



UNITED STATES MARINE CORPS
III MARINE EXPEDITIONARY FORCE
UNIT 35601
FPO AP 96382-5601

IN REPLY REFER TO:
5830
CG
AUG 09 2019

SECOND ENDORSEMENT on (b) (3) (A), (b) (6) ltr 5830 IO of 24 Jun 19

From: Commanding General, III Marine Expeditionary Force
To: File

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION MISHAP OF AN F/A-18D FROM MARINE ALL WEATHER FIGHTER ATTACK SQUADRON 242 AND A KC-130J FROM MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 ON 6 DECEMBER 2018 OFF THE COAST OF JAPAN

1. I have reviewed this investigation and determined it is in substantial compliance with reference (a). No further investigation is warranted. This investigation is closed.
2. On behalf of all the Marines and Sailors of III Marine Expeditionary Force, I want to express my deepest sympathies and heartfelt condolences to the families, friends, and colleagues of (b) (3) (A), (b) (6) b) (6), (b) (3) (A) (b) (3) (A), (b) (6) (b) (3) (A), (b) (6) and (b) (6), (b) (3) (A)
3. The Investigating Officer's findings of fact, opinions, and recommendations, as modified by the Commanding General, 1st Marine Aircraft Wing in his endorsement, are approved with the following comments:
 - a. The multiple, compounding latent and active failures which resulted in this tragic mishap have been brought to light by this investigation and subsequent endorsement. We must all learn from these failures and not repeat them.
 - b. Organizational and resource management decisions by senior leaders of Marine Aircraft Group 12, 1st Marine Aircraft Wing, III Marine Expeditionary Force, and the United States Marine Corps contributed indirectly to this mishap. Marine All Weather Fighter Attack Squadron 242 was forward deployed, fulfilling responsibilities to our Nation's security and obligations to regional stability. However, a chronic history of unconstrained tasking and under-resourcing created a culture of complacency within this squadron towards Marine Corps high standards of leadership, professional conduct, and institutional performance. As Marines, we pride ourselves on a "can do" attitude. However, this mishap highlights the significant and insidious risk to safe operations and warfighting proficiency introduced when discipline erodes and expectations of excellence are compromised on the premise of "can do."
 - c. In accomplishing its mission in the dynamic Indo-Pacific area of operations, 1st Marine Aircraft Wing faces significant challenges in manning, maintaining, and training its squadrons. As a Marine Corps, we must do better to ensure every forward-deployed squadron is at the



UNITED STATES MARINE CORPS

1ST MARINE AIRCRAFT WING

UNIT 37101

FPO AP 96373-7101

IN REPLY REFER TO:

5830

CG

24 JUN 2019

FIRST ENDORSEMENT on (b) (3) (A), (b) (6) ltr 5830 of 24 Jun 19

From: Commanding General, 1st Marine Aircraft Wing
To: Commanding General, III Marine Expeditionary Force

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION MISHAP OF A F/A-18D FROM MARINE ALL WEATHER FIGHTER ATTACK SQUADRON 242 AND A KC-130J FROM MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 ON 6 DECEMBER 2018 OFF THE COAST OF JAPAN

1. Readdressed and forwarded.

2. First and foremost, we mourn the tragic loss of our Marines. On behalf of the Marines and Sailors of the 1st Marine Aircraft Wing (1st MAW), I wish to express my deepest sympathy and sincere condolences to the families, friends, and loved ones of (b) (3) (A), (b) (6)

and (b) (6), (b) (3) (A)

3. In December 2018, the 1st MAW's Marine Aircraft Group 12, stationed at Iwakuni, Japan, was conducting Unit Level Training. This training was essential for the unit to maintain readiness within the Indo-Pacific area of operations. In the early morning hours of 6 December 2018, off the coast of Japan, two USMC F/A-18D Hornet fighter jets assigned to Marine All Weather Fighter Attack Squadron 242 (VMFA(AW)-242) were conducting low light level (LLL) Night Systems Air-to-Air Refueling (NSAAR) with a USMC KC-130J Hercules cargo plane assigned to Marine Aerial Refueler Transport Squadron 152 (VMGR-152). Proper execution of this mission required a detailed plan and technically proficient aircrews.

4. The KC-130J Hercules, call sign Sumo 41, was piloted by (b) (3) (A), (b) (6)

(b) (3) (A), (b) (6)

and (b) (3) (A), (b) (6)

The pilots were assisted by flight crewmen

(b) (3) (A), (b) (3) (A),

and (b) (6), (b) (3) (A)

One F/A-18D Hornet, call sign Profane 12, was piloted by (b) (3) (A), (b) (6) and assisted by weapons system officer (WSO) (b) (3) (A), (b) (6) USMC.

The other F/A-18D Hornet, call sign Profane 11, was piloted by (b) (3) (A), (b) (6)

USMC, and assisted by WSO (b) (3) (A), (b) (6) USMC.

5. At approximately 0130 on 6 December 2018, while flying at an altitude of 15,000 feet, Profane 11 and Profane 12 attached to Sumo 41 for aerial refueling. Profane 11 completed refueling and detached echelon right and was flying on the right side of Sumo 41. After Profane 12 completed refueling, its pilot was directed to detach to the left echelon of Sumo 41, which is a nonstandard position. The pilot of Profane 12 was inexperienced at flying in nighttime LLL conditions and had not previously been briefed that he would assume this nonstandard position.

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Evidence suggests that he lost situational awareness, crossed over the top of Sumo 41, and collided with the rear of the tanker.

6. Sumo 41 was damaged to the extent that it was no longer capable of flying and crashed into the sea. Despite extensive search and rescue operations, there were no survivors from Sumo 41. The remains of three of the five crew members have been recovered and identified as of the date of this endorsement. (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) ejected from Profane 12. (b) (3) (A), (b) (6) was rescued by Japanese maritime self-defense forces and survived. (b) (3) (A), (b) (6) did not survive. His remains were recovered by Japanese maritime self-defense forces. Profane 11 was not involved in the collision and returned safely to Iwakuni after reporting the collision. Thirty-one aircraft and eleven surface ships from Japanese maritime self-defense forces actively participated in the search and rescue effort. I am profoundly grateful for the assistance and tireless efforts by those who searched for and recovered our Marines.

7. Maintenance records show that all aircraft involved had been properly maintained and were fully functional before the collision. There is no evidence to suggest any aircraft malfunction.

8. Toxicology reports indicated the presence of a schedule IV hypnotic sedative, Zolpidem, also known by the trade name "Ambien," in the urine of both (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6). In addition to Zolpidem, (b) (3) (A), (b) (6)'s toxicology report indicated the presence of diphenhydramine, commonly found in over-the-counter cold medications, in his urine. This suggests that (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) were not medically fit for flight duties at the time of the mishap. Neither Marine was authorized to take these medications. The toxicology reports for (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) did not detect the presence of any prohibited substances in their blood or urine. (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) were medically fit for flight duties at the time of the mishap.

9. During the course of this investigation, the Investigating Officer found evidence of collateral misconduct by other officers of VMFA(AW)-242. As a result, I directed a separate investigation (enclosed as part of this investigation). The investigation brought to light a command climate of general unprofessionalism and misconduct in VMFA(AW)-242. Examples of such unprofessionalism included prescription and over-the-counter drug abuse, excessive alcohol consumption, adultery, orders violations, and failures in following fundamental principles of professional aviation training and operations.

10. Information gathered during the investigations led me to lose trust and confidence in the leadership of VMFA(AW)-242. I relieved the Commanding Officer, the Executive Officer, the Operations Officer, and the Aviation Safety Officer of VMFA(AW)-242.

11. During the course of this investigation, I also learned that the 6 December 2018 mishap was the second mid-air collision in recent years between aircraft in VMFA(AW)-242 and VMGR-152 during LLL NSAAR. Another mid-air collision occurred on 28 April 2016 under very similar circumstances that, in my opinion, was not properly investigated. On 23 January 2019, I

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directed an investigation into the 2016 mishap and the reasons for the failure to complete an administrative investigation. The investigation found that on 28 April 2016 an F/A-18D Hornet impacted and sheared off the refueling hose and drogue of the KC-130J, resulting in minor damage to both aircraft. The report of investigation is enclosed as part of this investigation.

12. I concur with findings of fact, opinions, and recommendations of the Investigating Officer with the exception of recommendation (4). There are insufficient findings to support a showing that the MAG-12 Commanding Officer failed in his duties to effectively lead planning and then fully supervise execution. The sequence of events that led to the fatal aviation mishap resulted from individual decisions and squadron-level procedural failures. Additional planning and supervision by the MAG-12 Commanding Officer would not have been able to prevent the causal factors of the aviation mishap. Also, there is no indication that the MAG-12 Commanding Officer was aware of the significant contributing factors to the aviation mishap, which would have allowed him to take corrective measures to prevent it.

13. I recommend that this investigation be closed.

14. The deaths of (b) (3) (A), (b) (6) (b) (6), (b) (3) (A) (b) (3) (A), (b) (3) (A), and (b) (b) occurred "in the line of duty and not due to their own misconduct." The injuries suffered (b) (b) (b) (3) (A), (b) (6) occurred "in the line of duty and not due to his own misconduct." This (b) investigation will be forwarded to their commanding officers to make appropriate entries in the (A) medical and service records.

15. The findings contained within this investigation show the inherent dangers of conducting naval aviation operations, especially those in low light conditions. They reconfirm our need to constantly evaluate risks, identify unsafe conditions, and ensure established internal controls safeguarding operations are being followed in order to safely execute aviation missions.


T. D. WEIDLEY

Copy to:
CG, III MEF
CO, MAG-12
File



UNITED STATES MARINE CORPS

1ST MARINE AIRCRAFT WING

UNIT 37101

FPO AP 96373-7101

IN REPLY REFER TO:

5830

IO

24 Jun 19

From: (b) (3) (A), (b) (6) USMC
To: Commanding General, 1st Marine Aircraft Wing

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Ref: (a) JAGINST 5800.7F (JAGMAN)
(b) 10 U.S.C. 2255
(c) CNAF M-3710.7 of 5 May 2016
(d) WgO 3700.1D (1st MAW SOP for Air Operations) (2015)
(e) SECNAVINST 5100.10K
(f) MCO 5100.29B
(g) DCA WHITE LETTER 2-16
(h) CMC WHITE LETTER 3-16
(i) MCO 3500.27C
(j) NAVMC 3500.14D
(k) NAVMC 3500.50C
(l) F/A-18 ADMIN SOP (Revision 5 of September 2018)
(m) ATP-3.3.4.2 ATP-56 Edition C Version 1 November 2013
(n) ATP-3.3.4.2 US Standards Related Document (SRD)
(o) Air Force Instruction (AFI) 11-2F-16V3 13 July 2016
(p) CSFWPACINST 3500.9G/CSFWLANTINST 3500.4G 26 October 2015
(q) OPNAVINST 3750.6S
(r) Drugs.com website accessed 24 May 2019 "Drug interactions between Ambien and Benadryl"

Encl: (1) CG ltr 5830/CG of 10 December 2018
(2) April 2016 Incident Report
(3) (b) (3) (A), (b) Aircrew Logbook
(4) (b) (3) (A), (b) Flight Equipment Logbook
(5) (b) (6) Fleet Replacement Squadron (FRS) Completion Letter of 25 April 2017
(6) (b) (3) (A), (b) Syllabus Gradesheet Report
(7) (b) (3) (A), (b) Flight Qualifications and Designations of 25 May 2018
(8) (b) (6) Replacement Pilot (RP) Performance Review Board (PRB) Report endorsed 3 February 2017
(9) (b) (3) (A), (b) Tanking Syllabus Gradesheet Report
(b) (6)

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- (10) (b) (3) (A), (b) (6) Event Proficiency Night Systems Air-to-Air Refueling (NSAAR) 2202
- (11) (b) (3) (A), (b) (6) Autopsy Report of 13 February 2019
- (12) (b) (3) (A), (b) (6) Casualty Status Report of 7 February 2019
- (13) (b) (3) (A), (b) (6) Toxicology Report of 13 February 2019
- (14) (b) (3) (A), (b) (6) Prescription Record
- (15) (b) (3) (A), (b) (6) Toxicology Report of 4 January 2019
- (16) (b) (3) (A), (b) (6) Outpatient notes of 8 July 2018
- (17) (b) (3) (A), (b) (6) Outpatient notes of 5 October 2018
- (18) (b) (3) (A), (b) (6) Prescription Record
- (19) (b) (3) (A), (b) (6) Smart Watch Data
- (20) (b) (3) (A), (b) (6) M.D. Statement of 22 February 2019
- (21) VMFA(AW)-242 Flight Schedule and Assorted Training Records
- (22) VMFA(AW)-242 Policy Letters
- (23) VMFA(AW)-242 WhatsApp Company Grade Officer Chat Group Participants and Conversations
- (24) MSCO Naval Flight Record (NAVFLIR) 22 July 2018
- (25) VMFA(AW)-242 Flight Hours Per Month Chart
- (26) VMFA(AW)-242 Crew Event Proficiency – Pilots Chart
- (27) VMFA(AW)-242 Crew Event Proficiency AAR Chart
- (28) VMFA(AW)-242 Hotboard of 13 December 2018
- (29) VMFA(AW)-242 Flight Schedules from 2-5 December 2018
- (30) VMFA(AW)-242 Standard Operating Procedures (SOP) of 1 May 2018
- (31) DCA ltr 3500/ASM-32 of 21 February 2017
- (32) Deployable Flight Information Recorder System (DFIRS) Summary Report of 17 December 2018
- (33) Disaster Relief Operations from Japanese Ministry of Defense of 11 December 2018 (Japanese)
- (34) Disaster Relief Operations from Japanese Ministry of Defense of 11 December 2018 (English)
- (35) Joint Helmet Mounted Cueing System (JHMCS) Mini-Quadeye Integrated Test and Evaluation of 21 March 2008
- (36) Night Vision Cueing and Display (NVCD) Operation Utility Evaluation Final Report August 2013
- (37) Naval Air Systems Command (NAVAIRSYSCOM) Memo of 30 May 2014
- (38) DFIRS Animation of Profane 12 on 6 December 2018
- (39) (b) (3) (A), (b) (6) Watch Photo
- (40) April 2016 AAR Mishap Photo
- (41) Japanese Ship Setoyuki Photo
- (42) NVCD photo
- (43) Inflight cell phone video of NSAAR Formation of October 2016
- (44) MSCO Self-Photo

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- (45) VMFA(AW)-242 CO Formation Photo 1
- (46) VMFA(AW)-242 CO Formation Photo 2
- (47) (b) (3) (A), Self-Photo
- (48) (b) (3) (A), (b) Self-Photo
- (49) (b) (3) (A), (b) (6) Self-Photo 1
- (50) (b) (3) (A), (b) (6) Self-Photo 2
- (51) (b) (3) (A), (b) (6) Interview of 25 January 2019
- (52) (b) (3) (A), (b) Interview of 13 December 2018
- (53) (b) (3) (A), Interview of 13 December 2018
- (54) (b) (6) Interview of 13 December 2018
- (55) (b) (3) (A), (b) (6) Interview of 25 January 2019
- (56) (b) (3) (A), (b) (6) Statement
- (57) VMFA(AW)-242 WhatsApp Company Grade Officer Chat Group Participants and Conversations
- (58) (b) (3) (A), (b) (6) M.D. Statement of 1 March 2019
- (59) Light Level Planning Calendar RAAF Tindall, Australia, of 7 July 2017
- (60) (b) (3) (A), (b) (6) Statement of 9 March 2019
- (61) (b) (3) (A), (b) (6) email to (b) (3) (A), (b) (6) of 5 February 2019
- (62) (b) (3) (A), Interview of 25 January 2019
- (63) Urban Dictionary Definition
- (64) Urban Dictionary Definition
- (65) (b) (3) (A), (b) Interview of 24 January 2019
- (66) Oxford English Dictionary Definition
- (67) F/A-18D 165416 XRAY
- (68) KC-130J 167981 XRAY
- (69) (b) (3) (A), (b) (6) M.D., Statement of 6 March 2019
- (70) CG 1st MAW ltr 3130/G3 of 17 Nov 00
- (71) Screen shot of (b) (3) (A), (b) (6) text with Flight Surgeon (b) (3) (A), (b) (6) 30 November 2018
- (72) VMGR-152 Flight Schedule, Risk Worksheet and Tanker Card for 5 December 2018
- (73) VMFA(AW)-225 Flight Schedules
- (74) VMFA(AW)-242 Flight Schedules
- (75) VMFA(AW)-242 Hotboard of 28 January 2019
- (76) Operations Duty Officer Chronology Log of 6 December 2018
- (77) DD Form 175-1 of 5 December 2018
- (78) JAGMAN Investigation Witness Interview Schedule
- (79) (b) (3) (A), (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) signed privacy act statements of 13 December 2018
- (80) (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) s drawings from interviews of 13 December 2018
- (81) (b) (3) (A), (b) (6) s Flight Qualifications and Designations letters of 10 July 2018 and Replacement Pilot Training Report of 13 June 2014

