution prior to mishap event, once aircraft were
15 manned for this mission, were there any unexpected
16 delays to planned taxi or takeoff? And if you can
17 describe, you know, what they were, that'd be helpful.

18 (b) (6): Can you say that one more
19 time? I'm sorry.

20 (b) (6): Yeah. Once aircraft were
21 manned for this mission, were there any unexpected
22 delays to planned taxi or takeoff? Any delays? Yeah.

23 (b) (6): On the H-1 side, Dash Two
24 had a maintenance issue. I think it was a shared
25 starter or something that delayed their launch. So

1 they needed to shut down. I took off on timeline as a
2 single aircraft and went on to the objective area to
3 start sensor soaking the zone, not knowing if Dash Two
4 was going to come back or not. They ultimately fixed
5 the issue or ruled to a different aircraft, I don't
6 remember, and checked on station about 15 minutes
7 before the Ospreys got there.

8 The Osprey side, we noticed that L hour was
9 approaching and they hadn't -- we hadn't heard anything
10 from them, so we -- Dash Two reached out on AFL common,
11 which was their inner flight, to see where they were
12 at. And they said they were about eight minutes away
13 from Checkpoint Gambier. So I don't know what the
14 delay -- the reason for the delay was. If it was a PZ
15 ops consideration or if it was a ATC-driven delay, but
16 they were behind timeline by about 5 to 10 minutes.

17 (b) (6): Okay. To your knowledge, was
18 the PZ operations a cause of the delay?

19 (b) (6) I did not have any
20 awareness on the PZ ops. At that point, I was in the
21 vicinity of the objective area.

22 (b) (6) Okay. The -- if you can, we're
23 going to talk about the execution portion. So really,
24 and really with you, like, I don't want to -- what I
25 want to focus on really is, because you guys departed

(b) (6)

1 two separate times and you were already in the
2 objective area, I kind of want to focus on the
3 objective area. So you know, if you can help me
4 understand, from your observation in the aircraft, the
5 ingress approach as compared to the brief, what that
6 looked like, when were you, like, visual, the section,
7 and just kind of describe like from that point up until
8 the mishap occurred?

9 (b) (6): Yes, sir. So I was
10 initially -- the brief was that we were going to be in
11 HA Shelby, which was a laterally deconflicted holding
12 area south of the -- south of the LT, direct Shelby,
13 right here. When I checked on as a single, couldn't
14 get a good sense of line of sight here. So I was in
15 these two western HAs, again, purely focused on the
16 runway, looking for any sort of exercise players that
17 were going to be representing a cherry or ice call.

18 Duct Tape 3-4, (b) (6) called me over
19 interflight, telling me that he was off deck Darwin and
20 would be coming into the objective area. I told him,
21 you know, route into Shelby and then we'd rejoin the
22 section there. So we did so, and then once the section
23 was rejoined, we proceeded up to Sidewinder as this
24 late L hour thing was working out and we figured out
25 that they were going to be coming up to Gambier.

1 So were working Sidewinder Shelby,
2 continuing to work the zone. By the time, you know,
3 they said they were eight minutes to Gambier, I'm like,
4 all right. Let's get to Shelby, so that we're
5 established where we said we were going to be at the
6 time of the ingress. And then we had established an
7 altitude contract of 900 MSL and above for the H-1s,
8 700 and below for the assaults. And we maintained
9 about 1500 just for improved sense of performance
10 throughout.

11 We got to -- excuse me, Shelby, by the time
12 they were at Checkpoint Gambier. I told them -- this
13 is where they called. I requested the as fragged or
14 with exceptions call and told them LZ Crow, ice,
15 continue IP Subaru. At that point, they're still in
16 airplane mode, proceeding in combat crews or what
17 looked almost more like a trail to IP Subaru, which is
18 directly to the south here with the inlet there.

19 The plan for the brief was that, hey, we're
20 a detached escort until you guys are short final into
21 the zone. We're going to join at your five and seven.
22 And then once you guys have landed, we're going to be
23 in overhead, right-hand orbit. Airplane mode from
24 Shelby, the way this usually works with H-1s and V-22s,
25 obviously is they're super fast, so you kind of have to

(b) (6)

1 lead turn them so that you can swing in behind them.
2 So we start making our way to the north, maintaining
3 visual, the Ospreys going from Subaru to Crow. I gave
4 them the continue ice call.

5 So we are, you know, pulling a decent amount
6 of torque as they're getting away from us. We're
7 pulling into Sidewinder. By the time we're crossing
8 Sidewinder, is around when we started to catch up to
9 them. And just the way the positioning worked, Lamb
10 was on my left side and I was looking through him to
11 the assaults. So we're on the, you know, eastern side
12 of the objective area, looking to the northwest. I'm
13 looking through (b) (6). I give (b) (6) tag lead so that he
14 can focus on the join up and on maintaining visual.

15 I remarked to my co-pilot. They started
16 transitioning to helicopter mode, and we started
17 rapidly gaining on them. And I remember remarking over
18 ICS to (b) (6), who's -- this is his first time doing
19 escort, just to take note of how fast they decelerate.
20 So at this point, it's kind of a blur as far as the
21 sequence, but they do their 90 degree turn. (b) (6) at
22 this point is swinging out to their 7:00.

23 We had made a call initially back here over
24 the TAD frequency that we were heavy right, joining on
25 the five and seven. (b) (6) is swinging out here, so I'm

(b) (6)

1 looking through the assaults as (b) (6) is coming around
2 on the far opposite side. They make their 90 degree
3 turn with what I now know is lead on the inside, Dash
4 Two on the outside.

5 (b) (6) And Dash Two on the outside --

6 (b) (6) Dash Two, being --

7 (b) (6) -- would've been on the west,
8 outside?

9 (b) (6) Northwest side, yep.

10 (b) (6) Right. Uh-huh.

11 (b) (6) As they roll out, lead
12 rolls out on the 90 degree. I don't remember if Dash
13 Two ever rolled wings level, but at -- as this is
14 happening, we noticed that a right turn was -- Dash Two
15 was continuing a right-hand turn, something to the
16 effect, in the cockpit, of like, what? What are they
17 doing? Like, are they -- my initial thought was like,
18 are they trying to do a turn for spacing, like -- but
19 basically, instead of rolling out, Dash Two continues a
20 hard right turn into lead aircraft, ultimately rolling
21 out on a, like, 180 degrees of heading change, away
22 from the approach profile.

23 (b) (6) Oriented towards the west?

24 (b) (6) Oriented to the west for
25 the mishap aircraft.

(b) (6)

1 (b) (6) Right.

2 (b) (6) Lead aircraft is continuing
3 inbound to the zone. It's about then when I was
4 piecing together what was happening, because you could
5 see a grade of descent continuing.

6 (b) (6) Do you remember the position of
7 the nacelles as it was happening?

