

[The interview opened at 1255, 26 January 2019.]

(b) (3) (A), (b) (6) : It is Thursday, January 24, 2019. We're in Iwakuni, Japan. I'm (b) (3) (A), (b) (6). I am assisted my (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6), present in the room with (b) (3) (A), (b) (6). (b) (3) (A), (b) (6) is being interviewed as a witness.

(b) (3) (A), (b) (6), please state your full name for the record, spelling your last name.

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6). (b) (3) (A), (b) (6).

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6), how would you like me to refer to you?

(b) (3) (A), (b) (6) : (b) (3) is fine, sir.

(b) (3) (A), (b) (6) : Okay. (b) (3), what is your military occupational specialty?

(b) (3) (A), (b) (6) : 2573, sir. I am a F-18 pilot. 2573 journalist -- excuse me, sir -- 7523, excuse me.

(b) (3) (A), (b) (6) : When did you get your wings, (b) (3)?

(b) (3) (A), (b) (6) : It was the spring of 2016 in March I recall, sir.

(b) (3) (A), (b) (6) : 3 of 16?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : And when did you complete the F-18 FRS?

(b) (3) (A), (b) (6) : It was June of 2017.

(b) (3) (A), (b) (6) : Where did you attend the F-18 FRS?

(b) (3) (A), (b) (6) : I was in Miramar.

(b) (3) (A), (b) (6) : Okay. When did you get to Iwakuni?

(b) (3) (A), (b) (6) : That same June, sir.

(b) (3) (A), (b) (6) : What is your job at the Bats?

(b) (3) (A), (b) (6) : I'm a schedules writer.

(b) (3) (A), (b) (6) : Did you write the schedule in the first week of December in 2018?

(b) (3) (A), (b) (6) : I did. Yes, sir.

(b) (3) (A), (b) (6) : Did you write the schedule for the mishap aircrew?

(b) (3) (A), (b) (6) : I did.

(b) (3) (A), (b) (6) : Do you understand that the tanker code is not on that flight schedule?

(b) (3) (A), (b) (6) : I do, sir.

(b) (3) (A), (b) (6) : Can you talk to me about that?

(b) (3) (A), (b) (6) : Yes, sir. To the best of my recollection, when we still had the seaside adca [ph] airspace. And we're planning on doing the cascode before we adjust to the times. We had canceled our tanker support. Subsequent to that, when the schedule was rewritten, I do not recall coordinating any tanker support for

the -- for that subsequent flight. And as such, did not put any tanker code on the schedule or any tanker coordination.

(b) (3) (A), (b) (6) : Okay. Were you provided a flow document?

(b) (3) (A), (b) (6) : We were provided a flow document, sir. We had deviated from that, to an extent, when we had scheduled the seaside adca [ph] for some cascades. And that had been approved by the MAG. Subsequently, we were informed that day at the commanders -- the previous day when I was writing the schedule --

(b) (3) (A), (b) (6) : Tuesday?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : The fifth. -- was informed that we that we wouldn't be able to launch for the seaside adca [ph] due to some airspace restrictions. And then our subsequent launch was required to be after midnight to conform with those airspace restrictions. Subsequently, the MAG provided the coordination for the airspace and that's what made it on the schedule.

(b) (3) (A), (b) (6) : Did the MAG tell you anything about a tanker?

(b) (3) (A), (b) (6) : Not that I recall, sir.

(b) (3) (A), (b) (6) : Were you surprised to learn that the mishap aircrew were tanking at the time?

(b) (3) (A), (b) (6) : The exercise that we were doing; things were fairly fluid with scheduling with the MAG and the weather and airfield availability on the (b) (6), (b) (1) (B) . 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.

(b) (3) (A), (b) (6) : Okay. Is it common to go do something that's not on the flight schedule?

(b) (3) (A), (b) (6) : I would not say that it's common, sir. It's not unheard of.

(b) (3) (A), (b) (6) : If somethings not on the flight schedule, in context were talking about, like, I think they were going for a night FAM. I think you had to downgrade them to a FAM when you got bumped to the itra [ph] south airspace I assume?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : And then a tanker became available if you were the ODO or if you were in the flight, would you request a schedule change to add the tanker code?

(b) (3) (A), (b) (6) : As the ODO I would've brought it up to OPS, sir. And got the OPSO's recommendation. Whether he wanted to bring that to the CO to either get an okay from the commanding officer, to add that, or if he was not comfortable with just adding to the flight schedule doing a flight schedule change to add that code,

sir.

(b) (3) (A), (b) (6) : Do you feel like it's unusual that they went to the tanker without going through that process?

(b) (3) (A), (b) (6) : I can't say anything for certain, sir.

(b) (3) (A), (b) (6) : Well, my question is if you were the ODO or if you were in the flight, would you have wanted to add the code and seek the CO's approval for that or would you just go to the tank like it's no big deal?

(b) (3) (A), (b) (6) : I'm not a flight lead, sir, so I can't say his line of thought with going to the tanker even though it was unscheduled nor was I the ODO. So I can't say for certain what his thought was.

(b) (3) (A), (b) (6) : How do you verify that someone is current and qualified to go to the tanker?

(b) (3) (A), (b) (6) : As far as tanker currency goes, we have a hot board that has most of our currencies on it. As far as C-130 currency, sir, I don't believe that it was on the hot board that we had.

(b) (3) (A), (b) (6) : Do you know what the currency in rule is for a C-130 night tanking?

(b) (3) (A), (b) (6) : I believe it's 365 det. I'm not certain.

(b) (3) (A), (b) (6) : So what would you have to have done in

the previous 365 to go to the night tanker?

(b) (3) (A), (b) (6) : I couldn't say for certain.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : What is your hot board? Is that like a white board that's in squadron spaces?

(b) (3) (A), (b) (6) : So the hot board is a document that we use to track currencies -- dive currencies. Flight time within 30, 60, 90 days.

(b) (3) (A), (b) (6) : And how's the information gathered onto the hot board? Who does that?

(b) (3) (A), (b) (6) : The hot board is done by our operations clerks. And they provide that to the schedule officers every morning as a product to write the schedule with.

(b) (3) (A), (b) (6) : So y'all don't actually look at the nav flares, you just rely on the hot board?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : It's the same data though, (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : The nav flares -- everything goes through M Shark and the nav flares in M Shark input and hot board is an M Shark output.

(b) (3) (A), (b) (6) : Rah, sir.

(b) (3) (A), (b) (6) : And before we go further, I just want you to know, I'm really sorry about your guys getting lost. I can see that you're upset. We're upset too and we're not out to get anybody in trouble, but I have to be very thorough with this investigation and, you know, ask people uncomfortable questions.

(b) (3) (A), (b) (6) : Understood, sir.

(b) (3) (A), (b) (6) : So it's just business.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. Have you been in a night tanker?

(b) (3) (A), (b) (6) : I have, sir. Twice.

(b) (3) (A), (b) (6) : Tell me about that.

(b) (3) (A), (b) (6) : First time I went was in our exercise that we were doing in Australia, this summer, sir.

(b) (3) (A), (b) (6) : What month was that?

(b) (3) (A), (b) (6) : I believe when I went was in August, sir. I'd have to check my logbook for the exact date, but the exercise was August timeframe.

(b) (3) (A), (b) (6) : How many flights did you get?

(b) (3) (A), (b) (6) : I went to the tanker twice, sir. One plug each time.

(b) (3) (A), (b) (6) : Okay. Did you log into night systems tanker code?

(b) (3) (A), (b) (6) : Yes, sir. I believe I did. I'd have to check my nav flare to be certain about that.

(b) (3) (A), (b) (6) : So you went and got one plug. So you went to the night tanker for the first time, you got one plug, and you logged the code?

(b) (3) (A), (b) (6) : The first time I went to the night, sir, was at the FRF. We did the initial tanker code there.

(b) (3) (A), (b) (6) : Okay. So you brought that night code with you to the fleet okay. And then -- and you said you got here in June of 17?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : So from June of 17 until August of 18 was the next time you went to the tanker --

(b) (3) (A), (b) (6) : I've been to the tanker --

(b) (3) (A), (b) (6) : -- night tanker?

(b) (3) (A), (b) (6) : -- night tanker. Yes, sir.

(b) (3) (A), (b) (6) : So I'd been more than 365 days since you went to the night tanker and how many flights did you think you had?

(b) (3) (A), (b) (6) : At the night tanker, sir?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : That -- on each flight just one. Just got gas for the voles that we were doing, sir.

(b) (3) (A), (b) (6) : And then you logged the 2202 probably?

(b) (3) (A), (b) (6) : I think so.

(b) (3) (A), (b) (6) : Or you should have.

(b) (3) (A), (b) (6) : I should have, sir.

(b) (3) (A), (b) (6) : Okay. Do you recall what type of flight supervision you had to have with you to go do that?

(b) (3) (A), (b) (6) : I don't recall what we had with us, sir. That was something that I do recall came up in our brief in Australia; was whether I could go to the night tanker in conjunction with another flight. We had some of the mots eyes peas with us there. And they looked over the TNR and talked about it with all the mots eye peas and came to the determination that a thorough brief would suffice for any sort of preparation and that that was okay.

(b) (3) (A), (b) (6) : Tell me about your brief.

(b) (3) (A), (b) (6) : In the brief, sir, we covered tanker procedures, joint procedures and especially optical illusions, the lighting that we were going to use on the tanker, and then any sort of contingencies about how we could mitigate closure --

(b) (3) (A), (b) (6) : Do you think (b) (3) (A), would have received a similar brief since you guys are similar in timeframe?

(b) (3) (A), (b) (6) : I would've thought so, sir. I can't say, specifically, any brief that he would have received.

(b) (3) (A), (b) (6) : Did you wear the ANVS-11s?

(b) (3) (A), (b) (6) : I did, sir.

(b) (3) (A), (b) (6) : Did you -- how many hours do you have in the goggles?

(b) (3) (A), (b) (6) : I couldn't say for certain, sir. Most of my night time has been flown on the 11s.

(b) (3) (A), (b) (6) : 20 hours, 50 hours, 100 hours?

(b) (3) (A), (b) (6) : I would say over 20. Probably between 20 and 40, sir.

(b) (3) (A), (b) (6) : Okay. And how many hours roughly do you think you had the ANVS-9s or -8s?

(b) (3) (A), (b) (6) : Less than 10, sir.

(b) (3) (A), (b) (6) : And why did you -- so you flew a couple hours with the 9 are the FRS, right?

(b) (3) (A), (b) (6) : I did at the FRS, sir. And then I did my initial NS qual here with the 9s.

(b) (3) (A), (b) (6) : Why is that? Why didn't you just go straight to the 11s?

(b) (3) (A), (b) (6) : They didn't have them available for me yet, sir.

(b) (3) (A), (b) (6) : And then when you transitioned from the 9s to the 11s, what kind of training did you get?

(b) (3) (A), (b) (6) : We sat down with our NS systems quals over there and they give a very detailed brief about the specifics of the (b)s. The lack of visual acuity that you can have. How you can have the [inaudible] flip upside down and some of the mitigating things that you can do for that.

(b) (3) (A), (b) (6) : Can you talk about the differences in performance between highlight level and lowlight level and between the (b) and the (b)s?

(b) (3) (A), (b) (6) : Yes. That was discussed. I think the big point there being that the (b)s don't quite add the same acuity which means you get a bigger visual bloom with them from any sort of light sources, is usually what comes up in the briefs, sir.

(b) (3) (A), (b) (6) : Okay. Do you have a dry, suit?

(b) (3) (A), (b) (6) : I do. Yes, sir.

(b) (3) (A), (b) (6) : How many times have you worn it?

(b) (3) (A), (b) (6) : Probably two or three, sir.

(b) (3) (A), (b) (6) : When was the last time?

(b) (3) (A), (b) (6) : The last time I flew over water, sir.

(b) (3) (A), (b) (6) : When was that?

(b) (3) (A), (b) (6) : It's been over a month ago now, sir.

(b) (3) (A), (b) (6) : So you wore your dry suit in the month of November or December?

(b) (3) (A), (b) (6) : It was December, sir.

(b) (3) (A), (b) (6) : So right before the mishap?

(b) (3) (A), (b) (6) : It was post mishap, sir.

(b) (3) (A), (b) (6) : Okay. And what led you to decide to wear the dry suit or who directed you to wear the dry suit?

(b) (3) (A), (b) (6) : We checked the water temperature, sir. I recall the last that we did it they were still within the OPNAV limits for the acceptable to not wear it, but they were fairly low and considering the mishap that just occurred we, as a flight, elected to wear the dry suits.

(b) (3) (A), (b) (6) : Okay. Tell me about available search and rescue in Iwakuni.

(b) (3) (A), (b) (6) : Available search and rescue, sir, usually all that is coordinated through the Japanese Air Self-Defense Force on base there. That's one of our first calls per our procedures is to push out to them.

(b) (3) (A), (b) (6) : Okay. And so you have that phone number at the ODO desk?

(b) (3) (A), (b) (6) : Yes, sir. We do.

(b) (3) (A), (b) (6) : Tell me about their typical response time or their advertised response time.

(b) (3) (A), (b) (6) : Sir, I believe it's somewhere in the

neighborhood of an hour to an hour and a half to get a flying boat down to the Iterria [ph] South. Longer if they need to utilize a helicopter.

(b) (3) (A), (b) (6) : Are they night vision qualified capable?

(b) (3) (A), (b) (6) : I'm not sure they are, sir.

(b) (3) (A), (b) (6) : Okay. For the helicopters, are they hoist equipped?

(b) (3) (A), (b) (6) : I believe, just based on what we learn in the mishap, sir, now that they are. I did not know a lot of the details about their capabilities before the mishap.

(b) (3) (A), (b) (6) : Okay. Before the mishap --

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : -- what was your understanding about how long it would take a search and rescue asset to arrive on scene in the middle of the Iterria South to pick somebody up [inaudible].

(b) (3) (A), (b) (6) : My personal understanding, sir, was somewhere in the neighborhood of an hour and a half to two hours.

(b) (3) (A), (b) (6) : Okay. Based on your training, have you been to SERE school?

(b) (3) (A), (b) (6) : I have not, sir.

(b) (3) (A), (b) (6) : Why have you not been to SERE school?

(b) (3) (A), (b) (6) : When we were getting orders, myself and

(b) (3) (A), (b) (6) we were about the same timeframe, there was a push to get us out here quickly. And the squadron elected to forego that.

(b) (3) (A), (b) (6) : When are you going to SERE school?

(b) (3) (A), (b) (6) : I do not know, sir.

(b) (3) (A), (b) (6) : Do you understand that SERE school is a requirement for personnel with higher risk of isolation like yourself?

(b) (3) (A), (b) (6) : Yes, sir. I do.

(b) (3) (A), (b) (6) : Have you brought that to your commanding officer's attention?

(b) (3) (A), (b) (6) : It came up several months ago, sir. There was a survey that went out looking for personnel who had not attended SERE school. I'm not sure if it was brought to his attention specifically.

(b) (3) (A), (b) (6) : Have you requested to attend SERE school?

(b) (3) (A), (b) (6) : I have not, sir.

(b) (3) (A), (b) (6) : Has (b) (3) (A), (b) (6) gone to SERE school?

(b) (3) (A), (b) (6) : I do not know, sir.

(b) (3) (A), (b) (6) : Have you gone to aviation survival training in the HELO dunker?

(b) (3) (A), (b) (6) : I have. Yes, sir.

(b) (3) (A), (b) (6) : When's the last time?

(b) (3) (A), (b) (6) : Last time was just subsequent to myself coming out. I initially had failed a portion of it just prior to coming out here to Iwakuni, sir. And had the 90 day refresh requirement on that. Subsequently went back to Mirmar post our Australia dep just after getting out here and completed it.

(b) (3) (A), (b) (6) : Good for you. It's gonna be tough. I've done it a lot and it's harder every time.

(b) (3) (A), (b) (6) : I'm not a very good swimmer, sir. It's tough every time.

(b) (3) (A), (b) (6) : What is your understanding of the time of useful consciousness that you would experience, based on your body composition, in 68-degree water without an anti-exposure suit?

(b) (3) (A), (b) (6) : I can't say for certain, sir.

(b) (3) (A), (b) (6) : What's your understanding of the time of survival you would experience with your body type in 68-degree water without an anti-exposure suit?

(b) (3) (A), (b) (6) : I'm not certain, sir.

(b) (3) (A), (b) (6) : Have you had any training going on?

(b) (3) (A), (b) (6) : Yes, sir. It's come up. I can't say right now what it would be.

(b) (3) (A), (b) (6) : Okay. If you were going to go do a

flight at 2 o'clock in the morning, 200 miles offshore, in 68-degree water, would you come without a dry suit?

(b) (3) (A), (b) (6) : Not post-mishap, sir?.

(b) (3) (A), (b) (6) : The context is pretty --

(b) (3) (A), (b) (6) : Yes, sir. Pre-mishap, I can't say for certain. I hadn't worn the dry suit previous to that, sir.

(b) (3) (A), (b) (6) : Okay. So you've never worn a dry suit before the mishap?

(b) (3) (A), (b) (6) : I had not, sir. No.

(b) (3) (A), (b) (6) : Okay. So you flew out of Iwakuni in December of 17 and you didn't wear a dry suit?

(b) (3) (A), (b) (6) : No, sir. I did not.

(b) (3) (A), (b) (6) : So if I was to say the environmental conditions were strong, similar to the way they were on December 15?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Did you ever fly in the Intra South?

(b) (3) (A), (b) (6) : I don't recall, sir.

(b) (3) (A), (b) (6) : Did you ever fly over water?

(b) (3) (A), (b) (6) : I don't recall specific flights last year, sir.

(b) (3) (A), (b) (6) : Okay. What crew were you on for the MAG ULT? Day?

(b) (3) (A), (b) (6) : I was on the day crew, sir.

(b) (3) (A), (b) (6) : The day crew.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Why were you selected for day crew?

(b) (3) (A), (b) (6) : I don't know, sir.

(b) (3) (A), (b) (6) : Okay. Was there any discussion about the use of go or no-go pills?

(b) (3) (A), (b) (6) : It came up during the brief that we received the Thursday prior, sir.

(b) (3) (A), (b) (6) : And what was your understanding of the instructions provided by your commanding officer with regard to the use of go and no-go pills?

(b) (3) (A), (b) (6) : That we would not utilize them, sir.

(b) (3) (A), (b) (6) : Did you utilize them?

(b) (3) (A), (b) (6) : I did not. No, sir.

(b) (3) (A), (b) (6) : Do you have them?

(b) (3) (A), (b) (6) : I have never used them, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : So you don't have any go or no-go pills?

(b) (3) (A), (b) (6) : I do not.

(b) (3) (A), (b) (6) : They were never issued to you?

(b) (3) (A), (b) (6) : No. I've never been issued. I didn't take

the sample pill at the trial either.

(b) (3) (A), (b) (6) : Did they actually give you those pills or --

(b) (3) (A), (b) (6) : There was a trial done last year. I didn't take part in it.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : So let's go back to the ANVS-11. I want to know if you received any specific training about the capabilities and the limitations between the ANVS-9 and ANVS-11?

(b) (3) (A), (b) (6) : When I began utilizing them, we did sit down and have a brief with some of our night systems qualified instructions there, sir. I don't recall, specifically, what the name of that training was.

(b) (3) (A), (b) (6) : Okay. Were you told that the ANVS-11 performs better or worse in lowlight level conditions than the ANVS-9?

(b) (3) (A), (b) (6) : We were told that it preforms worse generally, sir.

(b) (3) (A), (b) (6) : Okay. Were you -- were there any discussions about, perhaps, during certain lowlight level conditions an aircrew may elect to wear the ANVS-9 in lieu of the ANVS-11 given consideration to the mission?

(b) (3) (A), (b) (6) : I know that some aircrew do prefer them in

lower light level conditions, sir. I tend to wear the (b) s.

(b) (3) (A), (b) (6) : Okay. And why is that?

(b) (3) (A), (b) (6) : They are a light system. That are easier to focus. And generally it's just more mobile and I feel like my situational awareness is better when I can move my head around and see what's happening during the flight.

(b) (3) (A), (b) (6) : Okay. What is your uncorrected vision?

(b) (3) (A), (b) (6) : 20/20, sir.

(b) (3) (A), (b) (6) : Okay. Is there anything that you feel contributed to this mishap that we haven't talked on that you'd like to discuss or bring up?

(b) (3) (A), (b) (6) : Nothing, sir.

(b) (3) (A), (b) (6) : You sure?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : If we could do it all over again, what would you do differently?

(b) (3) (A), (b) (6) : I think specifically, sir, I would have really preferred if we had a lot more flight time. I don't feel like our people where receiving the flight time, pre-mishap, that they needed to be proficient. A lot of that boils down to the aircraft availability and scheduling beforehand. I think that is the main thing I would change, sir.

(b) (3) (A), (b) (6) : So how many hours have you flown in the last six months?

(b) (3) (A), (b) (6) : In the last six months, 33, sir.

(b) (3) (A), (b) (6) : So in six months, you've only flown 33 hours?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : So do you know what the Marine Corps position is on how many hours you need per month to be safe?

(b) (3) (A), (b) (6) : I don't recall, sir.

(b) (3) (A), (b) (6) : Would you believe me if I told you it was 15.7 hours per month?

(b) (3) (A), (b) (6) : I recall now hearing that, sir.

(b) (3) (A), (b) (6) : So, math in public, 6 times 15.7, I think, is -- that's 90, right?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : So 90 hours is the Marine Corps position on the minimal number of flight hours you have to have per month [sic] to be safe to fly. And you said you have how many?

(b) (3) (A), (b) (6) : Just over 30, sir.

(b) (3) (A), (b) (6) : So you have less than half of the minimum hours the Marine Corps says to be safe for fly? Is that what you think is true?

(b) (3) (A), (b) (6) : As I understand. Yes, sir.

(b) (3) (A), (b) (6) : How do you guys mitigate that?

(b) (3) (A), (b) (6) : Day-to-day, sir?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : We try to -- if people are not current and proficient, get them out on the low tasking flights.

(b) (3) (A), (b) (6) : What about simulator utilization? It's pretty high?

(b) (3) (A), (b) (6) : Simulator is high as we can make it, sir. The simulators here, specifically with the operators, are not very capable with replicating the missions that we're tasked to conduct.

(b) (3) (A), (b) (6) : Can you go to the tanker in the simulator?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Can you -- do you have a night systems simulated air refueling code in the hornet?

(b) (3) (A), (b) (6) : Not that I have ever connected here, sir.

(b) (3) (A), (b) (6) : I mean, you write the schedule. You must be familiar with the TNR?

(b) (3) (A), (b) (6) : I have never scheduled that here, sir.

(b) (3) (A), (b) (6) : Okay. What tanker codes are you familiar with in the TNR?

(b) (3) (A), (b) (6) : The one that we pay the most attention to, I would say, sir, is the strap tanking code for transpacks, things like that.

(b) (3) (A), (b) (6) : And what number is associated with that?

(b) (3) (A), (b) (6) : I can't recall, sir.

(b) (3) (A), (b) (6) : Could it be 6111?

(b) (3) (A), (b) (6) : It could be, sir.

(b) (3) (A), (b) (6) : Okay. Did you fly with (b) (3) (A), (b) (6) much?

(b) (3) (A), (b) (6) : With (b) (3) (A), (b) (6), at least a handful of occasions.

(b) (3) (A), (b) (6) : And how did that go?

(b) (3) (A), (b) (6) : It went well, sir.

(b) (3) (A), (b) (6) : Okay. Do you feel like he's a decent WISSO? Was on the ball. Did a good job preparing? Just being in the flight?

(b) (3) (A), (b) (6) : Personally, sir, I've always considered him to be very good WISSO.

(b) (3) (A), (b) (6) : Okay. That's what I'm asking. Is there anything else you'd like to share with us that you think would help us?

(b) (3) (A), (b) (6) : Nothing I can think of, sir.

(b) (3) (A), (b) (6) : You seem a little upset. Is there

something else you want to talk about?

(b) (3) (A), (b) (6) : No, sir. No. This just strikes close to home. He was very, very close to me. Good friends.

(b) (3) (A), (b) (6) : We're really sorry about that and we want to do it justice for this investigation.

(b) (3) (A), (b) (6) Yes, sir.

(b) (3) (A), (b) (6) : Okay. Judge will swear you out.

[The interview closed at 1443, 24 January 2019.]

[The interview opened at 0952, 29 March 2019.]

(b) (3) (A), (b) (6) : All right. Today is the 26th of March. It's a few minutes before 1300. We're in Iwakuni, Japan. I am (b) (3) (A), (b) (6), assisted by (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6). We're interviewing (b) (3) (A), (b) (6).

(b) (3) (A), (b) (6), can you, please, state your full name for the record, spelling your last name?

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6), (b) (3) (A), (b) (6).

(b) (3) (A), (b) (6) : How would you like me to refer to you during this interview?

(b) (3) (A), (b) (6) : (b) (3) [ph] is my call sign. That's fine, sir.

(b) (3) (A), (b) (6) : (b) (3)?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. (b) (3), you can call me (b) (3) or sir.

What is your MOS, (b) (3)?

(b) (3) (A), (b) (6) : 7523, sir.

(b) (3) (A), (b) (6) : Okay. And what is that?

(b) (3) (A), (b) (6) : That's a Marine Corps hornet piolet, F-18 pilot.

(b) (3) (A), (b) (6) : How long have you been a 7523?

(b) (3) (A), (b) (6) : 17 years -- 16 years.

(b) (3) (A), (b) (6) : Okay. About how many hours do you have in the hornet?

(b) (3) (A), (b) (6) : A through D about 2500. E and F about 200,

sir.

(b) (3) (A), (b) (6) : Tell me about some of your key qualifications in the F-18.

(b) (3) (A), (b) (6) : I'm a division lead MDTI so I went to MDTC. And I was a FACA [ph], not current, FCF. Those are the big ones, sir.

(b) (3) (A), (b) (6) : Tell me about your key deployments in the F-18.

(b) (3) (A), (b) (6) : I did West PAC way back when. And then I did OIF in the F-18. I did OIF as a FAC. And then I did Afghanistan in the F-18.

(b) (3) (A), (b) (6) : Okay. What was your billet in the squadron in December of 2018?

(b) (3) (A), (b) (6) : I was the executive officer, sir.

(b) (3) (A), (b) (6) : Okay. As the executive officer, what were your key functions and responsibilities as the squadron XO?

(b) (3) (A), (b) (6) : I saw myself as the chief of staff. So managing key department heads, your S-1s through your S-6s. And being a conduit for information for the CO. Also managing a lot of personnel. So working, you know, the not so good side of -- disciplinary side of that as well as working with orders, Fitreps, the admin side as well for the officers and working with the sergeant major.

(b) (3) (A), (b) (6) : What were your specific roles and responsibilities with regard to the safety program as the executive officer?

(b) (3) (A), (b) (6) : I'm the head of the safety program. And then so I work with the DOSS and the ASO and work with them. Make sure they have a voice with the CO.

(b) (3) (A), (b) (6) : What specific roles and responsibilities do you have with regard to flight schedule development as the executive officer?

(b) (3) (A), (b) (6) : Not as much. It's mostly handled on the ops side. Operations takes care of the majority of that. So it doesn't get routed through me.

(b) (3) (A), (b) (6) : The flight schedule is not routed through you?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : How long were you the XO at 242 before the mishap?

(b) (3) (A), (b) (6) : About five months, sir.

(b) (3) (A), (b) (6) : So you took over about the same time

(b) (3) (A), (b) (6) did?

(b) (3) (A), (b) (6) : About six weeks later.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : So it was gapped.

(b) (3) (A), (b) (6) : Okay. And so 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?

(b) (3) (A), (b) (6) : Not often, sir. Minimal. Mostly when the schedule writer would do his normal walk and then he'd take it to

the CO.

(b) (3) (A), (b) (6) : You say, "the schedule writer would do his normal walk." What does that mean?

(b) (3) (A), (b) (6) : He'd make sure S-5 would see it.

(b) (3) (A), (b) (6) : And what is S-5? Is that safety?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Obviously it wouldn't leave ops if the Ops O didn't see it and then the maintenance office.

(b) (3) (A), (b) (6) : So you feel like the Ops O and the AMO always saw the flight schedule or usually should see the flight schedule before the commanding officer did?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Do you believe that was taking place?

(b) (3) (A), (b) (6) : As far as I knew, sir.

(b) (3) (A), (b) (6) : Okay. Where was you -- what was your location the week of 5 December? Were you here in Iwakuni?

(b) (3) (A), (b) (6) : I was, sir.

(b) (3) (A), (b) (6) : What were your roles and responsibilities with regard to the execution of the ULT?

(b) (3) (A), (b) (6) : So my big part was -- I was working with out maintenance chief and our sergeant major for [inaudible], tracking our Marines, getting them out to (b) (6), (b) (6). It was very tenuous. Are they going? Are they not going? Are they going? Are they not going? You know, are we sending jets to (b) (6), (b) (6). So if we're not sending jets to (b) (6), then I'm not going to send

the Marines. And so it was still -- a lot of uncertainty if we're going to (b) (6), up till nearly Thursday, Friday, the week prior.