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- (82) (b) (3) (A), (b) (6) s NAVMC 3500.50B (Aviation Training Records)
- (83) (b) (3) (A), (b) (6) NATOPS and Instrument Check Reports
- (84) MAWTS-1 F/A-18 Night Vision Goggles Training and F/A-18 NFM-500 Tanker Checklist
- (85) (b) (3) (A), (b) (6) IV FAA Airman Details Report
- (86) (b) (3) (A), (b) (6) Rights Acknowledgment and Statement of 19 February 2019
- (87) (b) (3) (A), (b) (6) Chronological Record of Medical Care (b) (3) (A), (b) (6)
- (88) (b) (3) (A), (b) (6) FAA Airman Details Report
- (89) (b) (3) (A), (b) (6) E-mail to (b) (3) (A), (b) (6) 30 January 2019
- (90) NASA Presentation "The Cost of Silence: Normalization of Deviance and Groupthink"
- (91) (b) (3) (A), (b) (6) PMO Records
- (92) (b) (3) (A), (b) (6) NAVFLIR of 6 October 2016
- (93) (b) (3) (A), (b) (6) e-mail of 13 March 2019
- (94) Warfighter Culture Brief of 19 December 2018
- (95) Light Level Planning Calendar Kadena, Japan of 27-30 April 2016
- (96) P 191741Z SEP 08 COTF QRA FA-18 JHMCS NVCD
- (97) CNAF 3710 Section 8.3.2.1
- (98) CNAF 3710 Section 3.7.1
- (99) Light Level Planning Calendar Iwakuni, Japan of 6 December 2018
- (100) Sumo 41 wreckage photo (external fuel tank)
- (101) Sumo 41 wreckage photo (propeller blade)
- (102) Excerpts from AFI 11-2F-16V3 of 13 July 2016 and CSFWPACINST 3500.9G of 26 October 2015
- (103) Press Release of 28 February 2019, "500th unit delivery"
- (104) Profane 11 NAVFLIR
- (105) Sumo 41 Naval Aircraft Flight Record
- (106) VMFA(AW)-242 BUNO 165416 NALCOMIS OMA AADB Summary Report of 6 December 2016
- (107) (b) (3) (A), (b) (6) statement of 23 January 2019
- (108) VMGR-152 BUNO 167981 NALCOMIS OMA AADB Summary Report
- (109) VMGR-152 BUNO 167981 NALCOMIS OMA AADB Summary Report Part A
- (110) MAG-12 Mishap Debris Recovered Brief
- (111) (b) (3) (A), (b) (6) Self-Photo
- (112) VMFAT-101 28 November 2018 Flight Schedule
- (113) VMFA-232 28 November 2018 Flight Schedule
- (114) VMFA-314 28 November 2018 Flight Schedule
- (115) Legal Advisor (LA) extension request 5830/SJA of 5 February 2019
- (116) CG extension approval 5830/CG of 5 February 2019
- (117) (b) (3) (A), (b) (6) line of duty determinations 5830/IO of 28 February 2019
- (118) CG line of duty endorsement 5830/CG of 28 February 2019

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- (119) Paragraph 1.3.4.1.3. of the Marine Corps Task List (MCTL) 2.0 of 1 September 2018
- (120) (b) (3) (A), Aviation Safety Officer Designation Letter of 25 May 2019
- (121) Rank MOS Report 7523
- (122) Rank MOS Report 7525
- (123) III MEF Media Release #18-004 of 11 December 2019
- (124) (b) (3) (A), (b) (6) email of 2 April 2019
- (125) (b) (3) (A), (b) email of 2 April 2019
- (126) (b) (3) (A), email of 2 April 2019
- (127) (b) (3) (A), email of 2 April 2019
- (128) (b) (3) (A), email of 2 April 2019
- (129) (b) (3) (A), Interview of 26 March 2019
- (130) (b) (3) (A), Interview of 26 March 2019
- (131) (b) (3) (A), (b) Interview of 23 January 2019
- (132) (b) (3) (A), Interview of 23 January 2019
- (133) (b) (3) (A), (b) Interview of 23 January 2019
- (134) (b) (3) (A), (b) Interview of 17 January 2019
- (135) (b) (3) (A), (b) Interview of 26 January 2019
- (136) (b) (3) (A), (b) Interview of 26 March 2019
- (137) (b) (6) Interview of 25 January 2019
- (138) (b) (3) (A), (b) Interview of 24 January 2019
- (139) (b) (3) Interview of 16 January 2019
- (140) (b) (3) (A), (b) Interview of 17 January 2019
- (141) (b) (3) (A), Interview of 24 January 2019
- (142) (b) (3) (A), Interview of 24 January 2019
- (143) Relevant Portions from the Fuku Air Traffic Control Transcription captured on 6 December 2018
- (144) LA extension request 5830/SJA and CG approval 5830/CG of 23 April 2019
- (145) MAG-31 Risk Management Practices Table
- (146) HQMC Safety Division Strategy for Aircrew/Flight Excellence (SAFE) Swiss Cheese model of 24 August 2018
- (147) (b) (3) (A), (b) (6) Interview of 24 January 2019
- (148) (b) (3) (A), Interview of 23 January 2019
- (149) (b) (3) (A), (b) (6) ltr 5830/IO of 6 May 2019
- (150) (b) (3) (A), (b) ltr 5830/IO of 12 May 2019
- (151) CG ltr 5830/CG of 5 June 2019
- (152) IO extension request 5830/SJA of 14 June 2019 and CG approval 5830/CG of 18 June 2019
- (153) Sumo 41 Voice Data Recorder Transcription of 6 December 2018
- (154) Sumo 41 Audio Recording CVR_H2 and CVR_H4 of 6 December 2018
- (155) Select Personnel Casualty Reports of Sumo 41 as of 19 June 2019
- (156) Sumo 41 Flight Data Recording of 6 December 2018

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Preliminary Statement

1. This report completes an investigation in accordance with reference (a) and enclosures (1), (115), (116), (144), (151) and (152) to determine the facts and circumstances surrounding the aviation mishap between a F/A-18D and a KC-130J resulting in the death of six Marines and the loss of two aircraft on 6 December 2018 off the coast of mainland Japan.
2. In compliance with reference (a), the Investigating Officer (IO) is not a member of either of the mishap units. In compliance with reference (b), the IO is qualified to conduct this investigation because he is an expert in aviation operations, aerial refueling, risk management, and flight leadership. The IO is an aerial refueling instructor, a former squadron commander, and has flown over 4000 flight hours.
3. (b) (3) (A), (b) (6) Deputy Staff Judge Advocate (SJA), 1st Marine Aircraft Wing (1st MAW), was appointed as the Legal Advisor and provided legal guidance during the course of this investigation. The IO also consulted (b) (3) (A), (b) (6) the 1st MAW SJA, when drafting this report.
4. Three requests for extension were submitted by the investigating officer and approved by the Commanding General, 1st MAW. [Encl. (115-116), (144), (152)]
5. Command Structure: Marine All-Weather Fighter Attack Squadron 242 (VMFA(AW)-242) and Marine Aerial Refueler Transport Squadron 152 (VMGR-152) are subordinate squadrons under Marine Aircraft Group 12 (MAG-12). MAG-12 is one of three MAGs under 1st MAW. VMGR-152, VMFA(AW)-242, and MAG-12 are permanently based at Marine Corps Air Station Iwakuni (MCAS-I) in Iwakuni, Japan.
6. All reasonably available and relevant evidence was collected and reviewed. The Legal Advisor and the IO reported to MCAS-I on 11 December 2018 to begin conducting the investigation. Witnesses provided sworn statements with a court reporter present. Transcripts of the interviews were prepared by certified court reporters from the Legal Services Support Section (LSSS) Pacific, Marine Corps Installations Pacific (MCIPAC). The transcripts are provided as enclosures to this report.
7. The flight data recorder from the F/A-18D was recovered. The retrieved data is contained on a compact disk attached as enclosure (38). The KC-130J cockpit voice data recorder and flight data recorder was recovered on 15 June 2019. The KC-130J data is included in enclosures (153-154), and (156).
8. All times are listed in Japan Standard Time (JST).
9. The findings of fact (FF) are organized by subject area in the following order:

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- A. Identity of the United States Service Members involved in the mishap;
- B. Mishap Flight: Execution, Search and Rescue, Scheduling, and Briefing;
- C. MP1 Background and Training;
- D. MP2 Background and Training;
- E. VMFA(AW)-242 Organizational Climate;
- F. Flight Operations, Training, Scheduling, Human Factors Monitoring, and Risk Management Practices;
- G. Night Vision Goggle utilization during nighttime AAR;
- H. April 2016 Class C mishap parallels to the December 2018 Class A mishap;
- I. Sumo 41 Cockpit Voice Recorder Transcription Excerpts; and
- J. Identification of recovered remains.

Executive Summary

1. In the early morning hours of 6 December 2018, two United States Marine Corps (USMC) F/A-18D Hornet fighter jets assigned to VMFA(AW)-242, and one USMC KC-130J Hercules turbo-prop cargo plane assigned to VMGR-152, were conducting low light level (LLL) Night Systems Air-to-Air Refueling (NSAAR) as part of Unit Level Training (ULT) at an altitude of 15,000 feet. At approximately 0145, one of the two F/A-18D Hornets collided with the USMC KC-130J Hercules.

2. The F/A-18D Hornet [bureau number (BUNO) 165416], whose call sign was Profane 12, was piloted by (b) (3) (A), (b) (6) USMC, and assisted by weapons system officer (WSO) (b) (3) (A), (b) (6) USMC. The KC-130J Hercules (BUNO 167981), whose call sign was Sumo 41, was piloted by (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) USMC. The pilots on the KC-130J Hercules were assisted by enlisted flight crewmen (b) (3) (A), (b) (6), (b) (3) (A), (b) (6) and (b) (6), (b) (3) (A)

3. The other F/A-18D Hornet, whose call sign was Profane 11, was not involved in the collision. It was piloted by (b) (3) (A), (b) (6) USMC, and assisted by WSO, (b) (3) (A), (b) (6) USMC. Profane 11 was in visual formation during the collision.

4. Evidence suggests that after Profane 12 completed NSAAR and detached from Sumo 41, its pilot likely lost situational awareness and impacted the empennage (rear portion) of Sumo 41.

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The impact damaged both aircraft to such an extent that they were no longer flyable. Both pilots in Profane 12 immediately ejected and Profane 12 fell to the sea. (b) (3) (A), (b) (6) did not survive the mishap and his body was recovered by Japanese authorities. (b) (3) (A), (b) (6) survived the crash without significant physical injuries. The pilots and crew of Sumo 41 fell to the sea.

5. There is no evidence to suggest that either aircraft experienced any malfunctions prior to the collision. Evidence shows that both aircraft had been properly maintained and were fully functional before the collision.

6. (b) (3) (A), (b) (6) and (b) (6), (b) (3) (A) died as a result of the mishap. These deaths all occurred in the line of duty.

7. Toxicology reports indicated the presence of a schedule IV hypnotic sedative, Zolpidem, also known by the trade name "Ambien," in the urine of both (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6). In addition to Zolpidem, (b) (3) (A), (b) (6)'s toxicology report also indicated the presence of diphenhydramine, commonly found in over-the-counter cold medications, in his urine. This suggests that (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) were not medically fit for flight duties at the time of the mishap. (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6)'s toxicology reports did not detect the presence of any prohibited substances in their blood or urine, and both Marines were fit for flight duties at the time of the mishap.

8. During the course of this investigation, the IO found evidence of collateral misconduct by other officers of VMFA(AW)-242. As a result, the Commanding General (CG) of the 1st MAW directed a separate command investigation. The investigation found a command climate of general unprofessionalism and misconduct pervaded VMFA(AW)-242. Examples of such unprofessionalism by some of the officers of VMFA(AW)-242 include prescription drug and alcohol abuse, conduct unbecoming an officer, sexually explicit call signs, orders violations, and failures in following fundamental principles about professional aviation training and operations. See enclosure (149).

9. The 6 December 2018 mishap is the second mid-air collision between aircraft in VMFA(AW)-242 and VMGR-152 during LLL NSAAR. A similar mid-air collision occurred on 28 April 2016 under very similar circumstances. A command investigation was not initiated following the 2016 mishap. On 23 January 2019, the Commanding General (CG) of 1st MAW directed a command investigation into the April 2016 mishap to determine whether the mishap was reported correctly, and whether any corrective action was taken by the units involved. See enclosure (150).