8 (b) (6) I don't remember. All I --
9 the only time I remember remarking on the position of
10 the nacelles was on that join up, where they
11 decelerated and were in helicopter mode. So if I had
12 to put my life on it, they would've had their nacelles
13 up, but I don't really know if they --

14 (b) (6) They had them up before they
15 started the turn?

16 (b) (6) I think so.

17 (b) (6) Okay.

18 (b) (6) I think. I say that with
19 not a ton of confidence.

20 (b) (6) So just out of curiosity, as
21 we're -- we're talking through this, when they made --
22 when Dump Truck 1-2 made their right-hand turn to the
23 90 and they were outside of the turn on the northwest
24 side of this section, when they made that turn to the
25 right, did they continue that turn to the right? They

(b) (6)

1 held the turn until they were basically 180 out away
2 from the airfield?

3 (b) (6) Frankly, I'm not 100
4 percent confident on if they ever rolled out on the
5 final approach path or if they continued that turn.

6 (b) (6) Okay.

7 (b) (6) I don't remember, sir.

8 (b) (6) Okay. Yeah.

9 (b) (6) Yeah. But, yeah, they made
10 that 180 turn. I do recall seeing them go wings level
11 before they impacted the trees. So I saw the trees
12 impact and then basically just disappeared into smoking
13 flames. I couldn't really see anything after that.

14 (b) (6) Okay. When they made that
15 right turn, did they cross over from left to right at
16 any point?

17 (b) (6) I don't remember them doing
18 that. I think they stayed on the outside.

19 (b) (6) Okay.

20 (b) (6) On the left-hand side
21 throughout the turn.

22 (b) (6) Okay.

23 (b) (6) And, again, I say that was
24 -- I was mainly balancing staying visual with (b) (6) but
25 we were also altitude deconflicted, so I was only kind

(b) (6)

1 of, not half-looking, but I was scanning both of them,
2 plus my torque and trying to manage my own turn --

3 (b) (6) No, I get it. I understand.

4 (b) (6) -- on the inside, but yeah,
5 I don't -- if I had to guess one way or the other, I
6 think they were on the left side for the entire time.

7 (b) (6) Okay. And, you know, I'm not
8 trying to ask again, because you kind of said this, so
9 I'm just trying to get clarity.

10 (b) (6) Sure.

11 (b) (6) You don't remember seeing them
12 turn around, so you don't --

13 (b) (6) Them turn around?

14 (b) (6) Yeah. So my understanding, as
15 you described it, is they're outside of the turn.

16 (b) (6) Yep.

17 (b) (6) They execute their 90, which
18 would've been a west to east right-hand turn.

19 (b) (6) Yep.

20 (b) (6) They execute their 90 turn to
21 come into the airfield.

22 (b) (6) Yep.

23 (b) (6) And instead of rolling
24 completely out and maintaining a final to land, they
25 continued turning.

(b) (6)

1 (b) (6) I'm 50/50 --

2 (b) (6) 50/50? Okay.

3 (b) (6) -- on that, on if they
4 actually ever rolled out of the turn or if it just
5 sustained --

6 (b) (6) Sustained all the way around?

7 (b) (6) -- all the way around.

8 (b) (6) Okay.

9 (b) (6) Yeah.

10 (b) (6) Okay. Cool. So thank you for
11 that description. I appreciate that. Can you also
12 help us understand what the ICS, you know,
13 conversations were in -- inside the aircraft and then
14 interflight, between the aircraft?

15 (b) (6) Yep. Yes, sir. So the ICS
16 level conversations I remember having were, look how
17 fast they decelerate to cruise, and then kind of
18 wondering out loud what they were doing with that turn.
19 Over interflight made a Dash Two Huey. It was giving
20 them tag lead and then kind of talking through the
21 mechanics of how we were going to maneuver the section
22 to set up in that overhand -- overhead orbit.

23 So I remember something to the effect of
24 being directive with Dash Two, like, you have continue
25 to push out to the seven. I'm going to make -- it'll

(b) (6)

1 still be a right-hand turn into the overhead orbit once
2 they're on deck. As far as like over TAD with the
3 assaults, we gave them that -- we just kind of gave
4 them awareness on where we were at and what we were
5 doing. So hey, we're on your heavy right, and then
6 we're swinging out to the five and seven.

7 (b) (6) And there was no transmission
8 that was made from either of the officer aircrafts or
9 TAD on the approach, like following --

10 (b) (6) Following IP inbound? No.

11 (b) (6) Okay. All right. All right,
12 got it. All right. So we're going to talk a little
13 bit about follow on actions after the crash occurred.
14 So who was the on-scene commander?

15 (b) (6) I initially took on-scene
16 commander, so the -- yeah, me, initially.

17 (b) (6) Okay. And can you describe
18 that for me? Just kind of describe the events of --

19 (b) (6) Yeah.

20 (b) (6) -- once you took on scene
21 commander and the following actions?

22 (b) (6) Yes, sir. So they -- so we
23 obviously both see what happens. He's on the outside,
24 I'm on the inside. He goes kind of into a lower right-
25 hand orbit. Initially, I go high, maintaining visual

(b) (6)

1 and also kind of enter a right-hand orbit. My
2 immediate actions were just getting a call-out on
3 guard. So I told (b) (6) to push up, 1215.

4 So I'm just kind of in a spiraling climb,
5 keeping visual of (b) (6) just making guard calls until I
6 get a response. I'm still not getting responses on
7 1215, so I keep climbing up and switch to UHFT 43.0.
8 And it's only somewhere around, like, 5,000 feet that
9 approach responds. (b) (6) you know, it -- I had figured
10 he had gone low to try to figure out a landing, if he
11 could figure out a way in.

12 There's just no tenable zones around there,
13 so he made a call, Dump Truck 1-1, had, you know,
14 continued to approach him, waved it off, and (b) (6) took
15 control of them and, you know, directed them to land at
16 LZ Crow. He also landed -- which is Pickertaramoor
17 Airfield. He also landed at Pickertaramoor and told
18 Gunny Coughlin to get out, to get the CTC personnel,
19 which were like the exercise enemy paints, and start
20 directing them to go into the tree line to start
21 helping with the recovery. So that's what's happening.

22 As I'm in my climb, getting comms with ATC
23 and routing assets in, I had crews pull up the -- his
24 on scene commander checklist and just work our way
25 through it kind of cookbook style to see if there was

(b) (6)

1 anything we were missing. Nothing really seemed
2 relevant. It was known location, known cause.

3 He -- at some point on that initial orbit,
4 before he had landed, (b) (6) called out that he
5 saw survivors walking out of the wreckage. I think he
6 called six survivors. I told (b) (6) at some point to get
7 the sensor on the zone to see how many people we could
8 make out, also to pull a grid of the crash site and
9 plotted it so he could pass that along, which was about
10 two clicks away from Pickertaramoor Airfield.