(b) (3) (A), (b) (6) : What was the consensus of that uncertainty? Why was there uncertainty?

(b) (3) (A), (b) (6) : I don't think they had the clearance. I'm not sure. I was working mostly through MAG and I don't know, at the time --

(b) (3) (A), (b) (6) : It was like a PPR thing? Was it a resting gear? Was it billeting?

(b) (3) (A), (b) (6) : Resting gear I know was part of it. And then as far as everything else, I gotta kind of stop there, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Tweaking into --

(b) (3) (A), (b) (6) : Getting into A and B stuff?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. So I'm just trying to ask you what you knew before. It's just hard for you to break that out for you at this point?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : It's been a few months. Okay.

(b) (3) (A), (b) (6) : A lot of uncertainty --

(b) (3) (A), (b) (6) : Okay. You can stop there. Lets talk about your personal knowledge of the mishap crew. Your personal knowledge of that crew pre-mishap of the case. Try to devoice yourself of everything you've heard after the mishap.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Pre-mishap. So it's December the 1st.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Did you know the mishap F-18 crew?

(b) (3) (A), (b) (6) : I did, sir.

(b) (3) (A), (b) (6) : Okay. Great. Did you participate in the human factors counsel process at 242?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Okay. So as the squadron executive officer you did not participate in the human factors counsel?

(b) (3) (A), (b) (6) : That's correct, sir.

(b) (3) (A), (b) (6) : Did you see the human factors counsel scheduled on your plan of the day or plan of week or daily flight schedule?

(b) (3) (A), (b) (6) : It's on the schedule. Yes, sir.

(b) (3) (A), (b) (6) : Okay. How often did it meet?

(b) (3) (A), (b) (6) : At least once a month.

(b) (3) (A), (b) (6) : Okay. And who attended?

(b) (3) (A), (b) (6) : The commanding officer, ASO was there, DOSS, a random aircrew, and there might have been another person or two, sir.

(b) (3) (A), (b) (6) : Flights surgeon ever go?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. Did -- and without talking -- did you -- let me ask a different question. Were you cognizant of the different crews that were selected by the shift crews? I'm

talking about who was day crew, who was afternoon crew, and who was flying the graveyard shift for the week of the ULT?

(b) (3) (A), (b) (6) : It was in the confirmation brief.

(b) (3) (A), (b) (6) : Okay. So you were provided some type of confirmation brief product that told the aircrew what shifts they were on?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. And what shift were you on?

(b) (3) (A), (b) (6) : I was on the mid-shift, sir.

(b) (3) (A), (b) (6) : The mid-shift. And that's like a 10 a.m. report?

(b) (3) (A), (b) (6) : Anywhere from 8 to 10, sir.

(b) (3) (A), (b) (6) : Okay. And then you would be flying until crew day limits, 10 p.m. or whatever is appropriate?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. And how soon did you personally get that information for your own personal knowledge?

(b) (3) (A), (b) (6) : I got that the week prior. I can't remember what day.

(b) (3) (A), (b) (6) : Wednesday or Thursday before?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. And was that provided? Did you guys have an AOM and everybody was told, "hey, (b) (3), you're day crew. (b) (3) you're night crew. (b) (3), you're mid-crew." Is that how that was briefed out?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : So what level of involvement did you have in selecting who was on what crew by shift. Who was on what shift?

(b) (3) (A), (b) (6) : I did not select the crew, sir. I did not have involvement in how the crew were selected?

(b) (3) (A), (b) (6) : Who did?

(b) (3) (A), (b) (6) : The Ops O.

(b) (3) (A), (b) (6) : So you feel like (b) (3) (A), (b) (6) unilaterally selected who was flying when acting as the squadron Ops O?

(b) (3) (A), (b) (6) : With engaging with the CO, sir.

(b) (3) (A), (b) (6) : So you think the CO and the Ops O? Or the Ops O with the CO's guidance?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. But you personally were not involved in that process --

(b) (3) (A), (b) (6) : Correct, sir.

(b) (3) (A), (b) (6) : -- as the squadron executive officer and the guy that runs the safety program for the squadron? You weren't invited to that meeting basically?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. Did you know or come to know that (b) (3) (A), (b) (6) was on the graveyard shift?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Were you aware of that before the mishap? I mean were you tracking that before the mishap?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. Did that give you any pause?

(b) (3) (A), (b) (6) : It did not, sir.

(b) (3) (A), (b) (6) : Why -- how would you expect (b) (3) (A), (b) (6)

to get to and from work?

(b) (3) (A), (b) (6) : Drive, sir.

(b) (3) (A), (b) (6) : You expect (b) (3) (A), (b) (6) to operate a POV on board Marine Corps Air Station, Iwakuni on December the 5th and drive to and from work on the 6th?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. As the squadron executive officer, you wouldn't have any concern about that? About him driving a car?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Okay. Let's talk about Ambien. Was the use of Ambien authorized?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : How did you come to understand that the use of Ambien was not authorized?

(b) (3) (A), (b) (6) : Via the WhatsApp which -- that you guys have, sir. You see that's how I was made --

(b) (3) (A), (b) (6) : That's how you guys communicated?

(b) (3) (A), (b) (6) : That's how that word -- that's how I first heard it, sir.

(b) (3) (A), (b) (6) : Did you have any questions about that? Was it unclear to you?

(b) (3) (A), (b) (6) : It seemed pretty strait forward to me, sir.

(b) (3) (A), (b) (6) : Did you get any feedback from any of your subordinate officers? Did anybody come to you and be like hey XO this is bullshit, we need Ambien?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6), (b) (3) (A), (b) (6), (b) (3) (A), (b) (6), (b) (3) (A), (b) (6)? Did anybody come to you and express safety concerns about ramping from the day crew to the night crew on four days notice and the use of Ambien associated with that? Did anybody talk to you before the mishap?

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) had mentioned the -- it was like an off-hand comment. "Hey, no Ambien?" And I was like, "no." And that was --

(b) (3) (A), (b) (6) : Was this in the ready room? He just kind of wandered up to you and said, "XO, no Ambien?" shrugged his shoulders? Is that what you're describing?

(b) (3) (A), (b) (6) : It's kind of how I would --

(b) (3) (A), (b) (6) : Something like that?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. And how much further did that conversation go after that?

(b) (3) (A), (b) (6) : That was it.

(b) (3) (A), (b) (6) : Did you probe him on that or ask him about if he had safety concerns or --

(b) (3) (A), (b) (6) : I did not, sir.

(b) (3) (A), (b) (6) : Do you remember when that happened? Was it prior to the mishap, sir?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : And was it after the WhatsApp message went out?

(b) (3) (A), (b) (6) : I can't be sure.

(b) (3) (A), (b) (6) : Okay. Did you have any personal observations of things leading up directly to the mishap flight event? Did you -- were you in the ready room the day of the mishap -- the day before the mishap and having conversations with (b) (3), (b) (3), (b) (3), or (b) (3) (A), (b) (6)

(b) (3) (A), (b) (6) : We over lap by about an hour.

(b) (3) (A), (b) (6) : Okay. Did you see those guys?

(b) (3) (A), (b) (6) : I did, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : And (b) (3) (A), (b) (6) was out, you know, doing his -- I'd see him in his office working S-4 things. I don't remember seeing (b) (3) (A), (b) (6) [ph] very often. I'm sorry. (b) (3) (A), (b) (6), sir. And then I saw (b) (3) (A), (b) (6) in the ready room and he was QAO. So he spent a lot of time downstairs as well.

(b) (3) (A), (b) (6) : What was (b) (3) (A), (b) (6) job in the squadron?

(b) (3) (A), (b) (6) : He was the ALSS, sir.

(b) (3) (A), (b) (6) : ALSS, flight E?

(b) (3) (A), (b) (6) : Flight E. Yes, sir.

(b) (3) (A), (b) (6) : What was his -- do you remember what his job was before he was flight E?

(b) (3) (A), (b) (6) : He was the adjutant?

(b) (3) (A), (b) (6) : When about -- what month and year did he turn over adjutant?

(b) (3) (A), (b) (6) : It would have been November I believe, sir.

(b) (3) (A), (b) (6) : So he just turned over?

(b) (3) (A), (b) (6) : Correct, sir. He had not been down there very long.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : And then October, November, we did, kind of, a job shift when we got back from Australia. It would have been about that time.

(b) (3) (A), (b) (6) : Okay. What was your personal participation in the scheduling process at the MAG? Did you go to any MAG confirmation briefs leading up to the ULT?

(b) (3) (A), (b) (6) : I had gone to a couple of the COBs, sir.

(b) (3) (A), (b) (6) : Tell me about them.

(b) (3) (A), (b) (6) : I had been to one on Thursday prior and that's where I'd -- we still don't have confirmation on (b) (6), (b) (6). So I was interested in that. And that's the thing that sticks out. It's been a little while now. I can't really -- I don't know what else to talk about there. And then I had, lets see, been to one next Monday, afternoon, and nothing really sticks out from that one, sir.

(b) (3) (A), (b) (6) : Were you surprised to learn that the mishap aircrew were conducting an air refueling during the mishap, or did you expect them to go to the tanker that night? When you found out later that they had hit the C-130, where you

surprised to learn that they were tanking or did you expect them to go to the hanger then?

(b) (3) (A), (b) (6) : I had heard about it, sir.

(b) (3) (A), (b) (6) : You had heard about the schedule change?

(b) (3) (A), (b) (6) : The -- yes, sir.

(b) (3) (A), (b) (6) : How did you hear about the -- before the mishap you did?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : How did you hear about that? Tell me about that.

(b) (3) (A), (b) (6) : I had passed (b) (3) (A), (b) (6) in the hall --

(b) (3) (A), (b) (6) : At about what time? After the brief? Before take off obviously? Or before the brief or --

(b) (3) (A), (b) (6) : It had been before the brief, sir.

(b) (3) (A), (b) (6) : Okay. So after (b) (3) got to work, but before (b) (3) briefed, you passed (b) (3) in the hall and you guys had an exchange? Tell me about that.

(b) (3) (A), (b) (6) : It was just about a tank -- tanker or something.

(b) (3) (A), (b) (6) : And how did you respond to that?

(b) (3) (A), (b) (6) : I just said, "roger."

(b) (3) (A), (b) (6) : Okay. Did it occur to you that we needed to do a flight schedule change then or that you, as the squadron executive officer, needed to approve that flight schedule change?

(b) (3) (A), (b) (6) : The way it was presented to me is it was information that the approval process had already occurred

because he didn't, you know, stop and ask me.

(b) (3) (A), (b) (6) : He just told you he was going to the tanker.

(b) (3) (A), (b) (6) : Right.

(b) (3) (A), (b) (6) : He didn't ask you if he could go to the tanker. He told you we're going to the tanker.

(b) (3) (A), (b) (6) : He said, kind of like --

(b) (3) (A), (b) (6) : Am I understanding you right?

(b) (3) (A), (b) (6) : I guess.

(b) (3) (A), (b) (6) : He didn't come up to you and say XO is it okay if we change the flight schedule and go to the tanker?

(b) (3) (A), (b) (6) : Exactly.

(b) (3) (A), (b) (6) : He said, "we got tankers tonight." and just kept walking? And you're like --

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : I don't want to coach you too much on that, but I know you're on the A and B so I don't want to probe too deeply on that key point. So after you got that information, did you go to the ODO and look at the master flight schedule at the ODO desk and confirm that the process had been followed?

(b) (3) (A), (b) (6) : I went to, I was going to a meeting with the 225 XO and --

(b) (3) (A), (b) (6) : Over at MAG or --

(b) (3) (A), (b) (6) : It was back to my office -- and then the 225 XO --

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : -- for about an hour.

(b) (3) (A), (b) (6) : And then after that meeting, did you swing by the ODO desk and check on your ODO?

(b) (3) (A), (b) (6) : I popped in there, checked on the guys.

(b) (3) (A), (b) (6) : Okay. and when you checked on the ODO knowing that there was a flight schedule change before the brief mishap event, what action did you take as the squadron executive officer?

(b) (3) (A), (b) (6) : That were I just saw the guys. Saw how they were doing. And then --

(b) (3) (A), (b) (6) : By "the guys" do you mean the mishap crew was already in the ready room briefing or preparing to brief?

(b) (3) (A), (b) (6) : There before.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : And like how's everybody doing? Doing good, doing good. And then I could feel they were getting in their zone so then I walked out.

(b) (3) (A), (b) (6) : And about what time of day was that?

(b) (3) (A), (b) (6) : It would have been 2200, sir.

(b) (3) (A), (b) (6) : So you were in the squadron spaces at about 2200?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Is that right before your retired to your quarters for the evening?

(b) (3) (A), (b) (6) : I was back in my office, sir.

(b) (3) (A), (b) (6) : Okay. How late did you stay in your

office that night?

(b) (3) (A), (b) (6) : Probably 2330, sir.

(b) (3) (A), (b) (6) : So you stayed in your office until they walked to go fly basically, right? Because they didn't take -- they started engines, I think, after -- or APUs after midnight. so, roughly, you were in -- and had you heard, at that time, about the restrictions about starting APUs?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : And the restrictions about starting APUs, as I understand it from other witnesses, is nobody was supposed to go through switches until after midnight.

(b) (3) (A), (b) (6) : That is correct, sir.

(b) (3) (A), (b) (6) : Okay. But you left before then. You said 2330 is when you left?

(b) (3) (A), (b) (6) : Right around ish. Yes, sir.

(b) (3) (A), (b) (6) : Okay. Who was the operations duty officer at about 2330 or 2300 when you left?

(b) (3) (A), (b) (6) : That would have been (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) . And with you as the squadron executive officer and the senior man present, did you go by and check in or check out with (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) (6) : I did not, sir.

(b) (3) (A), (b) (6) : Okay. What kind of weather were you tracking?

(b) (3) (A), (b) (6) : That it was good weather.

(b) (3) (A), (b) (6) : Okay. What were you tracking about sea

surface temperatures at that time?

(b) (3) (A), (b) (6) : At that time -- I wasn't tracking sea surface temperatures at that time.

(b) (3) (A), (b) (6) : What were you tracking about search and rescue alert disposition at that time?

(b) (3) (A), (b) (6) : I wasn't tracking at that time, sir.

(b) (3) (A), (b) (6) : What were you tracking about your aircrew wear of anti-exposure suits at that time?

(b) (3) (A), (b) (6) : I wasn't tracking at that time.

(b) (3) (A), (b) (6) : Okay. Did you -- when (b) (3) told you they were going to the tanker, did you ever go back and look at the squadron master flight schedule and see if it reflected the night systems air refueling code and or a tanker note? Before the mishap, did you do that?

(b) (3) (A), (b) (6) : I didn't, sir.

(b) (3) (A), (b) (6) : Did it ever occur to you to do that before the mishap?

(b) (3) (A), (b) (6) : Before, I didn't, sir.

(b) (3) (A), (b) (6) : Do you consider that to be a schedule change; adding a tanker. Do you consider that to be a schedule change before the mishap?

(b) (3) (A), (b) (6) : I would've thought it would have been a schedule change.

(b) (3) (A), (b) (6) : Who's authorized to make a schedule change in a hornet squadron?

(b) (3) (A), (b) (6) : Per the Wing order at CO, per the admin SOP,

it's CO, XO. And MAG just put out a new policy; it's CO only.

(b) (3) (A), (b) (6) : Okay. Who signs the flight schedule at 242, pre-mishap?

(b) (3) (A), (b) (6) : Commanding officer.

(b) (3) (A), (b) (6) : Anybody else sign it?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : NSO, XO, Ops O? Anybody else?

(b) (3) (A), (b) (6) : Not on the flight schedule.

(b) (3) (A), (b) (6) : How does the commanding officer know that his flight schedule has been reviewed by the aviation safety officer?

(b) (3) (A), (b) (6) : There's usually a routing sheet in the back, sir.

(b) (3) (A), (b) (6) : Okay. Have you seen this routing sheet before in the past?

(b) (3) (A), (b) (6) : In the past, I have not, sir.

(b) (3) (A), (b) (6) : So you believe there's a routing sheet, but you've never seen the routing sheet?

(b) (3) (A), (b) (6) : Okay. Did anybody ever bring you the flight schedule and have you check it before it went to

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

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Have you guys ever used a risk assessment worksheet at 242 -- ORM worksheet?

(b) (3) (A), (b) (6) : Like the one that goes per flight, sir?

(b) (3) (A), (b) (6) : I'm thinking the ones at MAG-11, MAG-14,

MAG-31, MAG-13, MAG-24, MAG-26. The risk assessment worksheets that many other MAGs in the Marine Corps use. Did you ever use a risk assessment worksheet like that at MAG-12 at 242?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : What other MAGs have you flown in?

(b) (3) (A), (b) (6) : Just MAG-11.

(b) (3) (A), (b) (6) : Okay. Did MAG-11 have risk assessment worksheets?

(b) (3) (A), (b) (6) : They did, sir.

(b) (3) (A), (b) (6) : Can you tell me a little bit about that?

(b) (3) (A), (b) (6) : It would have -- the schedule writer would usually fill it out and, for each event, it would go down and it would put the -- it was either number based. And then I believe the [inaudible] Ops O would sign it or -- I can't remember if the Ops O or the CO would sign it. It's been a while since I flown with MAG-11.

(b) (3) (A), (b) (6) : Okay. And what month and year did you come to MAG-12?

(b) (3) (A), (b) (6) : In July of 18.

(b) (3) (A), (b) (6) : July of 18. So you just got here.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : So when you checked into MAG-12 in July of 18 and you started flying with 242. The first time that you looked at the flight schedule, especially as a flight leader, were you asking the ODO, like, hey man, where's the risk assessment worksheet? Did you notice it's absence?

(b) (3) (A), (b) (6) : I did see that it wasn't there. I did not ask.

(b) (3) (A), (b) (6) : Okay. Did you, when you were in gun squadrons at MAG-11, did any of those squadrons at MAG-11 have a place on the daily flight schedule where the aviation safety officer, the executive officer, the operations officer, the aviation maintenance officer, or the ordinance officer initialed the flight schedule?

(b) (3) (A), (b) (6) : Usually I saw it was ASO and, I believe, the Ops O.

(b) (3) (A), (b) (6) : You never saw the aviation maintenance officer sign the flight schedule? You never saw maintenance initials on the flight schedule?

(b) (3) (A), (b) (6) : It's been a little while. I can't remember if they had a maintenance officer sign or not.

(b) (3) (A), (b) (6) : Okay. What squadron were you in in MAG-11?

(b) (3) (A), (b) (6) : 232 and 121, sir.

(b) (3) (A), (b) (6) : Okay. Judge, what do you got?

(b) (3) (A), (b) (6) : No questions, sir.

(b) (3) (A), (b) (6) : Did you ever fly with (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) (6) : I did once, sir.

(b) (3) (A), (b) (6) : How did he do.

(b) (3) (A), (b) (6) : Actually, pretty well.

(b) (3) (A), (b) (6) : Did you ever fly with (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) (6) : I did.

(b) (3) (A), (b) (6) : How did he do?

(b) (3) (A), (b) (6) : It was -- I did not notice any discrepancies. We flew one flight. We dropped ordnance on Australia. And handled the pod well, handled comms. No TCC issues.

(b) (3) (A), (b) (6) : Did you ever fly with (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) (6) : I did not, sir.

(b) (3) (A), (b) (6) : As the -- you said earlier that you're the squadron XO so you handled kind of the personnel stuff and discipline stuff and fitrep stuff. So kind of the officer development stuff. So if a company grade officer was having a hard time, you know, either legally or having a hard time at home or having some kind of problem. Would that be something that you would, perhaps, deal with?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. Did you, were you helping, with out getting into detail, were you helping (b) (3) (A), (b) (6) with any challenges in his personal life?

(b) (3) (A), (b) (6) : That was -- I understand my [inaudible]. That's all.

(b) (3) (A), (b) (6) : All right. So here's what I'm asking you, before the mishap were you helping (b) (3) (A), (b) (6) with any personal, administrative, or legal matters?

(b) (3) (A), (b) (6) : I was not, sir.

(b) (3) (A), (b) (6) : Okay. Let get into before the mishap. Were you helping (b) (3) (A), (b) (6) with any personal, administrative, or legal matters? (b) (3) (A), (b) (6) before the mishap?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : So you weren't tracking any legal issues or any administrative issues with (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Were you cognizant of (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) career progression in the Marine Corps?

(b) (3) (A), (b) (6) : I knew (b) (3) (A), (b) (6) [sic] was 1P'd.

(b) (3) (A), (b) (6) : What about (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) ? Did I say (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) (6) : You did.

(b) (3) (A), (b) (6) : I meant (b) (3) (A), (b) (6) had been 1P'd.

(b) (3) (A), (b) (6) : Okay. What about (b) (3) (A), (b) (6) ? Did you know that he had been passed over or had he been passed over at that time?

(b) (3) (A), (b) (6) : He was not eligible for promotion.

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) was not eligible for promotion; is that what you believe to be true?

(b) (3) (A), (b) (6) : Correct, sir.

(b) (3) (A), (b) (6) : So how many years, commissioned service, roughly, does (b) (3) (A), (b) (6) have?

(b) (3) (A), (b) (6) : Four to five.

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) only have five years commissioned service? So you think that (b) (3) (A), (b) (6) got commissioned in, approximately, 2014 or 2015?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. And you don't think that (b) (3) (A),

(b) (3) has been passed over for promotion to major?

(b) (3) (A), (b) (6) : Correct, sir.

(b) (3) (A), (b) (6) : Okay. What about (b) (3) (A), (b) (6) ? How was his professional development going? Professionally, how was he doing? Any concerns?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Okay. Had (b) (3) (A), (b) (6) taken a physical test recently? PFT? Did he run a PFT or a CFT pre-mishap, recently?

(b) (3) (A), (b) (6) : I'm not sure when the last one he had run, sir.

(b) (3) (A), (b) (6) : Do you know if he passed or failed his PFT or CFT recently?

(b) (3) (A), (b) (6) : If he had failed, I probably would have know about it.

(b) (3) (A), (b) (6) : Judge?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Is there anything outside your priveledged exposure that you'd like to add to this interview or to my investigative efforts to help me understand what happened and why?

(b) (3) (A), (b) (6) : This whole experience has been humbling. I've learned a lot. It caused myself to have a lot of self reflection. And so I take what I've learned from this unfortunate incident and move forward.

(b) (3) (A), (b) (6) : Is there anyone else that you'd recommend

that I speak with? Is there anyone that you know that wants to talk to me that I haven't talked to or anything else you think I need to look at?

(b) (3) (A), (b) (6) : Not that I can think of, sir.

(b) (3) (A), (b) (6) : Judge will swear you out.

(b) (3) (A), (b) (6) : Please, stand up, raise your right hand. Do you swear that the statement you provided is the truth to the best of your knowledge?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : And, sir, we ask that you not discuss anything that you talked about with us today other than with your A and B personnel just because we continue our investigation.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Thank you, sir.

(b) (3) (A), (b) (6) : Thank you.

[The interview closed at 1021, 29 March 2019.]

(b) (3) (A), (b) (6) : Today is Friday the 25th of January, 2019. We're in Iwakuni, Japan. I'm (b) (3) (A), (b) (6) assisted by Judge Advocate, (b) (3) (A), (b) (6) and Court Reporter, (b) (3) (A), (b) (6) .

The next interviewee is (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) , please state your full name for the record, spelling your last name.

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

. It's (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : And (b) (3) (A), (b) (6) , how would you like me to refer to you during this interview?

(b) (3) (A), (b) (6) : (b) (3) is fine.

(b) (3) (A), (b) (6) : (b) (3) , okay. (b) (3) , you can call me (b) (3) or sir, okay?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : (b) (3) , what is your current job in the Marine Corps? What's your billet?

(b) (3) (A), (b) (6) : Commanding Officer of VMGR-152.

(b) (3) (A), (b) (6) : How long have you been in command at 152?

(b) (3) (A), (b) (6) : Since June 15th of this past year.

(b) (3) (A), (b) (6) : What is your MOS?

(b) (3) (A), (b) (6) : 7557, Aircraft Commander, KC-130s.

(b) (3) (A), (b) (6) : How long have you been a C-130 pilot?

(b) (3) (A), (b) (6) : Since 2002.

(b) (3) (A), (b) (6) : Roughly how many hours do you have in the Herc?

(b) (3) (A), (b) (6) : Thirty-five hundred.

(b) (3) (A), (b) (6) : What qualifications and designations do you hold in that Herc?

(b) (3) (A), (b) (6) : I hold the Weapons Tactics Instructor, WTI; Division Lead; Assistant NATOPS Instructor; Fleet Replacement Squadron Instructor.

(b) (3) (A), (b) (6) : Are you a night systems instructor as well?

(b) (3) (A), (b) (6) : I was. That qual expired, and since coming back, with me being in the current position as commanding officer it takes more of a work-up to get it done than see -- the juice wasn't worth the squeeze.

(b) (3) (A), (b) (6) : But you've been previously designated?

(b) (3) (A), (b) (6) : I have.

(b) (3) (A), (b) (6) : Roughly, how many hours do you have on night vision goggles?

(b) (3) (A), (b) (6) : I'd say about 600.

(b) (3) (A), (b) (6) : Where were you in December of 2018?

(b) (3) (A), (b) (6) : December, I was here in Iwakuni.

(b) (3) (A), (b) (6) : Here in Iwakuni the whole time? What was your squadron doing in the first few weeks of December of '18?

(b) (3) (A), (b) (6) : We were doing the MAG ULT exercise.

(b) (3) (A), (b) (6) : Tell me about that. The purpose of it, at the unclassified level.

(b) (3) (A), (b) (6) : It started out as Vigilant Ace and then I know it switched to the [inaudible] one of her few different names and then switched down to the MAG ULT and basically testing different plans. As you said, keep it on the unclass here so just --

(b) (3) (A), (b) (6) : So basically, under the mission of the VMGR, you were providing assault support transport from here to other bases as well as providing air refueling?

(b) (3) (A), (b) (6) : Absolutely.

(b) (3) (A), (b) (6) : Okay. Did you attend or participate in any coordination meetings at the MAG level where you coordinated your roles and responsibilities with the roles and responsibilities of adjacent squadrons?

(b) (3) (A), (b) (6) : I was at at least one meeting before that.

(b) (3) (A), (b) (6) : Like a confirmation or a CUB [ph] or

anything like that?

(b) (3) (A), (b) (6) : Confirmation brief actually I was not at. I believe I was flying that day -- a local mission. But I did have my XO in attendance, (b) (3) (A), (b) (6) [ph], as well as the Ops O attended a lot of those meetings as well as our planner for that which is (b) (3) (A), (b) (6) [ph].

(b) (3) (A), (b) (6) : Were you surprised to learn that your aircrew was conducting air refueling on the night of the mishap?

(b) (3) (A), (b) (6) : I was not surprised.

(b) (3) (A), (b) (6) : How did you know that they were going to be tanking that night?

(b) (3) (A), (b) (6) : It was briefed to me previously. I knew, kind of, the flows for the week of what we were going to be doing. It was on the flight schedule.

(b) (3) (A), (b) (6) : Tell me about your flight schedule. So you're the squadron commander. You sign this flight schedule?

(b) (3) (A), (b) (6) : I do.

(b) (3) (A), (b) (6) : And when you sign a flight schedule, what kind of information are you reviewing?

(b) (3) (A), (b) (6) : I'm reviewing all of it as, kind of, the last, the final sanity check. But it goes through lots of checks and balances before it gets me. So it goes through air crew

training initially, gets viewed by them seeing if people are unproficient in codes, et cetera, if they need to be signed for the aircraft, not signed for the air craft or if instructors need to be on the aircraft. Next it goes to our DOSS, our DOSS reviews that, we use both MSHARP 2.0 as well as they have their own tracker that we're starting to lean off of since MSHARP is getting to be a better product. Initially, there were some rubs with that but they view for the same reasons to make sure we have qualified people on there instructing, et cetera. And then next, it goes to the Ops 0 and it also goes to the maintenance officer and then it comes to me. So there's four -- yeah, I believe it's four -- initials on there.

(b) (3) (A), (b) (6) : How do you come to understand -- you said initials, so are you presented with a document that has other people's initials on it?

(b) (3) (A), (b) (6) : it goes through them first before it gets to me.

(b) (3) (A), (b) (6) : So your flight schedule has blocks at the bottom with initials --

(b) (3) (A), (b) (6) : It does.

(b) (3) (A), (b) (6) : -- for the safety maintenance and training on it?

(b) (3) (A), (b) (6) : It does.

(b) (3) (A), (b) (6) : Oh you brought an example, you're presenting that to me?

(b) (3) (A), (b) (6) : I always carry this with me so it is.