Findings of Fact

A. Identity of the United States Service Members involved in the mishap

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a. Deceased Personnel from VMGR-152

1. (b) (3) (A), (b) (6) (b) (6), (b) (3) 7557 USMC was the co-pilot for Sumo 41, a KC-130J Hercules (BUNO 167981), assigned to VMGR-152, MAG-12, 1st MAW. (b) (3) (A), (b) (6) died in the line of duty while performing his assigned military duties. [Encl. (68), (72), (117), (118)]
2. (b) (3) (A), (b) (6) (b) (6), (b) (3) 7557 USMC was the Aircraft Commander for Sumo 41, a KC-130J Hercules (BUNO 167981), assigned to VMGR-152, MAG-12, 1st MAW. (b) (3) (A), (b) (6) died in the line of duty while performing his assigned military duties. [Encl. (68), (72), (117), (118)]
3. (b) (3) (A), (b) (6) (b) (6), (b) (3) 6276 USMC was a Crewmaster for Sumo 41, a KC-130J Hercules (BUNO 167981), assigned to VMGR-152, MAG-12, 1st MAW. (b) (3) (A), (b) (6) died in the line of duty while performing his assigned military duties. [Encl. (68), (72), (117), (118)]
4. (b) (3) (A), (b) (6) (b) (6), (b) (3) 6276 USMC was a Crewmaster for Sumo 41, a KC-130J Hercules (BUNO 167981), assigned to VMGR-152, MAG-12, 1st MAW. (b) (3) (A), (b) (6) died in the line of duty while performing his assigned military. [Encl. (68), (72), (117), (118)]
5. (b) (6), (b) (3) (A) (b) (6), (b) (3) 6276 USMC was a Crewmaster for Sumo 41, a KC-130J Hercules (BUNO 167981), assigned to VMGR-152, MAG-12, 1st MAW. (b) (6), (b) (3) (A) died in the line of duty while performing his assigned military duties. [Encl. (68), (72), (117), (118)]

b. Command Personnel from VMFA(AW)-242

6. (b) (3) (A), (b) (6) USMC [hereinafter referred to as the "Mishap Squadron Commanding Officer" (MSCO)] was the Commanding Officer of VMFA(AW)-242 at the time of the mishap. [Encl. (51)]
7. (b) (3) (A), (b) (6) USMC [hereinafter referred to as the "Mishap Squadron Executive Officer" (MSXO)] was the Executive Officer of VMFA(AW)-242 at the time of the mishap. [Encl. (136)]
8. (b) (3) (A), (b) (6) USMC [hereinafter referred to as the "Mishap Squadron Operations Officer" (MSOPSO)] was the Operations Officer of VMFA(AW)-242 at the time of the mishap. [Encl. (55)]
9. (b) (3) (A), (b) (6) USMC [hereinafter referred to as the "Mishap Squadron Aviation Safety Officer" (MSASO)] was the Aviation Safety Officer of VMFA(AW)-242 at the time of the mishap. [Encl. (129)]

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c. Mishap Aircrews from VMFA(AW)-242

10. (b) (3) (A), (b) (6) USMC [hereinafter referred to as “Mishap Pilot One” (MP1)] was serving as the Aircraft Commander of Profane 11. He was the F/A-18D formation leader, and assigned to VMFA(AW)-242 at the time of the mishap. The formation leader is responsible for the safe and orderly conduct of the formation. [Encl. (21), (52), (74), (79)]
11. (b) (3) (A), (b) (6) USMC [hereinafter referred to as “Mishap Weapons System Officer One” (MWSO1)] was serving as the Mishap Weapons System Officer of Profane 11 and assigned to VMFA(AW)-242 at the time of the mishap. [Encl. (21), (53), (74), (79)]
12. (b) (3) (A), (b) (6) 7523 USMC [hereinafter referred to as “Mishap Pilot Two” (MP2)] was the pilot and Aircraft Commander of Profane 12 (BUNO 165416) assigned to VMFA(AW)-242 at the time of the mishap. [Encl. (21), (67), (74), (79)]
13. (b) (3) (A), (b) (6) USMC [hereinafter referred to as “Mishap Weapons System Officer Two” (MWSO2)] was serving as the Mishap Weapons System Officer of Profane 12 (BUNO 165416) assigned to VMFA(AW)-242 at the time of the mishap [Encl. (21), (67), (74), (79)]

B. Mishap Flight: Execution, Search and Rescue, Scheduling, and Briefing

a. Execution

14. The Naval Aviation Logistics Command Management Information System (NALCOMIS) Organizational Maintenance Activity (OMA) Automated Aircraft Discrepancy Book (AADB) Summary Report for 165416 (Profane 12) shows that MP2 inspected and accepted the aircraft at 2333 on 5 December 2018. The report shows the aircraft was safe for flight. [Encl. (106)]
15. NALCOMIS OMA AADB Summary Report for BUNO 167981 (Sumo 41) shows that (b) (3) (A), (b) (6) inspected and accepted the aircraft at 2350 on 5 December 2018. The aircraft was certified as “safe for flight.” [Encl. (108), (109)]
16. At 0001 on 6 December 2018, Profane 11 and Profane 12 started their auxiliary power units (APUs). [Encl. (52)]
17. At approximately 0030, Sumo 41 departed from MCAS-I. [Encl. (105)]
18. Profane 11 and Profane 12 had a scheduled take-off for 0015 on 6 December 2018. [Encl. (29)]
19. At 0051, Profane 11 and Profane 12 took-off from MCAS-I. [Encl. (104)]

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20. At 0059, Profane 11 checked in with Fuku Control¹ passing 13,300 feet for 15,000 feet. [Encl. (143)]
21. At 0102, Profane 11 contacted Fuku Control and was cleared to switch frequency to 300.2. [Encl. (143)]
22. At 0104, Profane 11 contacted Fuku Control level at flight level 27,00 feet (FL270). [Encl. (143)]
23. At 0110, Profane 11 contacted Fuku Control to cancel radar services and request local altimeter setting. [Encl. (143)]
24. Profane 11 contacted Sumo 41 to establish communications and coordinate aerial refueling. Sumo 41 responded. [Encl. (52), (153)]
25. Sumo 41 selected external lights to covert² with Profane 11 and Profane 12 about 0.5 mile in trail and joining.³ [Encl. (52), (153)]
26. The moon was below the horizon between 0100 and 0530, which indicates LLL conditions. [Encl. (99)]
27. MP1, MWSO1, and MWSO2 were wearing ANVS-11 night vision goggles (NVGs). MP1 believes MP2 was also wearing ANVS-11 NVGs. [Encl. (52)]
28. (b) (3) (A)
(b) (3) (A)
29. Profane 11 and Profane 12 were operating without external lights on during the aerial refueling. [Encl. (52)]
30. The F/A-18 air-to-air refueling (AAR) probe light is white in color. The probe light is not compatible with NVGs, because it causes the NVGs to be overloaded with light from the probe

¹ The Fukuoka Area Control Center manages Japan air traffic in the Fukuoka (region of Japan) airspace.

² Covert lighting is invisible to the naked eye.

³ References (m) and (n), referred to collectively at the "ATP-56" go into detail about covert lighting and night vision goggle (NVG) use during night Helicopter Aerial Refueling (HAAR). Night Fixed Wing Air-to-Air Refueling (FWAAR) is conducted with only with overt lighting, or lights visible to the naked eye, by all other nations and services except USMC TACAIR. The selection of covert (infrared) lights by the KC-130 crew during fighter jet refueling operations is a common practice though not codified in governing directives.

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light. The probe light can only be turned off if all external lights are turned off via a master switch. [Encl. (52)]

31. Profane 11 and Profane 12 joined on Sumo 41. [Encl. (53), (153)]

32. VMFA(AW)-242 Standard Operating Procedure (SOP) for flight operations states on page 16: "Once refueling is complete, receivers will normally be cleared to the Echelon Right position. When all receivers are established in Echelon right and cleared to depart, the flight lead will climb and accelerate at a reduced power setting to at least 1,000 feet above the tanker altitude. The flight lead will then initiate a level or climbing maneuver away from the tanker to establish lateral de-confliction." [Encl. (30)]

33. Profane 11 requested non-standard echelon left formation for Profane 12 after aerial refueling with Sumo 41. [Encl. (52-54), (153)]

34. Sumo 41 granted Profane 11's request for non-standard echelon left formation for Profane 12 post-AAR. [Encl. (52-54), (153)]

35. Profane 11 received fuel transfer from the right side hose. [Encl. (52-54), (153)]

36. Profane 12 received fuel transfer from the left side hose. [Encl. (52-54), (153)]

37. Profane 11 ceased fuel transfer first and formed up with Sumo 41 in the echelon right position. [Encl. (52-54), (153)]

38. Profane 11 was asked by Sumo 41 to provide their BUNO number, and Profane 11 provided their BUNO number. [Encl. (52-54), (153)]

39. At approximately 0128, Profane 12 started receiving fuel when the aircraft was at 15,000 feet and 245 knots (kts). [Encl. (32)]

40. At approximately 0142, Profane 12 ceased fuel transfer. [Encl. (32)]

41. There were no flight control, engine, or subsystem failures recorded prior to 0144 for Profane 12. [Encl. (32)]

42. Profane 11 directed Profane 12 to the non-standard left echelon position. [Encl. (52-54)]

43. Sumo 41 first directed Profane 12 to the right (standard) echelon position, and then Profane 12 requested left (non-standard) echelon position. Sumo 41 approved Profane 12's request and re-directed Profane 12 to the left (non-standard) echelon position. [Encl. (52-54), (153)]

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44. At 0143, Profane 12 was in stabilized flight at an altitude of approximately 15,000 feet above mean sea level (MSL), 236 nautical miles per hour calibrated airspeed (KCAS), and on a heading of 250° to 260° magnetic. [Encl. (38)]

45. MP2 was cross-controlling his aircraft with steady and increasing pressure on the right rudder with increasing left wing down to maintain ground track placing the aircraft in a slipped condition. [Encl. (38)]

46. Profane 12 was asked by Sumo 41 to provide their BUNO number, and Profane 12 provided their BUNO number. [Encl. (52-54), (153)]

47. Seconds before the collision, MWSO1 said “hey, what’s he [Profane 12] doing?” [Encl. (52-53)]

48. Without direction from Sumo 41, Profane 12 crossed over Sumo 41 from the left to the right side, then abruptly corrected back towards Sumo 41 and impacted the rear of Sumo 41 in the vicinity of the right side rear jump door. [Encl. (38), (52-54), (80), (153), (156)]

49. At 0144, Profane 12 experienced an uncommanded pitch and roll. Both aircrew of Profane 12 ejected from the aircraft. [Encl. (32), (52-54)]

50. Sumo 41 was last observed by MP1 and MWSO1 in a nose low wings level attitude, on fire, and entering the cloud tops at about 12,000 feet MSL. [Encl. (52-53)]

51. Sumo 41 impacted the surface of the water approximately 143 kilometers southeast of Kochi, Japan. [Encl. (19), (33), (100), (101), (143)]

b. Search and Rescue

52. At 0147, Profane 11 contacted Fuko Control to report an emergency. [Encl. (143)]

53. At 0150, Profane 11 contacted Fuko Control and passed the crash location as N32 38.6268 E134 38.1244. [Encl. (143)]

54. At 0152, the VMFA(AW)-242 Operations Duty Officer (ODO) received a telephone call from the Air Force Rescue Coordination Center (AFRCC) at Langley Air Force Base (AFB), Virginia (VA), that an emergency beacon had been activated at 0147. [Encl. (76)]

55. At 0153, Profane 11 contacted Fuko Control and asked the question “Looking for confirmation that search and rescue has been notified?” [Encl. (143)]

56. At 0158, the ODO received a telephone call from the AFRCC that a second emergency beacon had been activated. [Encl. (76)]

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57. At 0203, Profane 11 was contacted by Fuko Control to confirm which aircraft were in the water. Profane 11 responded with "Profane 12 is in the water. Sumo 41 is in the water." [Encl. (143)]
58. At 0207, Profane 11 was contacted by Fuko Control asking "to confirm there was a collision between Profane 12 and Sumo 41?" To which Profane 11 responded "Affirmative." [Encl. (143)]
59. At 0213, Profane 11 contacted Fuko Control asking for an "update and search and rescue assets." To which Fuko control responded with "say again" and then "search and rescue should be coming." [Encl. (143)]
60. At 0227, Profane 11 contacted Fuko Control asking for "status of search and rescue." [Encl. (143)]
61. At 0241, Profane 11 attempted to contact Profane 12 on 121.5 with no audible response. [Encl. (143)]
62. At 0243, Profane 11 attempted to contact Sumo 41 on 121.5 with no audible response. [Encl. (143)]
63. At 0248, Fuko Control contacted Profane 11 requesting Profane 11's fuel status to which Profane 11 responded with "15 minutes." [Encl. (143)]
64. At 0251, Fuko Control contacted Profane 11 requesting survivor location to which Profane 11 responded with "Negative. Searching at 10,000." [Encl. (143)]
65. At 0252, Profane 11 contacted Fuko Control advising that they observe a "strobe beacon in the water." [Encl. (143)]
66. At 0254, Profane 11 contacted Fuko Control with a latitude and longitude of a possible survivor. [Encl. (143)]
67. At 0256, Profane 11 contacted Fuko Control and provided the beacon location as N32 37.78 E135 03.16. [Encl. (143)]
68. Fuko Control contacted Profane 11 asking if Profane 11 had observed a parachute or life raft to which Profane 11 responded "negative." [Encl. (143)]
69. At 0311, Profane 11 contacted Fuko Control at flight level (FL) 260 (26,000 feet) requesting to return to Iwakuni direct. [Encl. (143)]
70. At 0312, Fuko Control contacted Profane 11 with squawk 1735, radar contact and cleared Profane 11 direct to MCAS-I at FL330. [Encl. (143)]

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71. At 0314, Fuko Control contacted Profane 11 with clearance to FL360. [Encl. (143)]
72. At 0321, Fuko Control contacted Profane 11 with clearance to change to frequency 227.2. [Encl. (143)]
73. At 0345, Profane 11 landed back at MCAS-I. [Encl. (104)]
74. At 0330, a search and rescue (SAR) operation request was made to the Japanese Central Air Defense Force. Thirty-one aircraft and eleven surface ships from the Japan Maritime Self-Defense Force and the Japan Air Self-Defense Force actively participated in the SAR effort. [Encl. (34)]
75. At approximately 0142, the Japanese Ministry of Defense reported that collision occurred. [Encl. (34)]
76. MWSO2 was in his life raft and reported being very cold and shivering. MWSO2 was not wearing an anti-exposure suit.⁴ [Encl. (54)]
77. It took approximately 4 hours to locate and rescue MWSO2. [Encl. (34), (54)]
78. At 0543, MWSO2, was recovered by a Japanese military SH-60 helicopter and transported to Komatsushima, Japan. [Encl. (34)]
79. At 0611, the VMFA(AW)-242 ODO was notified that MWSO2 was recovered. [Encl. (76)]
80. MWSO2 reported that he banged the left side of his face against the canopy during the mishap but was otherwise uninjured. [Encl. (55)]
81. At 1046, a patrol boat from the Japan Coast Guard spotted a survivor [later identified as MP2] in need of assistance. [Encl. (34)]
82. At 1046, a Japanese SH-60 helicopter from Air Corps 24 proceeded to the site. [Encl. (34)]
83. At 1120, an airborne E-767 from the Japanese Airborne Warning and Control Group started activities such as communication relaying. [Encl. (34)]
84. At 1127, a SH-60 from the Japanese Air Corps 24 started rescue operations for the survivor. [Encl. (34)]

⁴ CNAF 3710.7 states: "Flight personnel have the option to wear the provided anti-exposure suits as a personal decision whenever they deem circumstances merit their use." [Encl. (98)]

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85. At 1128, one UH-60 from the Japanese Hamamatsu Air Rescue was launched from its base to the crash site for search and rescue operations. [Encl. (34)]
86. At 1205, a Japanese Defense Force Ship, the Setoyuki, started rescue operations for the survivor. [Encl. (34), (41)]
87. At 1222, MP2 was brought onboard the Setoyuki. He was then transported via the Japanese SH-60 helicopter to Komatsushima Base and then transported to a civilian hospital in Japan. [Encl. (34)]
88. At 1442, MP2 arrived at the civilian hospital. [Encl. (34)]
89. On 6 December 2018, MP2 was wearing a Garmin Fenix 3 smartwatch. The data from the watch indicated that MP2's heart was beating at an average of 86 beats per minute until approximately 1130. [Encl. (19), (39)]
90. On 6 December 2018, MP2's Garmin smart watch indicates that MP2 was alive on the surface of the ocean from approximately 0145 until approximately 1130 (nine hours and 45 minutes) in 68 degree Fahrenheit water. [Encl. (19), (39)]
91. At 2300, the Marine Corps announced that MP2 was deceased. [Encl. (12), (34)]
92. An autopsy report of MP2 shows multiple abrasions and contusions, subarachnoid hemorrhage (brain bleeding), and explains the remains exhibited signs of drowning. Toxicology reports were negative. [Encl. (11)]
93. The mishap debris field was a 21 mile by 11 mile area located 162 miles from MCAS Iwakuni. [Encl. (110)]
94. United States, Japanese, and Australian joint and combined forces continued search, rescue, and recovery efforts for the crew of Sumo 41 until 11 December 2018. [Encl. (123)]
95. No aircrew with VMFA(AW)-242 were wearing anti-exposure suits.⁵ [Encl. (4), (52-54)]
96. None of the witnesses interviewed from VMFA(AW)-242 have worn or observed others to wear anti-exposure suits while assigned to flight duties at VMFA(AW)-242. [Encl. (51-55), (65), (129-133), (135-142), (147-148)]