11 And then yeah, basically, that was just --
12 Jody was on deck at that point. And it made the most
13 sense for him to stay on deck, roll down, save fuel so
14 that we could prepare to kind of do a yo-yo thing once
15 I was bingo. And it also helped because he had shown
16 up, you know, 30 minutes late. So he had more fuel to
17 stay on after I left.

18 So we set a bingo back to RAAF Darwin and
19 just started working on scene commander stuff,
20 coordinating with the assets that checked on station.
21 Duct Tape 3-0 was Major Smith. He had launched before
22 this happened and heard my guard calls, so he joined
23 (b) (6) on deck to kind of basically work a rotation
24 throughout the H-1s until -- so we just kind of had
25 continuous on scene commander coverage from me, to

(b) (6)

1 (b) (6) to (b) (6) .

2 And then (b) (6) was on deck at RAAF
3 Darwin and was able to have line of sight to our air
4 flight. So we kept her on the hose to plan to launch
5 when I returned, basically. So that's some of the
6 initial on scene commander stuff. I don't know if you
7 want any more detail on other stuff related to that.

8 (b) (6) What were the other assets that
9 were called out to this?

10 (b) (6) So initially, the first
11 guys on the station were Ozzy 689. That was a C-130
12 that approach diverted to us.

13 (b) (6) Was that you on the on the
14 radio calls?

15 (b) (6) That's me on the, yeah,
16 radio calls. So I gave them 10K and above, wasn't
17 really sure what capabilities they were bringing, but
18 better to have them there than to not. And if we
19 needed to land them, we could do that. So they were
20 holding in the overhead for a lot of the time. The
21 first rescue asset on the scene was Rescue 902, which
22 was operated by Toll Helicopters out somewhere on
23 Melville Island, I presumed Maxwell Creek.

24 I don't know how they got alerted, but I
25 heard them making a call over the Tiwi CTAF, 121 --

(b) (6)

1 1265, which I was scanning, but they were taken off,
2 and I routed them into the objective area from the
3 north. There wasn't any good spot for them to land.
4 So I initially told them to go to the Pickertaramoor
5 Airfield, and while the ground recovery worked, they
6 could, you know, put people in. They advised me that
7 they had a winch. So they had a team of four medical
8 personnel that they winched into the zone to provide
9 immediate medical treatment.

10 (b) (6) So it was a Puma, right?

11 (b) (6) What's that?

12 (b) (6) It's a Puma, right?

13 (b) (6) Actually, I don't know.

14 Yeah, I looked it up after. I think it's a AW139.

15 (b) (6) Okay.

16 (b) (6) Is that the same thing?

17 (b) (6) Yeah. Yes, it was. Okay.

18 (b) (6) Another important part,
19 while I'm in the overhead trying to, you know, juggle
20 all this stuff with ATC, Lone Star 5 came up on TAD,
21 who was the XO, then he was going to be the ground
22 force commander for the unit. He was in the back of 1-
23 2. So he had gotten out of the crash, and on that
24 initial radio call, he had already gotten
25 accountability of 20 personnel, three missing.

(b) (6)

1 He reported one urgent, two priority
2 casualties, and gave me the nine line for those guys.
3 And then he was able to kind of talk Rescue 902 onto
4 his position to winch in the medical team. That was --
5 as 902 was in the overhead and they were starting that
6 initial process, that's when I binged out. So I did --
7 - kind of handed it over to 3-4, then took on-scene
8 commander.

9 (b) (6) Okay. Thank you for sharing
10 that.

11 Okay, so can you do me a favor? Read the
12 time, (b) (6) on the recorder.

13 (b) (6) 59:38.

14 (b) (6) At 59:38, we're going to talk
15 about maintenance mishap aircraft questions. So if you
16 could, and I don't anticipate that you will know a lot
17 of these, but if there's anything that you recall, that
18 would -- that'd be helpful.

19 Do you recall who was designated to pre-
20 flight the aircraft for Dump Truck 1-2?

21 (b) (6) I do not.

22 (b) (6) Okay. Do you -- can you --
23 this is a more of a culture question for the unit, you
24 know, for the collective unit, but can you talk through
25 the expectations that -- from the maintenance

(b) (6)

1 department with regards to the procedures for creating
2 post lighting aircraft, for screening the book for the
3 ADB, for map documentation, post-flight? Can you just
4 talk through, you know, the maintenance requirements
5 for the unit?

6 (b) (6) I, frankly, can't speak to
7 the V-22 side. I'm a maintenance officer over on the
8 Snake Farm, which is geographically separate from the
9 VMM. So I can't really speak to their maintenance
10 department and their cultural practices. If you want
11 me to speak to the H-1 side, I can do that. Yeah?
12 Okay. So pre-post, post-flight, pre-flights are always
13 done after the day of DNT is complete and the aircraft
14 is safe.

15 They're typically -- yeah, the pilot, the
16 signer, and the co-pilot are going to pre-flight the
17 aircraft. On occasion, the tester. The scheduled
18 functional check pilot will assist in the pre-flights.
19 They'll typically pre-flight the backup at a minimum,
20 and then time permitting, they'll also assist in the
21 pre-flight on the aircraft itself. The flight schedule
22 aircraft, I should say.

23 After every pre-flight, and really every
24 time we get into the aircraft, you do a walk around
25 inspection, making sure that all panels are closed and

1 everything is attached appropriately, kind of his final
2 sanity check. If you're flying with a junior co-pilot,
3 it's not uncommon to double check the interior latches
4 on the transmission, just because there's nine of those
5 and there's been past H-1 mishaps related to that.

6 You'll also get ATAF prior to walking into
7 the aircraft. So anytime we're walking into the
8 aircraft, it's ATAF and walk around. For post-flight
9 procedures, because there is a relatively higher number
10 of bird and bat activity, that's been, you know, the
11 main focus.

12 It's also a different environment than what
13 we're used to at Camp Pendleton, so we've been pretty -
14 - the first week out here, we were getting a lot of,
15 like, main rotor blade cuff punctures and like -- or
16 delamination on the main rotor blades, which we
17 suspected was just because we're landing in rockier
18 spots than we're used to. So there's been a special
19 attention to that and also signs of bird and bat
20 strikes after flight.

21 For map documentation, the emphasis is on --
22 again, because of just the manpower constraints out
23 here and the scheduling, it's been emphasized by me and
24 the other maintenance officers to the other pilots to
25 be very descriptive on maps and do a lot of

(b) (6)

1 troubleshooting in the cockpit yourself so you're not
2 wasting some, you know, quals time going up to the stat
3 sub-page or something.