(b) (3) (A), (b) (6) : He has an example of the flight schedule for the 25th of January and I can see at the bottom it says ACT, which is Air Crew Training; DOSS, Department of Safety and Standardization; Operations; and Maintenance; and in the bottom right-hand corner it actually has your signature. So when you're presented with this document, you're certain that four of your lead supervisors in this squadron have reviewed this flight schedule and you're effectively the fifth supervisor and the final supervisor that signs off on it?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. And I'm looking at your schedule for some few things. You have one block in here that T&R, what does that mean?

(b) (3) (A), (b) (6) : Training Readiness.

(b) (3) (A), (b) (6) : And underneath that I see a list of four digit numbers. Here's an example of a T&R code, 6120. What is that code, do you know?

(b) (3) (A), (b) (6) : That's an EP review, so they're

going in the sim to do emergency procedures.

(b) (3) (A), (b) (6) : So when -- and I have your flight schedules from the mishap, of course, but we don't have them here in front of me, but when your crews go out to conduct night air refueling, is there a T&R code associated with that?

(b) (3) (A), (b) (6) : There is.

(b) (3) (A), (b) (6) : Do you know that code off the top of your head?

(b) (3) (A), (b) (6) : I believe it's 3550.

(b) (3) (A), (b) (6) : Would it be normal for you to have a flight schedule that excluded that code and they went out and did refueling anyway?

(b) (3) (A), (b) (6) : No. If we're flying a CAT mission, so if we're flying just basically a point A to point B mission hauling cargo --

(b) (3) (A), (b) (6) : What does CAT stand for? I'm not familiar.

(b) (3) (A), (b) (6) : A Combat Assault Transport.

(b) (3) (A), (b) (6) : Okay. Transport mission. Go ahead.

(b) (3) (A), (b) (6) : Yeah. If I'm doing just a transport mission, in fact, I flew that plane before the mishap crew flew that plane because Hazi [ph] was the turnaround. But anyway, I flew a

CAT mission up to (b) (6), and -- just hauling cargo up there. There was no code associated with that for me because that's not a -- that's really not a T&R code for us, unless we're doing EP's, if that's already planned or whatever, then we have a 6120. But no codes associated with that so there was nothing next to my name.

(b) (3) (A), (b) (6) : If you were scheduled for a transport mission and then an hour or two before the brief, some receivers call up and said we want to tank, and let's say you were able to approve that, it made sense to approve that, would you change the flight schedule?

(b) (3) (A), (b) (6) : The master flight schedule would be changed. It would be red panned.

(b) (3) (A), (b) (6) : Tell me more about that.

(b) (3) (A), (b) (6) : We keep the master on top of the FDO desk, so in our ready room, you know, the squads refer to them as ODO, I call them a flight duty officer, FDO. So we keep the master schedule right there, and myself, I'm the only one that can make changes to that and do red pen and I'll initial next to any counter red pen changes that are happening.

(b) (3) (A), (b) (6) : So what I'm understanding you to explain to me is that if a few hours before the brief an adjacent squadron called your squadron and expressed a desire to conduct air

refueling, and let's say it's okay to do that, it made sense to do that, though it would be uncommon but let's say it was safe and legal, then the FDO perhaps in consort with another trusted agent like your operations officer would come to you and present you a piece of paper with red ink changes to it which you would sign?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : And that would therefore be your approval to execute a change to the flight schedule?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : In the absence of that, would it be acceptable for your crews to go do that?

(b) (3) (A), (b) (6) : In the absence, it would have to be dire, you know, dire circumstances.

(b) (3) (A), (b) (6) : No. Normal training.

(b) (3) (A), (b) (6) : Normal training? No. That needs to happen.

(b) (3) (A), (b) (6) : So if your crews went out and provided fuel -- say hypothetically your crews went out and provided fuel and your flight schedule did not reflect that and you found out about it after the fact, would you be okay with that?

(b) (3) (A), (b) (6) : Not at all.

(b) (3) (A), (b) (6) : Would you perhaps reprimand those crews

or counsel them?

(b) (3) (A), (b) (6) : Absolutely.

(b) (3) (A), (b) (6) : Could they expect to even sit down a few days depending on the circumstances?

(b) (3) (A), (b) (6) : Oh. They'd be benched immediately.

(b) (3) (A), (b) (6) : Okay. So it would be reasonably serious in your mind?

(b) (3) (A), (b) (6) : Absolutely, sir.

(b) (3) (A), (b) (6) : And why is that?

(b) (3) (A), (b) (6) : It's unbriefed. I mean, it's, you know, we have planning processes in place, checks and balances I mentioned before. From a safety standpoint as well as, it's just a good sanity check. It's good professionalism, good business.

(b) (3) (A), (b) (6) : So you consider it to be unprofessional and even circumventing the ORM process?

(b) (3) (A), (b) (6) : Oh. Absolutely.

(b) (3) (A), (b) (6) : So are you familiar with the acronym ORM?

(b) (3) (A), (b) (6) : Yes, I am.

(b) (3) (A), (b) (6) : Can you define it for me?

(b) (3) (A), (b) (6) : Operational risk management.

(b) (3) (A), (b) (6) : Okay. Are you familiar with the term hazard in the context of aviation? What constitutes a hazard?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : How would you define that?

(b) (3) (A), (b) (6) : Hazard would be any -- put me on the spot, all right --

(b) (3) (A), (b) (6) : Feel free to use your own words.

(b) (3) (A), (b) (6) : Well anything that's going to be a detriment to safety of flight.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : If we're talking from an aviation platform.

(b) (3) (A), (b) (6) : Okay. So anything that can go wrong, kind of, can be a detriment is a hazard. What -- how would you define a risk? And how is the word risk and hazard different, is what I'm getting at, a little ORM quiz for you here (b) (3) (A), .

(b) (3) (A), (b) (6) : All right. Risk -- I'm trying to figure out how I differentiate between the two to tell you the truth.

(b) (3) (A), (b) (6) : Okay. Can you tell me --

(b) (3) (A), (b) (6) : I mean you have risks that you're going to assume --

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : -- at times, and we put mitigating

controls in place.

(b) (3) (A), (b) (6) : You mitigate a risk. Okay.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. So you're getting to the ORM process a little bit. So can you tell me a little bit about, in your own words, what is the ORM process as it applies to executing C-130 missions and how you incorporate that in your flight schedule?

(b) (3) (A), (b) (6) : Well part of our briefs, of course, the ORM process is also in check through this process right here, so that goes along with who is qualified to be flying with whom, what instructor, you know, if we have a untrained --

(b) (3) (A), (b) (6) : So you're gesturing to your flight schedule and you're pointing at names, so you would pair the appropriate crews, crew pairing would be a part of your risk management process?

(b) (3) (A), (b) (6) : It would be a part of it, but it's not -- from a T&R standpoint, so if, you know, obviously you need an instructor if you have someone getting an initial code on there and you'd have an instructor that's going to be instructing them.

(b) (3) (A), (b) (6) : If someone's getting an initial code, how is that indicated on your flight schedule?

(b) (3) (A), (b) (6) : Oh there's an x next to the code.

(b) (3) (A), (b) (6) : So I'm looking at your flight schedule here and I see 3700X next to (b) (3) (A), (b) (6) [ph], so does that mean (b) (3) (A), (b) (6) is receiving a 3700 for the first time?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : And is that -- and above that I see (b) (3) (A), (b) (6) [ph], does that mean (b) (3) (A), (b) (6) is the instructor providing that training?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : What's different about an initial code compared to a normal code? What does that mean, you're just -- not to use the word, but you're doing it for the first time?

(b) (3) (A), (b) (6) : Absolutely. Doing it for the first time so there's going to be a -- you're going to go over the grade sheet item by item. Talk them through it, making sure they studied, that they are aware of procedures before you go up there so you're not doing on-the-job training, learning on the fly, and the instructor, of course, knowing they have someone up there that's brand-new and you're going to go over controls more, talk them through, just actually, you know, instruct.

Notice there is inherent risk with that, if someone's never done that before. Now there in the sim, for that code that you were talking about, now 3700 is an ALZ an Assault Landing Zone.

So short-field landings that we do on improved and unimproved surfaces. If you're doing that for the first time, absolutely, there's a lot of risk with landing a 120,000 lbs aircraft, that's --

(b) (3) (A), (b) (6) : So there'd be some deliberate risk management that goes into that, I assume.

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : A thorough brief, we'd be more careful about the weather perhaps.

(b) (3) (A), (b) (6) : Absolutely.

(b) (3) (A), (b) (6) : We would talk about takeoff and landing of your aircraft. And then the student, the pilot under instruction that's received initial code would then be required to do more robust academic preparation to ensure that he or she understood the fundamentals of the task at hand.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. And they know that because there's an x next to the flight schedule?

(b) (3) (A), (b) (6) : Correct.

(b) (3) (A), (b) (6) : What time of day do you normally publish your flight schedule on a routine, mid-week day?

(b) (3) (A), (b) (6) : 1530, around that time.

(b) (3) (A), (b) (6) : And how early, if you had a 1530 flight

schedule publication, how early would the student be expected to report -- prepared to brief an event the next day?

(b) (3) (A), (b) (6) : They're not going to be discovering they have a flight the next day when the flight schedule comes out.

(b) (3) (A), (b) (6) : How are they going to learn of that?

(b) (3) (A), (b) (6) : They'll learn ahead of time. We have the aircraft prog.

(b) (3) (A), (b) (6) : Tell me about the prog, does that stand for prognostic?

(b) (3) (A), (b) (6) : To tell you the truth, I do not know.

(b) (3) (A), (b) (6) : It's a forecast scheduled prog?

(b) (3) (A), (b) (6) : It's been called the prog for years and that's how I've always referred to it as the prog. So shame on me for using the acronym and not knowing.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Or shortened term, but the prog is located on our Sharepoint and it's probably the most viewed document, at least by air crew that everyone's seeing basically where they're going to be flying for the next month. You know, it does -- it is somewhat fluid and does change for different reasons, but for the co-pilots, they're pretty much -- when they're scheduled

for something, they're going to be on it.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : I'm probably the biggest violator of having to come off the prog last minute, et cetera, and making it more of a fluid document just because of CO duties and meetings that pop up that may have to change. But when that does happen, it's not happening day of or even day prior, it's usually about a week prior if that does happen. But co-pilots, they have plenty of time ahead to know that they're going to be doing this initial flight, they have time to prepare and we try to give them the courtesy, at least with that, not trying to throw too many things at them at once.

(b) (3) (A), (b) (6) : Okay. Do you guys use go and no-go pills at your squadron?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), (b) (6) : Why not? Why don't you guys --

(b) (3) (A), (b) (6) : I don't see the need. I think we have enough CRM, we have multi-pilot aircraft, you know, it's a --

(b) (3) (A), (b) (6) : Has there ever been any discussion about your flight surgeon dispensing Ambien to your air crews?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), (b) (6) : If an air crew came to you with what you thought was a legitimate reason to take Ambien, what steps would you

as a commanding officer take to approve or disapprove that? What level of approval would be required?

(b) (3) (A), (b) (6) : I'm not familiar, I mean, that's honestly something -- the only time I've ever seen go, no-go pills used OF-1 when I was a lieutenant and we had crews that were flying behind lines basically and those guys were on light schedules and using them. That's the only thing I know about it, so because of my lack of knowledge with this, I merely talk to the flight surgeon, I don't really talk to MAG CO. It would run up the chain.

(b) (3) (A), (b) (6) : You would seek guidance from your MAG CO?

(b) (3) (A), (b) (6) : Definitely.

(b) (3) (A), (b) (6) : Would you reference any key documents as well, key orders and directives, for information?

(b) (3) (A), (b) (6) : Yeah. I'd be looking at the -- formally known as the OPNAV, the SENAV, you know, 3710 and I would talk to my department of safety and standardization.

(b) (3) (A), (b) (6) : Do you have any idea -- would you -- hazard a guess what kind of guidance is contained in the 3710?

(b) (3) (A), (b) (6) : I couldn't even speculate because honestly we just don't use them.

(b) (3) (A), (b) (6) : So you'd look it up is what you're saying?

(b) (3) (A), (b) (6) : I would look it up.

(b) (3) (A), (b) (6) : You's talk to your boss and you'd look it up?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Would you tell one of your captain's, don't worry about it, you can take an Ambien if you want, it's no big deal?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : What's the policy inside Naval Aviation about taking non-prescribed medications of that nature?

(b) (3) (A), (b) (6) : It's forbidden.

(b) (3) (A), (b) (6) : Prohibited by OPNAV?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Or SENAV? I guess we have to start saying SENAV -- that doesn't matter -- so you've had a lot of time to think about this mishap, I know, and I may ask you some kind of blunt questions here, okay? What do you think we as a MAG and a Wing could have done differently to prevent this from happening?

(b) (3) (A), (b) (6) : It's still, kind of, a shock that it did happen because I've never used the word routine for a mission, but this is a very standard mission that we do. It's our primary mission, air refueling. We've done this over and over and over

again, and especially with Fixed Wing Aircraft -- before this happened it would appear to be lower risk than doing a helicopter refueling mission because we're flying closer to stall speed, we have the giant rotors next to our aircraft and that definitely is more of a pucker factor, if you will, for us flying those type of missions than a Fixed Wing.

(b) (3) (A), (b) (6) : So a Fixed Wing mission, you're up at 15,000 feet or so, you're in the 200 knot airspeed band -- 250 knot airspeed band, so nice and fast well [inaudible] speeds.

(b) (3) (A), (b) (6) : Right.

(b) (3) (A), (b) (6) : With a couple miles of sky below you.

(b) (3) (A), (b) (6) : Right.

(b) (3) (A), (b) (6) : With high performance receivers that don't have rotating wings, so you would think if a Harrier F-35 or Hornet come up, the probability of them striking your air frame and --

(b) (3) (A), (b) (6) : Extremely, extremely off.

(b) (3) (A), (b) (6) : Yeah. Has it ever happened before?

(b) (3) (A), (b) (6) : Our last Class A happened in 1969 over in Vietnam with a F-4 joining up on one of our aircrafts. So that's the only other time that I -- just knowing that from squadron history. Now since I've been flying, been in for nineteen and a

half years now, I haven't heard of this.

(b) (3) (A), (b) (6) : Have you ever heard of a 242 Hornet having a mid-air collision with a 152 tanker?

(b) (3) (A), (b) (6) : 2016, yes.

(b) (3) (A), (b) (6) : Tell me about that.

(b) (3) (A), (b) (6) : I've only read the SIR.

(b) (3) (A), (b) (6) : Don't disclose any special -- well, I can't have you tell me what the SIR says. So if your information is limited to the SIR, then I guess we can't discuss that.

Do you have any information that's outside of the SIR?

(b) (3) (A), (b) (6) : I have hearsay information because I haven't talked to all the people, specifically, about it. I've talked to people that have talked to people. Let's put it that way.

(b) (3) (A), (b) (6) : You heard any stories around the bar about it?

(b) (3) (A), (b) (6) : Basically.

(b) (3) (A), (b) (6) : What did those say?

(b) (3) (A), (b) (6) : Stories saying that 242 did not want to treat this as a mishap. That after it happened, they immediately started doing work on the plane. It wasn't considered a mishap aircraft.

(b) (3) (A), (b) (6) : Why do you think 242 made the argument

that striking your airplane with an airplane was not a mid-air collision?

(b) (3) (A), (b) (6) : I have no idea. It would appear to be that -- I don't want to point fingers at people or try to throw people under the bus, but if appears to be almost a cover up, like someone trying to cover their tracks.

(b) (3) (A), (b) (6) : Well, the reason that's important. Well, first of all, what you're referring to has come up in several other witness statements. So you are not the first person to mention that. That's how I became aware of it as being assigned this investigation. And I've been in Marine Corps Aviation since 1991 and I found it odd that I had never heard of that happening in 2016, because I keep a pretty close track of aviation safety events as a safety professional myself. So I was surprised to learn that it happened in '16.

Do you consider the hose in the basket to be part of the air plane?

(b) (3) (A), (b) (6) : I do.

(b) (3) (A), (b) (6) : Okay. So in your mind, if a receiver struck the hose in the basket. Particularly, if they were not attempting to affect the field transfer; for example, they were coming or going from the tanker and side swiped a hose in the

basket, would that be any different than side swiping perhaps the rutter?

(b) (3) (A), (b) (6) : I don't see that as being different.

(b) (3) (A), (b) (6) : Okay. Have you -- do you know if the 2016 event was day or night?

(b) (3) (A), (b) (6) : Night.

(b) (3) (A), (b) (6) : Do you know if it was with or without the use of night vision goggles?

(b) (3) (A), (b) (6) : That I'm not aware of.

(b) (3) (A), (b) (6) : Okay. What specific policies were put in after the 2016 event that affected how you were directed to conduct air refueling in 2018? Was there additional training, TTP's, or SOP's put in place at MAG-12, VMFAAW-242, or VMGR, what they did to prevent the same thing from happening again.

(b) (3) (A), (b) (6) : Honestly, sir, I don't know. I was in the Pentagon at the time, when this happened. And, in fact, I discussed it with 242's current CO because we worked across the hallway from each other and known each other for years. So he's the one who actually brought it to my attention, because I didn't hear it through my community, I heard it from him first. So we discussed it. Disbelief that that thing happened and that's the first that we heard of it, because he had his hands on the SIR. And the fact that

that wasn't really common knowledge, even in the aviation hallway or anywhere, it was kind of shocking. If any controls were put in place then anything from 152 standpoint, I would hope something happened with 242 or the MAG procedurally, but not knowing enough about it --

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : -- I can't speak intelligently.

(b) (3) (A), (b) (6) : That really concludes the germane questions that I had for you, (b) (3) (A), (b) (6). I know you spent the last six or eight weeks thinking about this. If we had to do it all over again, what do you think we could do differently to prevent this mishap?

(b) (3) (A), (b) (6) : I promise I'm not as familiar with MAG Ops. We're OP Con to the Wing. So we don't deal with them as much. Not sure how much they're injected in a squadron ops or how things are passed down as far as what mission sets going to be conducted.

I've heard and, again, this is all secondhand information, but I've heard that the mishap crew from 242 didn't know they were tanking until basically prior to the mission, which I find that that's unbelievable. Unbelievable to me, I mean we have planning processes in place here, there's -- this was an exercise that was

laid out for a while. Yes, it was a moving target. It did switch, as I said, from Vigilant Ace on down. But still, the fact that they were finding, you know, prior to their brief is shocking to me. We knew what we were doing weeks in advance.

(b) (3) (A), (b) (6) : So better communication?

(b) (3) (A), (b) (6) : Absolutely.

(b) (3) (A), (b) (6) : Okay. What are some steps that you took with a 24 hour operation? So the mishap occurred at 2 a.m., did you take any steps as a commanding officer when you selected your crews for different times a day to mitigate the risk of flying late at night?

(b) (3) (A), (b) (6) : No, we did. We actually had two NSI's from a pilot standpoint that were up there, very senior crew. Now, (b) (3) (A), (b) (6) [ph] was actually expired but he was legal to fly with another NSI, that's why he was not signing for the aircraft. That's why (b) (3) (A), (b) (6) [ph] was signing for the aircraft. So, I mean, we did put controls in place, made sure we had the right people doing this for the first mission we were doing that late at night. It was ORM'd heavily from the MAG on down. At least it was communicated that for me from (b) (3) (A), (b) (6) . He did say on many different occasions that, you know, if you're -- basically take a knee, if you feel like I'm going too fast, et cetera.

(b) (3) (A), (b) (6) : So the mishap aircrew who passed away in the C-130, they are highly experienced or low experienced?

(b) (3) (A), (b) (6) : Highly experienced. Pilot standpoint, highly experienced.

(b) (3) (A), (b) (6) : Yeah, pilots. Did you have any new guys flying?

(b) (3) (A), (b) (6) : Well define new guy, sir. I mean, we had two --

(b) (3) (A), (b) (6) : People with less than one year in the squadron. Pilots.

(b) (3) (A), (b) (6) : No. Well, one in the squadron, yes.

(b) (3) (A), (b) (6) : In the mishap crew.

(b) (3) (A), (b) (6) : Well (b) (3) (A), (b) (6) [ph] just checked in six months prior.

(b) (3) (A), (b) (6) : Okay. Let me ask the question differently. Had (b) (3) (A), (b) (6) [ph] conducted night systems air refueling before as a C-130 pilot?

(b) (3) (A), (b) (6) : Yes. He was an NSI.

(b) (3) (A), (b) (6) : So tell me what NSI means like I don't know what that means.

(b) (3) (A), (b) (6) : Night Systems Instructor. So he -- designated only by -- only MOTS can be given the check ride. You

have to have a certain amount of night hours, I'm just trying to remember how many it is off-hand, but both high light and low light. You have to take open and closed book exams. You have to instruct a slew of events. You have to fly every night systems event that's out there. So someone that's proficient and has a lot of experience on goggles are the only people that can become night systems instructors. You can't make the new guy --

(b) (3) (A), (b) (6) : So it's sufficed to say he was highly qualified and highly experienced?

(b) (3) (A), (b) (6) : He was highly qualified. Yes, sir.

(b) (3) (A), (b) (6) : Sir, why did you have a more experienced crew flying the night shift?

(b) (3) (A), (b) (6) : This was the first night mission, and I'm not going to throw the new guys right up there. Maybe people that haven't flown -- both these guys have deployed before, I mean, (b) (3) [ph] has deployed numerous times, (b) (3) [ph] as well. The point is if you're going to fly a 24 hour ops, you're flying all around the clock, so I mean people that have done it before also threw mitigation in there but not flying in the day prior. I think (b) (3) [ph] had a sim on Monday and he was standing by on Tuesday and this happened on Wednesday. Late Wednesday evening, early Thursday morning. And (b) (3) [ph] only flew on Monday, he never flew on

Tuesday either.

Now granted, it takes a little longer to get your circadian rhythms in check, but it's not like we were flying a midday mission the day prior. You know, we tried to put some controls in place with that, but also mitigated by having two NSI's on there, people with experience.

(b) (3) (A), (b) (6) : When did you have your less experienced pilots flying during the exercise? During the day or the night?

(b) (3) (A), (b) (6) : It was day missions.

(b) (3) (A), (b) (6) : And why did you have your less experienced pilots flying during the day?

(b) (3) (A), (b) (6) : It's just less risk and you're assuming, I mean, you know, you're putting on goggles, you're field of view is down, to basically to this.

(b) (3) (A), (b) (6) : So you just gestured with your hand. What's the field of view about?

(b) (3) (A), (b) (6) : Forty degrees.

(b) (3) (A), (b) (6) : And what's the field of view with the naked eye? Roughly?

(b) (3) (A), (b) (6) : I mean, roughly 180.

(b) (3) (A), (b) (6) : Yeah. 180.

(b) (3) (A), (b) (6) : You don't have peripheral vision on goggles, so if you want to see something that's over here, you have to turn the head.

(b) (3) (A), (b) (6) : And, sir, what steps did you take to ensure that you had squadron leadership distributed during the different times during the day when you're flying missions?

(b) (3) (A), (b) (6) : Well just that. I mean, we basically split them up. I don't have the schedule with me from that day, but we flew a lot of sorties on the first couple of days of that exercise. So I mean it's just making sure we're not flying, you know, XO, Ops O, CO, AMOL, looking at division all at the same time. So they were spread loaded throughout the day, so (b) (3) (A), (b) (6) was actually on more of a later afternoon and then did the evening flight for that week. I flew more and more in the midday or mornings. I mean, we had leadership back in the squadron.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : So it suffices to say that you recognized the hazard of flying 24 hour operations and you took your CO, XO, Ops O, AMO, your key leadership and you spread them out throughout the 24 hour day.

(b) (3) (A), (b) (6) : Absolutely.

(b) (3) (A), (b) (6) : So that you always had supervision?

(b) (3) (A), (b) (6) : Absolutely.

(b) (3) (A), (b) (6) : And experienced aircrew men in all flight events?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. That's it. Anything else?

Anything you'd like to add?

(b) (3) (A), (b) (6) : You talked about, you know, what can we do to prevent this from our hurt standpoint, honestly I don't know what else we could've done. Because I think, you know, we had, as I said, a very senior crew up there. We are taking steps with lighting, our -- so many of our documents right now from SENAV to FAA rules, to you name it, are all over the place including our NATOPS with what lighting should be.

(b) (3) (A), (b) (6) : And by that, you mean conflicting guidance from different sources?

(b) (3) (A), (b) (6) : Yes. Yes, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Yes, sir. Something like position lights, like basic OPNAV or SENAV. You know, having your position lights on 30 minutes prior to sunset or 30 minutes after, you know, sunrise. They're not NVG compatible in our aircraft. So like, when can we go covert, not going covert? Basically blackens the plane

out completely, but you do see it on NVG's. You'll see everything that's going on. So we're running that issue right now with conflicting and trying to figure out because not all type model series is conducted the same way.

I know we do aided -- our receivers are aided when they're tanking. Right now, we're running into issues down in Okinawa because they're -- we're not in a special use air space with the shooter track and geology. There's a few tracks down there that are, kind of, made up. We've been using them for years and it's come to light. You know, we want to keep our lights on because you're running a [inaudible] four door from Naha with people coming in, but it's blowing out the receivers as they come in which is also a safety fight issue. So we're trying to sit together at a table and figure out exactly what needs to happen. We're trying to put changes in from a type model series standpoint. I'm talking to NAV Air [ph], to see if we could get dimmable position lights, but that's not going to happen anytime soon. It's going to take some time, so for right now, we're trying to go with special use airspace and be able to either go covert if, you know, put enough risk management into play to do that.

(b) (3) (A), (b) (6) : Does the C-130 have white lights on the leading-edge of the horizontal stabilizer that shine forward and

illuminate the flaps of the wings? The wings and flaps.

(b) (3) (A), (b) (6) : We have them. We don't fly with them on that often, but it's basically like a --

(b) (3) (A), (b) (6) : What are they called?

(b) (3) (A), (b) (6) : ICE.

(b) (3) (A), (b) (6) : No, not the ICE lights, that's not what I'm talking about. I'm talking about the lights that are at back of the tail of the C-130 that shine forward that light up the back, that would basically light up the flaps of the refueling pods with a white light.

(b) (3) (A), (b) (6) : With pod illumination?

(b) (3) (A), (b) (6) : I think -- I don't know what they're called.

(b) (3) (A), (b) (6) : I think it's a pod illumination light, I believe.

(b) (3) (A), (b) (6) : Okay. But you know what I'm talking about?

(b) (3) (A), (b) (6) : I do.

(b) (3) (A), (b) (6) : Yeah. So the ICE light is on the leading edge wing -- is perpendicular to the --

(b) (3) (A), (b) (6) : Right. It shoots it out.

(b) (3) (A), (b) (6) : Yeah. That's not what I'm talking about.

So I think you called it a pod light, I thought they were called tanker lights, but do you guys ever use those?

(b) (3) (A), (b) (6) : Not often.

(b) (3) (A), (b) (6) : When would you use or not use them?

(b) (3) (A), (b) (6) : I'd say maybe like at dusk or something, you know, when you're, kind of, in that pinky time when it's not quite you're going to be aided yet but you need maybe to see better if the receivers are --

(b) (3) (A), (b) (6) : And it's for the receivers benefit and not yours, right?

(b) (3) (A), (b) (6) : Not as much as someone shining in the back there.

(b) (3) (A), (b) (6) : Okay. And that's that.

(b) (3) (A), (b) (6) : Yes, sir.

[(b) (3) (A), (b) (6) was warned, sworn, and departed.]

[The investigative interview opened at 1638, 24 January 2019.]

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) . Today is Thursday, the 24 of January, 2019. We are in Iwakuni, Japan.

(b) (3) (A), (b) (6) , Judge Advocate General and (b) (3) (A), (b) (3) (A), as the court reporter. We are interviewing (b) (3) (A), (b) (6) of VMFA-242 as a witness to the fatal mishap of December 2018.

(b) (3) (A), (b) (6) , can you please state your full name and spell your last for the record.

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) , (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) , how would you like me to refer to you?

(b) (3) (A), (b) (6) : My call sign, sir. My call sign is (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay, (b) (3) (A), (b) (6) . You can call me (b) (3) (A), (b) (6) or sir as you'd like.

What is your billet in the squadron?

(b) (3) (A), (b) (6) : The aircraft maintenance officer, sir.

(b) (3) (A), (b) (6) : How long have you had that job?

(b) (3) (A), (b) (6) : Since June of 2018.

(b) (3) (A), (b) (6) : How long have you been at 242.

(b) (3) (A), (b) (6) : I checked in -- it was 2016. June 2016, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : What positions have you held in the squadron?

(b) (3) (A), (b) (6) : I was the WISSO training officer. Then I was the assistant maintenance officer. Then I was the QAO. I'm currently in my billet, now.

(b) (3) (A), (b) (6) : A lot of time downstairs?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Where were you in December of 2018.

(b) (3) (A), (b) (6) : I was in Iwakuni, sir.

(b) (3) (A), (b) (6) : What was your role in the MAG ULT?

(b) (3) (A), (b) (6) : I was still functioning as the AMO and I was flying missions as scheduled daily.

(b) (3) (A), (b) (6) : What crew were you on?

(b) (3) (A), (b) (6) : I was on the swing crew, so I would fly.