⁵ CNAF 3710.7 states: "Actual determination as to when anti-exposure suits must be worn by flight personnel shall be determined by the CO or OIC." [Encl. (98)]

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97. Marine Corps Task (MCT) 1.3.4.1.3 is to provide aerial Search and Rescue (SAR) services to tactical fixed wing aircraft or as requested by adjacent commands or the local community. [Encl. (119)]

98. The 1st MAW has no organic SAR capability. In 2000, the Commanding General of the 1st MAW determined that Japanese SAR assets provide adequate coverage for MAG-12 and removed MCAS-I SAR capabilities. [Encl. (70)]

99. The MAG-12 CO's understanding is that when the Japanese Defense Force is conducting operations, Japanese forces are able to launch SAR within 15 minutes of notification. His further understanding is that when the Japanese Defense Force is not conducting operations, the Japanese SAR assets are on a recall status that may take more than two hours. [Encl. (62)]

100. There was no additional coordination for SAR with the Japanese Defense Force for the MAG-12 ULT. [Encl. (62)]

101. The 1st MAW does not have a Memorandum of Understanding with Japan regarding search and rescue roles and responsibilities. [Encl. (70), (62)]

c. Mishap Flight Scheduling

102. Daily flight schedules should be published and distributed no later than 12 hours prior to first takeoff time, or 1600 local time the working day prior, whichever is earlier. [Ref. (l) para. 1002]

103. At 1920 on 4 December 2018, MWSO2 distributed the 5 December 2018 VMFA(AW)-242 flight schedule via group chat on the messaging software "WhatsApp." [Encl. (57), p. 283]

104. The 1st MAW SOP for Flight Operations states "[f]lights will be described in sufficient detail to clearly define the mission and any special mission requirements, the type of training to be conducted, and the responsibilities of each aircrew member." [Ref. (d)]

105. The 5 December 2018 VMGR-152 flight schedule indicated Fixed Wing Air-to-Air Refueling (FWAAR) and Night Vision Imaging Systems (NVIS) for Sumo 41. [Encl. (72)]

106. The 5 December 2018 VMFA(AW)-242 flight schedule does not include the 2202 Training and Readiness (T&R) code for Night System Air-to-Air Refueling (NSAAR) or any other reference to NSAAR. [Encl. (21), (29)]

107. (b) (3) (A), (b) (6) a senior pilot and division leader with VMFA(AW)-242, said that at some time between 2100 and 2200 on 5 December 2018 he received a call from VMGR-152 regarding aerial refueling. [Encl. (147)].

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108. (b) (3) (A), (b) (6) said aerial refueling was not on the flight schedule for 5 December 2018. He said he relayed the information to MP1 that VMGR-152 was offering aerial refueling on 6 December 2018. [Encl. (147)]

109. MP1, however, said that around 2100 on 5 December 2018, he received a call from (b)(3)(A), (b)(6) aircraft commander for Sumo-41, who was offering aerial refueling on 6 December 2018. MP1 said aerial refueling was not previously on the 6 December 2018 flight schedule. [Encl. (52)]

110. The Operations Duty Officer (ODO) for VMFA(AW)-242 on 5 December 2018 from 1600 to 2400 was (b) (3) (A), (b) (6) USMC, who was a new join pilot with no qualifications. [Encl. (23), (148)]

111. (b) (3) (A), (b) states he answered a phone call from VMGR-152 and handed the phone to MP1. [Encl. (23), (148)]

112. (b) (3) (A), (b) (6) did not inform the ODO of the change in the flight schedule. [Encl. (147), (148)]

113. MP1 did not inform the ODO of the change in the flight schedule. [Encl. (52), (148)]

114. The 5 December 2018 VMFA(AW)-242 flight schedule does not include a red pen change to add the "2202" T&R NSAAR code. [Encl. (21), (29)]

115. The 5 December 2018 VMFA(AW)-242 flight schedule does not include a red pen change to add the tanker notes. [Encl. (21), (29)]

116. ODO turnover occurred sometime after 2200 after the ODO gave VMFA(AW)-242 aircrew the weather and airspace preflight brief. [Encl. (148)]

117. (b) (3) (A), (b) (6) USMC, ODO at the time of the mishap, stated in response to if a schedule change was made: "I don't think I put anything on the flight schedules, Sir. It didn't click for me until later that it wasn't on there." [Encl. (131)]

118. The F/A-18 Administrative Standard Operating Procedures (SOP) mandates "changes to the signed flight schedule require personal approval of the squadron Commanding Officer (CO) or Executive Officer (XO)." [Ref. (l)]

119. The 1st MAW SOP for Flight Operations further restricts changes to the flight schedule by mandating that "the Squadron Commander shall personally approve all changes to the flight schedule. Every change to the flight schedule shall receive the same scrutiny and review as the original schedule." [Ref. (d), para. 1301]

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120. The Mishap Squadron Commanding Officer (MSCO) was not notified of the flight schedule change prior to the mishap flight. [Encl. (51)]

121. The MSCO did not approve the change to the 5 December 2018 flight schedule (the addition of NSAAR). [Encl. (51)]

122. At approximately 2100 on 5 December 2018, MP1 told the Mishap Squadron Executive Officer (MSXO), “we’ve got tankers tonight,” as they passed in the hallway at the VMFA(AW)-242 squadron building. [Encl. (136)]

123. The MSXO assumed, in error, that the approval process for the schedule change had already occurred. [Encl. (136)]

124. At approximately 2200 on 5 December 2018, MSXO checked on the ODO at the ODO desk. [Encl. (136)]

125. MSXO did not ask the ODO about the flight schedule change, and did not review the ODO flight schedule at that time. [Encl. (136)]

d. Mishap Flight Briefing

126. The 1st MAW SOP for Flight Operations directs that “[t]he aviation-series of Naval Tactics Techniques and Procedures (NTTP) manual briefing guide(s) shall be utilized for all briefs. Locally generated briefing guides that incorporate all NATOPS and NTTP requirements may be utilized.” [Ref. (d), para. 2103].

127. At approximately 2300 on 5 December 2018, the VMFA(AW)-242 mishap flight briefing started and lasted approximately 10 minutes. [Encl. (52)]

128. Per the flight schedule, the mishap flight was a “familiarization mission” whose purpose is to “maintain proficiency and familiarity with flight characteristics, limitations and operating procedures.” [Ref (k), para. 2.7.1., Encl. (21)]

129. As the flight leader for the mishap flight, MP1 gave the brief to the VMFA(AW)-242 aircrews. MP1 stated that he started the preflight brief approximately 30 minutes late because he had been talking to (b) (3) (A), (b) on the phone about the Sumo 41 NSAAR. MP1 said that he had not know about the NSAAR before he spoke to (b) (3) (A), (b) at approximately 2200 on 5 December 2018. [Encl. (52)]

130. MP1 stated that he used a briefing guide and the information he passed was “leveraged largely off SOPs, and did go through the NS (night systems) training rules to an extent.” [Encl. (52-53)]

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131. The VMFA(AW)-242 mishap flight briefing did not discuss the use of anti-exposure suits. [Encl. (52)]

132. The Naval Air Training and Operating Procedures Standardization (NATOPS) Program's General Flight and Operating Instructions Manual requires taking the following steps to determine whether use of an anti-exposure suit is required: "(1) Consult with Operations to determine likely alert-to-rescue time. Allow for rescue of all aircrew. (2) Determine the coldest water temperature (rounding down) of which you will be flying. (3) Choose the body fat range that most closely resembles you, underestimating rather than overestimating. (4) Determine functional exposure limit by matching the water temperature row with the type of individual exposure protection available." [Ref. (c), figure 8.1]

133. The VMFA(AW)-242 weather brief for 5 December 2018 does not include weather information for the ITRA-south [the operating area for the mishap flight]. [Encl. (77)]

134. The NATOPS Program's General Flight and Operating Instructions Manual states that "Naval Aviators shall be thoroughly familiar with weather conditions for the area in which flight is contemplated." [Ref (c), para. 4.8.3.1]

C. MP1 Background and Training

135. On 8 August 2012, the Federal Aviation Administration (FAA) issued a commercial pilot certificate to MP1. [Encl. (85)]

136. MP1 was promoted to Capt on 1 November 2012. He has since failed to promote to Major. [Encl. (121)]

137. MP1 finished the F/A-18 Fleet Replacement Squadron (FRS) training in June 2014. He ranked 76 of 97 replacement pilots placing him in the (lower) 29th percentile. [Encl. (81)]

138. MP1 finished the F/A-18 FRS in June 2014 with two unsatisfactory events: Unsafe Basic Airwork and Low Situational Awareness. [Encl. (81)]

139. MP1's performance at the FRS was described as "below average." [Encl. (81)]

140. MP1's performance at the FRS was described as "inconsistent" and that he "struggled when the scripted flight did not go as planned." [Encl. (81)]

141. MP1's Carrier Qualification (CQ) requirement was waived "due to the requirements of CAT I pilots in the Operational Squadrons." [Encl. (81)]

142. On 10 July 2018, VMFA(AW)-242 granted MP1 the following designations and qualifications: Operations Duty Officer, Night Systems, Air Combat Maneuvering, Low Altitude

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Tactics, Section Leader, Low Altitude Tactics Instructor, Division Leader, Forward Air Controller (Airborne), Mission Commander, and Fighter Attack Instructor. [Encl. (81)]

143. As of 13 December 2018, MP1 had flown 33 hours in the previous 90 days, which is more than any other pilot in VMFA(AW)-242. [Encl. (28)]

D. MP2 Background and Training

144. MP2 held a current NATOPS and Instrument qualification in the F/A-18A-D. As of April 2018 he had 430.07 total flight hours and 54.3 total actual instrument hours. [Encl. (83)]

145. MP2 held a Federal Aviation Administration (FAA) single engine land Commercial Pilot certificate issued on 15 June 2016 with an instrument rating. [Encl. (88)]

146. MP2 completed pilot training with the Fleet Replacement Squadron (FRS) Marine Fighter Attack Squadron 101 (VMFAT-101) on 25 April 2017. He ranked 133 out of 139 pilot graduates. He did not carrier qualify due to a field disqualification because of "headwork." His carrier qualification was waived. His performance was documented as below average but that he displayed a positive attitude, was well-respected and was an extremely hard-working Marine Officer. [Encl. (5), (31)].

147. MP2 had four unsatisfactory events at VMFAT-101, including failure to follow correct procedures, below average performance, slow to conduct Immediate Action Procedures, and below average system knowledge. [Encl. (8)]

148. On 3 February 2017, the FRS convened a Performance Review Board (PRB) to review the performance of MP2. [Encl. (8)]

149. MP2 completed primary flight training with a 53.5 Naval Standard Score (NSS) in the 63rd percentile. [Encl. (8)]

150. MP2 completed intermediate training with a 36.2 NSS in the lower 8th percentile. [Encl. (8)]

151. MP2 completed advanced training with a 35.6 NSS in the lower 7th percentile. [Encl. (8)]

152. MP2 completed the required day and night air-to-air refueling (AAR) events at the FRS. [Encl. (5), (6), (9)]

153. As of 5 December 2018, MP2 had flown 13.1 hours in the previous 90 days. [Encl. (28), 82)]

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154. As of 5 December 2018, MP2 had flown 47 hours less than the minimum required 60 hours to be “in the green” in Marine Sierra Hotel Aviation Readiness Program (M-SHARP). [Encl. (28)]

155. M-SHARP is the “training management system for scheduling and logging T&R Events, comparing logged data to community readiness metrics, and formatting readiness data within T&R Program Manual guidance.” [Ref. (j), para 1.02.5]

156. The Marine Corps F/A-18 T&R Manual states that in order to gain proficiency in air-to-air refueling (AAR) T&R code 2201, pilots must “[p]erform all AAR procedures to include: tanker rendezvous, observation position, astern position, refueling procedures, and tanker departure. Six contacts required for completion.” [Ref. (k)]

157. On 21 June 2017, (b) (3) (A), (b) (6) USMC, certified that MP2 was qualified⁶ under AAR T&R code 2201 (Day air-to-air refueling) with one contact.⁷ [Encl. (21), (60)]

158. MP2 would have needed six total contacts to qualify under T&R code 2201. [Ref. (k)]

159. On 21 Jun 2017, MP2 did not complete his initial AAR T&R code 2201, because he only completed one contact. [Encl. (21), (60)]

160. The Marine Corps F/A-18 T&R Manual states “[n]o other T&R events requiring night vision device (NVD) usage may be executed by aircrew until they have completed all events in the night systems (NS) stage.” Once completing all events in the NS stage, a pilot will be certified as “Night Systems Qualified.” [Ref. (k), para. 2.7.4]

161. There are 6 events in the NS stage. [Ref. (k), para. 2.7.4]

162. On 7 July 2017, (b) (3) (A), (b) (6) certified that MP2 was qualified under NSAAR T&R code 2202 (Night air-to-air refueling) with one contact. [Encl. (21), (60)]

163. MP2 would have needed 6 total contact to qualify under T&R code 2202. [Ref. (k)]

164. On 7 July 2017, MP2 did not complete his initial NSAAR T&R code 2202, because he only completed one contact. [Encl. (21), (60)]

⁶ Qualified is define by NAVMC 3500 as a status assigned to aircrew based on demonstration of proficiency in a specific skill. [ref. (k)]

⁷ A “contact” is a successful connection between an aircraft’s refueling probe and a refueling tanker aircraft’s drogue (basket).

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165. On 14 July 2017, (b) (3) (A), (b) (6) USMC, certified that MP2 was Night Systems Qualified (NSQ). [Encl. (3), (21), (82)]

166. MP2 did not have the necessary prerequisites to attempt NSAAR T&R code 2202 on 7 July 2017, because he was not NSQ until 14 July 2017. [Encl. (7), Ref. (k)]

167. MP2 was not NSAAR T&R code 2202 qualified on the night of the mishap. [Encl. (3), (10), (21), (60)]

168. Before the mishap on 6 December 2018, MP2 had only attempted one NSAAR T&R code 2202 contact while attached to VMFA(AW)-242. [Encl. (3), (21)]

169. (b) (3) (A), (b) (6) stated "... if [MP2] demonstrated proficiency in plugging on the tanker, I probably decided to focus the remaining range/flight/scheduled time on other important training objectives. Conducting night intercepts, for example, may have been one of training aspects I elected to prioritize over making repeated contact with the tanker basket." [Encl. (60)]

170. (b) (3) (A), (b) (6) stated "[t]he material readiness condition of the hornet fleet, resulting in limited flight hour availability, paired with the perceived pressure to maintain operational readiness most likely contributed to this decision making process [to truncate training by doing only one plug in lieu of six]." [Encl. (60)]

171. Proficiency as defined by NAVMC 3500.50 is a measure of achievement of a specific skill. In this case six contacts would be required to measure that achievement. [Ref. (k)]

172. M-SHARP is the training management system for scheduling and logging T&R Events, comparing logged data to community readiness metrics, and formatting readiness data within T&R Program Manual guidance. M-SHARP also indicates a pilot's proficiency in T&R Events. During the course of this investigation, it was discovered that M-SHARP was erroneously updating pilot proficiency for NSAAR T&R code 2202 when a pilot conducted day RQD-6109 (day or night strategic aerial refueling) and RQD-6111 (day or night strategic aerial refueling) events. This is referred to as "chaining." [Ref. (j), Encl. (3), (10), (21), (61), (150)]

173. After a pilot successfully demonstrates a particular skill, that pilot will remain proficient in that skill for a particular length of time. This is referred to as the "proficiency period." The proficiency period for NSAAR T&R code 2202 is 365 days. [Ref. (k)]

174. After the 365th day, a pilot must complete six contacts to regain proficiency and be NSAAR T&R code 2202 qualified. [Ref. (k)]

175. M-SHARP erroneously updated MP2's proficiency period for NSAAR T&R code 2202 nine times between 7 July 2017 and 3 August 2018 through chaining events of RQD-6109 and RQD-6111. [Encl. (3), (10), (21)]

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176. An M-SHARP produced VMFA(AW)-242 crew proficiency tracker showed MP2 as current (green) on NSAAR T&R code 2202 on 5 December 2018, even though MP2 had not conducted NSAAR in 517 days. [Encl. (26), (27), (150)]

177. Five hundred seventeen (517) days elapsed from MP2's previous NSAAR T&R code 2202 and the mishap flight. [Encl. (3)]

178. The mishap flight was MP2's first exposure to a night tanker since his initial training in July 2017. [Encl. (3)]

179. MP2's single contact between the probe and drogue⁸ on 7 July 2017 was his only NSAAR T&R code 2202 contact in the Fleet Marine Force (FMF) prior to the mishap. [Encl. (3), (21)]

180. On 7 July 2017, MP2 flew an incomplete NSAAR T&R code 2202 under high light level (HLL) conditions with 96% illumination. [Encl. (21), (59)].