4 So getting as much information as possible
5 on the maps, mapping stuff early so that control can
6 come up with a game plan to safely execute the flight
7 schedule, because we have a limited number of aircraft
8 out here. We just have four carriers, four Hueys.
9 What were the other things? What did -- you said pre-
10 flight, post-flight, map documentation?

11 (b) (6) Culture practices, culture.

12 (b) (6) Maintenance practices and
13 culture has been taken very seriously since we got out
14 here. We had a -- kind of an initial week where a lot
15 of stuff was going wrong on the H-1 side. We got out
16 here and, you know, kind of hit the ground running with
17 a pretty ambitious flight schedule and stuff was
18 happening that, you know, nobody got hurt, no real
19 mishaps happened, but stuff like a blade box was
20 unsecured and somebody taxied by and it, you know,
21 broke a window on a Huey.

22 A CDQ -- or excuse me, a -- you know, ABAC
23 guy was hooked up with the cable to an aircraft and,
24 you know, didn't disconnect it and caused some damage
25 pulling out. So every one of those incidents got taken

(b) (6)

1 very seriously and received a high level of attention,
2 caused us to reevaluate our practices so that somebody
3 didn't get hurt. You know, the blade box was taken
4 especially seriously because that could've hurt
5 somebody.

6 So I'd say it's been very emphatic on both
7 the officer, the division officer side, to the workers,
8 and then on the quality assurance department side to
9 take things slow, to recognize the fact that we have a
10 limited aircraft availability, and to not try to force
11 flight hours to happen. I think it's worked out very
12 well, because we have really dedicated maintainers and
13 they've been doing a very good job, but it's a very big
14 emphasis on procedural compliance, just because we
15 recognize there's these additional circumstances.

16 I will say the AMO of the V-22 squadron has
17 had a big part in facilitating that. (b) (6)
18 (phonetic) has taken on ownership over the H-1 Det
19 Maintenance Department. And he's been the first one to
20 kind of beat that drum of procedural compliance and
21 not, you know, let operations drive us into hazardous
22 behaviors. So I will say -- I know I can't really
23 speak to the V-22 maintenance department specifically,
24 but their AMO has been very good as far as that side of
25 the house goes.

(b) (6)

1 (b) (6) Okay, couple final questions.
2 Can you talk about the command relationship between the
3 ACE, you know, detachment, so to speak? So what I'm
4 curious about is you're kind of alluding to it, but can
5 you talk through the relationship between the H-1 Det
6 and the rest of the VMM and kind of how you guys worked
7 together and -- this is to do a little bit more as
8 command relationship and culture between the two
9 groups?

10 (b) (6) I'd say this is my first
11 time ever attaching to an Osprey squadron. I was EDP
12 last year, so I haven't been on. I haven't noticed any
13 particular issues, frankly. The VMM has been very
14 welcoming to us on the H-1 side. We haven't done a ton
15 of -- but this is -- I think this is only the second
16 time that we had done a AFL, EFL stuff with them. We'd
17 only done one escort evolution prior to this, but yeah,
18 they were very accommodating in the planning process
19 and just cultural level.

20 You know, they invited us to their K Court,
21 despite us, you know, showing up only -- we didn't come
22 out with the original deployment, right? We came out
23 late for effectively a two to three-month det. And
24 this is their, you know, six-month deployment. They've
25 been very -- they've been making a very clear effort to

(b) (6)

1 include us and to incorporate us at both, like, the CO,
2 XO, AMO level, and then at the big captain, to the
3 captain level.

4 (b) (6) What about with the GC
5 folks?

6 (b) (6) GC folks? Again, the only
7 interaction I had was with this initial planning for
8 this specific evolution. And again, it was a positive
9 experience. Early to communicate. You know, I've had
10 evolutions like this in the past where I've been
11 halfway through my section brief and the LZ changes.
12 So you know, I kind of expect this type of thing to be
13 unpredictable and kind of a -- not a crapshoot, but,
14 you know, a lot of on the call stuff.

15 And this was a more predictable mission
16 profile than what I've typically seen in the past doing
17 escort. So GC was very communicative early on, and
18 they did a good job communicating their intent for
19 different COVAs, so positive is the short answer.

20 (b) (6) Okay. You mentioned this
21 earlier, too, for the command climate. Would you, you
22 know, and to the best that you can, you know, describe
23 both for the H-1s and the Ospreys, the best that you
24 can, would you say the command climate is more focused
25 on operations or would you say that they're more

(b) (6)

1 focused on maintenance and readiness? Like, kind of
2 what would you say is your assessment?

3 (b) (6) I would say -- I can't
4 honestly speak to the VMM side with a lot of
5 confidence. Like I said, the AMO really does stick up
6 for the maintenance side to an extent that is --
7 surpasses what I'm used to seeing. I would say the
8 home HMLA that I come from and the current command
9 climate is very ops heavy. It's very much driving hard
10 to not only meet our SBTP, but to exceed it, because MA
11 and MAG are directing us that we pick up the slack from
12 other squadrons.

13 So that's been a very big dynamic at our
14 home field squadron, is picking up a lot of frags, you
15 know, doing this Australia Det, and still trying to
16 drive that flight hour requirement. And then
17 maintenance is kind of holding on. I would say that's
18 a dynamic for the H-1 side, but the VMM side, like I
19 said, the AMO has been very emphatic about, screw your
20 flight hours, like, we're doing the safe thing. Does
21 that kind of answer that?

22 (b) (6) Yeah.

23 (b) (6) Yeah.

24 (b) (6) Can you talk to me about your
25 safety culture?

(b) (6)

1 (b) (6) Say it's a strong safety
2 culture. Like I mentioned, the hazards are taken very
3 seriously, and we talk about it very, very quickly as a
4 ready room. So yeah, especially like that first week
5 out here, where stuff was, you know, starting to become
6 a trend. We took a pause and slowed things down and
7 talked it out as a group of pilots and, you know, QA
8 flight line reps to figure out how we could be doing
9 things appropriately.

10 So I'd say it's a strong culture. People --
11 I've had a -- you know, I -- I've had a personal
12 factors, family issue back home since we got out here,
13 and both the Det OIC and the ASO have been very
14 emphatic that if it -- you know, kind of very emphatic
15 on me taking it seriously and to speak up if I was not
16 good to fly. And I felt good to fly, but it -- that's
17 -- there was no stigma associated with raising my hand
18 and saying, hey, I've got this thing going on.

19 (b) (6) Okay. Sure. Would you say
20 there was any duty pressure to exceed operations
21 regardless of any circumstance and then pressure to
22 sign off on aircraft maintenance no matter what?

23 (b) (6) None and no.

24 (b) (6) Okay. Can you describe the
25 relationship between the ACE and the GCE? Like, how

(b) (6)

1 does that -- and, again, a liberal culture,
2 communication, you know, like, is it good? Is it bad?
3 You know, and then, if it is, either kind of how are
4 you making that assessment?