(b) (3) (A), (b) (6) : So what was your working day?

(b) (3) (A), (b) (6) : I'm trying to think the -- the first day I was on nights that night. So I flew and I came in around noon. I flew a night mission.

(b) (3) (A), (b) (6) : Did that mission go?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. And then, where were you during

the mishap?

(b) (3) (A), (b) (6) : I was at home in bed.

(b) (3) (A), (b) (6) : What was your crew day on the day of the mishap? Like when did you come in to part the spaces?

(b) (3) (A), (b) (6) : I think I showed up that morning around eight or nine-ish. So I landed, debriefed, and got out of there to allow adequate rest and everything. Then I showed up the next day and I was fragged for a fly, a pit-fly to (b) (6), and back to here, sir.

(b) (3) (A), (b) (6) : On Tuesday?

(b) (3) (A), (b) (6) : Tuesday was the fifth, correct?

(b) (3) (A), (b) (6) : No. Tuesday was the fourth.

(b) (3) (A), (b) (6) : So on the fourth I flew the night op.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) : So I flew the night op and on the morning of the fifth, or the after day of the fifth.

(b) (3) (A), (b) (6) : That's just enough time to get home, sleep, and get right back in?

(b) (3) (A), (b) (6) : Yeah. So I think I flew Monday night.

(b) (3) (A), (b) (6) : Yeah. You came back and flew Tuesday morning.

(b) (3) (A), (b) (6) : Tuesday to (b) (6), (b) Came home and went to bed. And then, four hours later I got the phone call that the crash had

happened.

(b) (3) (A), (b) (6) : You might have skipped a day there because I think on Wednesday was the day of mourning and I think they canceled all of the day flights on that one day.

(b) (3) (A), (b) (6) : That was the day I went to (b) (6), (b)

(b) (3) (A), (b) (6) : But I understand the gist of what you're saying.

Okay. So you've been here since '16. You've worked downstairs. Do you wear a dry suit very often?

(b) (3) (A), (b) (6) : Yes, sir. When the water temp is below 60 or outside air temps or windshield adjusted is below 32. And/or.

(b) (3) (A), (b) (6) : How do you know to wear a dry suit? Does ODO brief you that or

(b) (3) (A), (b) (6) : ODO generally briefs it to one of the senior air crew. If he doesn't brief it, then I will make him brief it.

(b) (3) (A), (b) (6) : Where are the references that guide you to wear a dry suit?

(b) (3) (A), (b) (6) : It's in the SEANAVINST, formally known as the OPNAV instruction.

(b) (3) (A), (b) (6) : 3710.

(b) (3) (A), (b) (6) : Okay. What does it say about dry suits, just generally. I mean I know we're not looking at tables, but,

just generally, what does it say?

(b) (3) (A), (b) (6) : It says if the water temperature is below 50 degrees, you shall be afforded the opportunity to wear one.

There is never a "shall" in there.

(b) (3) (A), (b) (6) : What does it say about search and rescue capabilities in that section?

(b) (3) (A), (b) (6) : As far as on station time and everything?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : I know there's the chart for height-weight body fat --

(b) (3) (A), (b) (6) : No. No. What does it say about how long it takes to get somebody picked up if you pull the handle in that section?

(b) (3) (A), (b) (6) : Are you saying, like, a time it should take or you shall not fly if it takes longer? I don't know, sir.

(b) (3) (A), (b) (6) : Okay. That's a good answer.

(b) (3) (A), (b) (6) : What do you know about the search and rescue capabilities here at Iwakuni before the mishap?

(b) (3) (A), (b) (6) : I knew a lot because I was involved in the 2016 Class A mishap when Red Stripe passed away.

(b) (3) (A), (b) (6) : Tell me about that.

(b) (3) (A), (b) (6) : I was airborne the night that it happened and I

was in a different air space about 180 miles away. But I heard the guard call go out.

(b) (3) (A), (b) (6) : Tell me more.

(b) (3) (A), (b) (6) : I landed. I had about 15 to 20 minutes of fuel left. I was close to a field and I landed. I went through the pits, topped off, and then sat stripler awaiting the call to launch, but it never came. I ended up shutting down after about an hour and a half of sitting stripler that night. And then, over the ensuing weeks, we got CAPES brief from the CHASDIV from their US-1, US-2, and all of their EO, IR, DF capability and everything they had. So that was pretty familiar with all of their capabilities, sir.

(b) (3) (A), (b) (6) : So how long did it take to find the mishap crew to whom you refer?

(b) (3) (A), (b) (6) : They found his body at about 20 hours later, sir.

(b) (3) (A), (b) (6) : Two zero hours?

(b) (3) (A), (b) (6) : Yes, sir. He crashed at about 1900 on the -- I can't remember what night of the week it was. But he went down about 1900. And it was about 1400 or 1500 the next day when they found his body.

(b) (3) (A), (b) (6) : Did aircraft locate his body or was it a ship?

(b) (3) (A), (b) (6) : I think it was a Japanese sea plane. I don't know. None of MAG-12 actually located him.

(b) (3) (A), (b) (6) : So based on that experience, was that mishap was a similiar distance and a similar air space to this one?

(b) (3) (A), (b) (6) : The exact same air space.

(b) (3) (A), (b) (6) : Based on that experience, do you have the impression that it could take about 20 hours before you could be recovered if you had ejected?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : So how long do you think it would take you to get recovery if you ejected?

(b) (3) (A), (b) (6) : If I was responsive and able to talk in my radio or make something, I would say probably about 3 or 4 hours.

(b) (3) (A), (b) (6) : 3 to 4 hours if you could push to talk on your radio or whatever.

(b) (3) (A), (b) (6) : From best assessments, the ejection killed him.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : He was not responsive at all. If the assumption being you could get on your Sea-Cell radio or whatever and hit IMO or talk to somebody then yeah. Because there were assets on station within 2 to 3 hours at the previous mishap.

(b) (3) (A), (b) (6) : Okay. How long do you think you would

survive in 68 degree water without a dry suit or an exasperation suit based on your training? Based on your Navy aviation/Marine Corps training?

(b) (3) (A), (b) (6) : I'd say probably around 30 minutes tops.

Depending on if you couldn't get in your raft.

(b) (3) (A), (b) (6) : Yeah. Let's say you couldn't get in your raft.

(b) (3) (A), (b) (6) : I'd say 30 minutes tops, sir.

(b) (3) (A), (b) (6) : 30 minutes. So 30 minutes until you're unconscious I think is what you mean. And how many minutes do you think until you're dead?

(b) (3) (A), (b) (6) : Decreased heart rate and everything with cold water, you may last about 10 to 15 minutes. I don't know.

(b) (3) (A), (b) (6) : So it's just your impression that you would die within about an hour in 68 degree water without a dry suit. Is that, kind of, like, your rough impression?

(b) (3) (A), (b) (6) : Give or take a little bit, sir.

(b) (3) (A), (b) (6) : And is it also your impression that it would take 2 or 3 hours for somebody to find you and get you out of the water, based on about what you previously said about SAR assets in Iwakuni?

(b) (3) (A), (b) (6) : If you're going purely off of organic SAR

assets, yeah I'd say a good rule of thumb would be a couple hours. Now if you get lucky and there's a boat or there happens to be a US-1 already in the air, they divert and it may be sooner. But generally, all things being equal, you're looking at a couple of hours.

(b) (3) (A), (b) (6) : Okay. So what I'm hearing you say is it's your general impression that if you eject and intrasouth without a dry suit in 68 degree water, you are going to die.

(b) (3) (A), (b) (6) : If you can't get in your raft?

(b) (3) (A), (b) (6) : Yeah. If you can't get in your raft, you are going to die. I'm just trying to figure out as the senior guy how you would brief that. Informed by your experience and informed by your training,

(b) (3) (A), (b) (6) : 68 degree water. I would have to look at a chart. That's just me guessing right here off the hip, sir. But I'd say you got an hour or so, tops. And then, incapacitation sets in.

(b) (3) (A), (b) (6) : So you have about this much time to live and this much time to get picked up. And I'm not trying to be flippant with you, but I'm trying to, kind of, role play if I was a new Captain at 242 and you and I were having this discussion on whether to wear the dry suit.

If the discussion went much like ours is now, would you be inclined to tell a guy "wear your dry suit. You're probably not going to live long enough for somebody to pick you up?"

(b) (3) (A), (b) (6) : Not at 68, I mean, if he gets in his raft. And I know for a fact you can live for 4 to 5 hours without a dry suit in 68 degree water.

(b) (3) (A), (b) (6) : If you get in a raft?

(b) (3) (A), (b) (6) : If you get in a raft.

(b) (3) (A), (b) (6) : But if you don't get in the raft then it's a lot less than what you'd think.

(b) (3) (A), (b) (6) : I don't think it's of certainty, but I think your chances.

(b) : So I'm a captain in your squadron and I just checked in. So what I just took from that conversation was either wear your dry suit or make sure you get in the raft.

(b) (3) (A), (b) (6) : Okay. That's fair. I'm just trying to understand perception. It's not an ATOPS quiz. I'm not counseling you.

(b) (3) (A), (b) (6) : Truthfully, I've never thought of that aspect of it too much.

(b) (3) (A), (b) (6) : So you wouldn't wear a dry suit in those conditions?

(b) (3) (A), (b) (6) : 68 degree water, no.

(b) (3) (A), (b) (6) : In the intra south?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), (b) (6) : At night?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), (b) (6) : 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?

(b) (3) (A), (b) (6) : No. 68 degree water, I wouldn't wear it.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : You've been to MCRD. You've probably worn one, sir.

(b) (3) (A), (b) (6) : Yeah.

(b) (3) (A), (b) (6) : They're a huge pain. Do you know what I mean?

(b) (3) (A), (b) (6) : Yeah, I get it. I didn't like it either.

Let's talk about night vision goggles. What's your total time in the hornet?

(b) (3) (A), (b) (6) : About 13 or 1400, sir.

(b) (3) (A), (b) (6) : And roughly, how much time do you have on the goggles?

(b) (3) (A), (b) (6) : Probably between 150 to 200 hours.

(b) (3) (A), (b) (6) : Of those 200 hours, roughly how much time

wearing the ANVS-11?

(b) (3) (A), (b) (6) : The ANVS-11, that's the new AMCD's, correct?

(b) (3) (A), (b) (6) : It is.

(b) (3) (A), (b) (6) : That's the newer mod?

(b) (3) (A), (b) (6) : It is.

(b) (3) (A), (b) (6) : I've probably got a third of my time in those.

(b) (3) (A), (b) (6) : So maybe 60 hours or so?

(b) (3) (A), (b) (6) : Yeah. Give or take. Yes, sir.

(b) (3) (A), (b) (6) : When you transitioned from the ANVS-9 to the ANVS-11, what kind of training did you receive?

(b) (3) (A), (b) (6) : We got the brief from the MAG AMPSO, the full brief, with -- I'm trying to remember what it was. It was two years ago. We were required to get the full brief from the MAG AMPSO about the illusions and hazards. The differences, really the biggest take away, was hey you're visual QD is a little bit less when the NBCD's are the PBS-9's. And there was the briefed potential of inverted symbology that had been noted in the hornet community, like, twice at the time.

(b) (3) (A), (b) (6) : What about -- were you briefed about anything different about the capabilities of the two goggles and low-light level conditions. If one performed better in low light.

(b) (3) (A), (b) (6) : Yeah. I'm pretty sure it was the older model

that performed better in low light and, generally, had better QD overall.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : I prefer the 9's over the 11's, but the 11's obviously give you the symbology and weapons queuing. All of that stuff.

(b) (3) (A), (b) (6) : So naturally -- and I understand that you're a WISSO -- but naturally you've been in the tanker many times at night.

What kind of lighting integration do you normally see from the tanker at night? Overt, covert, or lights off?

(b) (3) (A), (b) (6) : Generally, it will be overt during the join.

(b) (3) (A), (b) (6) : Overt.

(b) (3) (A), (b) (6) : And then once we get stabilized in echelon, then depending on flight lead, you know it's pilot dependent. I'm a WISSO. It doesn't matter to me. I don't care if you say goggles on or goggles off. Whatever you feel most comfortable with.

(b) (3) (A), (b) (6) : All right.

(b) (3) (A), (b) (6) : And generally, once you get stabilized in echelon, then we'll talk about it and the pilot will make the call like, hey. We request covert or we request overt.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Either way, we'll tank. Most guys like covert while they're in. And then, once we're stabilized by the tanker I generally won't let guys join with covert lighting because it let's you judge closure a little better, altitude, and -- plus if you've ever tanked off of covert, I'm sure you have.

(b) (3) (A), (b) (6) : I have.

(b) (3) (A), (b) (6) : Yeah. I'm sure you know what it looks like. It's hard to see until you get right up on a guy.

(b) (3) (A), (b) (6) : Yeah.

(b) (3) (A), (b) (6) : So overt until we get stabilized at about a .1, then go covert and drift back out to tank.

(b) (3) (A), (b) (6) : What about -- what do you know about the external lights on the C-130 as far as what kind of lights they have to aid in tanking? Marine Corps KC-130J?

(b) (3) (A), (b) (6) : I mean, we've got the overt. They've got the covert. We've got the light at the back of the casket that you should be able to see when you push the basket in. You should be able to see that in overt and covert.

(b) (3) (A), (b) (6) : Does a C-130 have white lights on the leading edge of the horizontal stabilizer that they can turn on and illuminate the back of the tanker? Have you ever heard or seen those used?

(b) (3) (A), (b) (6) : If they do, I've never seen them used, sir.

(b) (3) (A), (b) (6) : Okay. And how many hours do you have on the hornet?

(b) (3) (A), (b) (6) : Like 13 or 1400, sir.

(b) (3) (A), (b) (6) : And how many times do you think you've been in the night tanker in 1300 hours? How many times do you think you've been in the Marine Corps KC130-J night tanker in your whole career?

(b) (3) (A), (b) (6) : I couldn't even count. Dozens.

(b) (3) (A), (b) (6) : Twenty? Fifty?

(b) (3) (A), (b) (6) : Probably fifty at least. If not, then one hundred.

(b) (3) (A), (b) (6) : So in about fifty times, you don't have any recollection of anybody turning on the lights in the horizontal stabilizer to illuminate the back of a C-130 -- that shine forward and illuminate the flaps and the basket and the whole area behind the wing of the C-130 for the aid of the crew receiving fuel?

(b) (3) (A), (b) (6) : When you say shine forward, so it's on the horizontal stab?

(b) (3) (A), (b) (6) : Yep. It's like a landing light on the horizontal stab that shines forward.

(b) (3) (A), (b) (6) : But the basket sits out behind the horizontal

stab.

(b) (3) (A), (b) (6) : The stab does.

(b) (3) (A), (b) (6) : So if it shines forward -- you said it lights the basket up?

(b) (3) (A), (b) (6) : It doesn't. It lights up the flaps in the wing route and the back of the wing of a C-130. Have you ever heard of anything like that?

(b) (3) (A), (b) (6) : I don't recall it, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Most of the time I've got goggles on and we're covert when we're tanking off.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : What is the field of view of the night vision goggles? How many degrees?

(b) (3) (A), (b) (6) : 40.

(b) (3) (A), (b) (6) : And what's the field of view of the naked eye roughly?

(b) (3) (A), (b) (6) : I think it's about 270. No, not 270. It's out to here --

(b) (3) (A), (b) (6) : Does 210 sound familiar?

(b) (3) (A), (b) (6) : It sounds about right. I know you're QD goes down, you know, from like 20/20 here to 20 whatever -- 200 out here.

(b) (3) (A), (b) (6) : Yep.

Any discussions about go pills and no-go pills for the MAG
ULT?

(b) (3) (A), (b) (6) : I remember -- I was sitting at home and somebody asked the question over text and I remember the flight doctor came back quickly with a, hey. This is the order, whatever. This is the order and not approved and whatnot. I didn't think too much about it because I was like, "Dude, we're only flying two nights in a row. Like it's not like we're doing sustained combat ops." And I never engaged any more than that other than seeing that one message, sir.

(b) (3) (A), (b) (6) : Do you think it's unusual that they went to the tanker that night? Were you expecting to take that night, the mishap air crew, based on your knowledge of what was going on with the ULT?

(b) (3) (A), (b) (6) : Truth be told, that night I just knew those guys were scheduled to fly that night. I did not know that night what exactly they were scheduled for because I had been out and I flew -- I ended up flying three flights that day to (b) (6), (b) So I went to (b) (6), (b) We were not allowed to land there. We were told to do low approach only. When we came back to Iwakuni, I was told to hit the pits. And whoever outside the squadron was able to

coordinate us to be able to land at (b) (6), (b) to go back and try again.

So I went back to (b) (6), (b) I landed. We were allowed to land that time. We had Marines staged over there. I ran through the high pits and I topped off. And then, I flew a third flight back here to Iwakuni. And by that time, I had been in the jet for who knows how long. I think I flew like --

(b) (3) (A), (b) (6) : So you flew three flights, but it was really four laps right?

It was there and -- so it was there, back, there, back. But the first time was just a low pass, so that's why you're saying three.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. I got it.

So you land -- you went up there once and didn't land and came back. Another time you went there and landed. So you had three landings.

(b) (3) (A), (b) (6) : Yes, sir. And they were all you know just nav-lags back and forth just to land at (b) (6), and test out the fuel pits. But -- so I did not look at the flight schedule that day at all because I was gone pretty much all day briefing, debriefing, and flying three landings. So I knew those guys were flying at night.

I didn't know exactly what they were doing.

(b) (3) (A), (b) (6) : Is it common to go do something that's not on the flight schedule? Like, is it common to be scheduled for a FAM and then go to a tanker? Is that a common occurrence?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), (b) (6) : Would you find it unusual if you showed up for a flight brief and the flight schedule said -- did not say tanker and did not have tanker notes, and only had FAM on there.

Would you find that unusual that you're going to the tanker?

(b) (3) (A), (b) (6) : It depends on who I was flying with.

(b) (3) (A), (b) (6) : Well, you're flying with (b) (3) (A), (b) (6) . He just starts briefing the tanker.

Would you find that unusual if it wasn't on the flight schedule?

(b) (3) (A), (b) (6) : I may find it a little unusual, but based on the, I guess, on the exercise we were doing that week with, you know, the Sumo's and going down doing the air refueling and what not. I wouldn't have thought it because we were doing, you know, coordinating between squadrons and what not. I wouldn't have thought that it was that unusual. Especially when the guys were qualified, current, and not what I would consider junior guys. They

had all tanked at night. So I wouldn't have thought that was too outside the realm.

(b) (3) (A), (b) (6) : Would you consider that a flight schedule change, adding a TNR code?

(b) (3) (A), (b) (6) : Depends on what the code is.

(b) (3) (A), (b) (6) : The code is tanking.

(b) (3) (A), (b) (6) : Tanking 2011 code? He's already qualified and current on everything with the tanker.

(b) (3) (A), (b) (6) : Yep.

(b) (3) (A), (b) (6) : It's hard to say at this point. I mean, hindsight of me knowing what I know now, realtime at two in the morning, I may have tried to call the CO or the XO to get approval for it. But it was two in the morning and everybody is on --

(b) (3) (A), (b) (6) : Well, let's say your briefed and it's 2200?

I'm not asking you to throw darts at your squadron mates. I'm just trying to understand what the perception would be in [inaudible] that would be doing something that's not on the flight schedule and what constitutes a flight schedule change requiring CO approval and what doesn't.

(b) (3) (A), (b) (6) : I would say adding a tanker for that mission would not -- I probably would have -- if I couldn't have got a hold

of the CO, I probably would have done it based on the crew that was flying that night. If the mission -- if we swap names for anybody, you know, different guys flying with different guys or name swaps or, I would say, any significant mission change like, "Hey. We're going out to do air-to-air and not we're going to go do night pop attacks, low altitude type stuff." Yeah, absolutely no.

Like any name changes, any significant mission changes, or significant time changes.

(b) (3) (A), (b) (6) : So if you couldn't get a hold of the CO, who else in the squadron would you go to for a schedule change?

(b) (3) (A), (b) (6) : I would go to the XO.

(b) (3) (A), (b) (6) : And after that?

(b) (3) (A), (b) (6) : Then it's down to me and the OPSO. But at that point, if I can't get a hold of the CO or the XO --

(b) (3) (A), (b) (6) : And what shift was the CO on?

(b) (3) (A), (b) (6) : I think he was on morning shift.

(b) (3) (A), (b) (6) : XO, OPSO?

(b) (3) (A), (b) (6) : I was on the swing crew with the XO because I was flying with the XO that day.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : And then, the OPSO -- I don't remember.

(b) (3) (A), (b) (6) : Is there any other field grades on the

swing shift?

(b) (3) (A), (b) (6) : Yeah. Me and the XO. I don't remember.

(b) (3) (A), (b) (6) : How about the night shift?

(b) (3) (A), (b) (6) : I don't remember either.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Sorry.

(b) (3) (A), (b) (6) : Do you normally review the flight schedule?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : By what means?

(b) (3) (A), (b) (6) : Usually the [inaudible] brings it down to my office. I will look at it. I will bring my MMCO in as well and maybe my maintenance chief -- maintenance control chief. I'll bring those guys in.

I, generally, got a pretty good handle on what jets are RBA numbers and what we're expecting, but I'll just bounce it off of him. Like, "Hey. Do you guys see anything on here we can't support like turn times, you know, or numbers we're expecting on RBA?"

Things like that. But, generally, I review it everyday, sir.

(b) (3) (A), (b) (6) : How do you document the fact that you reviewed it?

(b) (3) (A), (b) (6) : Usually there is a sheet. It wasn't on the schedule itself, but the schedule writers have, like, their sheet and it was a separate piece of paper that I would initial that I had reviewed it.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : And that was a practice during the exercise?

(b) (3) (A), (b) (6) : It has been practiced ever since I've been the maintenance officer.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Is there anything you'd like to add about the mishap, circumstances of facts?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : I mean, obviously, you guys have thought about it and talked about it a lot. Is there anything that you think the Marine Corps or the wing or the MAG could do different or better to reduce the probability of a like-incident in the future?

Be frank.

(b) (3) (A), (b) (6) : I would say, looking at the operational tempo -- and you, kind of, nailed it with everything you listed off before we even started talking, sir -- was looking at operational

tempo and being able to keep out aircraft healthy, which will then transfer to more proficiency and more flight ours.

(b) (3) (A), (b) (6) : So you feel like we're more like on the backside of the readiness generation curve because we're just living hand-to-mouth with flight hours generation down the barn.

(b) (3) (A), (b) (6) : I would say, I mean, our team this summer -- I mean we went to Australia. Our cargo did not show up for 31 days until after we arrived.

(b) (3) (A), (b) (6) : How did that affect your ability to operate as a maintenance department?

(b) (3) (A), (b) (6) : We had to get a significant amount of tools and support equipment from the 75 squadron. The AUS and the resinate raft squadron. We had to get a lot of support from those guys.

(b) (3) (A), (b) (6) : Did that reduce the efficiency of maintenance man hours?

(b) (3) (A), (b) (6) : I would say yes. I don't have the quantifiable data, sir. But, yeah, I had to send guys home.

(b) (3) (A), (b) (6) : Did it make it harder to do you job well?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : And then, of course, our cargo didn't arrive until 31 days after. And then, our tanker got delayed over -- I

think we ended up staying an extra three weeks down there.

And then, of course, that was driven by the typhoons. There was typhoons in Guam, typhoons in Hawaii, that delayed 2 or 3 other F-18 squadron's movements from -- I'm sure you probably remember from being in the G-5. There was one squadron that was retrograde back to Beaufort. Another one coming out of Mirimar when we were in Australia. So our tankers effectively got delayed for two and a half to three weeks while we were in Australia.

Everybody was expecting us to be gone. So the AUS pretty much cut loose all of their air-traffic controllers and most of their support agencies. And we were only able to fly, like, an FCF or a ConHop, one of the two flights a day for those two and a half weeks while we were just waiting on tankers.

And then, you know, we come back and we had maintenance inspections followed by, you know, visual aids being canceled. And then, it gets turned into another exercise.

(b) (3) (A), (b) (6) : From a maintenance officer's perspective, when a visual aid, would it have been more effective for you to just spend that time grooming airplanes?

(b) (3) (A), (b) (6) : Absolutely, sir.

(b) (3) (A), (b) (6) : What kind of things would you have done to groom airplanes?

(b) (3) (A), (b) (6) : I would have, I mean, one I'm short on manpower right now, specifically air framers. And that's my big thing. Obviously, this jet is old. It takes air frames. That's probably the preponderance of my workload downstairs.

And I've been working with -- were you ever a maintenance officer, sir?

(b) (3) (A), (b) (6) : I was.

(b) (3) (A), (b) (6) Okay. So I've had zero CDI's in my air frame shop for almost three months now.

(b) (3) (A), (b) (6) : So how do you get things signed up? Do you have to use the CDQ form?

(b) (3) (A), (b) (6) : I mean, I have three CDQ's. I've got two gunny's and a staff sergeant. One's my QAR, so that's not his primary job to be out there turning wrenches anymore. The other one is the division chief. And then, the third one -- he's getting ready to PCS and he was working in corrosion control. So really, my three guys are doing the work of corporal and sergeant CDI's most of the time. And the preponderance of my workload is air frames. So that's really been my hamstring over the last few months. But, yes, we would.

(b) (3) (A), (b) (6) : What do you contribute that to? Why do you think 242 has a low number of qualified maintenance personnel,

or is that true fleet wide or is it worse here?

(b) (3) (A), (b) (6) : I couldn't speak for the entire fleet, sir. I would say a lot -- I'm trying to think of how Headquarters, Marine Corps just fixed this problem in the last few months. So instead of sending Marines out on two-year orders, they are now sending them out on three-year orders. So it used to take about two years to make a CDI -- get them to corporal and make them a CDI. When they get that two-year mark, see you. I'm going to MAG-11. I'm going to Miramar. Now we get them for an extra year, but we haven't really got to see the benefits of that yet because it just went into place. So I think that's going to be a big help and I have a lot of Marines that want to extend out here. That's helping out a lot, but I think it's just getting guys out here with the overseas screening process and then just the stigma of --

(b) (3) (A), (b) (6) : Stigma? What do you mean?

(b) (3) (A), (b) (6) : I mean, just, you come out here and, you know, it's living in a foreign country. You know, maybe you don't have all of the rights that you would have back in the states and the freedoms and what not. So, and then, plus being away from your family in the long term, sir.

(b) (3) (A), (b) (6) : Were you at Beaufort before?

(b) (3) (A), (b) (6) : I was at resident EWS before, sir. And then, I

was at MAG-31.

(b) (3) (A), (b) (6) : Well, a lot of guys at MAG-31 there are fighting and trying to get out to MAG-12.

(b) (3) (A), (b) (6) : I'd say find it.

(b) (3) (A), (b) (6) : Making efforts for guys like call-in or MMOA or MMEA depending on who they were and then requesting orders from MAG-31 to MAG-12.

(b) (3) (A), (b) (6) : I don't think I've ever heard of anybody requesting orders to come out to MAG-12.

(b) (3) (A), (b) (6) : Why is that?

(b) (3) (A), (b) (6) : Do people ever request to go from here to Miramar?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Why is that?

(b) (3) (A), (b) (6) : Because you're in San Diego. You get more freedom and less --

(b) (3) (A), (b) (6) : Do you think that as a second of fact in readiness in MAG-11? Do you think MAG-11 gets more and higher quality people because of their location and perhaps it's more difficult to get the right numbers to the right people in Iwakuni because of our location, overseas screening, and other topics which you've touched on?

(b) (3) (A), (b) (6) : I think it's got something to do with it, sir.

(b) (3) (A), (b) (6) : Okay. You checked into 242. I think I have June of 2016 written down here.

Is that correct?

(b) (3) (A), (b) (6) : That's correct, sir.

(b) (3) (A), (b) (6) : Have you ever heard of 242 having a midair collision with a tanker before? Is it possible that on April the 28th, 2016, 242 had a midair collision with a tanker?

(b) (3) (A), (b) (6) : It's very possible.

(b) (3) (A), (b) (6) : Do you know much about that?

(b) (3) (A), (b) (6) : I think it happened, you know, like I said a couple months before I had checked in. I checked in and I was getting ready to be the training officer. I never got -- I read the SIR a little bit. It was briefed at some point at my first -- I don't remember. At some point since I've been in the squadron, it has been briefed, but yeah.

(b) (3) (A), (b) (6) : Who was the commanding officer when the accident took place?

(b) (3) (A), (b) (6) : Now, (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : Did (b) (3) (A), (b) (6) initiate a field flight performance board on the mishap air crew?

(b) (3) (A), (b) (6) : Not to my knowledge.

(b) (3) (A), (b) (6) : Did he initiate a preliminary inquiry or a command investigation?

(b) (3) (A), (b) (6) : I do not know, sir.

(b) (3) (A), (b) (6) : Do you know if he initiated an aircraft mishap award or if that was (b) (3) (A), (b) (6) later?