181. MP2 had never attempted a night low light level (LLL) NSAAR T&R code 2202 contact before the mishap. [Encl. (21), (59), (99)]

182. On the night of the mishap, MP2 was neither qualified nor proficient in NSAAR T&R code 2202. [Encl. (10), (21), (59), (60)]

183. MP2 was NSQ and AAR T&R code 2201 proficient on 6 December 2018. He therefore met the prerequisites to attempt an initial NSAAR T&R code 2202 on 6 December 2018. [Encl. (10), (21), (59-60)]

184. On 25 January 2019, the MSOPSO was interviewed. He could not provide any detailed information about MP2's NS experience other than MP2 was trained and qualified to "fly on night vision goggles at night." [Encl. (55)]

185. During his interview MSOPSO said he knew MP2 had been to the night tanker before, "[b]ecause I was in the squadron while we were down in southern frontier in pitch black (summer of 2018), and [MP2] flew at night and went to the tanker." [Encl. (55)]

186. MP2 did not conduct NSAAR during the summer of 2018. [Encl. (3), (10)]

187. The Operations Department of VMFA(AW)-242 relied on M-SHARP to validate their flight schedules. [Encl. (55), (130)]

⁸ The "probe" is the F/A-18 refueling probe which the F/A-18 pilot maneuvers into the KC-130 drogue often referred to as the "basket." The KC-130 maintains a stable flight path to which the F/A-18 joins to effect fuel transfer. [Ref. (m), (n)]

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188. The MSOPSO had not reviewed MP2's training records prior to the mishap. [Encl. (55)]

E. VMFA(AW)-242 Organizational Climate⁹

a. Wrongful Prescription and Over-the-Counter Drug Use

189. The NATOPS General Flight and Operating Instructions Manual states "[t]he use of stimulants and/or sedatives shall only be authorized following the commanding officer's consultation with the wing commander or equivalent, and the flight surgeon. The flight surgeon, furthermore, shall have consulted with his/her supervisor in the aeromedical chain of command." [Ref. (c), para 8.3.3]

190. The NATOPS General Flight and Operating Instructions Manual states "[t]aking drugs prescribed by competent medical authority shall be considered sufficient cause for recommendation of grounding unless their use is specifically approved by a flight surgeon, or a waiver for specific drug use has been granted... Consideration shall be given to the removal of ground support personnel from critical duties, for the duration of the drug effects, if appropriate." [Ref. (c), para 8.3.3]

191. The NATOPS General Flight and Operating Instructions Manual states "[m]edicines such as antihistamines, antibiotics, narcotic pain relievers, etc., obtained by prescription for short term use to treat a self-limited condition shall be discarded if all are not used during the period of medication. Unused quantities of performance maintenance drugs (amphetamines or sleeping pills) shall be returned to the flight surgeon or medical clinic for purposes of strict accountability." [Ref. (c), para 8.3.3]

192. The NATOPS General Flight and Operating Instructions Manual states "[b]ecause of the possibility of adverse side effects and unpredictable reactions, the use of over-the-counter drugs by flight personnel is prohibited unless specifically approved by a flight surgeon." [Ref. (c), para 8.3.3]

193. The CG of 1st MAW did not authorize the use of prescription sleep aids. [Encl. (23), (51-55), (57), (62), (69), (71)]

194. The CO of MAG-12 did not authorize the use of prescription sleep aids. [Encl. (23), (51-55), (57), (62), (71)]

195. The MSCO did not authorize the use of the prescription sleep aids. [Encl. (23), (51-55), (57), (71)]

⁹ The term "organizational climate" is loosely defined as the shared perceptions employees have about their organization and can include attitudes and norms that emerge about topics such as safety. This can affect how a particular unit works and trains. [See Encl. (93), and (94)]

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196. The post-mishap toxicology report of MP1 shows that Zolpidem¹⁰ (a prescription sleep aid) was detected in his urine taken at 0415 on 6 December 2018. [Encl. (13), (86)]

197. When interviewed on 13 December 2018, MP1 denied taking any prescription medications. [Encl. (52)]

198. On 31 May 2018, (b) (3) (A), (b) (6) U.S. Navy (USN), Flight Surgeon for VMFA(AW)-242 in May 2018, prescribed Ambien to MP1 for a short time use as a sleep aid during a period when MP1 was not scheduled to fly. [Encl. (14), (58), (87)]

199. MP1's Ambien prescription expired on 4 June 2018 at which time any remaining medication should have been discarded in accordance with reference (c). [Encl. (14), (58), (87)]

200. The post-mishap toxicology report of MWSO2 shows that Zolpidem phenyl-4-carboxylic acid was detected in his urine taken on 6 December 2018. [Encl. (15)]

201. On 6 July 2018, (b) (3) (A), USN, prescribed Zolpidem to MWSO2. [Encl. (16), (20)]

202. On 13 July 2018, (b) (3) (A), (b) (6)'s prescription of Zolpidem to MWSO2 expired. [Encl. (16), (20)]

203. (b) (3) (A), (b) (6) stated that after 13 July 2018, all remaining medication should have been discarded in accordance with reference (c). [Encl. (16-18), (20)]

204. The post-mishap toxicology report of MWSO2 shows that Diphenhydramine¹¹ was detected in his urine taken on 6 December 2018. [Encl. (15)]

205. (b) (3) (A), (b) (6) USN, Flight Surgeon, VMFA(AW)-242 said that MWSO2 was last prescribed medication on 29 October 2018. (b) (3) (A), (b) (6) said that MWSO2, "should have discontinued using all medications weeks prior to the mishap." [Encl. (16-18), (69)]

206. (b) (3) (A), (b) (6) said that MWSO2 "did not have any active prescriptions and I was not aware of any over the counter (OTC) medication in use at the time of the mishap." [Encl. (16-18), (69)]

¹⁰ Zolpidem is sold by the trade name "Ambien." [Ref (r)]

¹¹ Using diphenhydramine together with Zolpidem may increase side effects such as dizziness, drowsiness, confusion, and difficulty concentrating. Some people may also experience impairment in thinking, judgment, and motor coordination. [Ref (r)]

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207. During his interview on 13 December 2018, MWSO2 was asked “Were you on any prescription medication?” MWSO2 replied, “No. Pretty normal. You know, to the standard, I just drank a little coffee. That was it.” [Encl. (54)]

208. MWSO2 texted (b) (3) (A), (b) (6) the VMFA(AW)-242 Flight Surgeon, “The skipper said he authorized everyone’s [sic] for downers, and possibly uppers.” [Encl. (71)]

209. (b) (3) (A), (b) (6) responded to MWSO2, “I’m sure you know by now but the CG did not authorize go/no-go pills for this ULT thing...” [Encl. (71)]

210. MWSO2 responded to (b) (3) (A), (b) (6) “I didn’t know a CG approval was required. How about Ambien?” [Encl. (71)]

211. On 6 March 2019, (b) (3) (A), (b) (6) said, “I did not prescribe Go/No-Go pills for use during the exercise [at the time of the mishap] to VMFA(AW)-242 aircrew.” [Encl. (71)]

212. (b) (3) (A), (b) (6) refused to issue Ambien to all personnel during the MAG Unit Level Training (ULT). [Encl. (23), (51), (52), (53), (54), (55), (57), (71)]

213. The MSCO stated, “...the use of Ambien is prevalent throughout all of aviation. If you ask the guys coming from OIR [Operation Inherent Resolve] right now, they know whether or not -- how many of their guys are flying six and a half hour [sorties] over Syria right now, all their night shift guys are doing this. And they're doing the opposite too. They're using their go-pills too.” The MSCO then explained that the 1st MAW CG denied the request to use Go/No-Go pills and “so we complied. At least I thought we did.” [Encl. (51)]

214. On 26 March 2019, VMFA(AW)-242’s Pilot Training Officer (PTO) (b) (3) (A), (b) (6) USMC, stated, “[i]f I was flying those night events, and I had a prescription for Ambien, I would have taken Ambien.” [Encl. (130)]

215. That, after clarification, the PTO stated, “I 100% believe that I would have taken Ambien.” [Encl. (130)]

216. (b) (3) (A), (b) (6) a VMFA(AW)-242 WSO, could not correctly describe the approval process for the use of Ambien and further conjectured in error that the MSCO would have approval authority if the flight surgeon was ok with it. [Encl. (65)]

217. VMFA(AW)-242 maintains several WhatsApp chat groups, including an all officers chat group, and a company grade officers chat group. [Encl. (57), (65)]

218. On 3 December 2018, in the all officers chat group, (b) (3) (A), (b) (6) says, “Some aircrew have asked me for go and/or no-go pills.” [Encl. (23)]

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219. On 3 December 2018, in the all officers chat group, (b) (3) (A), (b) (6) says, "Per General NATOPS, 'The use of stimulants and/or sedatives shall only be authorized following the commanding officer's consultations with the wing commander or equivalent, and the flight surgeon. The flight surgeon, further shall have consulted with his/her supervisor in the aeromedical chain of command.'" [Encl. (23)]
220. On 3 December 2018, in the all officers chat group, MSOPSO says, "Wing CG said hard no to performance enhancement. Sorry dudes." [Encl. (23)]
221. On 3 December 2018, in the company grade officer chat group, MWSO2 says, "Everyone shoot doc a message and ask for Ambien, he's playing hard ball issuing it out." [Encl. (57)]
222. On 3 December 2018, in the company grade officer chat group, (b) (3) (A), (b) (6) says, "Well that dude is not a bro. Quoting Natops in a chat..." [Encl. (57)]
223. On 3 December 2018, in the company grade officer chat group, MWSO2 says, "That is very un dude." [Encl. (57)]
224. On 3 December 2018, in the company grade officer chat group, the Mishap Squadron Aviation Safety Officer (MSASO) says, "Talked to him about it today...MAG-12 Flight Surgeon is quoting the CG's directive about 'no performance enhancing....' for the exercise." [Encl. (57)]
225. On 3 December 2018, in the company grade officer chat group, MWSO2 says, "We can get Ambien for a flight to the states but not for this ULT nonsense..." [Encl. (57)]
226. On 3 December 2018, in the company grade officer chat group, MWSO1 says, "Did you ask about the modafinil or just ambo?" [Encl. (57)]
227. On 3 December 2018, in the company grade officer chat group, MP1 says, "Modafinil is shit anyways." He then says "Dextroamphetamine is legit." [Encl. (57)]
228. On 3 December 2018, in the company grade officer chat group, MWSO1 says, "Can we get that?" [Encl. (57)]
229. On 3 December 2018, in the company grade officer chat group, MP1 says, "Think they stopped passing out dex [dextroamphetamine] DoD wide now." [Encl. (57)]
230. On 3 December 2018, in the company grade officer chat group, MWSO2 says, "All I want is Ambo so I can pass out with two screaming kids running around this tiny ass apartment..." [Encl. (57)]
231. On 3 December 2018, in the all officer chat group, (b) (3) (A), (b) (6) says, "FYI: melatonin is a minimum 24hrs grounding." [Encl. (23)]

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232. On 4 December 2018, in the company grade officer chat group, MSASO says, “FYI: melatonin is a minimum 24hrs grounding.” And “Foiled again (b) (3) [MWSO2’s callsign]!” [Encl. (57)]
(A), (b)
(6)

233. On 4 December 2018, in the company grade officer chat group, (b) (3) (A), (b) (6) USMC, says “Hahaha this Doc is ridiculous.” [Encl. (57)]

234. On 4 December 2018, in the company grade officer chat group, MWSO2 says, “Yah this is some nonsense...” [Encl. (57)]

235. On 4 December 2018, in the company grade officer chat group, MSASO says, “#hingedoc.” [Encl. (57)]

236. On 4 December 2018, in the company grade officer chat group, (b) (3) (A), (b) (6) says, “We should demonstrate our willingness to comply with docs bullshit by placing some caffeine pills and melatonin gummies on top of the ODO desk. We can put a “up” and “down” sign next to the appropriate bottle.” [Encl. (57)]

237. On 4 December 2018, in the company grade officer chat group, MSASO replies, “I just had the exact same thoughts...” He then added “[e]xcept...we should get a picture of it on HIS desk.” [Encl. (57)]

b. Normalization of Deviance¹²

238. The MSCO’s Commanding Officer’s Policy Statement on Safety and Force Preservation dated 25 May 2018 states “...respect rules and procedures...” [Encl. (22)]

239. The MSCO’s Policy Statement on Substance Abuse dated 25 May 2018 states that “substance abuse...will not be tolerated.” [Encl. (22)]

240. The MSCO’s Policy Statement on Hazing dated 25 May 2018 states, “Hazing is any conduct whereby a military member... causes another military member... to be exposed to any activity which is humiliating, demeaning, or harmful...” [Encl. (22)]

241. The MSCO’s self-photo profile picture on Whatsapp is available for view by all squadron officers. [Encl. (23), (44)]

¹² In 1996 Diane Vaughan defined the social normalization of deviance as when “people within the organization become so much accustomed to a deviation that they don’t consider it as deviant, despite the fact that they far exceed their own rules for the elementary safety.” [Encl. (90)]

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256. (b) (3) (A), (b) (6) is a junior member of the squadron on his first fleet tour. [Encl. (78), (132)]

257. (b) (3) (A), (b) (6) is referred to as (b) (3) (A), (b) (6) 15 times in writing on the two WhatsApp chats. [Encl. (23), (57)]

258. The first definition in Urban Dictionary defines (b) (3) (A), (b) (6) as a euphemism for the sex act of (b) (3) (A), (b) (6) [Encl. (64)]

259. The all officer Whatsapp chat group includes the comment "Happy almost birthday (b) (3) (A), (b) (6) from (b) (3) (A), (b) (6) USMC, a pilot with VMFA(AW)-242, to (b) (3) (A), (b) (6) on 7 July 2018. [Encl.(23)]

260. (b) (3) (A), (b) (6) USMC, is a first tour WSO serving as the MSCO's adjutant. [Encl. (78), (107)]

261. (b) (3) (A), (b) (6) is referred to as (b) (3) (A), (b) (6) by the MSCO and squadron members. [Encl. (78), (107)]

262. (b) (3) (A), (b) (6) was referred to as (b) (3) (A), (b) (6) 56 times in two separate WhatsApp chat groups, that are visible by all officers of VMFA(AW)-242. [Encl. (23), (57)]

263. The Oxford English Dictionary defines (b) (3) (A), (b) (6) as a slang noun meaning a person employed to stimulate a male pornographic actor's gentile erection. [Encl. (66)]

264. (b) (6), (b) (7)(C) [Encl. (91)]

265. (b) (6), (b) (7)(C) (b) (6), (b) (7) [Encl. (91)]

266. (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) [Encl. (91)]