5 (b) (6) Absolutely. Yeah, and
6 again, I only -- my real only real exposure with GCE
7 planning was this evolution, so small sample size, but
8 it was good. They're good at communicating problems
9 early and often. The GCE, there was a question when
10 the Ospreys fell out, or I'm sorry, when the C-27s fell
11 out, and like complying with the Osprey, like over
12 water packs requirements with guys being UET trained.
13 And, like, the GCE was very emphatic, like, we're not
14 trying to do anything sketchy there. Like, let's just
15 take those guys off the flight. So I've had nothing
16 but positive experience with the Victor 31 guys in the
17 planning or in the execution.

18 (b) (6) How do you feel about -- how do
19 you personally feel about the amount of flight hours
20 that you've been getting, and also, how do you feel
21 about the rest of the pilots in the ready room getting
22 flight hours, to include co-pilots that aren't signers?

23 (b) (6) Nothing out of the norm. I
24 would say our HMLA right now is undermanned just due to
25 force design stuff and guys getting kicked out to be

(b) (6)

1 billets, so we're shorthanded. So guys are flying more
2 than I'm used to seeing coming up and that's probably
3 compounded by the -- like, I'm the only -- when I came
4 out here, I was the only section lead.

5 I was one of two section leads that wasn't a
6 WTI or a major. And the other one was a WTO, so on the
7 Cobra side, I should say. So we're -- it's higher than
8 I'm used to, but I -- again, I think there is a strong
9 culture of not doing anything hazardous and there's no
10 real pressure to do something unsafe.

11 (b) (6) But you -- you're satisfied and
12 you're getting a lot of hours?

13 (b) (6) Yes.

14 (b) (6) Okay. I'd like to get a copy
15 of the products that you guys had in your brief for
16 that day.

17 (b) (6) Okay. I can --

18 (b) (6) So I --

19 (b) (6) So my smart pack is with
20 the A and B and I think all of people's need board
21 notes and everything is with the A and B. I can take
22 you over to the planning spaces and show you the
23 digital copies of where stuff is at. And that's going
24 to be the products that we had walking into the
25 aircraft.

(b) (6)

1 (b) (6) Okay, I -- I'll get them from
2 the A and B.

3 (b) (6) Okay.

4 (b) (6) I'll get it all approximately A
5 and B, but we do need access to Jump's computer,
6 though. So we're going to see if we get grab Jump's
7 computer from you guys.

8 (b) (6) Yep. (b) (6) is
9 going to be our NAVO. You can probably speak to him
10 just for accountability purposes.

11 (b) (6) (b) (6)?

12 (b) (6) Yeah, (b) (6),
13 (b) (6).

14 (b) (6) Do you mind letting him know
15 that I --

16 (b) (6) Will do. Yes, sir.

17 (b) (6) Thank you. All right, man. I
18 think last, but not least, is there anything else you
19 want to share with us that can help us, you know, maybe
20 that we haven't discussed?

21 (b) (6) Not that comes to mind,
22 sir. Questionnaires seemed pretty exhaustive.

23 (b) (6) Yeah.

24 (b) (6) But if I think of anything,
25 I'll be sure to communicate it.

(b) (6)

1 (b) (6) Okay. Well, thank you for your
2 time.

3 (b) (6) Yes, sir.

4 (b) (6) I appreciate it.

5 You can end the recording.

6 (End of Audio Recording.)

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CERTIFICATE OF TRANSCRIPTIONIST

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I, (b) (6), a transcriptionist

located in Charlotte, North Carolina, hereby certify:

That the foregoing is a complete and accurate
transcript of the digital audio recording of the
proceeding in the above-entitled matter, all to the
best of my skills and ability.

I further certify that I am not related to any
of the parties to this action by blood or marriage and
that I am in no way interested in the outcome of this
matter.

IN WITNESS THEREOF, I have hereunto set my hand
this 19th day of October, 2022.