(b) (3) (A), (b) (6) : I think it was (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : So do you have the impression that a mishap happened when (b) (3) was the CO and then a week or two later there was a change of command that (b) (3) took over, and, then, (b) (3) initiated an AMB.

Would that be your perception as you recall it being a member of the squadron at the time?

(b) (3) (A), (b) (6) : That's generally what -- I couldn't swear to it all being fact, sir. But, generally, from what my understanding was, that's kind of what I --

(b) (3) (A), (b) (6) : Did you know the mishap aircrew?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Were you working in the operations department in June and July of '16 and the months after the mishap?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Where were you working you said?

(b) (3) (A), (b) (6) : I showed up and I initially -- I did about a

month at the S-4 as the Alpha.

(b) (3) (A), (b) (6) : Okay. You were the S-4 guy.

(b) (3) (A), (b) (6) : I didn't mention that at first because I was only in there for like a month or a month and a half. And then, when the training officer PCS'd, they were like you're in.

(b) (3) (A), (b) (6) : So that was like August of '16?

(b) (3) (A), (b) (6) : About August or September is when I took over.

(b) (3) (A), (b) (6) : So as a training officer, you would have had some role in aircrew scheduling. Are you aware of the mishap aircrew being on conditional flight status or something of that nature?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Did you ever see the aircraft, or photographs of the aircraft, after the mishap?

(b) (3) (A), (b) (6) : Of April in '16, sir?

(b) (3) (A), (b) (6) : I am.

(b) (3) (A), (b) (6) : I may have.

(b) (3) (A), (b) (6) : Nothing sticks out?

(b) (3) (A), (b) (6) : Nothing sticks out, sir.

(b) (3) (A), (b) (6) : Did you ever hear the mishap aircrew talk about what happened? Did they ever brief it or --

(b) (3) (A), (b) (6) : I think they did. I was into it a little bit.

But bottom line, those guys screwed up. They hit the tanker and that could have been mitigated.

(b) (3) (A), (b) (6) : What part of the hornet hit what part of the tanker as best as you recall?

(b) (3) (A), (b) (6) : I think it was a left wing that took the hose off.

(b) (3) (A), (b) (6) : When you say, "took a hose off," you mean like the hornet had it's probe extended and it was effecting the fuel transfer and somehow underrun so far that the wing hit the hose and cut it?

(b) (3) (A), (b) (6) : I think they were, at some point -- I think they were getting ready to depart the tanker in some form or fashion, just from my recollection. This is 50-50, but they were getting ready to depart the tanker and snatched the hose off with the left wing.

(b) (3) (A), (b) (6) : So it's your recollection then that they were done with fuel transfer and were departing the tanker. And as they were departing the tanker, they struck one of the hoses -- one of the hornets struck one of the hoses and cut the hose?

(b) (3) (A), (b) (6) : That's my recollection, sir.

(b) (3) (A), (b) (6) : And the hose fell into the sea?

(b) (3) (A), (b) (6) : I never asked that question. I would assume it

did.

(b) (3) (A), (b) (6) : Okay. Do you know or do you recall the mishap pilot's name?

(b) (3) (A), (b) (6) : It was (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : Does (b) (3) (A), (b) (6) have a call sign?

(b) (3) (A), (b) (6) : Yes, he does.

(b) (3) (A), (b) (6) : What is (b) (3) (A), (b) (6) call sign?

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : What does that stand for?

(b) (3) (A), (b) (6) : Fish to C-130 airborne.

(b) (3) (A), (b) (6) : Fish to C-130.

So you think we had a midair collision and we did an AMB and you gave him that call sign and just kind of pressed? Is that typically your perception?

(b) (3) (A), (b) (6) : That's what happened, sir.

(b) (3) (A), (b) (6) : What specific procedural changes were put in place at MAG-12 after that accident?

(b) (3) (A), (b) (6) : I don't know if it was anything put in procedural place in MAG-12, but I know our UCL at the time, now retired (b) (3) (A), (b) (6) , was very adamant. He put it in the squadron SOP that a round tanker is within 10 nautical miles of a tanker. You will do nothing but tanking. You will do no tanking

admin procedures. You will do no admin procedures. You will be focused on the tanker.

(b) (3) (A), (b) (6) : So (b) (3) (A), (b) (6) made an effort to mitigate that risk by the ways he just described?

(b) (3) (A), (b) (6) : I saw him fail a guy in night vision check ride one night because he didn't do anything safe around the tanker, but he did something nonstandard with the radios. And he failed a guy on his night vision check ride.

(b) (3) (A), (b) (6) : So it sounds like (b) (3) (A), (b) (6) took the situation very seriously.

(b) (3) (A), (b) (6) : He was very serious. And I know -- I can't remember the specifics -- but I know he hurt some young pilots feelings for fooling around by a tanker. That's why this whole scenario, or situation, is beyond me on how it happened because I've been here the whole time. I've seen these guys get beat up for it for two and a half years.

(b) (3) (A), (b) (6) : Was there any discussion about -- I assume that the April 2016 incident was at night in low light conditions with the use of night vision goggles and the tanker was in the covert lighting position. I've heard other people tell me that and I believe that to be true.

And I also believe that to be true for the 2018 mishap.

So it's the same squadrons doing the same thing with the same lighting conditions with similar night vision goggles.

With that in mind, was there ever a discussion about adjusting the lighting condition of the C-130, or ever a discussion about doing tanking with goggles up to mitigate risk?

So after the 2016 mishap that was strikingly similar to the 2018 mishap, were there any procedural changes aside from Lieutenant Colonel's direction of no tack admin around the tanker?

(b) (3) (A), (b) (6) : Nothing procedural. I mean, I've heard it briefed my whole career with the guys and I've briefed the guys before we go to the tanker like take an assessment, put the goggles down. If they're working for you and it's increasing your situational awareness or your ability to tank then use them.

But it's always been stressed to especially younger guys like, hey if the goggles -- they're sensorred. If they're not helping you on the tanker or they're getting in your way or degrading you SA or whatnot, flip them up and tell the tanker to turn his lights on. I mean, we've always briefed that guys have that option.

(b) (3) (A), (b) (6) : Is there anything you'd like to add or clarify on what we talked about?

(b) (3) (A), (b) (6) : No, sir.

[(b) (3) (A), (b) (6) was sworn.]

[The investigative interview closed at 1713, 24 January 2019.]

(b) (3) (A), (b) (6) : Okay. We'll get going. This is about 1430 on the -- what is today? The 16th --

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : -- of February -- or January rather. The 16th of January 2019. I'm (b) (3) (A), (b) (6) . I'm assisted by (b) (3) (A), (b) (6) , (b) (3) (A), (b) (6) is the court reporter, and we're interviewing (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) , could you, please, state your full name, spelling your last name for the record.

(b) (3) (A), (b) (6) : Full name is (b) (3) (A), (b) (6) . Last name is (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : Outstanding. And, (b) (3) (A), (b) (6) , what is your Military Occupational Specialty?

(b) (3) (A), (b) (6) : I am a 7525. That is a F-18 weapons systems officer.

(b) (3) (A), (b) (6) : Awesome. And, (b) (3) (A), (b) (6) what do you go by? How would you like to be called during this interview?

(b) (3) (A), (b) (6) : Call sign (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) . Okay. I'm going to call you (b) (3) (A), (b) (6) if you're okay with that. I think you're -- you can call me (b) (3) (A), (b) (6) or sir or whatever you like. Okay?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : What is your current billet? What do you do right now in the Marine Corps? What's your job?

(b) (3) (A), (b) (6) : I am the MATSS, Iwakuni, Officer in Charge. MATSS is Marine Aviation Training Systems Site.

(b) (3) (A), (b) (6) : Okay. So that's like the signaling building and the ground training facility that supports all the squadrons here in Iwakuni?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : And what are some of the key functions that you complete in that role?

(b) (3) (A), (b) : So we do flat lead standardization. We do -- we support training. We provide any training that could effect the MAG or the specific type model series. We also have been required to operationalism the operational training complex. So a new building -- so integrating all the different stakeholders to get a product to the customer in the form of training -- aviation training assets.

(b) (3) (A), (b) (6) : Okay. Where were you in the month of December 2018? Were you here in Iwakuni?

(b) (3) (A), (b) : I was.

(b) (3) (A), (b) (6) : Were you involved in the unit level training that was conducted by 242?

(b) (3) (A), (b) : As in flying, sir? Or, --

(b) (3) (A), (b) (6) : No. Just in general. Like, I understand that there was a MAG operation center stood-up, a Wing operation center stood up. That 225, 242, and 152 are all doing a coordinated exercises that the classified aspects of which, we'll not touch on. But just to understand that there were multiple squadrons flying cooperatively. Did you have any role in that?

(b) (3) (A), (b) : From when the scenario was built to go to the ITRA -- I apologize, I don't know the acronym, but the --

(b) (3) (A), (b) (6) : Airspace?

(b) (3) (A), (b) : -- the air space.

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) : (b) (3) (A), (b) (6) [redacted]

[redacted]

[redacted]

[redacted] [redacted]

[redacted]

[redacted]

(b) (3) (A), (b) (6) : When you say Thursday, Friday, you mean the week prior?

(b) (3) (A), (b) : The week prior.

(b) (3) (A), (b) (6) : Okay. Is that one of your jobs at MATSS to develop white cell support to develop scenarios for training?

(b) (3) (A), (b) : Not necessarily, but we have in the past.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) : So there's a chrome palmerhead wanted to do -- throughout his tenure here or his command, there was a thing called "Exercises and Aces High." And "Exercises Aces High" was a -- is a basically chrome palmerhead would general be a no notice tasking to the squadrons to conduct some type of OPLAN mission. So in that, based on the different squadrons -- sometimes they occur in floods, sometimes they occur in the

simulator, it varies. But we have developed what we believe was the realist lay down of that specific mission.

And have -- some of the squadrons have done it on their own and we basically dropped a couple points of targets they would attack. So one went down and occurred in November. So approaching that Friday it was like what are they doing? So they elected to use that same scenario that would then -- had just previously been conducted about three to four weeks prior.

(b) (3) (A), (b) (6) : So I think what I'm hearing from you is that during the unit level training exercise conducted by the MAG and the Wing in the first week of December 2018 during the mishap, there is a suppression of enemy area defense scenario that was to be used again?

(b) (3) (A), (b) : Yes.

(b) (3) (A), (b) (6) : Okay. And what role did you have in communicating and supporting that scenario or did you just provide power [inaudible]?

(b) (3) (A), (b) : It was basically three to four weeks prior we conducted that in the squadron; specifically, 242. So they had what we'll call "the threat" layed down about that.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) : Approaching, you know, Friday, there was no communication. And then the tasking that occurred on Monday I went over to the squadron to see if they did a mission planning drop, a scenario drop. And was there and, basically, they used the same scenario that MATSS had developed three to four weeks

prior. And then -- so I was there at the initial coordination. That would have been for Sunday -- that occurred on Sunday, I apologize, for the Monday flight or training day one flight. So I went to that and assisted on anywhere I could -- if there were questions about having known what that scenario was built off of.

(b) (3) (A), (b) (6) : Okay. And was that what the mishap aircrew were doing that night or what is your perception of made the VMFA-242 believe their mission to be on the night of the mishap?

(b) (3) (A), (b) : I am, sir, as I, part of the FAPV process. So my --

(b) (3) (A), (b) (6) : Can we talk to that? I don't think we want him talking about things that's still under the FAPV. Please don't discuss information you have about the FAPV. I'm asking the question for the context of the week of execution. So I'm trying to understand if you participate in scenario drop, I think that would have been the second of December -- I don't have a calendar in front of me -- but on Sunday, this first Sunday in December, were you part of the socialization or the communication of the VMFA-542 all weather's mission on the night of the mishap as it related to what we are discussing right here?

(b) (3) (A), (b) (6) : So were you involved in ULT?

(b) (3) (A), (b) : I was supporting into -- one was, gave that scenario and what was determined from Ops was, if they go to the ITRA South, the plan was to do a seed mission. Those mission planning factors that were developed were based off of a larger

force package, F-35s, F-18s, potentially C-130s.

(b) (3) (A), (b) (6) : And, sir, --

(b) (3) (A), (b) : My perception on Tuesday for the training day three or Wednesday night/Thursday morning flight, the flight of the mishap. All I knew was that they were doing a -- they were going to the sought and that the assumption was that it was going to be a seed mission. However, I was unclear based off of the events that occurred on Tuesday between -- basically from 1100 until about 1600.

(b) (3) (A), (b) (6) : What happened on Tuesday from 1100 to 1600 that changed the nature of the mission?

(b) (3) (A), (b) : So I was working at the OTC and had found out that the -- President Trump had put out information -- put out a National day of Mourning for former President Bush and there was questions regarding if that was a day off for military/civilians and how that would affect operations there.

So I was focused on how that affects the simulator building. Came over here --

(b) (3) (A), (b) (6) : And that's important I guess because you have civilian employees at the simulator building and other support agencies; perhaps the air fields, ATC, fuels. That if those guys don't come to work then we can't operate? Is that what you're getting at?

(b) (3) (A), (b) : Yes, sir. And there was questions of contractors versus government employees and then how that affects the military. There was -- we were seeking guidance on what that

National day of Mourning.

(b) (3) (A), (b) (6): So what guidance did you receive and through whom?

(b) (3) (A), (b) (6): So for the sim building, we basically contacted -- I researched the on OSD website to determine what that exactly meant. Or, correction. Not OSD --

(b) (3) (A), (b) (6): OMP maybe?

(b) (3) (A), (b) (6): OPM. So Office Personnel Management. I read into that. I tried to figure out what that meant, and then developed what those fallen factors were affecting the sim building. Knowing that it affected the sim building, came over here at about noon because on part of the daily MAG Ops cycle, they would do a --

(b) (3) (A), (b) (6): Hey, so the fire alarm just went off, but we'll keep going here for a few minutes. If any body smells smoke or similar indications of a fire, we will announce that.

Okay. So let's get back to the exercise. I think what we're talking about right now is the affect of the National day or Mourning being announced on Tuesday. It would have affected a day off on Wednesday. And you spent Tuesday afternoon determining what impact that would have on the rest of the exercise?

(b) (3) (A), (b) (6): -- on the sim building came over here and at 1500 part of the cycle is -- (b) (3) (A), (b) (6) wanted a brief of what the squadrons were doing for the next training day. So I came in at noon to pull that information based on the flow put

out by Ops and whatever imputes the specific flow head leads had for that.

At around noon, I came over here and at the MAG Ops center it was still to be determined if people were going to fly and then how that affected the airfield itself. What I believe -- what was ultimately determined around 13 to 1400 was that there was only flight to the (b) (6), (b) (1) (B) would go. And then there was an outlying question of whether there was going to be night Ops. Specifically, does this National day of Mourning affect anything past 2359 on Wednesday?

So there was a significant amount of question about that and then in my recall I believe was questions about the prior permission --

(b) (3) (A), (b) (6) : All right. Stop.

[The interview recessed at 1446, 16 January 2019.]

[The interview was called to order at 1504, 16 January 2019.]

(b) (3) (A), (b) (6) : We're back on the record. I'm (b) (3) (A), (b) (6). We've relocated to another building due to a fire alarm being pulled in MAG Headquarters. I'm still with (b) (3) (A), (b) (6), (b) (3) (A), (b) (6), and (b) (3) (A), (b) (6) as our (b) (6) court reporter. And the time now is 1504.

What I seek to understand through this line of questions with (b) (3) (A), (b) (6) is in part what role (b) (3) (A), (b) (6) had in the Wing ULT or MAG ULT -- whatever we're calling it for the first week of December -- and what he knows about the circumstances surrounding it. And the circumstances that I am

probing for is the affect of the day or mourning, the effect it had on the flow of communication and what I am really driving at, for simplicity is, I want to know what the mishap aircrew knew and when about what and where they were being tasked to and what time was available to do proper planning and briefing for the same. So with that in mind, you were talking about Tuesday the -- which I believe is the 2nd or 3rd of December.

(b) (3) (A), (b): Yes, sir. So roughly around 12, 1300 there was questions about what is actually happening on training day three. The effects of what flights can actually launch on training day three. I believe it was only -- there was discussions happening from that 12 to 1600 -- 1500 period there. I believe there was issues with the PPR's, Prior Permission Required into Poeing [ph], and then there was also questions about if the National day or Mourning would apply after 2359 on Wednesday and continue on to the rest of training day three -- as training day three's cycle started at 0600 local until effectively 0559 the next day.

At around 1400, I was trying to consolidate the inputs into this MAG brief, however, things continued to change inside the Marine Aircraft Group Operations Center where operations -- they were trying to determine that. I believe several operation officers as well as commanding officers came in. There was some -- I believe some closed-door-meetings between the COs. And around 1400 or so I was not able to identify what was going to happen on training day three. I was also called out momentarily to run back over to the operational training complex. There was

a non-related issues that needed my attention there.

So when that happened, that brief, basically left there with (b) (3) (A), (b) (6). And said I'm not sure what's going to happen. And that's basically the extent that I had. I was gone for about two hours dealing with the separate issue here and came back around 1600. I don't remember -- or I don't know what the final discussions was, but the flows were updated and basically went off the flows that came out of there. And the flows -- all I knew was, from the flows, I believe, there was a couple flights going to PEN and then there was -- I believe there was a section tasked to fly after 20 -- or 0001 --

(b) (3) (A), (b) (6): The mishap section?

(b) (3) (A), (b) (6): -- the mishap section. And then the --

(b) (3) (A), (b) (6): What do you know about their mission?

(b) (3) (A), (b) (6): What was --

(b) (3) (A), (b) (6): Their assigned mission or their flows?

Do you recall?

(b) (3) (A), (b) (6): I believe it was seed based off the flows.

(b) (3) (A), (b) (6): And what would seed look like, you know, simulated of course seed. That if you were doing seed in the (b) (3) (A), (b) (6), which I'm sure you've done, what would that kind of look like? What would you be doing?

(b) (3) (A), (b) (6): It varies based on the number of assists available. At the two ship level, it could simply be a designated point on the water and roughly 40 to 50 miles away. Two plans would simulate a missile launch on the point with a

specific amount of timing there. So the idea being there is a time window in which you shoot missiles so that a specific system would be suppressed there. So how that would pan out on a two ship is fly out to the area, find a launch point, find the target and then it can be conducted out of a formation -- a one formation with them next to each other. And, basically, they set a --

(b) (3) (A), (b) (6) : Don't get too far into the tactics. I was just asking. Like, you have to go out, drop a way point, fly a specific thing.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. Without it really seeing ordnance of any type, right?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Okay. So the (b) (3) (A), (b) (6) -- I noticed on the flight schedule and speaking with others that I've interviewed that the (b) (3) (A), (b) (6) proper was actually not available for scheduling due to a schedule radar outage. In that case, the crews were directed to operate in the (b) (3) (A), (b) (6) due regard?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Have you ever operated in the (b) (3) (A), (b) (6) ? Due regard?

(b) (3) (A), (b) (6) : I have not.

(b) (3) (A), (b) (6) : Do you have any idea what that would mean if you were asked to do that?

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

[REDACTED]

(b) (3) (A), (b) (6) : So what would that mean? Would you be operating VMC in those conditions? Would it be acceptable to operate VMC?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Really? So you could fly through a cloud, due regard.

(b) (3) (A), (b) : VMC, sir.

(b) (3) (A), (b) (6) : VMC?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : I'm sorry. Yes. VMC. IMC would be acceptable? Operate IMC, that's what I meant to say. Can you fly through the clouds?

(b) (3) (A), (b) : No. You should not be able --

(b) (3) (A), (b) (6) : So you should maintain VFR and VMC?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. What -- and the flight took place at night. What considerations would involve lighting? Would going midnight or covert be acceptable or do you know?

(b) (3) (A), (b) : Is this with the assumption that there is a

tanker out there or --

(b) (3) (A), (b) (6): Yes. I'm sorry. Now, you've gone to the tanker so as we know the mishap involved air refueling and we had two F-18s twined up with a Marine Corps C-130. What kind of restrictions from your qualification designation level would you expect if you were offering flight supervision of that flight, what lighting conditions would be appropriate or acceptable; or would there be any limits?

(b) (3) (A), (b) (6): There would be -- I would execute both overt and covert operations potentially. So it could be -- there wouldn't necessarily be restrictions, sir, as long as both the tanker as well as the other aircraft were -- had coordinated or were on the same page.

(b) (3) (A), (b) (6): Okay. And you're an F-18 WISSO, I'm sure you've been to the tanker before?

(b) (3) (A), (b) (6): Yes, sir.

(b) (3) (A), (b) (6): Day and night?

(b) (3) (A), (b) (6): Yes.

(b) (3) (A), (b) (6): ANVS-9 and ANVS-11?

(b) (3) (A), (b) (6): Only ANVS-9s.

(b) (3) (A), (b) (6): ANVS-9. When going to the tanker at night and wearing the ANVS-9 for a, you know, goggle flight, which of course we do pretty much every time you fly at night. What kind of briefing items, procedures, and considerations would be associated with the wear of night vision goggles while conducting night system air refueling?

(b) (3) (A), (b) : So specific to night system air refueling. Lighting would be a discussion and then tanker procedures as well there. I'd probably talk a little bit about the potential uniqueness to a join on a tanker as opposed to a joining on another fighter aircraft. It's just this is abnormal, in that, we don't do it very often -- or I haven't done it as often in more recent years. So that's probably what I would discuss?

(b) (3) (A), (b) (6) : Would it be normal to have the goggles down and on your face or would you maybe flip them up when you're tanking or -- what have you seen more often?

(b) (3) (A), (b) : I've -- generally, I've seen them flipped down. And personally I kind of work both. I don't flip them up, but using a --

(b) (3) (A), (b) (6) : An under goggle scan?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Under goggle scan outside the cockpit?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : What's the benefit of a under goggle scan outside the cockpit during night systems air refueling?

(b) (3) (A), (b) : I just like to QA my scan. So if, based on the lighting, I can just make sure that hey, that's not another star that I'm looking at. So I just kind of -- I just try to maintain the big picture and develop all the inputs that I can to insure that my situational awareness is correct.

(b) (3) (A), (b) (6) : What's the effective light level on the effectiveness of you're under goggle scan? Is it effective

between a full moon and a no moon?

(b) (3) (A), (b) : It's decreased. Decrease of light level.

(b) (3) (A), (b) (6) : Yes. So if it's really, really dark outside, how well is your under goggle scan compared to --

(b) (3) (A), (b) Oh, it's not good depending on if there's lights out there or not.

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) : Not that -- lux versus artificial lighting, sir.

(b) (3) (A), (b) (6) : And then of course, aircraft lighting as well, right?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : So this reminds us to say if it was low light level and you were on the tanker and the tanker was covert only, what kind of under goggle scan would you have --

(b) (3) (A), (b) : I'd probably not. It'd probably internal to the cockpit itself.

(b) (3) (A), (b) (6) : Very little outside light?

(b) (3) (A), (b) Yes. Primarily through the goggles. So yes, sir.

(b) (3) (A), (b) (6) : So what is the -- and stop me if you're not super familiar with these technical questions, but what do you understand the field of view to be of the ANVS-9 and ANVS-11?

(b) (3) (A), (b) : Forty degrees of field of view.

(b) (3) (A), (b) (6) : Circular or rectangular field of view?

(b) (3) (A), (b) : Circular.

(b) (3) (A), (b) (6) : Forty degrees circular field of view. And roughly, what do you understand to be the naked eye field of view, roughly, for the average human?

(b) (3) (A), (b) (6) : Plus or minus --

(b) (3) (A), (b) (6) : Feel free to test it while you're doing that. So you get -- the witness has his hands out and is moving them back.

(b) (3) (A), (b) (6) : Like peripheral? All the way, the field of view, probably about plus or minus 70 of centerline, I believe, roughly.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Maybe farther.

(b) (3) (A), (b) (6) : Okay. Would you be surprised if I told you it was 210 degrees? So this is 180, right?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : So this is 180 and then you go back just a smidge more.

(b) (3) (A), (b) (6) : I'd buy that, sir. Yes, sir.

(b) (3) (A), (b) (6) : It depends on the person. I have a skinny head so maybe I'm a little --

(b) (3) (A), (b) (6) : Yes. Probably just after 90, plus or minus 90. Yes, that makes sense, sir.

(b) (3) (A), (b) (6) : So 40 is going to be like plus or minus 20 and then we're going to be way back here.

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. As a Hornet back seater as a

WISSO, and we've talked about TCC, Tactical Crew Coordination, that's the inter-cockpit communication between the front and the back seater in the hornet. What are some times when a WISSO might be particularly quiet and when are some times when a WISSO might be particular oral with his pilot?

(b) (3) (A), (b) : Quiet is high concentration items or when there is close proximity of aircraft where things are going as planned or as expected, I'll probably be more quiet to allow him to focus on the specific task. Other times that I'd speak more is being directive in more -- in missions. There are certain missions where there is much more back and forth. Where it's less of piloting skills but more of a integrating with external agencies and coordination of other aircraft and then insuring that our aircraft our -- when we're dynamically maneuvering there may be times where I'll be a little bit more assertive, if you will, sir.

(b) (3) (A), (b) (6) : So it'd be fair to say that in general the conduct of night systems lowlight level air refueling while in the basket that would be a high concentration task in a time when the WISSO might be a little more quiet?

(b) (3) (A), (b) Yes, sir.

(b) (3) (A), (b) (6) : Okay. When you're in the back seat of a Hornet and the pilot got's the probe in the basket and you're taking gas, what would be a typical workload? What would you being doing? What would be some tasks that you would be accomplishing? What would you be monitoring?

(b) (3) (A), (b) : I'd pull up my fuel page as well as our -- verifying the engine instruments, kind of scanning that back and forth. And then potentially queuing the math of insuring that we've got the expected pre-load -- or expected off-load of what were -- and then calculating how that's going to effect the follow-on mission post that tanking. So assessing, hey, how's he doing in there? How's he tanking? Kind of looking outside. How's everybody else doing? And then queuing my internal aircraft parameters. And then subsequently also thinking, kind of, moving -- thinking forward as well. So multiple aspects there.

(b) (3) (A), (b) (6) : And if your pilot was in the basket as night, lowlight level, goggled, and it sounds like you would probably have your goggles on; would it be true to say you would probably put a lot of your attention outside the cockpit to the C-130 on your right side, to just keep sight of that?

(b) (3) (A), (b) : Yes, sir. I believe I -- I haven't flow at night and tanked in four, probably four years, five years, but --

(b) (3) (A), (b) (6) : How long have you been here?

(b) (3) (A), (b) : I've been here for about a year and a half. Since July of 2017, sir.

(b) (3) (A), (b) (6) : Are you DIFOP [ph] and flying right now?

(b) (3) (A), (b) : I am. Yes, sir.

(b) (3) (A), (b) (6) : Whens the last time you flew?

(b) (3) (A), (b) : I flew last Thursday.

(b) (3) (A), (b) (6) : Okay. And you haven't been to the night Tanking in several years?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : What did you do before you came here?

(b) (3) (A), (b) : I was an instructor at Top Gun.

(b) (3) (A), (b) (6) : And you guys didn't go to the night tanker at Top Gun?

(b) (3) (A), (b) : No, sir. We don't fly at night there based off currency requirements and syllabus requirements there -- or there are no syllabus events directed at night.

(b) (3) (A), (b) (6) : It's a day show at Top Gun?

(b) (3) (A), (b) : Yes, sir. And then we'll get some night currency on occasion, but that is outside the syllabus there and generally administrative in nature if we are.

(b) (3) (A), (b) (6) : So with your time at Navy Fighter Weapons School in Fallon, Nevada, what differences did you note between the big Navy's use in night visions goggles and Marine tac use in night vision goggles; anything?

(b) (3) (A), (b) : No, sir. Not only because I did not -- I was not current --

(b) (3) (A), (b) (6) : So they don't even fly with goggles at Top Gun?

(b) (3) (A), (b) : No. Because they don't fly at night.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) : There's another unit there, Strike, which does the air wing training. And they do the majority of the night

systems training.

(b) (3) (A), (b) (6) : Did you ever fly with those guys at all?

(b) (3) (A), (b) : I did, but not at night, sir. But I did for currency and what not there, sir. But that being said, back to the original question. I forgot the original question, sir.

(b) (3) (A), (b) (6) : I just asked you how many times you've been to the tanker at night. And you said it has been four years.

(b) (3) (A), (b) : It's been quite sometime, sir.

(b) (3) (A), (b) (6) : Were you flying in the back of a rhino at Top Gun?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Nice. And since you've been here for a year and a half, DIVFOP [ph], you mainly with 242? I see you're wearing the patch. Or do you fly with the UDP squadrons or just whatever you can get?

(b) (3) (A), (b) : Whatever I can get. Generally, I think, it's been -- if I pulled out my logbook, the majority would be the UDP squadrons, sir.

(b) (3) (A), (b) (6) : That's because 242's readiness or why is that?

(b) (3) (A), (b) : Since May, it's been readiness. And then prior to that there was some readiness issues. And then there was a little bit of -- it was just difficult to get a flight with 242.