267. (b) (6), (b) (7)(C) (b) (6), (b) (7) [Encl. (124)]

268. (b) (6), (b) (7)(C) (b) (6), (b) (7) [Encl. (125)]

269. (b) (6), (b) (7)(C) (b) (6), (b) (7) [Encl. (126)]

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270. (b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) [Encl. (127)]

271. (b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) [Encl. (128)]

(b) (6), (b) (7)(C)

272. On 26 July 2018, in the company grade officer chat group, MWSO2 says, "I'm a back seat driver." [Encl. (57)]

273. On 26 July 2018, in the company grade officer chat group, MP1 replies, "At least somebody can drive..... too soon?" [Encl. (57)]

274. MSASO has visibility of, membership in, and participated in the company grade chat group. [Encl. (57)]

275. ASO duties include development, implementation, and execution of a proactive Aviation Safety Program in order to identify and eliminate or control hazards. [Ref. (q)]

276. The ASO has a duty to advise and has direct access to the commander and the Director of Safety and Standardization (DSS) on all matters pertaining to the organization's aviation safety program. [Ref. (q)]

F. Flight Operations, Training, Scheduling, Human Factors Monitoring, and Risk Management Practices

a. MAG-12 Unit Level Training (ULT) Participation

277. MSOPSO and PTO developed the crew assignments for VMFA(AW)-242 for the ULT that occurred in December 2018. [Encl. (55), (130)]

278. MSOPSO and PTO divided the squadron into three cells/shifts in order to achieve a 24 hour cycle. A day cell, a mid-day cell, and a night cell. [Encl. (55), (130)]

279. MSOPSO said, "I broke up quals, capabilities, personal assessment of capabilities, and made sure that there was an equal share in accordance with the Commander's intent in order to have his primaries on the first cell and secondaries on the second cell, meaning day and mid-crew. He wanted to have overlap with his secondaries." [Encl. (55)]

280. MSCO's guidance was to assign officers to the night cell who would have minimal administrative responsibilities and whose absence during normal working hours would have minimal effect on the squadron. [Encl. (51), (55), (130)]

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281. MSCO, MSOPSO, and PTO did not assign a field grade officer to the night cell.¹³ [Encl. (51), (55), (130)]

282. VMFA(AW)-242 has seven field grade officers assigned to the squadron but did not have any field grade officers assigned to the mishap night cell. [Encl. (55)]

283. MSOPSO did not see a problem with not having field grade officers assigned to the night cell. [Encl. (55)]

284. MSOPSO considered the night cell to “be an elevated risk time,” which “was mitigated with a very senior instructor [MP1].” [Encl. (55)]

285. MSOPSO chose MP1 as the lead mission commander of the night cell. [Encl. (55)]

286. MSOPSO “hand-selected” MP1 to lead the night cell.¹⁴ [Encl. (55)]

287. MSOPSO had “full faith and confidence in his [MP1] ability to execute during that time of night.” [Encl. (55)]

288. MSOPSO stated “approval of flight schedule changes would be the top five... That would be CO, XO, OPSO, AMO, and in special circumstances the DOSS [Director of Safety and Standardization].” [Encl. (55)]

289. The VMFA(AW)-242 DOSS at the time of the mishap was (b) (3) (A), (b) (6) USMC. [Encl. (55)]

290. No members of “the top five” were assigned to the night cell the night of the mishap. [Encl. (55)]

291. PTO said, “[w]e don't have an actual weekly schedule that we publish. It was being prepared by the flight officers and the [schedule officers]. And then, I was helping where I could in terms of crew select pool. The [MSOPSO] and I sat down prior to the event when we finally had an idea of what we were supposed to do. And we sat down and were the ones that kind of came up with the walk-through with crews, the crew allocation through, and sat down at his white board and spent an hour kind of going through putting different Marines everywhere.” [Encl. (130)]

¹³ CNAF 3710.7 states: “Since an individual may frequently be the poorest judge of personal fitness, commanding officers shall ensure that flight personnel are adequately observed and appropriate temporary grounding action is taken when necessary.” [Encl. (97)]

¹⁴ CNAF 3710.7 states: “The pilot in command is responsible for the safe, orderly flight of the aircraft and well-being of the crew. The pilot in command may also be the mission commander or formation leader when so designated.” [Encl. (97)]

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292. MSCO, MSXO, MSOPSO, MSASO and PTO all claim to have no knowledge of MSWO2's driving privilege suspension or the associated challenges with his commute to and from work as a member of the third (night) cell. [Encl. (124-128)]

293. MSOPSO attended two MAG-12 planning conferences for the MAG ULT. [Encl. (55)]

294. The second of the two MAG-12 planning conferences was on Wednesday, 28 November 2018. [Encl. (55)]

295. MSOPSO said, "I left the Wednesday's meeting with such confusion that I felt like I had reached exhaustion." [Encl. (55)]

296. MSOPSO stated, "At that meeting, there was a tanker assigned to that VUL.¹⁵ But that VUL significantly changed throughout the execution of the ULT." [Encl. (55)]

297. On 26 January 2019, (b) (3) (A), (b) (6) USMC, the VMFA(AW)-242 mishap schedule writer said, "So things had been changing to an extent and I was not surprised to hear that there was a tanker present even though I had not scheduled one." [Encl. (135)]

298. (b) (3) (A), (b) (6) USMC, the Officer in Charge (OIC) Marine Aviation Training Systems Site (MATSS) Iwakuni, said, "I think there was a lot of confusion in the exercise at the squadron level versus the MAG level there [at VMFA(AW)-242]." [Encl. (139)]

299. (b) (3) (A), (b) (6) USMC, Operations Officer (OPSO), VMGR-152, went to planning meetings routinely at MAG-12. [Encl. (140)]

300. OPSO, VMGR-152, attended the meetings where the OPSO, MAG-12, was present, or when a friction point was being addressed. [Encl. (140)]

301. OPSO, VMGR-152, was not surprised that AAR was being conducted during the mishap flight. [Encl. (140)]

302. OPSO, VMGR-152, expected the AAR mission and had it scheduled for the night of the mishap. [Encl. (140)]

303. OPSO, VMGR-152 said of 5 December 2018, "The plan had changed dramatically that day due to the national day of mourning for George H. W. Bush. We were planning on flying pre-established flows through the whole exercise. We had flown those flows from the squadron level on Monday and Tuesday completely, and it was a huge confidence builder for our squadron. Generated 37 sorties over the course of two days, which was amazing. It was awesome stuff and we were so fired up. And then we got told that we could not fly air-to-air refueling sorties on

¹⁵ VUL stands for "vulnerability window" which means the time period an aircraft plans on being on station.

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Wednesday and our schedule got changed due to the national day of mourning. And we were only allowed to fly assault transport sorties into Pohang that day; however, we were clear to resume air-to-air refueling operations after midnight on the night into morning of the fifth into the sixth on Wednesday.” [Encl. (140)]

304. (b) (3) (A), (b) the VMGR-152 schedule writer and Flight Duty Officer (FDO), when asked if she believed NSAAR to be planned for the mishap event by the KC-130 crews responded with: “I was expecting that.” [Encl. (134)]

305. VMGR-152 had field grade officers assigned to the mishap flight. [Encl. (72)]

306. OPSO, VMGR-152 conducted a squadron level MAG ULT confirmation brief on 30 November 2018. [Encl. (140)]

b. VMFA(AW)-242 Flight Operations, Training, Scheduling, Human Factors Monitoring, and Risk Management Practices

307. At VMFA(AW)-242 the objective for flights hours per pilot per 90 days is 60 hours or more. [Encl. (28)]

308. As of 13 December 2018 not one pilot at VMFA(AW)-242 had met the minimum flight hours requirement in the last 30, 60, or 90 days. [Encl. (28)]

309. As of 28 January 2019, the average total flight time for the last 90 days for all pilots at VMFA(AW)-242 was 10.4 hours. [Encl. (75)]

310. (b) (3) (A), (b) (6) USMC, a pilot in VMFA(AW)-242, stated, “I've only got about 20 hours in this last six months. Without looking at our records right now, but I know most of our air crew are in the same situation right now, sir.” [Encl. (133)]

311. VMFA(AW)-242 flew 28% below Marine Corps average F/A-18 flight hours in FY2018. [Encl. (25)]

312. VMFA(AW)-242 flew 51% below Marine Corps average F/A-18 flight hours in FY2019 to date as of January 2019. [Encl. (25)]

313. On 13 December 2018, in response to questions about time critical risk management, MP1 stated “I have determined that based on ORM, I am the long pole in the tent with 1.4 [hours] in 30 [days]; I haven't tanked in 30 days. Again, I go back to my experience level, with that I have probably gone to the tanker, and during those times – or excuse me -- probably night tanked 400/500 times, and the fair majority of those coming at the hours that we were going flying. I felt comfortable.” [Encl. (52)]

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314. On 13 December 2018, in response to questions about currency and time critical risk management MP1 stated "I was the least current in the [mishap] flight. I had 1.4 hours in 30 days. [MP2], I believe, it was over 10, I think it's 11 point something. And then as far as the WSO's currency, I don't recall off the top of my head as my primary concern was the pilot currency." [Encl. (52)]

315. On 13 December 2018, in response to questions about currency and risk management MP1 stated "There is no currency that we really honor in the [fighter] community for a 2202, other than being night current." [Encl. (52)]

316. On 7 July 2017, MP2 flew his initial NSAAR T&R code 2202. [Encl. (21)]

317. On 7 July 2017, VMFA(AW)-242 flight schedule includes times of moonrise and moonset, low light level time period, and illumination percentage. [Encl. (21)]

318. On 5 December 2018, VMFA(AW)-242 flight schedule does not include times of moonrise and moonset, low light level time period, or illumination percentage. [Encl. (21)]

319. On 7 July 2017, VMFA(AW)-242 flight schedule includes a review by the VMFA(AW)-242 safety department. [Encl. (21)]

320. On 7 July 2017, VMFA(AW)-242 flight schedule includes review by the VMFA(AW)-242 operations department. [Encl. (21)]

321. On 7 July 2017, VMFA(AW)-242 flight schedule includes review by the VMFA(AW)-242 maintenance department. [Encl. (21)]

322. On 5 December 2018, VMFA(AW)-242 flight schedule does not include review by the VMFA(AW)-242 safety department. [Encl. (21), (129)]

323. On 5 December 2018, VMFA(AW)-242 flight schedule does not include review by the VMFA(AW)-242 operations department. [Encl. (21), (129)]

324. On 5 December 2018, VMFA(AW)-242 flight schedule does not include review by the VMFA(AW)-242 maintenance department. [Encl. (21), (129)]

325. On 7 July 2017, VMFA(AW)-242 flight schedule includes NSAAR T&R code 2202. [Encl. (21)]

326. On 5 December 2018, VMFA(AW)-242 flight schedule does not include NSAAR T&R code 2202. [Encl. (21)]

327. On 7 July 2017, VMFA(AW)-242 flight schedule includes tanker notes. [Encl. (21)]

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328. On 5 December 2018, VMFA(AW)-242 flight schedule does not include tanker notes. [Encl. (21)]

329. On 7 July 2017, VMFA(AW)-242 flight schedule includes a Naval Aviation Training and Operations Standardization (NATOPS) Question of the Day (QOD). [Encl. (21)]

330. On 5 December 2018, VMFA(AW)-242 flight schedule does not include a Naval Aviation Training and Operations Standardization (NATOPS) Question of the Day (QOD). [Encl. (21)]

331. On 7 July 2017, VMFA(AW)-242 flight schedule includes an Emergency Question of the Day (EQOD). [Encl. (21)]

332. On 5 December 2018, VMFA(AW)-242 flight schedule does not include an Emergency Question of the Day (EQOD). [Encl. (21)]

333. The following MAG-11 fighter squadrons: VMFAT-101, VMFA-232 and VMFA(AW)-225, flight schedules include review and signatures by their respective safety, operations, and maintenance divisions, and by their Commanding Officers. [Encl. (73), (112), (113)]

334. The MAG-11 squadron, VMFA-314, flight schedules include only the Commanding Officer's signature. [Encl. (114)]

335. MAG-31's flight schedules are signed by only the Commanding Officer. [Encl. (145)]

336. MAG-31's flight schedules are, however, accompanied with ORM worksheets signed by the OPSO, DOSS, and CO. [Encl. (145)]

337. MSCO's previous assignment was as a Marine Weapons and Tactics Squadron – One Instructor who was tasked with providing the highest level of Risk Management training and certifications in the Marine Corps. [Encl. (51)]

338. On 25 January 2019 the MSCO was interviewed and asked to describe the ORM process. He could not describe the ORM process or how ORM was integrated into his flight schedule production process. [Encl. (51)]

339. The MSXO was not assigned in writing the responsibility for execution of the safety program as required by reference (f). [Ref. (f), Encl. (89)]

340. When interviewed on 26 March 2019, the MSXO stated, "I'm the head of the safety program." [Encl. (136)]

341. When interviewed on 26 March 2019, the MSXO was asked, "in your time as the XO for about four to five months before the mishap, how often was the flight schedule brought to you for review before the commanding officer saw it?" MSXO responded "Not often, sir. Minimal.

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Mostly when the schedule writer would do his normal walk and then he'd take it to the CO.” [Encl. (136)]

342. MSASO was designated in writing on 25 May 2018 as the Squadron’s Aviation Safety Officer. [Encl. (120)]

343. MSASO was promoted to the rank of Captain in February 2011, and has not been selected for promotion to Major multiple times. [Encl. (122)]

344. When interviewed on 25 January 2019, the MSOPSO explained “Approval of flight schedule changes would be the top five. It doesn't matter what crew it's coming from. That would be CO, XO, OPSO, AMO. And in special circumstances, the DOSS, I suppose.” [Encl. (55)]

345. MSOPSO’s previous assignment was as Marine Weapons and Tactics Squadron – One Instructor pilot tasked with providing the highest level of Night Systems Instructor training and certifications in the Marine Corps. [Encl. (55)]

346. When interviewed on 25 January 2019 and asked about Night Vision Cueing and Display (NVCD)¹⁶ training, MSOPSO explained “[s]o no dedicated syllabus for it. It was just, Hey, here's this new piece of gear.” [Encl. (55)]

347. MSOPSO was not familiar with the term “eye box” in his interview. [Encl. (55)]

348. MSOPSO described the diopter adjustment on the AN/AVS-9 as providing no benefit. [Encl. (55)]

349. MSOPSO said he would have approved the schedule change for MP2 to go the tanker if MP1 had called him. [Encl. (55)]

350. On 24 January 2019, (b) (3) (A), (b) (6) USMC, a senior WSO and a Top Gun graduate in VMFA(AW)-242, when asked about anti-exposure suit wear in the context of this mishap, replied, “68 degree water, no.” When asked at night? He replied, “[n]o.” When asked even if it was in the context of this mishap, so 2 a.m., 200 miles offshore you would also not be wearing a dry suit? He replied, “[n]o. 68 degree water, I wouldn't wear it. They're a huge pain. Do you know what I mean?” [Encl. (138)]

¹⁶ The Night Vision Cueing and Display (NVCD) is an additional capability to the Joint Helmet Mounted Cueing System (JHMCS) allowing the cueing of weapons and sensors at night while also providing the JHMCS standard “head up display” data over the eye in addition to camera video recording of the pilot’s viewpoint. The NVCD is designed to allow near day time tactics at night.