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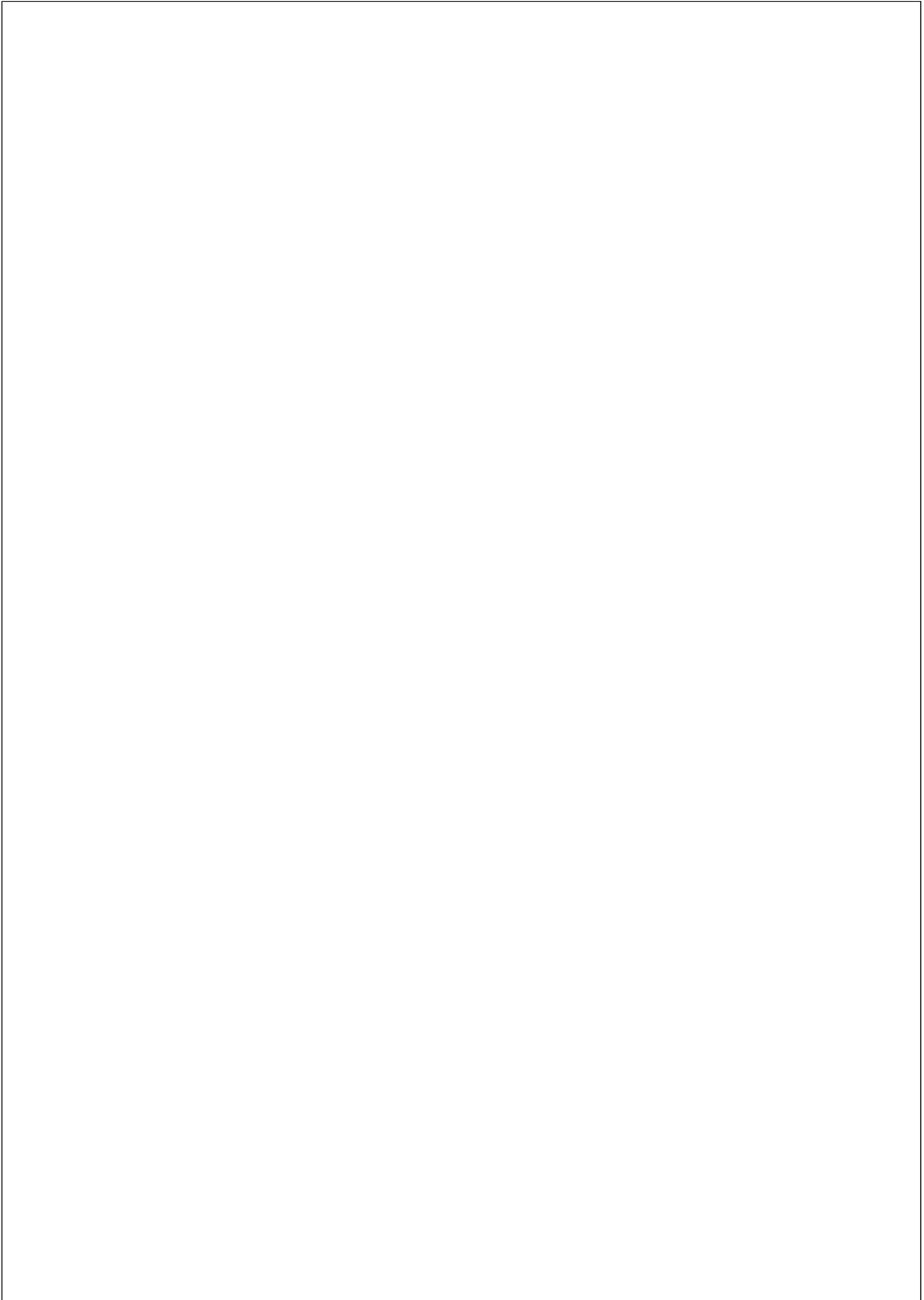
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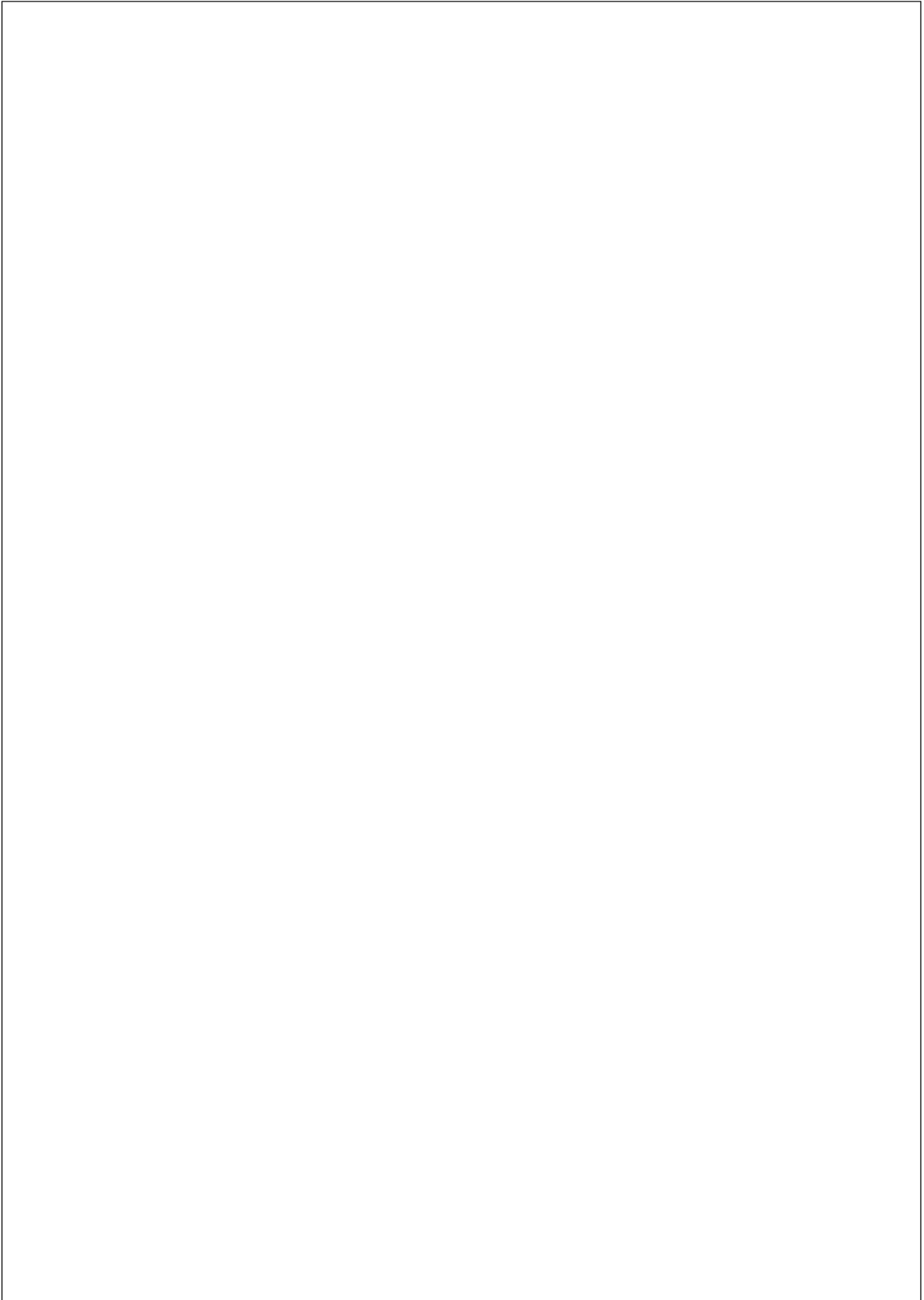