(b) (3) (A), (b) (6) : What happened after May in terms of

readiness? Was there a change in degradation readiness this summer, 2018?

(b) (3) (A), (b) (6): I think -- well, they went down to -- in June to July timeframe, they went down to Australia. And based on myself and (b) (3) (A), (b) (6) [ph] supporting different squadrons, he was still fulfilling some training officer duties there. So we sent him down there and I went to Hawaii to support 533. But I think, as I understand it, they struggled throughout Australia based off of delivery of maintenance pack up to Australia. As they returned in roughly October time frame, I believe a lot of aircraft went to -- I believe they went into phase. I believe there was some issues with inspections and there was some downing discrepancies. And they've been trying to revitalize their maintenance since then, sir.

(b) (3) (A), (b) (6): What is your definition of a hazard in regards to aviation? Like when I say, whats a hazard, how -- in your own words?

(b) (3) (A), (b) (6): Any situation or factor that can cause danger to aircraft or people.

(b) (3) (A), (b) (6): Okay. And then how would you define a risk?

(b) (3) (A), (b) (6): A risk is -- I'd say it's pretty similar.

(b) (3) (A), (b) (6): Hazard and risk, kind of the same?

(b) (3) (A), (b) (6): Yes, sir.

(b) (3) (A), (b) (6): What's a mitigation?

(b) (3) (A), (b) (6): One is identifying what that specific risk is

and then, based on that scenario -- or based on that specific factor, applying something that prevents it or decreases the severity and/or probability. Probably both there. So a mitigation is implementing some type of control to prevent that risk from occurring.

(b) (3) (A), (b) (6) : Do you consider flying in the wee hours of night to be a hazard?

(b) (3) (A), (b) : Yes.

(b) (3) (A), (b) (6) : And what would be some mitigations you would put in place if you were planning to fly in the wee hours of the night?

(b) (3) (A), (b) : We call it a "ramp," but insuring that our circadian rhythm gets on step -- being used to staying up at those hour there. There's also crew day limitations. Per our SOP it's any flight between midnight to 0600 -- I believe it's 0600 off the top of my head, or 0700 -- your crew day decreases to ten hours there. And then, I think, as a flight lead it's just -- potentially being, you know, deliberate with communications and operations in my own personal -- inside the cockpit just not necessarily doing things out of muscle memory, but slowing things down for lack of a better term, sir.

(b) (3) (A), (b) (6) : What about crew pairing in a delta Hornet, you know a section of a delta Hornet. You've got four aviators to pick from. In the context and maybe stepping aside necessarily from I'm going to go ahead and call flying in the middle of the night a medium risk or a risk mission. Not extreme

or anything, but there is additional risk compared to day; however you want to quantify that. If you knew that you were flying those wee hour of night and lets say you were a PTO or an OPSO, how might you think you might try to address that?

(b) (3) (A), (b) : One is you got to look at currency and proficiency. So, one, are they night current? Two, based on what crews I have available, you know, who is -- who has either experience flying at night in the grand scheme of things, as well as who's been flying at night recently and who's more recently. Also, when it comes to crew pairing, is that in terms of pilot WISSO, sir?

(b) (3) (A), (b) (6) : Yeah, sure. Or throughout the section. You know, if you knew you had a really strong section leader or a really strong WISSO or, perhaps, someone with some human factors or who's demonstrated, you know, performance concerns. How do you address that in a delta squadron?

(b) (3) (A), (b) : It varies from command to command. One method is to put a more senior person with -- lets say you got a pilot who's -- has a lower performance. There's a potential to put in a more senior or more -- not necessarily senior, but, I guess, senior and flight leadership experience to help them potentially, get through that. There's that option in that scenario. Other commands kind of think about the crew zero concept. Crew zero concept is that if you put equal experience levels in the cockpit they develop, potentially, better together. So there's different views on how to do that and I think commands vary. I'd say less

about -- I've seen probably about thirty percent lean towards crew zero. And then I'd say seventy percent would put a different varying level of experience if there's a decrease capability or proficiency level.

(b) (3) (A), (b) (6) : So you said you fly with UDP squadrons and with 242. Where's your NATOPS [ph] jacket?

(b) (3) (A), (b) (6) : My NATOPS [ph] jacket is held at -- well its currently here at MATS, however, it is held at MAG DOS. So it's at MAG DOS. It's checked in there. We've just borrowed it to -- just to clean up some items.

(b) (3) (A), (b) (6) : Where's your flight gear?

(b) (3) (A), (b) (6) : My flight gear is at 242, sir.

(b) (3) (A), (b) (6) : So are you assigned to 242 or are you not really assigned to a squadron?

(b) (3) (A), (b) (6) : I'm assigned to MATS with regards to M-SHARP.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : And then MAG DOS holds the NATOPS [ph] jackets and uses the logbooks. And then I basically augment aircrew/flight gear at 242.

(b) (3) (A), (b) (6) : How does 242 account for your personal human factors? Are you on their human factors counsel?

(b) (3) (A), (b) (6) : I am not. No, sir.

(b) (3) (A), (b) (6) : Are you on their Force Preservation Council?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Do you complete, read, and initial at

225, the current UDP squadron or 242 the current squadron?

(b) (3) (A), (b) : So I do my RNI at 242 and then usually that's where I'll do it. And then whenever I go to a squadron and fly with them I'll just check their RNIs and make sure if there's any unique ones, potentially like a squadron RNI. So I make sure I'm good with them there. So making sure -- and squadron specific standardization items or I read and initial items I cover down on.

(b) (3) (A), (b) (6) : What -- have you read the 1st Marine Aircraft Wing Order 3710, SOP for flight operations?

(b) (3) (A), (b) : I have. Yes.

(b) (3) (A), (b) (6) : Okay. Where did you find that?

(b) (3) (A), (b) : I found it on the MAW Sharepoint.

(b) (3) (A), (b) (6) : Okay. And was that a PDF document?

(b) (3) (A), (b) : It's a Word document, sir.

(b) (3) (A), (b) (6) : It's a Word document. So it's a Word document, does it have a signature on it?

(b) (3) (A), (b) : It does not.

(b) (3) (A), (b) (6) : Is it a draft document? I don't understand.

(b) (3) (A), (b) (6) : So I kind of when -- that was the question I had when I took over and looked at the historicals up to a certain time. I don't have the date. There was an actual formal PDF document that was signed. And then --

(b) (3) (A), (b) (6) : Signed by General Weidley you think?
The current --

(b) (3) (A), (b) : No. I believe it was prior to General Weidley.

(b) (3) (A), (b) (6) : Maybe (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) : Potentially or prior to.

(b) (3) (A), (b) (6) : Maybe (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) : Maybe (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) : I believe it was prior to General Weidley. In searching for that document, I found something -- I believe it was on the Sharpoint that I had that wrote the flight operations because things change. It's going to maintained on the Sharepoint side and it -- rather than -- the justification was rather than having to reroute a whole SOP change, it would be like a living document on the Sharepoint. That was my understanding.

(b) (3) (A), (b) (6) : So the Wing, the 1st Marine Aircraft Wing, Wing SOP, as you understand it, is a Marine Aviation training systems site OIC is an editable electronic document?

(b) (3) (A), (b) : I don't know if it is editable, but it is definitely a word document. Whether they put a lot on it or -- it could be. Yes, sir. I don't know that the constraints are.

(b) (3) (A), (b) (6) : So you said that it can -- it's a word document so it can be changed by somebody. So how were you notified of those changes?

(b) (3) (A), (b) : I'm not.

(b) (3) (A), (b) (6) : Do you receive a read and initial update or does the Wing send out something to you that says, hey,

see page -- there's like a change order on a Marine Corps order when there's a change notice or Naytops [ph] change notice. Is there a process like that in place?

(b) (3) (A), (b) : No, sir. I have not seen one since for a year and a half.

(b) (3) (A), (b) (6) : So in the year and a half you've been here, it's -- I don't know if you have any specific instances of it, but it is possible that there could be drastic policy changes in the Wing SOP that governs flight operations that you would not be immediately aware of?

(b) (3) (A), (b) : No, sir.

(b) (3) (A), (b) (6) : That's interesting. What other SOPs govern operations of the F-18 at MAG-12?

(b) (3) (A), (b) : There's the MAG-12 flight operations SOP. There's the F-18 admin SOP.

(b) (3) (A), (b) (6) : Let's talk about the MAG-12 SOP.

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Is that a Word document on the Sharepoint?

(b) (3) (A), (b) : It is a PDF document, sir.

(b) (3) (A), (b) (6) : It's a PDF document with the signature on it?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : From the current or previous MAG CO?

(b) (3) (A), (b) : Current.

(b) (3) (A), (b) (6) : Okay. So that's not -- the characters

in that document are not editable. It's not going to change because it's a PDF, right?

(b) (3) (A), (b) : No, sir.

(b) (3) (A), (b) (6) : And then the F-18 TYCOM admin SOP. Is that a Word document?

(b) (3) (A), (b) : That is a PDF document.

(b) (3) (A), (b) (6) : That's a PDF document. And who signs that? What, the MAG skippers with hornets or what?

(b) (3) (A), (b) : Yes, sir. All four MAG COs sign it. Yes, sir.

(b) (3) (A), (b) (6) : So if that document were to change or evolve, then you'd be notified some how or another that we've got a new hornet admin SOP and here's a copy?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) : That prevision cycle is every two to three years and it's primarily held with the MATs OICs in creating and amending that.

(b) (3) (A), (b) (6) : So that's interesting. So as a MATs OIC, you're intimately involved with the SOP revision process --

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : -- and change process. And make sure as a flight leadership standardization evaluator, as a FLSE, that folks are in compliance with the latest and greatest standard operating procedures?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : So it's essential to your duties, in

fact --

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : -- standardization? When you came here and you noticed that the Wing SOP was a Word document, did that give you pause or do you think that was normal?

(b) (3) (A), (b) : I'd say I found it abnormal, but I didn't see any -- I did find it abnormal.

(b) (3) (A), (b) (6) : Did you -- what was the last Marine Aircraft Wing? Are you a 3d MAW guy, 2nd MAW?

(b) (3) (A), (b) : 3d MAW, sir.

(b) (3) (A), (b) (6) : So when you were at 3d MAW, did the 3d MAW have a Wing order 3710?

(b) (3) (A), (b) : I believe they did, but it's been since -- I left in 2014, sir. So it's been --

(b) (3) (A), (b) (6) : And you're more of a JO then. Let's go to Top Gun. When you were at fighter weapons school, did they have a SOP?

(b) (3) (A), (b) : They did, sir.

(b) (3) (A), (b) (6) : Was it a Word document on Sharepoint?

(b) (3) (A), (b) : No, sir. It was a PDF document, sir.

(b) (3) (A), (b) (6) : With the signature of some captain or admiral on it?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Okay. So as a standardization guy, when you got that Wing SOP and noticed it was a Word document, did you reach out to anybody and ask any questions about that?

(b) (3) (A), (b) : I did not. Based off of the disclaimer that was on there.

(b) (3) (A), (b) (6) : What was the disclaimer?

(b) (3) (A), (b) : That changes will be made directly to this -- or if there's any changes at the MAW level, it will be made in this document and that's why it is a Word document. But I can't remember if there was any, hey, we're going to send out a notice or anything. But there was some disclaimer on there, sir.

(b) (3) (A), (b) (6) : Okay. All right. (b) (3) (A), (b) (6), I've got unlimited time to listen to any thoughts you might have about communication, leadership, risk management, command pressure. Any factors that could possibly have surrounded this mishap. As the MATs OIC and a flight lead standardization evaluator here at MAG-12, I know you see a lot of that and you're heavily involved in the operations aspects to that.

Any thoughts about how we can prevent something like this happening in the future or any thoughts about some contributing factors that might exist?

(b) (3) (A), (b) : I think the --

(b) (3) (A), (b) (6) : Speak frankly.

(b) (3) (A), (b) : Yes, sir. I'm just trying not to get the A and B stuff. But separate if -- I think there was a lot of confusion in the exercise at the squadron level versus the MAG level there.

(b) (3) (A), (b) (6) : So confusion. And confusing results normally from miss or incomplete communication.

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : So are you referencing improve communication between higher headquarters might be something that would be helpful? I don't want to lead you to much, but I'm just kind of reading your gestures and your facial expressions.

(b) (3) (A), (b) : Yes. I think the increased communication, specific to the exercise itself, you know, a determined -- this is what we're going to do like an ATO. These are -- you know, if this is in the context of the specific O-plan we're doing. There's a -- that five day planning process is built through there. So I think there was a lot of confusion of who was going where, what actual airspace do we have, what was the missions. That aspect was -- I think it was a little confusing watching it from my end as well, sir.

(b) (3) (A), (b) (6) : So I like to put the "who" into things a little bit. So the MAG operation office, (b) (3) (A), -- (b) (3) (A), (b) (6), who we've previously interviewed, would he be a central node of information for that or would it be the Wing G-3, (b) (3) (A), (b) (6) [ph]? Who are the guy -- I mean this is a Wing level exercise, I guess, but it's really a MAG exercise. But it's -- I don't know if it's a squadron exercise. But, like, how is that information coming down and who are the spokesmen?

(b) (3) (A), (b) : I think there was the exercise planner, you know, I was helping out a little bit. MAG Ops, I think there was one question that really was, you know, a question was asked and it was very difficult, like, who's doing what? It was like a

week or maybe two weeks prior -- or prior to that it was like, is there an LOI? Like, hey, who's doing what? You know, there was questions about that and the answer was there is not.

(b) (3) (A), (b) (6): LOI you said. So an LOI is a letter of instruction. So I think what you're saying is the question was asked a few weeks out if the MAG would provide a LOI?

(b) (3) (A), (b) (6): Yes, sir.

(b) (3) (A), (b) (6): And the answer was, no, we're going to just brief it up or communicate by other means?

(b) (3) (A), (b) (6): Yes, sir. I know that was a little -- that was confusing. There was --

(b) (3) (A), (b) (6): I mean, do you consider air refueling a complex mission?

(b) (3) (A), (b) (6): No, sir. And, particular to this incident, I'd say between 1200 to 1600 there was so many questions being tossed out --

(b) (3) (A), (b) (6): 1200 to 1600 on the Wednesday --

(b) (3) (A), (b) (6): Correction, on Tuesday.

(b) (3) (A), (b) (6): Tuesday. Okay. So like 26 hours before the accident?

(b) (3) (A), (b) (6): Yes, sir. Because the training day three -- the accident happened on training day three but it occurred on the fourth day -- morning of the fourth day of the exercise. So in -- on that Tuesday between, I'd say, 12 to 16, there were a lot of -- there was nothing definite that I knew. I had to step out, but there were a lot of decisions being discussed --

(b) (3) (A), (b) (6) : Discussed at the MAG operations center?

(b) (3) (A), (b) : Yes, sir. There was -- frankly, you know, you had Ops Os injecting this, we want to do this. We had COs come in, like, you know, there was discussion with the, I believe, the MAG CO and CG of, you know, what can they do? There was coordination between station of, you know, what are their limitations to support it. And I was just trying to keep up. In watching it, I couldn't keep up with all the --

(b) (3) (A), (b) (6) : So you said there were Ops Os and COs coming in. Do you feel like 242 would have been represented at some point in some of those conversations?

(b) (3) (A), (b) I believe so. Yes, sir.

(b) (3) (A), (b) (6) : Did you ever personally observe the commanding officer of 242 or the operations officer of 242 and engage in any of those conversations?

(b) (3) (A), (b) (6) : Were they present?

(b) (3) (A), (b) : I believe they were there and I was more of just observing everything that was going on in that. I think there was a couple discussions between, you know, Ops -- Squadron Ops to MAG Ops. And then I believe there was, you know, the 242 CO may have walked out and went and had a discussion with the MAG CO. So I believe there was discussions. I don't know, you know, what the outcome, specifically or what they specifically discussed, but I believe it had to do with, hey, what are we going to -- what are we authorized to do tomorrow? Or what --

either being tasked or authorized to do; one or the other.

(b) (3) (A), (b) (6) : And, sir, this was on Tuesday the 4th?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : And when you're saying you observed, where did you observe this? Was that the MAG operations center?

(b) (3) (A), (b) : I was at the MAG operations center just working on a power point.

(b) (3) (A), (b) (6) : And if it's not classified, where was that located?

(b) (3) (A), (b) : I'm sorry?

(b) (3) (A), (b) (6) : He's asking, where's the MOC? What building is the MOC?

(b) (3) (A), (b) : Building 6000.

(b) (3) (A), (b) (6) : So that's the headquarters?

(b) (3) (A), (b) : Headquarters building, second story. Yes, sir.

(b) (3) (A), (b) (6) : No these conversations, did it happen like in an open operations floor or was this like you just bouncing around the office spaces and observing this?

(b) (3) (A), (b) : No. It was -- so inside the MAG operations center, there's the watch stander and then behind that there's a small operations office there. Some of those discussions were happening in the back end of that there. And then I believe there was a few -- sometimes the CO has discussion inside his own classified room in there or it could have happened in his office.

(b) (3) (A), (b) (6) : Okay. So it wasn't in a conference room where everybody was seated and people were talking? It was in operations center and multiple conversations were happening?

(b) (3) (A), (b) (6) : At least from 1300 to about 1400. There was an expectation that everyday there would be a 1500 meeting. I believe that meeting did happen.

(b) (3) (A), (b) (6) : And you weren't present for that because you came back to the MOTS building?

(b) (3) (A), (b) (6) : [inaudible]

(b) (3) (A), (b) (6) : Have you ever worked at the squadron level in the operations department?

(b) (3) (A), (b) (6) : Yes, as a [inaudible].

(b) (3) (A), (b) (6) : You have. So you have experience writing the flight schedule for a Delta Hornet Squadron?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : Would it be normal to include a training code for night systems air refueling on a squadron flight schedule?

(b) (3) (A), (b) (6) : Sir, I believe it's 2202 off the top of my head.

(b) (3) (A), (b) (6) : Okay. Would it be normal to include that or is it optional? Tanker code?

(b) (3) (A), (b) (6) : I would add a tanker code if I was planning on it.

(b) (3) (A), (b) (6) : And you think the tanker code is 2202?

(b) (3) (A), (b) (6) : Off the top of my head, Yes, sir.

(b) (3) (A), (b) (6) : I'm impressed by that recall. So if

you were taking off to go do SEED and night systems AR, you would have a SEED code. I'm going to quiz you, what's the SEED code? Not 2202. So you would have a four digit code that ment SEED, maybe night systems SEED or, CI, if we're calling it that. And then you would have another code that meant night systems AR; is that correct?

(b) (3) (A), (b) : Yes, sir. I would have all the expected TNR codes that would -- that is expected to be completed on that flight --

(b) (3) (A), (b) (6) : And as a MATS guy and some what of a MSHARK expert as well, what's the importance of including those codes in the flight schedule?

(b) (3) (A), (b) Well because when you build a flight schedule enforcement off of MSHARK, you put in all those codes so that they can properly get tracked and when they return -- well, one it tells what the mission planners are expected to, but for the aircrew when they come back that they are properly logging everything in accordance with the training plan, the projections, you know, as the training office/operations office attempted to maintain readiness with it's assest, we need to keep track of that so that we can ensure that everybody's properly being trained or fill any gaps and deficiencies.

(b) (3) (A), (b) (6) : Does it provide any role for risk management or confirming prerequisites?

(b) (3) (A), (b) : It does, sir. In the --

(b) (3) (A), (b) (6) : So if you were to schedule me for a

night systems AR code and I hadn't done that in two years, would that provide feedback?

(b) (3) (A), (b) : It would. There's an MSHARK validation tool and there's a -- its a gap tracker and a validation tool. And what that does is it tells you conflicts with regards to any prerequisites and it would also provide conflicts -- time conflicts, things of that nature.

(b) (3) (A), (b) (6) : Would, in you're time as a schedule writer, did you ever print off those documents and route them with the flight schedule?

(b) (3) (A), (b) : I did, sir. And I'd say that -- yes.

(b) (3) (A), (b) (6) : Would it be normal for other personnel to review the flight schedule aside from the commanding officer who signs it to authorize flight?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Who would be some of those people?

(b) (3) (A), (b) : In my previous command, it would get routed through the Ops O to the AMO and then the DOSS, director of safety and standardization. And in that squadron it was either the DOSS -- basically an ASO to review that.

(b) (3) (A), (b) (6) : And whats the ASO, the aviation safety office? What is he or she looking for?

(b) (3) (A), (b) : I'd say currency. Just an outside perspective that's not, you know, tied to -- that doesn't necessarily have a conflicted interest in accomplishing, you know, meeting specific objectives there. So it's simply someone who's trained in

aviation safety practices, knows the respective SOPs, but also, one flying in accordance with the SOPs, but also, two is just to have -- see if it makes sense just to assess the risks and see if we're taking any unnecessary risks in that.

(b) (3) (A), (b) (6) : Did you -- so you were at MAG-11 before, right?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : While you were at MAG-11, did you ever hear or use a document called a operation risk assessment worksheet?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Tell me about the MAG-11 ORM worksheet and what, you know, your familiarity with it.

(b) (3) (A), (b) : It basically talks -- it places several inputs. And I believe there's three categories. The first category is associated with mission planning where currency is taken into account, whether ordnance is expected to employ. Whether there's a day-night consideration. Local area -- basically assessing the mission it self. Then there's another portion of that, this is done for every flight. The CO has some inputs there and that is developed throughout the schedule writing process and if there's any things that trip a certain thresh hold that, let's say that if it was a medium risk then that would require a squadron commanding officer to approve it or not, to determine that, and then if it goes to high potential extreme that may go to the next echelon of command.

(b) (3) (A), (b) (6) : So in extreme cases a MAG commanding officer might be required to sign a operational risk assessment worksheet?

(b) (3) (A), (b) : I believe so, but at least -- but yeah. That could potentially could happen. Now, only because I'm semi-familiar with MAG-11 now. Four years ago, I don't remember it ever going to the MAG CO there.

(b) (3) (A), (b) (6) : So tell me about the -- so you've flown with 242?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : So can you -- tell me about 242's ORM worksheet.

(b) (3) (A), (b) : They don't have one, sir.

(b) (3) (A), (b) (6) : So when you go to fly with VMFA-242 at MAG-12, and you get -- you get an ODO brief, right?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : And that's a weather brief and what not. And then you do a flight brief, right?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : But before you walk to the jet, is there like a one page document that the flight lead reviews and does like, hey, everybody get plenty of sleep. I am safe. And then checks some boxes and sign, initial some stuff and sign some stuff or --

(b) (3) (A), (b) : I don't believe so. Not that I know of. Generally, it's conducted within the brief, the ORM portion of

the brief of the flights that I have flow with them, sir.

(b) (3) (A), (b) (6): Okay. So in leu of a worksheet that maybe the ODO would have with the flight schedule, you guys cover it in some tactical briefing items or some administrative briefing items rather?

(b) (3) (A), (b) (6): It's definitely discussing administrative briefing items, but I don't know if any additional ORM is conducted throughout their internal processes.

(b) (3) (A), (b) (6): So when you were at MAG-11 did you guys not cover ORM in the brief?

(b) (3) (A), (b) (6): We did, sir.

(b) (3) (A), (b) (6): Okay. So when you were at MAG-11 you coved ORM in the brief, but you also had this ORM worksheet?

(b) (3) (A), (b) (6): Yes, sir.

(b) (3) (A), (b) (6): So you had two things?

(b) (3) (A), (b) (6): [nonverbal response].

(b) (3) (A), (b) (6): What about when you were at Top Gun? How did you guys do that at Top Gun? Do you recall?

(b) (3) (A), (b) (6): We definitely did it in the flight -- or correction, in the brief. I don't recall if the ODO actually -- I don't recall, sir.

(b) (3) (A), (b) (6): Fair enough. Did you find it a useful tool at MAG-11 or was it just more pencil whipped BS?

(b) (3) (A), (b) (6): As a schedule writer I found it beneficial because I would -- when I was writing the schedule I could just kinda of QA. It would help me -- it'd be an additional

verification throughout my process until I got to the end of the day and the MSHARK output there. So it helped me pre-lead those tasks so that I didn't have to make last minute changes on there. So I found it useful in the scheduling process. And then I think it varied on a personal level once it got to, I think, the MAG-11. There about five inputs that the flight lead conducts prior to him walking. I don't want to say that it was pencil whipped, but it was all stuff that was already doing there. So it was repetitive and yeah. That's it.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Sir, did it surprise you when you first flew with 242 that they didn't do an ORM worksheet? Was it note worthy to you?

(b) (3) (A), (b) (6) : No. Not necessarily. No. Otherwise I probably would have brought it up earlier than that.

(b) (3) (A), (b) (6) : When you were a daily schedule writer at your previous gun squadron, did the flight schedule include initials for the CO, XO, Ops O, AMO or anybody?

(b) (3) (A), (b) (6) : It was maintenance, DOSS, and Ops, and then the CO.

(b) (3) (A), (b) (6) : Do you know if 242 scheduling includes that or not, are you familiar?

(b) (3) (A), (b) (6) : It does not now. It did probably last year -- or I believe it did include it prior to the change of command.

(b) (3) (A), (b) (6) : So that interesting. So 242 had a change of command in the summer of 18?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : So I think that you're saying is the previous squadron commander had some initial blocks on the flight schedule document. And then after the change of command they were removed?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Do you have any knowledge as to why that was done or the benefit of that?

(b) (3) (A), (b) : No, sir. And frankly I didn't notice a change. Really it was just kind of recently that I really recognized that change there.

(b) (3) (A), (b) (6) : But you're not routing the flight schedule, you're just executing it once in a blue moon, right?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : How many squadrons have you seen that with where it's just the CO signing the flight schedule?

(b) (3) (A), (b) : I believe just 242 of, like, of all the other -- yeah. I think just 242.

(b) (3) (A), (b) (6) : Did they put out a flight schedule at Top Gun?

(b) (3) (A), (b) : They did. Yes, sir.

(b) (3) (A), (b) (6) : Did it have, do you recall if it just had the CO signature on it or did it have an XO, Ops O, AMO, ASO?

(b) (3) (A), (b) : Didn't have an -- I can't recall, sir.

(b) (3) (A), (b) (6) : Fair enough. But you're previous

Marine Hornet squadron definitely did. When you wrote schedule, do you remember going to see folks to get them to initial a flight schedule before the commanding officer's signature?

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : In your process of writing a flight schedule at your previous command, did you ever go to operations officer or a maintenance officer or a safety officer who had concerns with what was documented on the schedule?

(b) (3) (A), (b) : Yes.

(b) (3) (A), (b) (6) : And what would that lead to?

(b) (3) (A), (b) : Schedule change or potential mitigation like an additional control put on there. So potentially changing the event, changing the crew pairing or the crew itself, and then potential restrictions like limited maneuvering or some additional restriction.

(b) (3) (A), (b) (6) : What do you think we could have done to prevent this mishap?

(b) (3) (A), (b) : I'm having trouble since I'm on the FOPB, sir.

(b) (3) (A), (b) (6) : Okay. Then it's okay not to respond.

(b) (3) (A), (b) : Yes, sir.

(b) (3) (A), (b) (6) : Anything else you would like to add?

(b) (3) (A), (b) : No, sir.

(b) (3) (A), (b) (6) : Judge -- okay the judge will swear you out. And we'll be done.

[(b) (3) (A), (b) was warned, sworn, and excused.]

(b) (3) (A), [REDACTED]: Good afternoon, the time is 1135. We are in Iwakuni, Japan, on Thursday, January the 17th. Present in the room are (b) (3) (A), [REDACTED], 1st Marine Aircraft Wing, (b) (3) (A), [REDACTED], Staff Judge Advocate, 1st MAW, (b) (3) (A), [REDACTED], the court reporter.

This is -- interview for the witness is (b) (3) [REDACTED] (A), (b) [REDACTED], United States Marine Corps. And (b) (3) [REDACTED], please, state your full name for the record, spelling your last name.

(b) (3) (A), (b) (6) [REDACTED]: (b) (3) (A), [REDACTED] [REDACTED]. And (b) (3) (A), (b) (6) [REDACTED].

(b) (3) (A), [REDACTED]: (b) (3) (A), [REDACTED], what is your Military Occupational Specialty?

(b) (3) (A), (b) (6) [REDACTED]: I'm a KC-130J aircraft commander.

(b) (3) (A), [REDACTED]: (b) (3) (A), [REDACTED], how long have you been flying the C-130?

(b) (3) (A), (b) (6) [REDACTED]: Since 2007.

(b) (3) (A), [REDACTED]: 2007? Roughly, how many flight hours do you have in the C-130?

(b) (3) (A), (b) (6) [REDACTED]: Just about three -- in the C-130, about 2,800.

(b) (3) (A), [REDACTED]: What is your qualification and designation level in the C-130?

(b) (3) (A), (b) (6) [REDACTED]: I'm a weapon and tactics instructor.

(b) (3) (A), [REDACTED]: So you're authorized to provide instruction?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), : Okay. Where were you in November and December of 2018?