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351. In response to the question from how long would take from when a pilot initiated ejection 162 nautical miles (nm) from MCAS-I until a SAR vehicle (helicopter) would be overhead to effect a recovery of a downed crewman, (b) (3) (A), (b) (6) USMC, a senior pilot in VMFA(AW)-242 and the squadron DOSS until November 2018, stated, "I think it's 60 minutes."¹⁷ [Encl. (141)]

352. On 24 January 2019, when asked the question "How did you participate in the ULT? What was your role?" (b) (3) (A), (b) (6) USMC, a senior pilot and the Assistant OPSO in VMFA(AW)-242, responded "I was just a pilot. Aircrew, in it." [Encl. (142)]

353. The HQMC Safety Division Strategy for Aircrew/Flight Excellence (SAFE) Swiss Cheese model of 24 August 2018 is used for risk analysis and risk management. The model depicts many layers of defense between hazards and accidents. When there are flaws (holes) in each layer (slices) that align, accidents can occur. [Encl. (146)]

c. VMGR-152 Flight Operations, Training, Scheduling, Human Factors Monitoring, and Risk Management Practices

354. CO, VMGR-152 reviews all the information on the flight schedule. [Encl. (137)]

355. CO, VMGR-152 is "the last, the final sanity check" for the flight schedule. [Encl. (137)]

356. VMGR-152 flight schedules are reviewed and signed by air crew training where proficiency of air crew is verified and appropriate personnel (i.e. instructors) are assigned to the mission. [Encl. (72), (137)]

357. VMGR-152 flight schedules are reviewed and signed by DOSS, which utilizes M-SHARP as well as an organic tracker. [Encl. (72), (137)]

358. VMGR-152 flight schedules are reviewed and signed by the OPSO. [Encl. (72), (137)]

359. VMGR-152 flight schedules are reviewed and signed by the aviation maintenance officer (AMO). [Encl. (72), (137)]

360. VMGR-152 flight schedules include a risk assessment worksheet. [Encl. (72)]

G. Night Vision Goggle utilization during nighttime AAR

361. The VMFA(AW)-242 mishap aircrews were using the NVCD, ANVS-11 (model number) night vision goggles. [Encl. (52)]

¹⁷ From ejection to recovery of MWSO2 took about four hours. [Encl. (34), (54)]

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362. (b) (3) (A) [Redacted]
(b) (3) (A) [Redacted]
(b) (3) (A) [Redacted] [Encl. (35-36), (96)]

363. (b) (3) (A) [Redacted]
(b) (3) (A) [Redacted] [Encl. (36)]

364. (b) (3) (A) [Redacted]
(b) (3) (A) [Redacted] [Encl. (36)]

365. (b) (3) (A) [Redacted]
(b) (3) (A) [Redacted] [Encl. (35-36), (42), (96)]

366. (b) (3) (A) [Redacted] [Encl. (36)]

367. (b) (3) (A) [Redacted]
(b) (3) (A) [Redacted] [Encl. (35-37), (52), (55), (103)]

368. (b) (3) (A) [Redacted]
(b) (3) (A) [Redacted]
(b) (3) (A) [Redacted] [Encl. (102)]

H. April 2016 Class C mishap parallels to the December 2018 Class A mishap

369. During the course of this investigation it was discovered a midair collision occurred under similar conditions in 2016. [Encl. (132)]

370. A separate investigation was conducted. The investigation showed that on 28 April 2016 there was a Class C aviation mishap between a F/A-18D from VMFA(AW)-242 and a KC-130J from VMGR-152. [Encl. (150)]

371. The cause of the midair collision was the mishap pilot's (hereinafter referred to as "MP2016") flight control inputs, which caused the mishap aircraft to turn into the mishap tanker (MT2016), make contact with the fuel drogue, and shear off a portion of the MT2016 hose and the fuel drogue. [Encl. (40), (150)]

372. The investigation showed that there were failures in VMFA(AW)-242's mission planning, operational risk management, and risk assessment that contributed to the Class C aviation mishap. The investigation also demonstrated that there were improper baselining of event codes and erroneous chaining of event codes for the MP2016 prior to the mishap flight. [Encl. (150)]

373. The investigation showed that the leadership of MAG-12, VMFA(AW)-242, and VMGR-152 undervalued the cost estimates of the damage from the aviation mishap. [Encl. (150)]

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374. There was a delay in convening the Aviation Mishap board (AMB), which was eventually convened on 16 June 2016. [Encl. (150)]

375. Prior to the 2019 command investigation (Encl. 150), there was no administrative investigation into the 28 April 2016 Class C mishap as required by JAGINST 5800.7F and OPNAVINST 3750.6S. [Encl. (150)]

376. The F/A-18 mission in 2016 was flying in the vicinity of Kadena Air Force Base (AFB) Okinawa, Japan. The light level for Kadena AFB on 28 April 2016 was low light level (LLL)(no moon). [Encl. (95), (150)]

377. The light level for MCAS Iwakuni on 5 December 2018 was LLL. [Encl. (72)]

378. MP2 and MP2016 were both conducting LLL NSAAR for the first time. [Encl. (21), (150)]

379. MP2 and MP2016 were not scheduled for NSAAR T&R code 2202 during their respective mishaps. [Encl. (21), (150)]

380. The mishap flight schedules from 2016 and 2018 did not include review by operations officers, safety officers or maintenance representatives. [Encl. (21), (150)]

381. The mishap flight schedules from 2016 and 2018 exclude flight notes with tanker details. [Encl. (21), (150)]

382. The mishap flight schedules from 2016 and 2018 exclude NQOD and EQOD. [Encl. (21), (150)]

383. The mishap flight schedules from 2016 and 2018 lack solar lunar data. [Encl. (21), (150)]

384. The mishap flight schedules from 2016 and 2018 did not use a Risk Assessment Worksheet (RAW). [Encl. (21), (52-54), (150)]

385. Both MP2 and MP2016 erroneously showed “green” for NSAAR T&R code 2202 in M-SHARP during scheduling validation due to chaining error. [Encl. (21), (150)]

386. MP2 and MP2016 attempted to arrive and/or depart in the KC-130J in a non-standard manner. [Encl. (52-54), (150)]

387. MP2 and MP2016 conducted fuel transfer while wearing night vision goggles. [Encl. (52-54), (150)]

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388. MP2016's F/A-18 came within approximately 5-10 feet from colliding with the KC-130 tanker refueler. MP2's F/A-18 collided with the rear of the KC-130 that it was refueling from. [Encl. (56)]

I. Sumo 41 Cockpit Voice Recorder Transcript Excerpts

389. Recorder elapsed time 01:07:08 Tanker Common: Profane 11, "Profane 11 request disconnect echelon right." [Encl. (153)]

390. Recorder elapsed time 01:07:11 Tanker Common: Sumo 41, "That is approved as requested." [Encl. (153)]

391. Recorder elapsed time 01:07:12 Tanker Common: Profane 11, "Profane 11." [Encl. (153)]

392. Recorder elapsed time 01:07:16 Sumo 41 intercom: "disconnect right." [Encl. (153)]

393. Recorder elapsed time 01:07:19 Sumo 41 intercom: "11 is moving to the right – echelon." [Encl. (153)]

394. Recorder elapsed time 01:07:27 Tanker Common: Sumo 41, "And... 11, you have a buno for me?" [Encl. (153)]

395. Recorder elapsed time 01:07:31 Tanker Common: Profane 11, "Affirm, Aircraft 9 buno 164662." [Encl. (153)]

396. Recorder elapsed time 01:07:38 Tanker Common: Sumo 41, "copy." [Encl. (153)]

397. Recorder elapsed time 01:07:41 Sumo 41 intercom: "and...11 is stable right echelon." [Encl. (153)]

398. Recorder elapsed time 01:08:17 Sumo 41 intercom: "disconnected left." [Encl. (153)]

399. Recorder elapsed time 01:08:23 Tanker Common: Sumo 41, "Profane 12 looks like you are complete approved to echelon right." [Encl. (153)]

400. Recorder elapsed time 01:08:29 Sumo 41 intercom: "uh, oh, was it intentional?" [Encl. (153)]

401. Recorder elapsed time 01:08:31 Tanker Common: Profane 12, "request echelon left if able." [Encl. (153)]

402. Recorder elapsed time 01:08:34 Tanker Common: Sumo 41, "That's approved. And, uh, what are you guys up to tonight?" [Encl. (153)]

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403. Recorder elapsed time 01:08:38 Tanker Common: Profane 11, "Whole lotta' nothin'." [Encl. (153)]

404. Recorder elapsed time 01:08:39 Tanker Common: Sumo 41, "yeah. Same-Same." [Encl. (153)]

405. Recorder elapsed time 01:08:42 Tanker Common: Sumo 41, "Hey, uh, you guys coming back at all?" [Encl. (153)]

406. Recorder elapsed time 01:08:44 Tanker Common: Profane 11, "Uh, we are thinking about it. Whatta ya think? You guys got enough gas for us?" [Encl. (153)]

407. Recorder elapsed time 01:08:49 Tanker Common: Sumo 41, "[chuckles] we got a ton of gas, yeah, absolutely." [Encl. (153)]

408. Recorder elapsed time 01:08:51 Tanker Common: Profane 11, "Alright." [Encl. (153)]

409. Recorder elapsed time 01:08:53 Sumo 41 intercom: "12 moving to the left echelon." [Encl. (153)]

410. Recorder elapsed time 01:08:54 Tanker Common: Profane 11, "We are gonna go blow the burners a little." [Encl. (153)]

411. Recorder elapsed time 01:08:57 Tanker Common: Sumo 41, "Hey, uh, Profane 12, you got a, uh, buno?" [Encl. (153)]

412. Recorder elapsed time 01:08:59 Tanker Common: Profane 12, "yeah, uh Profane 12, side number 11, buno 165416." [Encl. (153)]

413. Recorder elapsed time 01:09:11 Tanker Common: Sumo 41, "ah, 41 copies." [Encl. (153)]

414. Recorder elapsed time 01:09:12 Sumo 41 intercom: "What the hell do these guys..." [Encl. (153)]

415. Recorder elapsed time 01:09:16 Tanker Common: Profane 11, "If you guys will go ahead and start a left turn the middle of the area we will give you a little show on the way out." [Encl. (153)]

416. Recorder elapsed time 01:09:18 Sumo 41 intercom: "fuck yeah." [Encl. (153)]

417. Recorder elapsed time 01:09:21 Tanker Common: Sumo 41, "ah, 41, left turn." [Encl. (153)]

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418. Recorder elapsed time 01:09:23 – 01:09:55 Sumo 41 intercom “are they gonna fucking burn by both of us on each side? Dude I was about to ask like can they do something cool like we used to? Nobody does that shit anymore. Never. I fucking like it guys. Excited. [TCAS: Traffic. Traffic.] Whata you say a left turn to, uh back towards ah, actually this is perfect. 12 is crossing over the top from left to right. Oh.. sheeitt....what they gonna do? Visual on one. There you go (b) (3)” [Encl. (153)]

419. Recorder elapsed time 01:10:00 Sumo 41 intercom: wind noise and non-descript hollering. [Encl. (153), (156)]

J. Identification of recovered remains

420. On 14 June 2019 the Armed Forces Medical Examiner reported that an analysis of recovered remains from Sumo 41 recovery operations yielded a positive identification of (b) (3) (b) (3) [Encl. (155)]

421. On 16 June 2019 the Armed Forces Medical Examiner reported that an analysis of recovered remains from Sumo 41 recovery operations yielded a positive identification of (b) (3) (b) (3) (A), [Encl. (155)]

422. On 16 June 2019 the Armed Forces Medical Examiner reported that an analysis of recovered remains from Sumo 41 recovery operations yielded a positive identification of (b) (3) (A), [Encl. (155)]

423. As of 19 June 2019 the Armed Forces Medical Examiner has not been able to identify the remains of either (b) (6), (b) (2) (A) or (b) (3) (A), [Encl. (155)] The Armed Forces Medical Examiner has indicated the likelihood of identifying (b) (6), (b) (2) (A) and (b) (3) (A), is extremely low. [Encl. (155)]

Opinions

A. Line of Duty Determinations

1. MP2 died in the line of duty (LOD) not due to his own misconduct. [FF. (14-101)]
2. MWSO2’s injuries occurred in the LOD not due to his own misconduct. [FF. (14-101)]

B. Causal Factor

3. On 6 December 2018, at approximately 0142, Profane 12 completed NSAAR and detached from Sumo 41. MP2 subsequently lost situational awareness and impacted the empennage (rear portion) of Sumo 41. MP2’s flight control inputs caused the mishap aircraft to collide with stabilized formation leader, Sumo 41. The collision damaged the KC-130J elevator control surfaces to the point that Sumo 41 was uncontrollable. Sumo 41 pitched nose down and

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impacted the water at high speed. The collision also damaged the F/A-18D to the point that Profane 12 was uncontrollable and the crew ejected. [FF. (14-101)]

C. Significant Contributing Factors

4. There were several contributing factors that led to MP2 being placed in the situation where he lost situational awareness and collided with the tail section of Sumo 41. Specifically, there were four significant contributing factors that led to MP2's loss of situational awareness and impact into Sumo 41: (1) MP2's lack of proficiency with NSAAR; (2) inadequate supervision by VMFA(AW)-242; (3) MP2's consistent below average performance; and (4) the unprofessional command climate at VMFA(AW)-242.

a. MP2's Lack of Proficiency with NSAAR. The primary contributing link to the chain of events that led to the tragic mishap was the fact that MP2 was not qualified or current to perform a NSAAR T&R code 2202 event (nighttime aerial refueling) on 6 December 2018. The mishap flight was MP2's first exposure to a night tanker since his initial training on 7 July 2017. A series of failures, on multiple levels, led to MP2 attempting a NSAAR T&R code 2202 event on 6 December 2018.

(1) Insufficient Contacts for Initial NSAAR T&R 2202 Code. Prior to the mishap, MP2 and his instructor incorrectly certified that MP2 completed NSAAR T&R code 2202 event. Completion of NSAAR T&R 2202 code requires six nighttime contacts with the fuel drogue. However, MP2 only completed one out of six nighttime contacts with the fuel drogue, which was insufficient to receive qualification and proficiency for the initial NSAAR T&R 2202 code.

(2) Insufficient Contacts for Initial AAR T&R 2201 Code. AAR T&R 2201 code is a prerequisite for NSAAR T&R 2202 code. After MP2's initial AAR T&R code 2201 event, MP2 and his instructor incorrectly certified that MP2 completed his initial AAR T&R code 2201 event. Completion of AAR T&R code 2201 requires six daytime contacts with the fuel drogue. However, MP2 only completed one out of six daytime contacts with the fuel drogue, which was insufficient to receive qualification and proficiency for the initial AAR T&R 2201 code.

(3) Erroneous Chaining of M-SHARP. Then, M-SHARP erroneously updated MP2's proficiency period for NSAAR T&R code 2202 nine times between 7 July 2017 and 3 August 2018 through chaining events of RQD-6109 and RQD-6111. Because of erroneous chaining, M-SHARP showed that MP2 was proficient for NSAAR despite not having conducted NSAAR for 517 days (the proficiency period is 365 days).

(4) Less than the Minimum Flight Hours. As of 5 December 2018, MP2 had only flown 13.1 hours in the previous 90 days. 13.1 flight hours is 47 flight hours less than the minimum required 60 flight hours to be "in the green" in M-SHARP.

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(5) VMFA(AW)-242 leadership subsequently failed to identify that MP2 was not NSAAR T&R code 2202 qualified on 5 December 2018 because MP2 only completed one out of six requisite daytime contacts with the fuel drogue for AAR T&R 2201 code and one out of six requisite nighttime contacts with the fuel drogue for NSAAR T&R 2202 code. MP2 did not report that he was not NSAAR T&R code 2202 qualified on 5 December 2018 after the schedule change that added the aerial refueling mission to the flight schedule. Five hundred seventeen (517) days elapsed from MP2's previous NSAAR T&R code 2202 event and the mishap flight. To compound this tragic situation, and despite all of MP2's qualification and proficiency issues, during the NSAAR MP1 placed MP2 in a non-standard departure pattern/formation egress from Sumo 41 in the moments leading up to the mishap. Taken together, the chain of events that led to MP2 being called upon to perform a LLL refueling evolution for which he was unqualified and not proficient, significantly contributed to this mishap. [FF. (14), (102-188)]

b. Inadequate Supervision. The second contributing link to the chain of events was the inadequate supervision by multiple levels of leadership within VMFA(AW)-242. During the Unit Level Training (ULT), there was inadequate supervision by MP1, MWSO2, MSXO, MSOPSO, and the MSCO.