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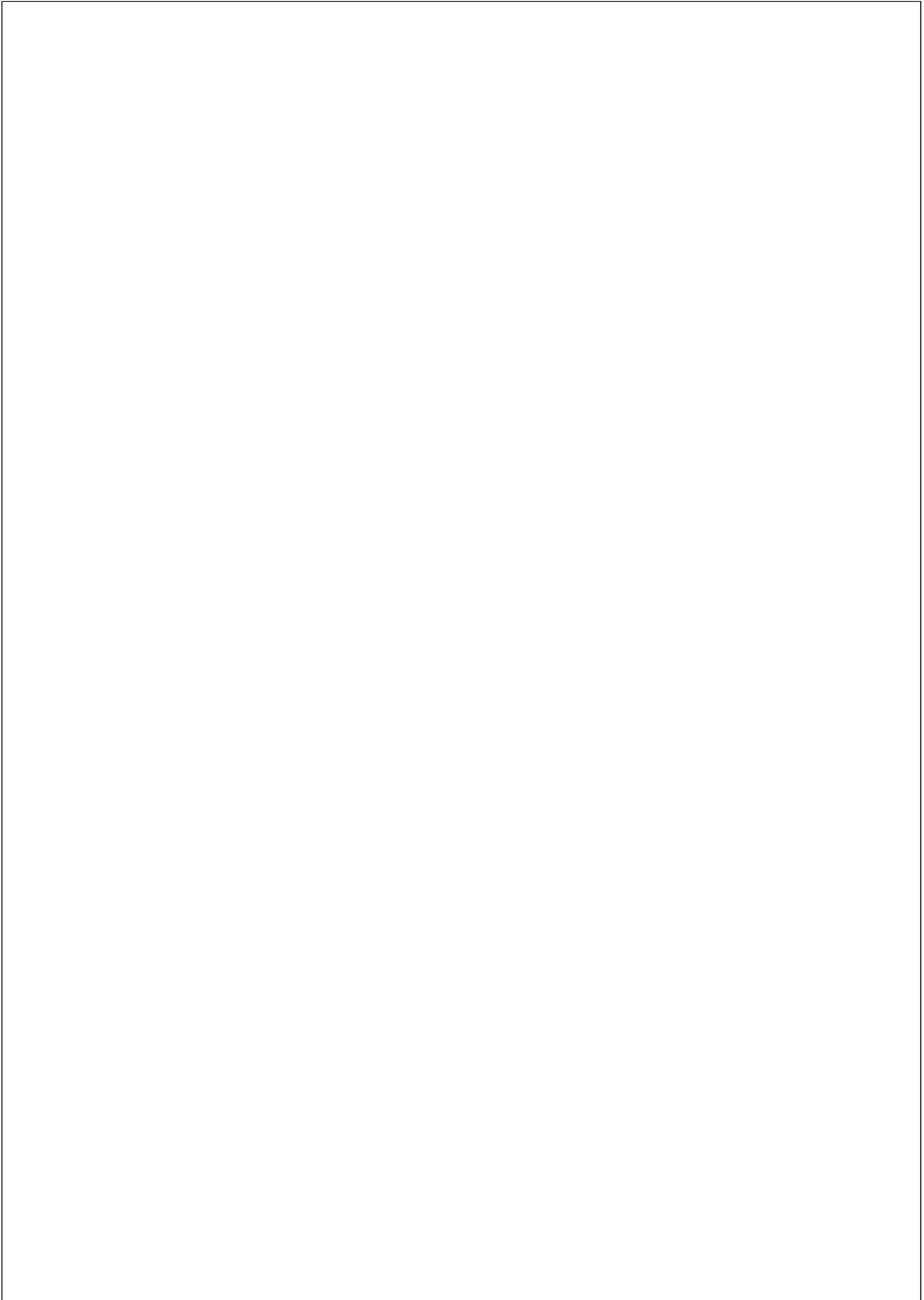
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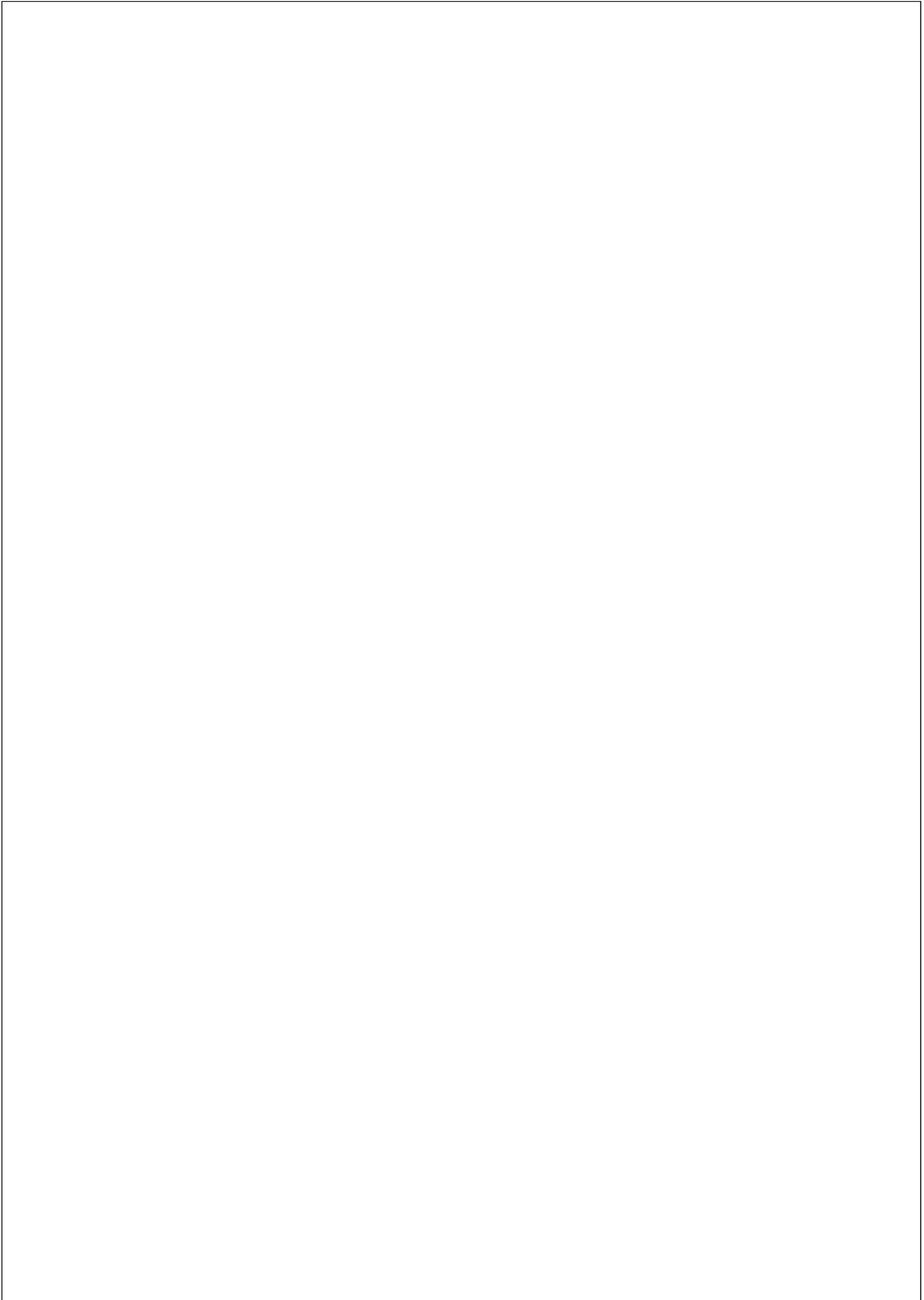
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