(b) (3) (A), (b) (6) : I was probably on a couple of -- I was on one TAD trip I believe in November just for two days down to Okinawa. And then in December of 2018, I was here the entire month and participating in MAG ULT.

(b) (3) (A), : MAG ULT. So that was the exercise that took place, that was ongoing during the mishap. Tell me a little bit about the MAG ULT. The purpose of it, and how it went down, and what it was supposed to look like.

(b) (3) (A), (b) (6) : The purpose of MAG ULT had evolved from a different flavor of exercise that wasn't just going to involve MAG-12 aircraft for 1st MAW aircraft. It was going to involve joint aircraft in the beginning. Over time, due to political, geographic availability issues, the exercise changed in flavor dramatically.

We had allocated, assuming that I was a big joint level exercise, that there were going to be a total of five KC-130J's allocated to it, and we received our tasking also supported that. So as other assets and services fell out of the exercise, we retained five aircraft in support of the MAG-12 exercise and then decided to make it as replicative as we could of certain scenarios to get maximum training value out of the exercise as other players fell out of it.

(b) (3) (A), : Okay. Did you attend any meetings at

the MAG Operations Center?

(b) (3) (A), (b) (6) : I did. I came to meetings routinely. The way our squadron typically works when we're talking about exercises for detachments, we have a detachment lead planner, which is one of my captains in the operations department. I am involved with them through planning for the exercises and get involved where I need to whenever they come to roadblocks or we need to have OPSO participation.

This was a unique exercise in that a lot of the planning, eventually, was being done here at MAG-12. Where as, typically, that's done at FPC's and NPC's, which I just answer and make sure I'm involved remotely with my reps who we send to those meetings.

So as the flavor of MAG-12 ULT changed, I was coming to pretty much all of the meetings over at MAG-12 where either the MAG-12 OPSO was going to be there, or we were at a friction point I knew that I needed inject myself into. And also just as opportune timeline it allows, it was, kind of, just prioritizing my time, but making sure I was really at all the meetings where they were being run by MAG OPSO proper, rather than the lower level planners across the squadrons.

(b) (3) (A), (b) (6) : Okay. Were you surprised that air refueling was being conducted at the time and place it was at the mishap, or did you expect that?

(b) (3) (A), (b) (6) : No, I expected it and we scheduled it that night.

(b) (3) (A), [REDACTED]: Okay.

(b) (3) (A), (b) (6) [REDACTED]: 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 SORTY's over the course of two days, which was amazing.

(b) (3) (A), [REDACTED]: You're smiling as you speak, so that sounds like that's good stuff for an OPSO?

(b) (3) (A), (b) (6) [REDACTED]: It was awesome stuff and we were so fired up. And then we got told that we could not fly air to air refueling SORTY's on Wednesday and our schedule got changed due to the national day of mourning. And we were only allowed to flight assault transport SORTY's into (b) (6), [REDACTED] 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.

(b) (3) (A), [REDACTED]: So then you launched aircraft at 0030 on December the 6th, 2018 to conduct a night systems air refueling?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir. And that flight was scheduled on a 5 December flight schedule due to the crew's showtime being before midnight on that day.

(b) (3) (A), [REDACTED]: Okay. Was that executed, roughly, as scheduled in terms of crew, and take off time, and mission?

(b) (3) (A), (b) (6) : Absolutely, to my knowledge on our end. I mean, not being able, obviously, to talk to those guys, but getting their take off time from tower, knowing what time that crew showed up to work that day, that everything was going. And talking to our duty officers, everything was going as planned.

(b) (3) (A), (b) (6) : And this I your squadron obviously, so have you flown with any of the members of the mishap crew before in your life?

(b) (3) (A), (b) (6) : Absolutely, both, I mean (b) (3) (A), (b) (6) [ph] was one of the FRD East instructors. He was junior to me, but I didn't fly with him out here in this AO yet because he had recently PCS'd out over the Summer time. But, in the past, he was -- me being a NATOPS instructor, they were the KC-130J model managers. So I had been familiar with him in our community for a long time. I think he had given me personally one or two of my NATOPS check rides annually.

And then (b) (3) (A), (b) (6) (b) (3) (A), (b) (6) (b) (3) (A), (b) (6) , great friends with him. I worked at MOTS with him for a little over two years. Shared many, many flights with him. Flew as his wingman, I flew as his lead numerous times throughout our career.

(b) (3) (A), (b) (6) : Would you consider those to be highly qualified C-130 aircrew?

(b) (3) (A), (b) (6) : Absolutely.

(b) (3) (A), (b) (6) : Did you ever observe those men to do anything reckless?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), [REDACTED]: Do you -- did you see any of the mishap aircrew earlier in the day?

(b) (3) (A), (b) (6) [REDACTED]: I did not and I was actually really, really happy about that because (b) (3) (A), (b) [REDACTED], who I had most direct, you know, just because of his job as the Executive Officer and just by nature of us being really good friends in the squadron. We'd be talking all day, everyday as our ground duties and personal situations would dictate. I was really -- and he's a just complete workaholic.

So I knew that it was going to be tough for him not to show up at work until way later to facilitate a 0300 or 0400 -- 0330 land time, whatever we had it scheduled as. And I was glad because that day was a national day of mourning. His wives job got called off and then his kids weren't allowed to go to school.

So I was, like, sweet. I was, like, they get to have a day together as a family, I'm really glad that he's not in at work. And then I left work that night on 5 December at 1845ish and he was not at work yet. And I know that because I didn't see him and his parking spot is right next to mine.

(b) (3) (A), [REDACTED]: So it would be --

(b) (3) (A), (b) (6) [REDACTED]: And I didn't see (b) (3) (A), (b) (6) [REDACTED] either because he was my AOPSO and was not in operations when I left.

(b) (3) (A), [REDACTED]: So that leads you to believe that the opportunity was provided for sufficient crew rest and appropriate crew day for the execution of the mission of the crews?

(b) (3) (A), (b) (6) [REDACTED]: Absolutely. There was no question for our

KC-130 crew that they knew that they were not showing up at work in the daytime prior to -- they had a ten hour crew day limit. So, technically, we apply one hour post flight to our land time. So if land time was 0430, they wouldn't have been able to come into work legally until 1830 at the earliest on 5 December.

(b) (3) (A), [REDACTED]: How is that policy codified?

(b) (3) (A), (b) (6) [REDACTED]: So that was codified. For KC-130, our crew day, if it involves, if it's after a midnight land time, we're limited to 15 hours. In the planning for the 24 hour ops that were going to be accomplished on the Wednesday and Thursday of the MAG ULT, it was passed via CUB or -- it wasn't necessarily -- I can't remember if it was a CUB or a confirmation brief by (b) (3) (A), (b) [REDACTED] that crew days were limited to 12 hours if terminating before midnight and ten hours post midnight. So we took that for action. It actually -- I don't know if it was in a CUB or, like I said, a confirmation brief. I took that for action and I gave our squadron level MAG ULT confirmation brief to all aircrew and then all staff NCO's as well, besides aircrew of some maintenance department, was fully spooled up on what we were doing. And that was a secret briefing that I gave in the afternoon of the Friday of the week before it started. So that would have been on --

(b) (3) (A), [REDACTED]: The 30th maybe?

(b) (3) (A), (b) (6) [REDACTED]: -- 30 November. And I gave the brief for what the fly windows were going to be and what the crew days were going to be to the squadron, and briefed everyone on that and

said -- and I remember making, no offense, sir, I made the smart ass response I think to (b) (3) (A), [REDACTED], like, well, that's more conservative than our typical crew day, this is easy. You just whittled down our NATOPS crew day by two-thirds, like, I'll take it.

(b) (3) (A), [REDACTED]: Yes, right. Okay.

How do you interface with VMFA-all weather-242? What's the mechanism by which those two operations departments communicate?

(b) (3) (A), (b) (6) [REDACTED]: Well, for normal operations we communicate via the ASR process. So, I mean, we're not operationally controlled by MAG-12. So our tasking routinely in support of 242 has to come via the ASR process whenever an assigned ASR is assigned to us, then we give that ASR out, schedule it for the crew. And then, whatever crew has direct responsibility for that ASR, then they're calling the operations department, first, at 242 and then getting down into the flight leads for the detailed coordination prior to that mission. If it involves fixing air to air refueling.

(b) (3) (A), [REDACTED]: So you said ASR. I think that's an Assault Support Request. And the ASR as a C-130 and I think it might be traditional in other Wings in the Marine Corps, C-130's are actually controlled at the Wing level, not at the MAG level.

Do I understand that correctly?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: Okay. So if 242 wanted a Tank, they

would submit an Assault Support Request to the MAG, that would actually go up to the Wing --

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), : -- for approval, could then come back down through the MAG and then back down to you for assignment?

(b) (3) (A), (b) (6) : It would come direct from MAW to us for assignment.

(b) (3) (A), : Okay. And who's the staff officer at the MAW that your operations department might receive such assignments from typically?

(b) (3) (A), (b) (6) : The Air Transport Coordination Officer.

(b) (3) (A), : The ATCO? What's the name and rank of the person currently serving that capacity?

(b) (3) (A), (b) (6) : (b) (3) (A), .

(b) (3) (A), : (b) (3) (A), ? Is that Breather?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Okay. So what about for this exercise? Was the ATCO engaged, or was this a different because we're doing, like, a MAG ULT?

(b) (3) (A), (b) (6) : Yes. So for teeped exercises, and this exercise was teeped, although, it changed in flavor, for whenever we allocate aircraft to that exercise, that if they're being used within those exercise dates. That we have been told by Wing to teep those aircraft for, then whatever is happening inside of those windows do not need to go through the ASR process.

(b) (3) (A), : So it's like duraloth, kind of, right?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Between supporting and supported units, and in this case you would be the supporting unit, and 242 the supported?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Okay. So getting to the exercise then, so, now, answering the question in a different way, how were you interfacing with 242 so that they understood what type of air refueling, specifically, not assault support transport, but air refueling, was taking place? When, and where, and how much give? How was that information exchanged?

(b) (3) (A), (b) (6) : So all of that, because they are the planned missions for the TAC air, we could drastically change due to where they were flying, what ranges were available, and the fact that other joint assets had fallen out. So the way I understood it, it had been told to the TAC air squadrons that, yes, we are still going to fly the flow contracted times.

But, what the squadrons decided to do with that was over to their discretion in order to maximize the training value that was afforded to them for having the airspace, and the time, and the aircraft allocated to those SORTY's. So -- and then we were given from the MAG level, from (b) (3) , we were given by him the airspace that we were afforded to do these operations. So I knew whether it was VMFA-225, whether or not it was 225, 242, or 121. What squadron the receivers were coming from, and then I knew what airspace we had to do the Tanking.

And then our, (b) (3) (A), [REDACTED], would work with the operations departments, the scheduling departments, to find the appropriate points of contacts for the flight leads for whatever, whoever we were supporting out there to hash out the final flight details for the air to air refueling.

(b) (3) (A), [REDACTED]: Okay. Would it be -- would you expect to see air refueling on -- air refueling TNR codes on your flight schedule?

(b) (3) (A), (b) (6) [REDACTED]: Absolutely.

(b) (3) (A), [REDACTED]: Would you expect to see those similar codes on the fighter schedule?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir. But, I do not check their schedule.

(b) (3) (A), [REDACTED]: I understand. Lets talk a little about your experience as a C-130 instructor and a night systems air refueling SOP's. Can we do that?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: So I assume at your experience level, you've conducted fixed wing air refueling as a C-130 Tanker instructor pilot a few times?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: And your probably done it at night?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: Is there a TNR code for night air refueling?

(b) (3) (A), (b) (6) [REDACTED]: There is not for the pilot side. But, there

is for our observer side.

(b) (3) (A), [REDACTED]: Okay. That's interesting. Talk about that a little bit.

(b) (3) (A), (b) (6) [REDACTED]: So on the pilot side, whether it's day or night, fixed wing or tilt rotor air to air refueling, it's the same TNR event, AAR 3600. That's because our TTP's, generally as pilots, we're in a Tanker orbit and we're expecting receivers to come in and them to effect the rendezvous on us.

And we need to have knowledge based off of the appropriate procedures per the ATP 3342, also known as ATP 56(c). And then we also need to have detailed knowledge of the air to air refueling system, how to run the hoses, and fuel knowledge, and planning.

(b) (3) (A), [REDACTED]: Okay. So you've conducted at night. Have you ever done it at night while wearing night vision goggles?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir. Anytime we do fixed wing air to air refueling, post EENT, the expectation is we schedule it and we brief it, that the entire crew is going to be aided.

(b) (3) (A), [REDACTED]: Okay. What would the typical flow look like if a section of Hornets joined up on you? Kind of, can you briefly walk me through -- don't build a watch. Can you briefly walk me through what that looks like? You know, what altitude they would arrive at, what type of instructions you would give, and then what altitude and from what side of the C-130 they would depart?

(b) (3) (A), (b) (6) : So they should be contacting us, depending on line of sight issues with the radios. They'll contact us well before their visual. And before their visual, at least 10 to 15 minutes prior to the ARCT, we'll be monitoring the AR primary frequency that has been pre coordinated via the AR card with the receivers. And then we'll also have your predesignated air to air TAC hand selected for receivers to find us, knowing full well that Harriers need that a little bit more than what F-35's and Hornets typically do with the capabilities of their radar system. So they'll check in with us.

We'll tell them the altitude that we're at, because it could have changed for the Tanking altitude given cloud layers. And we'll issue them an altimeter setting, and expect them, and tell them to maintain their join-up altitude, which is 1,000 feet for fixed wing, below the AR altitude until visual. Then we'll wait to hear the receiver's visual.

Once they call us visual, we'll clear them to join. They'll come in low and left and we'll clear them to join in echelon left. From there, the standard would typically -- unless the flight lead dictates otherwise due to crew comfort or fuel state, from there we'll typically clear the lead aircraft over in to the right of astern position. And the dash 2 aircraft into the astern left position. We can move them simultaneously for fixed wing, we're allowed to do that.

And once our observers in the back say that they're stabilizing astern position, approximately 5 feet behind the

basket with no closure, we'll clear them to contact. We can clear fixed wing receivers to contact simultaneously. Contact will give them gas. Our offload rate is typically about 2,000 pounds per hour for the receivers. Get them their pre brief fuel. If their fuel state requires more and we have it, we'll give them additional fuel based on our comms.

And then after they are complete, if -- it doesn't matter who's complete first, like, if the guy in the left basket is complete first, we'll clear them to disconnect and go echelon right. Even if the right hand guy is still in the basket. At that point, they're all members of our flight. They have essay for everyone who's in and around the Herc. And we'll clear them over to the echelon right position, as that is the standard position for departure.

Once they're in the echelon position for departure and both complete, they say they're ready to go, we, as Tankers, through that time are assumed to have the best essay for the airspace picture because we're typically monitoring more radios than the receivers are capable of. And then we'll clear them to depart based off of a couple of factors. If we know more about traffic, we'll give them directed departure instructions. If it's all just based on their discretion, we'll ask which way they want to depart and then clear them to depart.

The standard for departure, per the ATP, is level or climbing departure. Based off -- and this is something technique-wise. Can't tell you how many people in the squadron

I've given this brief to, or I gave the brief to while I was at MOTS and training NSI's, but as a result of the 242 mishap in 2016, which I was not here in this AO for. I was at MOTS during the time. Where they cleared the receivers to depart and they ended up running into a basket.

I state all of the time to receivers to tell them to get to an altitude, at least 500 feet above the Tankers altitude, prior to initiating any turns. So for example, it would be that 4142, you're cleared to depart high and right. Attain flight level 18.5 prior to initiating any turns. And that was just, you know, a practice that I had developed and briefed over time as a result of something that had happened recently in our community.

But, imperative as an instructor, for me, always, whether or not it's a single Tanker or whether or not it's a Tanker formation, that joins are always from low and left and departures are always high and right.

(b) (3) (A), [REDACTED]: That's an excellent description, thank you. One thing that I just want to correct for the record. You said alt flow rate is 200 pounds per hour, you mean minute?

(b) (3) (A), (b) (6) [REDACTED]: Two thousand. Two thousand pounds per hour.

(b) (3) (A), [REDACTED]: Two thousand pounds per minute?

(b) (3) (A), (b) (6) [REDACTED]: Two thousand pounds per minute. Yes, sir.

(b) (3) (A), [REDACTED]: Yes. I think I said 200, and you said hour and I said minutes, but about 2,000 pounds per minute depending on the aircraft the receivers are in.

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: Okay. And that's great. Lets talk about lighting stuff. And you and I have already talked about this a little bit, but lets talk about it on the record.

When the -- after the receivers are established in formation with the Tanker at night, so after the receivers have found you and joined on you, be that left echelon or perhaps even cleared in to the stern position as appropriate, have you ever had receivers ask you to adjust your external lighting system as their refueling aircraft commander?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir. All the time.

(b) (3) (A), [REDACTED]: What would be a typical request? And what would be a typical response?

(b) (3) (A), (b) (6) [REDACTED]: It would be, hey sumo, can you go covert?

(b) (3) (A), [REDACTED]: Okay. And then what would you do?

(b) (3) (A), (b) (6) [REDACTED]: And then, for me, and this is not standardized anywhere across our publications. And legality wise, every kind of enviromental and airspace that you're operating in and country would be different. But, if I felt at that point that I was within the intent of the regulations to be within special use airspace and other traffic was not an issue, I would tell them I will go covert when you're in the astern position.

(b) (3) (A), [REDACTED]: Okay. And when you go covert, what external lights are illuminated on the C-130?

(b) (3) (A), (b) (6) [REDACTED]: On the C-130 -- on unaided or aided, sir?

(b) (3) (A), [REDACTED]: Covert.

(b) (3) (A), (b) (6) : So to other traffic, if you do not have night vision goggles on. When I switch my --

(b) (3) (A), : That's not the question. Okay. What actual light bulbs are burning? What systems on the C-130 are receiving electrical power to be illuminated when you switch to covert?

(b) (3) (A), (b) (6) : To covert? The top strobe.

(b) (3) (A), : Okay. A covert strobe?

(b) (3) (A), (b) (6) : A covert strobe.

(b) (3) (A), : Okay. What else?

(b) (3) (A), (b) (6) : Covert navigation position lights.

(b) (3) (A), : Okay.

(b) (3) (A), (b) (6) : And IR formation lights. Strip lights.

(b) (3) (A), : IR strip lights?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : What is a --

(b) (3) (A), (b) (6) : And the pod status lights, as long as my hoses are extended.

(b) (3) (A), : Okay. And what is a covert position light? Tell me about your covert position lights.

(b) (3) (A), (b) (6) : There are one on each wing, one on the tail, one on the top, and one on the bottom of the aircraft.

(b) (3) (A), : And those are called covert position lights?

(b) (3) (A), (b) (6) : Well, those are called navigation.

(b) (3) (A), : Covert nav? So they're nav lights?

(b) (3) (A), (b) (6) : They're nav lights that have a covert setting available to them.

(b) (3) (A), [REDACTED] : Okay. So when they're overt, are those the red, gree, and white lights?

(b) (3) (A), (b) (6) Yes, sir.

(b) (3) (A), [REDACTED] : And then when you switch to covert, they all go, like, green?

(b) (3) (A), (b) (6) : Yes, sir. Well, they go green on the goggles, but invisible to the naked eye.

(b) (3) (A), [REDACTED] : Okay. Awesome. And if I was looking at a C-130 at night, particularly in low light level conditions, through the naked eye in the position that you described, what would I see?

(b) (3) (A), (b) (6) : With the covert light set?

(b) (3) (A), [REDACTED] : Yes.

(b) (3) (A), (b) (6) : You would see nothing.

(b) (3) (A), [REDACTED] : Okay. It would be a black hole, potentially?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), [REDACTED] : And then, in what type of lighting configuration would you expect the receiver, specifically F-18 receivers, to be in? If that's what was going down?

(b) (3) (A), (b) (6) : I would expect them to have, at a minimum, their navigation lights on and for the trail receiver to have his strobe on.

(b) (3) (A), [REDACTED] : By strobe, you mean --

(b) (3) (A), (b) (6) : Overt. Overt anti collision light.

(b) (3) (A), : Overt anti collision light? And for navigation lights, do you mean covert anti collision lights on the F-18 or do you mean red, gree, and white lights, visible to the naked eye?

(b) (3) (A), (b) (6) : Red, green, and white lights visible to the naked eye.

(b) (3) (A), : And what other lights would you expect to see on the F-18, with his probe extended and receiving fuel?

(b) (3) (A), (b) (6) : I would expect to see their probe light.

(b) (3) (A), : Okay. So you have a white light in the front, in the probe. And a white light on the tail. And then red and greens on the wing tip as appropriate?

(b) (3) (A), (b) (6) : Yes, sir. And then I would expect it, as long as their systems were normal, although not required, I would expect to see formation lights, strip lights, on them as well. Just being familiar with the F-18.

(b) (3) (A), : Overt green strip lights?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Okay. Awesome. Lets talk a little bit about 2016. You brought up, I'm not super tracking, but you said due to something that happened in 2016 when you were an instructor at MOTS one, which is Marine Aviation Weapons and Tactics Squadron One, which is a standardization body and a weapons school for the Marine Corps. You were an instructor there. Something happened out here with airplanes coming and

going from the Tanker? I'm not --

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : What? Tell me about that.

(b) (3) (A), (b) (6) : So I was not in the squadron, like I said at that time. I know two of the individuals who were on that flight. At the time, I did not know those individuals. I only received the haz rep and was using it as a CRM instructional tool --

(b) (3) (A), : Okay.

(b) (3) (A), (b) (6) : -- or CRM classes based off of that. And also for my certification, external lighting, and NSI considerations when I was certifying new NSI's in my job at MAWTS.

(b) (3) (A), : Okay.

(b) (3) (A), (b) (6) : So what happened there, they were refueling somewhere in Japan. They had completed the refueling evolution. The Tanker crew had cleared the receivers to depart with no specific departure instructions. Unknown whether or not the observers kept an eye on them in the front, the pilots did not have sight on the receivers departing the formation in the front. Which we typically do, you start with visibility on them in the right seat. The left seat pilot cannot see where receivers are in the echelon right position.

However, from the right seat, you can kind of see over there behind the wing line. And as a pilot, when we clear the receivers to depart, the observers have them first and then they

pass forward to the wing line. And then as the pilot is up front, then you're watching them comply with the departure procedures and making sure that we're not hitting them because they're going to accelerate and climb away from us.

On this particular flight, they cleared the receivers to depart without any specific departure instructions. They thought that the receivers were getting ready to depart, and one of the receivers lost essay and ended up actually striking the trail, the hose. Which he should have been nowhere near the hose. After he was clear to depart off the echelon right, struck the hose and put a hole, I believe, through his leading edge on his Hornet.

And he ended up diverting, instead of coming back into Iwakuni. Ended up diverting into Okinawa. But, from our community perspective, that was fairly scary because when we clear receivers to depart, we expect them to depart, and climb, and use their air speed differential to get away from us. Not to hang around us or lose essay and bump into part of our aircraft.

(b) (3) (A), [REDACTED]: So the receiver, which was an F-18, it struck, like, the basket of the -- do you know which basket, or if both the baskets were out?

(b) (3) (A), (b) (6) [REDACTED]: I don't know, sir.

(b) (3) (A), [REDACTED]: Do you know if the basket or the hose assembly was damaged or separated?

(b) (3) (A), (b) (6) [REDACTED]: I think it was pulled off the plane for us.

(b) (3) (A), [REDACTED]: You think the C-130 lost the basket

and the hose?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : So --

(b) (3) (A), (b) (6) : But I'm not sure. I mean, the haz rep says a lot of that, but I just -- that's what I remember from briefing it.

(b) (3) (A), : Yes. Okay. So what -- so since you're teaching, you said you're teaching ORM stuff, or CRM, or what were you teaching specifically?

(b) (3) (A), (b) (6) : Yes, sir. CRM.

(b) (3) (A), : CRM?

(b) (3) (A), (b) (6) : It was like CRM refresher classes and used as a discussion point on NSI certs.

(b) (3) (A), : Okay. And so what were some of those key briefing points, other than just telling the story you told? What were some of the things that you would instruct your students?

(b) (3) (A), (b) (6) : That when you clear receivers to depart, that you put them at an altitude different from ours, prior to making any turn. And that everyone in our KC-130 maintains visual with the receivers as they're departing until we are confident that they're completely clear altitude wise and turning away.

And whether or not that's just the observers in the back or the pilots up front, whether or not it's daytime or nighttime, that we're doing that. That I think a lot of trust in

the past in our community has been given to receivers. Hey, these are jets, they fly formation on us, you know, routinely. They know what they're doing. They're not going to hit us. Well, they proved it wrong, they did hit us in that time. And use that --

(b) (3) (A), [REDACTED]: And that was 2.5 years before the fatal mishap we are investigating now?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: What type of procedures or policies were put in place to mitigate the risk associated with what you just described?

(b) (3) (A), (b) (6) [REDACTED]: So I know from the Hornet perspective after that, and I don't know the specifics with it, I just remember hearing the talk that was happening because at MAWTS, the Tac Air department, our desks were right next to the Hornets. That they said that there was some discrepancy with that pilot. With regard to how he was scheduled and his ability to, per the TNR, complete that event with the way that it was being tracked and recorded for the night aided Tanking TNR code on the Hornet side. And then --

(b) (3) (A), [REDACTED]: So you --

(b) (3) (A), (b) (6) [REDACTED]: From the Herc side, sir, there's a policy in place with the ATP, at or above. We just amplified the above status of that to our community. But, in the end, the revision cycle for the ATP isn't just controlled by the United States. And it's controlled by the NATO STANAG entities. And we provide

recommendations to them for changes in the future. And those are all very, very slow from my experience of also serving as our community's model manager to the authorities for that publication.

(b) (3) (A), [REDACTED]: So lets go back to what you overheard when you were at MAWT. So you made a comment about the Hornet pilot not being qualified and proficient. So I think what I'm hearing is maybe the Hornet pilot didn't have all the prerequisites for what he was doing, wasn't properly scheduled.

(b) (3) (A), (b) (6) [REDACTED]: Yes. Agreed. And I know that, I mean, from our end on the Herc perspective, single KC-130 night Tanking, like I said, the pilots, we don't have a specific TNR code for that. That's not a difficult task intensive event for us. It requires a couple of different considerations to accomplish at nighttime, but nothing that would make us need to do another TNR event for it.

And I remember hearing that in the Hornet community, I believe that code is a 2,000 level code, but that it's not looked at something that they would expect people to typically struggle with or felt like they needed to -- it was a very administrative TNR event is what I'm trying to say.

(b) (3) (A), [REDACTED]: Sure. Do you have any knowledge about what happened in -- I mean, I was unfortunately diffed in at the time, and so I missed out on this whole thing. In '16 I was at school. But, the -- was there, like, a big Marine Corps wide safety stand down after the 2016 or, I mean, you knew about it

because you were at MAWTS and you sat next to the Tac Air guys and you pulled the haz rep, doing do diligence. You said there's, so there's a safety investigation that produced a haz rep or soemthing --

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : -- that you read, OPNAV 3750. Was there any other --

(b) (3) (A), (b) (6) : There were -- I don't remember any restrictions coming down on the KC-130 community as a result of it.

(b) (3) (A), : Yes.

(b) (3) (A), (b) (6) : I know that the Hornet community had to do a deep dive into their TNR, and I don't know if they got told to fix it before they could resume night Tanking or not. I honestly, I don't know.

(b) (3) (A), : Not tracking? Fair enough. Okay.

(b) (3) (A), : Ma'am, when you're doing air refueling, what are the responsibilities of your observers in the back? Do you have two in the back or just one?

(b) (3) (A), (b) (6) : We typically have two in the back. We are only required to have an observer on a basket --

(b) (3) (A), : Okay.

(b) (3) (A), (b) (6) : -- really, as it's extended to watch refueling operations. I could really have a Hornet, kind of, come up and join on me without having a hose extended, and be perfectly legal to do that without any eyes looking out the back

of our aircraft. But, on a night where we routinely schedule two qualified observers in the back because we're anticipating using both hoses.

And their responsibilities are once they get visual of the receivers coming in, to give a running commentary over ICS to the pilots up front regarding the location of the receivers. They are trained to know what excessive closure looks like. They are cleared to, you know, instructed to know what a proper plug in the basket looks like. What excessive fuel leak would look like, or any type of hose malfunction, as well as, the refueling range that the receiver are supposed to be in when they plug into the basket.

(b) (3) (A), [REDACTED]: How about post refueling, prior to departure?

(b) (3) (A), (b) (6) [REDACTED]: They are, like I said, after those receivers are out of the basket and technically after we bring our hoses in, there's nothing TNR wise or requirements wise for them to keep an eye on it. Granted we do have them. And their never -- we never talk about that as pilots and observers, but they are keeping an eye on the location of the receiver aircraft until they have departed the formation.

Or until something comes up in the cargo department, where their crew duties dictate otherwise. Such as walking around to check for hydraulic leaks after we finished up bringing the hoses in, because at that point, there's nothing back there anymore that they are -- we are required to have aft visibility

on.