(1) Background – Lack of Experience and Seniority. During ULT, VMFA(AW)-242 divided its officers into three cells in order to conduct twenty-four hour operations (a day cell, a mid-day cell, and a night cell). MP1, MP2, MWSO1, and MWSO2 were all captains. In fact, all officers on the night cell were captains. VMFA(AW)-242 had seven field grade officers assigned to the squadron during ULT, but there was no field grade officer assigned to the night cell. Consequently, no senior leadership was scheduled to supervise the most dangerous operational period – the night cell. No senior leadership authorized the last minute schedule change (adding the NSAAR), supervised the subsequent ad hoc planning to accommodate the schedule change, or observed the mishap flight-brief (a brief that lasted only 10 minutes). On the night of the mishap, the MSXO passed MP1 in the hallway as MSXO was securing for the evening. MP1 told him about the NSAAR, but the MSXO did not inquire into the schedule change or attend the preflight brief. The MSXO only replied "roger" when told about the NSAAR. The unsupervised, abbreviated flight brief did not cover operational risk management (ORM), use of anti-exposure suits, weather conditions, or discuss any of MP2's qualifications. MP1 did not prepare MP2 for a non-standard formation and did not allow him time to prepare for the NSAAR T&R code 2202 event. MP1 failed to obtain the VMFA(AW)-242 Commanding Officer's signature for the change in the flight schedule and authorization to conduct NSAAR T&R code 2202. Both MP1 and MWSO2 (the two most senior captains present on 5 December 2018) were experiencing sleep and fatigue issues during ULT. These sleep and fatigue issues were a result of being assigned to the night shift and other human factors. Both MP1 and MWSO2 were wrongfully using prescription medication, which in turn, impacted their decision making ability. Because of MP2's previous performance issues and lack of proficiency for NSAAR T&R code 2202, VMFA(AW)-242's leadership should have paid close attention to his training, especially for a LLL NSAAR. VMFA(AW)-242 leadership's failure to adequately

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supervise its junior officers is a contributing factor to the mishap. [FF. (32-34), (41-42), (102-134), (277-306)]

(2) MP1 failed his supervisory responsibilities. MP1 should have familiarized himself with MP2's proficiency, qualifications, and experience in the conduct of NSAAR. As the third cell lead planner and section leader, MP1 knew the time and location of the mission in advance. From that information, MP1 should have checked the lunar light level, sea surface temperature, and SAR response timeline. MP1 directed the inexperienced MP2 to conduct a LLL NSAAR with inadequate time to prepare. MP1 failed at multiple levels: (1) to conduct a thorough and comprehensive pre-flight brief; (2) to apply personalized risk assessment that incorporated MP2's qualifications and proficiency, real-time planning factors such as light levels and weather, and prerequisites for each coded event on the flight schedule; (3) to use experience-appropriate aeronautical decision making (with a bias towards safety); and, ultimately, (4) to make the appropriate decision not to execute an unscheduled NSAAR because it was not authorized by the MSCO on the daily flight schedule. [FF. (10), (26-188), (307-336)]

(3) MWSO2 failed his crew responsibilities. MWSO2 had neither a valid prescription nor permission to use any medications before or during the time of the mishap. However, his toxicology report found traces of two substances in his urine after the mishap. The interaction between the two substances are known to have side effects that would impact MWSO2's mental alertness and cognitive abilities. Had the flight surgeon known that MWSO2 was taking those substances, he would have grounded MWSO2. MWSO2 demonstrated a substantial departure from the level of professionalism and integrity expected of a Marine Corps officer. [FF. (189-195), (200-212)]

(4) MSOPSO failed his fundamental responsibilities as the training manager, chief instructor pilot, and director of flight operations. Given MSOPSO's training, qualifications, and experience, he should have known the capabilities and limitations of the pilots within his squadron. MSOPSO should have taken appropriate action to ensure safe flight operations in his squadron. MSOPSO failed to inform VMFA(AW)-242 leadership and aircrews that there was a NSAAR scheduled for 6 December 2018. Because tanker support was coordinated and VMGR-152 accurately reflected the request for night aerial refueling on their flight schedule, some form of coordination took place between VMGR-152 and VMFA(AW)-242 prior to the mission brief on 5 December 2018. [FF. (245-246), (269), (277-306)]

(5) MSCO failed his supervisory responsibilities. Between 2017 and 2018, MSCO reduced organizational scrutiny of the flight schedule and streamlined the flight schedule approval process at VMFA(AW)-242. After assuming command, MSCO also eliminated important data from the flight schedule. While these changes and deletions did not directly violate any governing directive and fell within the discretion of the commanding officer, they did contribute to the mishap. The MSCO's decision to simplify the flight schedule approval process created a cavalier attitude among the squadron's leadership with respect to flight schedule scrutiny and ad hoc changes. On 5 December 2018, this simplification enabled MP1 to approve

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a flight schedule change with no input from the MSCO, MSXO, or the MSOPSO. The simplification of the flight schedule caused confusion amongst the members of VMFA(AW)-242. Several officers interviewed for this investigation, to include the MSOPSO, were unable to correctly identify who had authority to change the flight schedule. [FF. (238-298)]

c. MP2's Consistent Below Average Performance. The third contributing link to the chain of events was MP2's consistent below average performance as a Naval Aviator. In short, MP2 was a struggling Naval Aviator with below average performance at flight school and the Fleet Replacement Squadron (FRS) Marine Fighter Attack Squadron 101 (VMFAT-101). Though his performance was below average, he displayed a positive attitude, was well-respected by his peers, and he was considered to be an extremely hard working Marine officer. Despite these positive attributes, he ranked 133 out of 139 pilot graduates. MP2 failed the prerequisites needed to attempt carrier qualification (CQ). Then, MP2's CQ was later waived while at the FRS. MP2 had four unsatisfactory events at FRS, including (1) failure to follow correct procedures, (2) below average performance, (3) slow to conduct Immediate Action Procedures, and (4) below average system knowledge. MP2 completed pilot training with the FRS on 25 April 2017. Following FRS, MP2 was the subject of a performance review board and was required to complete significant remedial training. Upon completion of the remedial training, MP2 transferred to VMFA(AW)-242 at MCAS-I. MP2's consistent below average flight performance and capabilities as a Naval Aviator were contributing factors to the mishap. [FF. (144-188)]

d. Unprofessional Command Climate at VMFA(AW)-242. The final contributing link to the chain of events that led to the 6 December 2018 mishap was the command climate of VMFA(AW)-242. The MSCO, MSXO, MSOPSO, and other field grade officers fostered a squadron environment of gross unprofessionalism. VMFA(AW)-242's squadron culture created pervasive normalization of deviance. There was a broad disregard of basic flight operations orders and directives. The conduct of the officers of VMFA(AW)-242 fell below the professionalism expected of Marine Corps officers. Evidence discovered after the mishap uncovered that VMFA(AW)-242 officers engaged in conduct that included: prescription drug seeking behavior, the wrongful use of prescription and over-the-counter drugs, excessive alcohol consumption, adultery, sexually explicit call signs, orders violations, and failures in following fundamental principles of professional aviation training and operations. The squadron command climate created nonchalant attitudes towards safety and standardization, which contributed to the mishap by fostering an atmosphere where ad hoc, unscheduled flight schedule changes were not properly authorized, planned for, and executed. The pre-flight brief of 5 December 2018 was truncated to a point of irrelevance. Overall, VMFA(AW)-242's planning and preparation for the 2018 MAG ULT was conducted in a confused and dangerous fashion with an almost willful disregard for basic risk management practices. [FF. (189-276)]

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D. Additional Contributing Factors

5. Inappropriate Distribution of Flight Schedules. The use of the messaging application “WhatsApp” is not an appropriate means to distribute information regarding squadron operations such as the flight schedule. [FF. (103)]

6. Lack of Organic SAR Capabilities. The lack of organic search and rescue (SAR) at MCAS-I is problematic. If MCAS-I had organic SAR capabilities they could have been integrated into the flight mission for a more immediate response following the mishap. [FF. (52-101)]

7. The addition of un-briefed, unnecessary, and non-standard tanker arrivals and departures elevates risk and does not have an associated benefit to training and readiness capabilities. They are, therefore, unnecessary risks and conducted solely for the purposes of thrill and entertainment. [FF. (399-419)]

E. Possible Contributing Factors

8. Use of NCVD, ANVS-11. Headquarters Marine Corps Aviation’s failure to recognize and mitigate the risk of TACAIR NSAAR (with goggles down in close formation) set the preconditions for this mishap. This known risk was compounded by the MP2’s lack of experience with night vision goggles and the LLL. While not causal, the utilization and fielding of the NCVD, ANVS-11 during tactical refueling operations creates an unnecessary risk due to the structural limitations and the performance of this device in LLL conditions. While a direct link of causation is not identified with total certainty, the reduced performance of the NCVD, ANVS-11 in LLL conditions as compared to the ANVS-9 (the device upon which these NSAAR practices were developed) merits both concern and action. The conditions during the mishap were LLL. (b) (3) (A)

(b) (3) (A)

(b) (3) (A)

Finally, the VMFA(AW)-242 aircrews interviewed lacked knowledge of this material limiting factor created by the reduced collection surface of the smaller NCVD, ANVS-11 tubes. [FF. (26-27), (361-368)]

9. A Missing Mishap Investigation. If the mishap that occurred in 2016 had been investigated as required, remedial measures could have been properly implemented to prevent future similar mishaps, like this one. [Encl. (369-388)]

Recommendations

1. Appropriate administrative and/or disciplinary action be taken against (b) (3) (A), (b) (3) (A), and (b) (3) (A), (b) (3) (A)

2. Appropriate administrative action be taken against (b) (3) (A), (b) (6) (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) for their collective failures to lead,

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train, supervise, set the example, and ensure the safety of others in the conduct of flight operations.

3. Appropriate administrative action be taken against (b) (3) (A), (b) (6) for violating the T&R by erroneously certifying MP2 as both AAR T&R code 2201 and NSAAR T&R code 2202 qualified without meeting the criteria of six daytime contacts and six nighttime contacts.

4. Appropriate administrative action be taken against (b) (3) (A), (b) (6) MAG-12 Commanding Officer, for failures to effectively lead planning and then fully supervise execution in order to assure the safety of all concerned.

5. 1st MAW conducts annual full spectrum SAR exercises with all available host nations and joint assets to ensure that capabilities, capacities, limitations, and lines of communication are well known and current.

6. 1st MAW develops a Memorandum of Understanding with the Government of Japan to define roles and responsibilities associated with SAR operations.

7. 1st MAW requests the Deputy Commandant Aviation (DCA) create organic SAR capability for MCAS-I to ensure Marines are protected while training.

8. 1st MAW requests the DCA reevaluate the current policy allowing the conduct of TACAIR NSAAR with night vision goggles down.

9. 1st MAW requests the DCA develop an aviation community specific Risk Assessment Worksheet (RAW) and an associated Marine Corps Order that directs the use of the RAW.

10. 1stMAW requests the DCA conduct fleet-wide Aerial Refueling standardization and professionalism training.

11. 1st MAW requests Naval Air Systems Command with the Commander Operational Test & Evaluation Force to reevaluate the NVCD (ANVS-11) and provide detailed fleet information about the limitations of this system.

12. 1st MAW requests the Commanding General, Training and Education Command, conduct a one-time review of M-SHARP chaining integrity for all T/M/S and T&R manuals.

(b) (3) (A), (b) (6)



UNITED STATES MARINE CORPS
1ST MARINE AIRCRAFT WING
UNIT 37101
FPO AP 96373-7101

IN REPLY REFER TO:
5830
CG
10 DEC 2018

From: Commanding General, 1st Marine Aircraft Wing
To: (b) (3) (A), (b) (6) USMC

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Ref: (a) 10 U.S.C. §§ 2254-2255
(b) JAGINST 5800.7F

1. This letter appoints you to inquire into the facts and circumstances surrounding the aviation mishap involving a F/A-18D from Marine All-Weather Fighter Attack Squadron 242 (VMFA(AW)-242) and a KC-130J from Marine Aerial Refueler Transport Squadron 152 (VMGR-152) off the coast of Japan on 6 December 2018. This Command Investigation is convened to investigate the circumstances surrounding a Class A mishap in compliance with 10 U.S.C. §§ 2254-2255. Reference (a) pertains.
2. You are directed to investigate the aviation mishap, the resulting damage to the aircraft, and any other military property so affected, and the injury or death of any servicemember. In accordance with reference (a), if the evidence surrounding the mishap is sufficient for your investigation to come to an opinion (or opinions) as to the cause or causes of the mishap, the final report of the mishap investigation shall set forth the opinion (or opinions) of the investigator as to the cause or causes of the mishap. If the evidence surrounding the mishap is not sufficient for your investigation to come to an opinion as to the cause or causes of the mishap, then the final report of the mishap investigation shall include a description of those factors, if any, which, in the opinion of the investigator, substantially contributed to or caused the mishap. Reference (a) pertains.
3. Provide a recommendation regarding a line of duty/misconduct determination for each injured or deceased servicemember. Additionally, investigate the search and rescue operation conducted immediately following the mishap and the subsequent recovery operation.
4. Investigate any fault, neglect, or responsibility thereof, and recommend appropriate administrative or disciplinary action. Report your findings of fact, opinions, and recommendations in writing, via letter form, within 60 days from the date of this appointment order, unless an extension of time is granted. If you have not previously done so, read Chapter II of reference (b) in its entirety before beginning your investigation. Reference (b) pertains.
5. This investigation is your primary duty and takes precedence over your regularly assigned duties until complete. You are directed to consult with a member of the Armed Forces or an

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE AVIATION MISHAP OF A F/A-18D FROM MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 AND A KC-130J FROM MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 ON 6 DECEMBER 2018 OFF THE COAST OF JAPAN

officer or employee of the Department of Defense who possesses knowledge and expertise relevant to aviation mishap investigations.

6. Other investigative team members may be added to provide necessary expertise or administrative support, as required. (b) (3) (A), (b) (6) USMC, a judge advocate, is hereby appointed as Legal Advisor. You are directed to seek legal advice from him. You shall seek legal advice from the Staff Judge Advocate, 1st Marine Aircraft Wing prior to signing the mishap report.

7. During the conduct of this investigation, you are to observe the requirements of the Privacy Act, Article 31(b) of the Uniform Code of Military Justice, and paragraphs 0209, Parts E and F, and Appendix A-2-n of reference (b).

8. Note that there is a concurrent aviation mishap safety investigation into this incident. A JAGMAN investigation in accordance with reference (b) 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 aviation mishap safety investigation. No witness will be questioned regarding information provided to the aviation mishap safety investigation under the promise of confidentiality. Finally, you may not use the opinions, analysis, or conclusions of the aviation mishap safety investigation, or any subsequent endorsements thereof.

9. By copy of this appointing order, all staff sections and subordinate commanders are directed to furnish all necessary assistance.

10. The point of contact for this matter is 1st Marine Aircraft Wing Staff Judge Advocate, (b) (3) (A), (b) (6) at (b) (3) (A), (b) (6) and 315-645-4004.

(b) (3) (A), (b) (6)

Copy to:
CG, III MEF
CO, MAG-12
CO, VMFA 242
CO, VMGR-152
SJA, 1st MAW
File