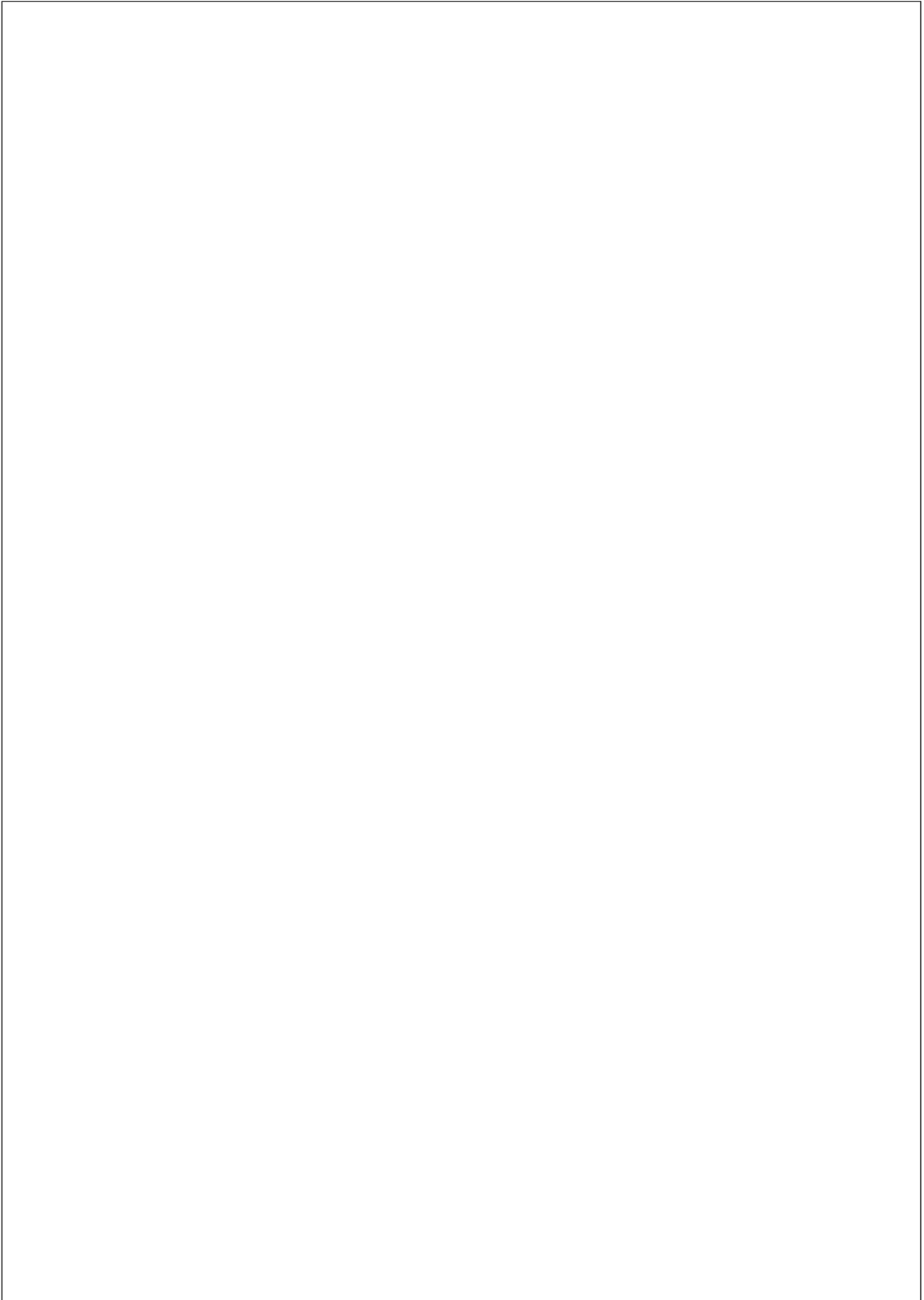
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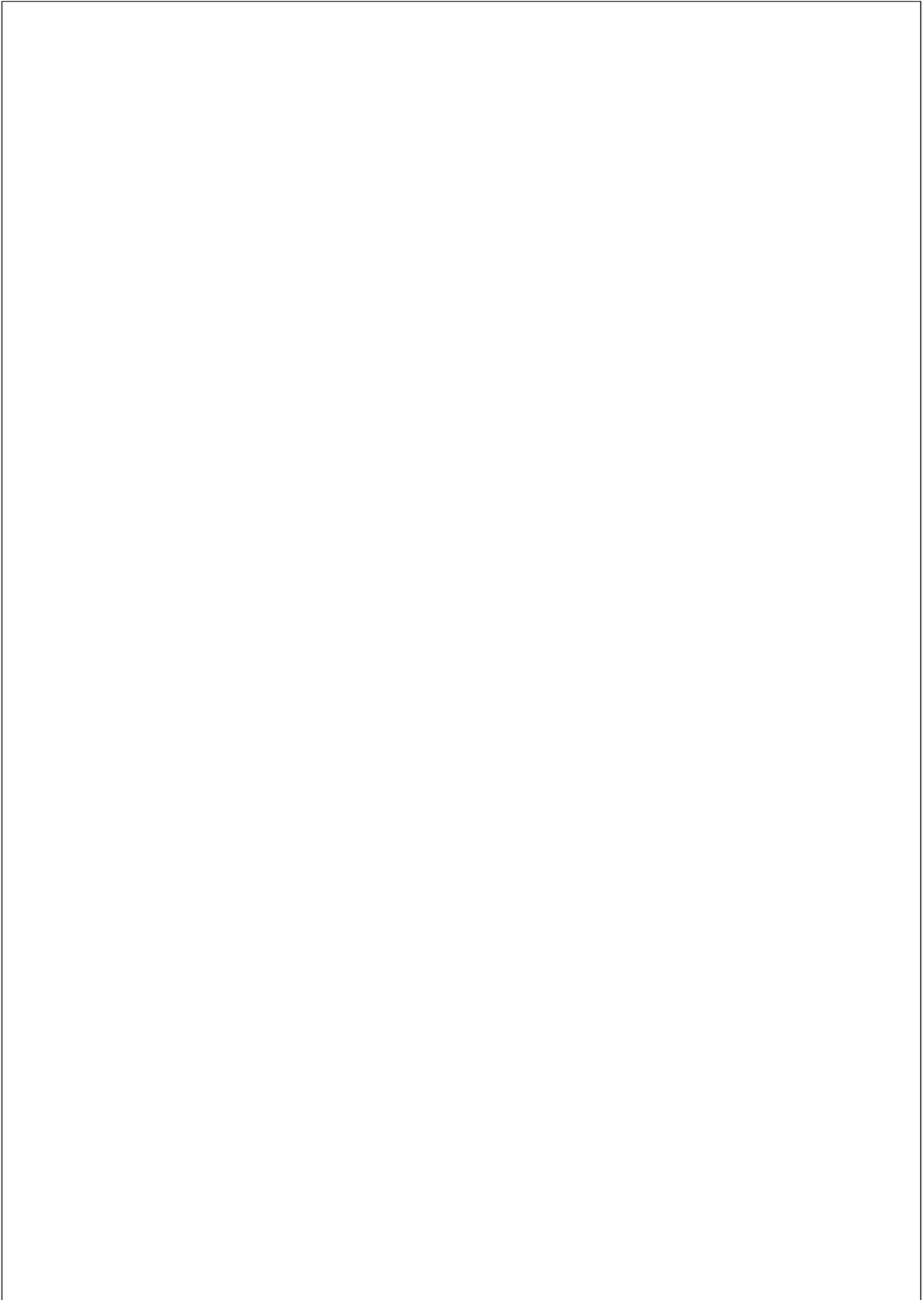


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