(b) (3) (A), [REDACTED]: So the observer had to be on the hose, if you have a jet plugging. But, if you're just dragging the hoses, and the jet's done, and the jet's leaving. The observer is not required to be on the hose; is that correct?

(b) (3) (A), (b) (6) [REDACTED]: No. If the hose is extended.

(b) (3) (A), [REDACTED]: It is to be observed?

(b) (3) (A), (b) (6) [REDACTED]: It is to be observed.

(b) (3) (A), [REDACTED]: Okay.

(b) (3) (A), (b) (6) [REDACTED]: And there isn't -- the only thing that we have, like, so it's not, like, explicitly written on that. I would say except for the pre air to air refueling checklist, it says observers in position before we extend hoses. So implied in that is that the observers stay in position and they have visibility until that hose is no longer trailed.

(b) (3) (A), [REDACTED]: So you talked about the ATP-56 and I'm sure you're familiar with the document.

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: Where in the ATP-56 does it talk about night systems air refueling of a fixed wing aircraft?

(b) (3) (A), (b) (6) [REDACTED]: In the U.S. standards related document portion of that, it includes specifics on every type, model, series within the Navy and Marine Corps regarding lighting configurations for both overt and covert light settings on that. And that's really --

(b) (3) (A), [REDACTED]: So that's the SRD, which is actually

like an appendix, right?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Is there a section on night systems helicopter air refueling?

(b) (3) (A), (b) (6) : I would have to go back and review it, sir.

(b) (3) (A), : Okay.

(b) (3) (A), (b) (6) : Which, I mean, I do routinely, but I can't pull that off the top of my head.

(b) (3) (A), : It's alright. Have you -- does VMGR-152 have a squadron order 3710 SOP for flight operations?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Are you familiar with it?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Do you know who signed the most recent copy?

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) .

(b) (3) (A), : Okay. What about MAG-12? Does it have an SOP?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Okay.

(b) (3) (A), (b) (6) : I don't know what the most current version is and if you look around Sharepoint, it's very difficult to find what the most current version is.

(b) (3) (A), : That's interesting. What do you mean?

(b) (3) (A), (b) (6) : Well, I mean, I've gone -- so the MAG-12 SOP is very specific to Tac Air aircraft and they are on a lot of

specifics in there for us. And a lot of the MCAS Iwakuni Station Order actually applies to us much more SOP wise in the local area than the MAG-12 SOP does. So I remember I've been -- I looked for it a couple times when I first got out here, and I think the most recent version it is not within the past couple years that I was ever able to find. I remember perusing it when I first got out here and being like, there's nothing in here that really is above what my squadron SOP says and what the station order says for local procedures. And I never looked for --

(b) (3) (A), [REDACTED]: Anything in the MAG-12 SOP about night system, or air refueling a fixed wing aircraft, or NVG use, or anything like that?

(b) (3) (A), (b) (6) [REDACTED]: Not that I know of, sir.

(b) (3) (A), [REDACTED]: Have you -- do you know if the 1st Marine Aircraft Wing has a Wing order 3710 SOP for flight operations?

(b) (3) (A), (b) (6) [REDACTED]: I have not checked for that for the previous six months, but I do remember looking at that document and finding it very odd that that document was separated in chapters of Word documents, instead of a PDF that appeared to be modifiable at the time. So I was confused about whether or not that document was under edit and a new one was coming out, or not. So I remember --

(b) (3) (A), [REDACTED]: So have you ever served in any other Marine Aircraft Wing?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir. 3rd MAW.

(b) (3) (A), [REDACTED]: Did 3rd MAW have numerous Word documents on, like, a Sharepoint site, or do they have, like, a single PDF with the commanding general's signature?

(b) (3) (A), (b) (6) [REDACTED]: They had a single PDF with the commanding general's signature on it, sir.

(b) (3) (A), [REDACTED]: So static, unedible document?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir. In my time there, and that was in the 2007 to 2013 timeframe.

(b) (3) (A), [REDACTED]: What about you were on staff at MAWTS One. Did MAWTS One have any kind of SOP's?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: Was that a Word document on Sharpoint?

(b) (3) (A), (b) (6) [REDACTED]: No. It was a PDF document and then it was also printed out hard copies and distributed before every class.

(b) (3) (A), [REDACTED]: And did it have the CO of MAWTS One signature on it?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: (b) (3) (A), [REDACTED] [ph], or whoever?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: So you were clear that what was expected of you based on that document?

(b) (3) (A), (b) (6) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: And your inference from your facial expressions that the 1st MAW document being an electronic Word document on a Sharepoint that looked like something under revision, you aren't -- it was less clear to you how directive

that document may or may not have been?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Is that a fair assessment?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), : Did you find that odd?

(b) (3) (A), (b) (6) : Yes. And I remember talking to the new Wing ASO when he visited the squadron last summer about that, and said that it was in the process of revision. That they needed to fix that.

(b) (3) (A), : The Wing ASO, do you remember his rank and name?

(b) (3) (A), (b) (6) : I just remember he was a tall, bald, Major, [inaudible] guy. I'm sorry, sir.

(b) (3) (A), : Sounds like (b) (3) . Okay. Fair enough.

Is there anything else about this mishap, command climate, safety culture, standardization that you feel is germane to the contributing factors of this mishap that you'd like to share with us today for the record?

(b) (3) (A), (b) (6) : I had given in the past a -- this -- we were doing MAG-12 war fighting discussions on Friday afternoons at 1500, under (b) (3) (A), direction for squadrons to all take turns rotating around briefs that would be, hopefully, applicable everyone in the room. And it's pretty hard to do that, to be applicable to Hornets, F-35's, MWSS, and VMGR. But, so we had gone around some air to air discussions and, you know,

capabilities of CAS. A bunch of stuff, which is all good PME for everyone. And then I had given in the February, I think February to March timeframe an area refueling brief, specifically for fixed wing receivers to the MAG-12 audience that was available that day.

With the end state goal of being for MAG-12 to be able to move from full comm Tanker formation procedures -- and this is aside from single ship. But, move from day full comm Tanker formation procedures for an LFE, or for whatever required it. To be able to move that towards being able to accomplish night Tanker MCON evolution. And we were going to take baby steps towards that.

And part of giving this brief and exposing MAG-12 whenever we could for aircraft allocation here at Iwakuni. And for me also, to build my flight leadership designations of both section leads and Tac racks within the squadron. That we had -- were moving towards that direction to try to get ourselves better and more tactical and ready to accomplish whatever this AOR would demand.

(b) (3) (A), [REDACTED]: How'd that go?

(b) (3) (A), (b) (6) [REDACTED]: We executed day MCON a couple times with just the two ship Tanker formation. From my perspective, it's hard coming from a job at MAWTS where you're giving confirmation briefs and flying with all very proficient pilots on these missions. And for me, I didn't see what was so hard about it, being a Tanker formation pilot.

But, from the receiver's perspective, seeing the lack of exposure, I think, out here that Marine receivers have with Tankers was pretty eye opening. And made me realize that there was no way our squadron could go straight to night MCON Tanker formations, that we need to do it in baby steps.

(b) (3) (A), [REDACTED]: So it sounds like you're describing a fighter receiver that showed up behind your C-130 Tanker with low proficiency and exhibited skill was, like, struggling.

(b) (3) (A), (b) (6) [REDACTED]: Yes. Or just lack of -- I think that the receiver pilots in 3rd and 2nd MAW's Tank more routinely on KC-130's than elsewhere. And it's also by nature of the FRAGS that they support, in support of EWTG-LANT or PAC. There's a lot more Tanker evolutions and also KC-130 availability because you're used much more in an air to air refueling capability and tasked to that in the United States. Versus in this AOR, we accomplish assault transport much more often just due to AOR size and lack of routes.

(b) (3) (A), [REDACTED]: Okay.

(b) (3) (A), (b) (6) [REDACTED]: That's it, sir.

(b) (3) (A), [REDACTED]: All right. Thank you for your candid discussion.

Judge?

(b) (3) (A), [REDACTED]: Ma'am, one last piece. Rough estimate, how many ariel refueling missions have you conducted?

(b) (3) (A), [REDACTED]: 2800 hours. One thousand? Day/night, from your first one to your last one, what do you think?

(b) (3) (A), (b) (6) : SORTY's or receivers?

(b) (3) (A), [REDACTED] : Lets go receivers, that'll be a bigger number.

(b) (3) (A), (b) (6) : Holy crap!

(b) (3) (A), [REDACTED] : Yes. Fixed wing.

(b) (3) (A), (b) (6) : Receivers? It would be probably -- fixed wing receivers? I'm confident it's over 1,000.

(b) (3) (A), [REDACTED] : And how common is it that you, after the refueling, that you had put an aircraft echelon left, vise echelon right?

(b) (3) (A), (b) (6) : I would not do it, unless it had either been pre briefed, or thoroughly coordinated over AR primary on the radio with the flight lead.

(b) : And how many times has that happened?

(b) (3) (A), (b) (6) : Zero.

(b) (3) (A), [REDACTED] : How many times have you split a section of F-18's? So one echelon left and one echelon right.

(b) (3) (A), (b) (6) : Zero.

(b) (3) (A), [REDACTED] : Thank you, Ma'am.

(b) (3) (A), (b) (6) : For the departure, right?

(b) (3) (A), [REDACTED] : Correct.

(b) (3) (A), [REDACTED] : Yes, for departure.

(b) (3) (A), (b) (6) : Zero.

(b) (3) (A), [REDACTED] : Would it be normal or acceptable for the Hornet section leader to direct his wingman to go to a position on the Tanker. Or it would be more appropriate for the

refueling area commander to do that?

(b) (3) (A), (b) (6) : The refueling area commander should do that. At that point, with the Hornet flight lead still as a member of the formation, he is not the formation lead at that point. The Tanker is still assuming control of the receivers around our aircraft.

(b) (3) (A), (b) (6) : So if you had a couple of Hornets joined up on you and lead was done Tanking and he was in right echelon and as dash 2 became satisfied on the left basket and the flight lead, the Hornet flight lead told his Hornet wingmen to go to left echelon, would you be okay with that?

(b) (3) (A), (b) (6) : Well, if he told him to do that on their Hornet inner plane frequency, I wouldn't know that had happened.

(b) (3) (A), (b) (6) : No. Lets say he says it on Tanker primary.

(b) (3) (A), (b) (6) : Then I would tell him, why do you want to do that? I prefer you to go right echelon. It would be a back-and-forth interrogative and to find out what the reason for it was.

(b) (3) (A), (b) (6) : Would you consider yourself to be the flight lead at that time. Or the Hornet section leader to be the flight lead?

(b) (3) (A), (b) (6) : Myself until they were out of the echelon position and departing the formation by a difference than one mile and 100 feet.

(b) (3) (A), (b) (6) : Thank you.

(b) (3) (A), [REDACTED]: No further question.

(b) (3) (A), [REDACTED]: Judge will swear you out.

[(b) (3) [REDACTED] was warned, sworn, and departed.]

(b) (3) (A), [REDACTED]: Today is Thursday the 24th of January 2019. We're in Iwakuni, Japan. I'm (b) (3) (A), [REDACTED] (b) (6) [REDACTED]. I'm conducting a JAGMAN investigation into the 2018 mishap at MAG-12. I'm assisted by (b) (3) (A), [REDACTED] [REDACTED], and (b) (3) (A), [REDACTED] who are present in the room. We are interviewing (b) (3) [REDACTED].

(b) (3) [REDACTED], please state your full name, spelling your last name for the record.

(b) (3) [REDACTED]: It's (b) (3) [REDACTED] [REDACTED]. That's (b) (3) (A), (b) (6) [REDACTED].

(b) (3) (A), [REDACTED]: (b) (3) [REDACTED], how would you like me to refer to you?

(b) (3) [REDACTED]: You can call me (b) (3) [REDACTED].

(b) (3) (A), [REDACTED]: Okay, (b) (3) [REDACTED]. You can call me (b) (3) [REDACTED] or sir.

(b) (3) [REDACTED]: Okay.

(b) (3) (A), [REDACTED]: (b) (3) [REDACTED], when did you get your wings?

(b) (3) [REDACTED]: June 17th, 2011.

(b) (3) (A), [REDACTED]: What was your first question gun squadron?

(b) (3) [REDACTED]: VMFA-AW533.

(b) (3) (A), [REDACTED]: Hey, I'm a little out of order. Where

did you go to the FRS?

(b) : I went to the FRS in VFA-106, Oceania.

(b) (3) (A), : What is your qualification and designation level?

(b) : Currently I am a division lead. Do you want all qualifications and designations, or just the highest?

(b) (3) (A), : Highest.

(b) (3) : Division lead currently. Additionally, I am a PMCF pilot, as well as a ASO.

(b) (3) (A), : Are you an NSI?

(b) (3) : I am not an NSI.

(b) (3) (A), : Are you an FAI?

(b) : I am not an FAI.

(b) (3) (A), : Are you night systems qualified?

(b) (3) : Yes, I am.

(b) (3) (A), : Roughly, how many goggle hours do you have?

(b) (3) : Approximately 89ish.

(b) (3) (A), : How many Hornet hours do you have?

(b) (3) : About 710, I believe.

(b) (3) (A), : So you have 700, roughly 700 Hornet hours, and roughly 90 night vision goggle hours?

(b) (3) ██████████: There seems a little disparity there. I couldn't recall off the top of my head, but --

(b) (3) (A), ██████████: Okay. How many hours do you have on the ANVS-11?

(b) (3) ██████████: The NVCD's, probably --

(b) (3) (A), ██████████: Most of your time?

(b) (3) ██████████: No. In 533, we didn't have them. So when -- I just got back to the fleet in 2017, so I probably have, I don't know, 20 hours in them.

(b) (3) (A), ██████████: So you checked in to 242 in about June of '17?

(b) (3) ██████████: December of 2017.

(b) (3) (A), ██████████: Twelve of '17?

(b) (3) ██████████: Yes.

(b) (3) (A), ██████████: Okay. Where were you in December of '18?

(b) (3) ██████████: December of '18 I was at the -- I was in the squadron.

(b) (3) (A), ██████████: You were here?

(b) (3) ██████████: Yes.

(b) (3) (A), ██████████: Okay so what role did you have in the MAG-ULT?

(b) (3) ██████████: In the MAG-ULT I was assigned to the fay page as

a flight lead. Either being a section lead or a division lead for that. Pretty much being a flight lead during the day time, period. That was pretty much it.

(b) (3) (A), [REDACTED]: Okay. What's your current ground job?

(b) (3) [REDACTED]: I am the AAMO. So Assistant Aircraft Maintenance Officer.

(b) (3) (A), [REDACTED]: Okay. Why were you selected for the day go, do you know?

(b) (3) [REDACTED]: I have no real reason why I was selected.

(b) (3) (A), [REDACTED]: Okay. Who were the other field grade officers on the day page?

(b) (3) [REDACTED]: The day page, I think it was Lieutenant Colonel, the CO, --

(b) (3) (A), [REDACTED]: Okay. What about the XO?

(b) (3) [REDACTED]: The XO was not. He was on the night page, I believe. I think the OPSO, so (b) (3) [REDACTED] was on the day page as well. I think it was just myself.

(b) (3) (A), [REDACTED]: So the CO, OPSO, and the AA were the day field grade officers you think?

(b) (3) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: Okay. What about the maintenance officer, the AMO?

(b) (3) ██████████: He was on the -- I think he was on the swing page.

(b) (3) (A). ██████████: Okay.

(b) (3) ██████████: So I think he came in late afternoon and left in the evening.

(b) (3) (A). ██████████: Have ever been to the Tanker in the Hornet?

(b) (3) ██████████: I have.

(b) (3) (A). ██████████: Day and night?

(b) (3) ██████████: I have.

(b) (3) (A). ██████████: And when you went at night, did you wear your ANVS-9's or ANVS-11's?

(b) (3) ██████████: ANVS-9's.

(b) (3) (A). ██████████: Okay. Did you go --

(b) (3) ██████████: Correction, both actually. I have been on both.

(b) (3) (A). ██████████: Both, okay.

(b) (3) ██████████: And are you talking about the KC-135 or the KC-130?

(b) (3) (A). ██████████: Both.

(b) (3) ██████████: For the -- specifically for the KC-130, I've been on the ANVS-11's. Last time I was on a 135 at night, it was never, actually. It's only been on the TransPac.

(b) (3) (A), [REDACTED] : And TranPacs are conducted in the day?

(b) (3) [REDACTED] : That's correct.

(b) (3) (A), [REDACTED] : Okay. Have you ever worked in the DOSS before, as you said, you're an ASO?

(b) (3) [REDACTED] : I have.

(b) (3) (A), [REDACTED] : In what squadron did you work in a Department of Safety and Standardization?

(b) (3) [REDACTED] : VMFA-W242.

(b) (3) (A), [REDACTED] : Okay. So you're the DOSS here at 242?

(b) (3) [REDACTED] : I was the DOSS at 242. I turned over, roughly September 30ish, beginning of November with (b) (3) (A), (b) [REDACTED] (6) [REDACTED].

(b) (3) (A), [REDACTED] : Okay. So you were the DOSS until just, like, six weeks before the mishap?

(b) (3) [REDACTED] : Yes.

(b) (3) (A), [REDACTED] : Okay. As the DOSS, did you review the flight schedule?

(b) (3) [REDACTED] : I did.

(b) (3) (A), [REDACTED] : How did you document that?

(b) (3) [REDACTED] : So we went from a period of transition, from siganturing [sic] on the schedule to review it, to a period of where they would bring around just a signature page attached to the

schedule.

(b) (3) (A), [REDACTED]: Like a routing sheet?

(b) (3) [REDACTED]: Like a -- not a routing sheet, per so much as that a -- just a -- it was a single page that was days of the month that when the schedule officer or schedule writer would hand it to you, you would just sign off that you reviewed the schedule. So I think they just took the signature off the schedule and just put it onto an additional addendum page that OPSEC maintained custody of.

(b) (3) (A), [REDACTED]: What's the purpose of that?

(b) (3) [REDACTED]: I think it's just to make sure everybody saw it.

(b) (3) (A), [REDACTED]: But what was the purpose of taking it off the schedule? Because it seems like some older schedules, like back in May, it was on. And then it seems like in June or July, around the change of command, it was taken off.

(b) (3) [REDACTED]: There was no requirement to have it on the schedule.

(b) (3) (A), [REDACTED]: I'm familiar with the requirements, I'm asking why you took it off.

(b) (3) [REDACTED]: I didn't take it off.

(b) (3) (A), [REDACTED]: I'm asking you why the squadron took it off. You were the DOSS at the time, you must have been part of the conversation when they took it off.

(b) (3) ██████████: I believe that was just a decision by the headquarters or --

(b) (3) (A), ██████████: (b) (3) (A), (b) ██████████ ██████████?

(b) (3) ██████████: Yes, pretty much. I don't know who made the specific "you shall take this off," whether that be the OPS, the safety, the CO, the XO, but I know at some point it just transitioned to not being on the schedule anymore to an addendum page.

(b) (3) (A), ██████████: Okay. What about ORM worksheets?

(b) (3) ██████████: The risk management worksheets that we -- we didn't have any attached to the schedule for that. We would review the flights and for any sort of additional risk based on the currency of the pilots, based on the training that they were conducting, based on the time that they were conducting it. And then make it and then voice an opinion if we had any significant concerns on it.

(b) (3) (A), ██████████: You talking about in a brief, or in a schedule development process?

(b) (3) ██████████: Just in the schedule development process.

(b) (3) (A), ██████████: So in the schedule development process it was never a practice at 242 to create a risk management worksheet or risk assessment worksheet or each line on the schedule?

(b) (3) ██████: That's correct.

(b) (3) (A) ██████: So there's no documentation of your ORM?

(b) (3) ██████: We do not have -- besides the signature that has been passed through operations officer, the safety officer as well. It actually went through the ASO's hand more importantly, but the DOSS or the ASO would sign for the schedule as it was reviewed since I was ASO certified and trained as well. I could, pretty much, look at it and evaluate it, and it would go through that process. But, that was our way of as effectively -- as senior leadership as the risk management and the training to take a look at it. But, there was no official line-by-line based on currency of low, medium, or high.

(b) (3) (A) ██████: So basically is just shows that you looked at it, but it doesn't show your analysis of.

(b) (3) ██████: Yes.

(b) (3) (A) ██████: Okay.

(b) (3) (A) ██████: So how did you provide recommendations to the commander as the ASO?

(b) (3) ██████: Well, during my time as the ASO, I would approach commander if there were any sort of crew pairing or anything like that. I seldom had them. I was new to the squadron,

so I still was understanding people's personalities, leadership abilities, and stuff. So I would take my opinion first the OPSO, and then just say hey, you know, based on, you know, currency or any sort of not qualified, which seldom ever happened, if any I recall, but -- and then just voices, hey, you know, this crew pairing right here, may be something to take a look at.

(b) (3) (A), [REDACTED]: How do you define a hazard?

(b) (3) [REDACTED]: How do I define a hazard or how does the squadron define a hazard?

(b) (3) (A), [REDACTED]: Either answer would be acceptable.

(b) (3) [REDACTED]: I think personally for me, I define a hazard as anything operating in the low to medium rine set, just as tac-air pilots, I think with the type of training that we do. I think anything outside of that, based on the crew proficiency, whether he's a -- or proficiency and currency go into that. So if it's his initial codes or if its a repeat code, I would assess hazard that way. That if, depending on how long we've -- it's been since we --

(b) (3) (A), [REDACTED]: No, I'm just asking, in general, how do you define the word hazard in the context of aviation?

(b) (3) [REDACTED]: Anything that could potentially cause a mishap or just a accident.

(b) (3) (A), [REDACTED]: Okay. And then how do you define a risk?

(b) (3) ██████: How do I define a risk? I would say risk would more along the line be something that's going to contribute to a mishap or a hazard, in the sense that risk is -- it's on a graduated scale to me. That depending on what you're doing. So I guess it would depend on the risk how I would define it.

(b) (3) (A). ██████: How you define risk would be dependent on the risk? I'm asking you to define risk.

(b) (3) ██████: It would depend on the situation.

(b) (3) (A). ██████: Okay. So you're familiar with the term ORM I'm sure.

(b) (3) ██████: Correct.

(b) (3) (A). ██████: What does that mean? Define the acronym.

(b) (3) ██████: So risk management, or operational risk management now is what were talking about is purely a way to meet mission success for us. We have going from preflight mission planning through debrief, is how we're going to assess risk throughout the entire revolution. What I like to tell guys is the fact that what is the challenge today, or what is the biggest issue today? Whether that be the weather, whether that be the proficiency, whether that be the mission, or the currency. First talk about that, address that, which we do in the admin phase per the mods brief. We talk about hey who's -- when is the last time

you've flown, how many days? That kind of thing. And so risk management to me is understanding what are the factors at hand and how best to mitigate those.

(b) (3) (A), [REDACTED]: What are the five steps to the ORM process?

(b) (3) [REDACTED]: Identify the risk. First identify the risk, assess the risk, make a risk decision, implement the controls, and then supervise. I believe that's the way it is.

(b) (3) (A), [REDACTED]: I'm impressed, very good. Pretty close.

(b) (3) [REDACTED]: Somewhere to that circle.

(b) (3) (A), [REDACTED]: Okay. Good.

Are you familiar with the acronym CRM?

(b) (3) [REDACTED]: Yes, I am.

(b) (3) (A), [REDACTED]: Can you define that for me?

(b) (3) [REDACTED]: Yes, Crew Resource Management. Something that we effectively use in the cockpit. What I talk to guys about is there is that there's no rank in the cockpit. CRM is the utilization between you and the other guy to successfully accomplish the mission. Whether that's communication, decision making, leadership, both inside and outside the cockpit, that's, kind of, how I discuss the CRM.

(b) (3) (A), [REDACTED]: What are the seven components of CRM.

(b) (3) ██████: So you got the mix salad. So you got the [inaudible], decision making, adaptability, flexibility, mission analysis, communication, leadership, assertiveness, and situational awareness.

(b) (3) (A), ██████: And how is that integrated into operations at VMFA all weather 242?

(b) (3) ██████: I think we all assess different aspects of CRM as well. I think I've never had an issue with TCC or CRM in a cockpit so to speak. It's one of those things that I think we do a very good job, that we understand that we're one team, one fight when we get into the cockpit. And if I've ever had an issue with that we usually address it on the deck, but I don't think I've ever had an issue with that.

(b) (3) (A), ██████: So do you consider night systems low light level area fueling 200 miles off shore at two o'clock in morning to be a hazard?

(b) (3) ██████: Yes.

(b) (3) (A), ██████: What -- how would that be reflected on the flight schedule in the process at place at 242?

(b) (3) ██████: I think that we would -- we would obviously identify first who is going to be leading it based on their experience and qualifications. And then we're going to look at the

crews who are going to go execute it. So what does that mean to me? I'm just going to look at the guys who are -- what's currency, what's their proficiency, when is the last time they flew at night, how long ago was the last time someone did the Tanker? You know, all those things that you look at.

Now, would I say that a guy who hasn't been to the Tanker in a long time is a high risk? Not necessarily. Depending on what it is, so C-130's in my opinion is that it's a low -- not low, but low to medium risk. Obviously there's a risk there because of what can occur, but it's an admin part of the flight for me. And what I would actually treat it to is an admin part of the flight because we're trying to be able to get gas at day or night, as required.

(b) (3) (A). [REDACTED]: So your nonverbal communication with the word admin there, the shoulder shrug led me to indicate that you feel like administrative aspects of the flight are inherently less hazardous than tactical portions?

(b) (3) [REDACTED]: I would say in some regards, yes. But there's also been situations too where admin phases of flight, such as taking off and landing on an airfield, can be hazardous. Well, depending on the weather, depending on the time of day, depending on what's going on. So everything is situationally dependent at that point.

(b) (3) (A). [REDACTED]: So you just said that you think a flight event similar to the mishap event would be considered a -- I didn't hear if you said low, medium, or high risk, but a risk event. A medium risk, perhaps?

(b) (3) [REDACTED]: Yes, I think all flight -- I think every flight that we do has inherent risk. Anytime we fly in formation or in close proximity to the area cloud, there's always a hazard for a mid-air. And we talk to it in the briefs. So it's one of those things that we discuss common that, you know, is part of the standard emergency contingencies is mid-air. You know, we always talk about hey, you know, mid-air, lets not do tonight. Keep, you know, keep your eyeballs out, always focusing, you know, into the formation and outside the formation.

So we talk about it, but I think anytime that you're flying a tactical mission or even -- I would only say probably the low risk flight is anytime you fly singleton, like go into the pie for a currency or something like that.

Even though it still has a risk just because based on the age of the aircraft, because you may never know when the aircraft decides that hey I have a flight control issue or something like that. But, I would say just generically in the general execution phase, that's pretty low risk to me. However, when you start adding

different -- when you start adding aircraft, you're going to elevate the risk.

(b) (3) (A). [REDACTED]: Do you agree that -- so now we're talking about the cumulative effects of risk, so would agree that a night Tanker is more, has more risk than a day Tanker?

(b) (3) [REDACTED]: No.

(b) (3) (A). [REDACTED]: You wouldn't? So you feel like going to the Tanker in the daytime is an identical risk than going to the Tanker in low light level?

(b) (3) [REDACTED]: I think they're different risks. But, I think they're probably the same risk level. So I think there's risk because that -- it's all about the factors that are affecting you. If you are -- what I'm saying by that is you can lose SA around Tanker, you can have an issue around the Tanker during the day just as easy as you can have during the night.

(b) (3) (A). [REDACTED]: Okay. So you feel like you're just as likely to collide into a Tanker in daylight conditions as you are to collide in a Tanker that's covert, under low light level conditions, while using the ANVS-11's? You feel that's an identical level of risk?

(b) (3) [REDACTED]: I don't believe it's an identical level of risk because the factors are different.

(b) (3) (A), [REDACTED]: Tell me about the factors.

(b) (3) [REDACTED]: The factors are daytime nighttime, for one.

(b) (3) (A), [REDACTED]: Okay. So then if you follow my line of thinking, would you agree that going to the Tanker at night has more risk than going to the Tanker at day? Because just previously you said it's the same risk, it doesn't. You just said it's exactly the same.

(b) (3) [REDACTED]: I didn't say it was the same risk, I said it was the same level of --

(b) (3) (A), [REDACTED]: Okay. Tell me what you are saying.

(b) (3) [REDACTED]: What I would say about that is it's going to have, both are going to have their same risk. Identify the risk, what's the risk?

(b) (3) (A), [REDACTED]: Okay. I'll play that with you. The risk is a collision with a Tanker.

(b) (3) [REDACTED]: Could you do that during the day and night?

(b) (3) (A), [REDACTED]: Yes.

(b) (3) [REDACTED]: There we go. So the risk is the same, right?

(b) (3) (A), [REDACTED]: No.

(b) (3) [REDACTED]: It's not the same?

(b) (3) (A), [REDACTED]: No. What is your field of view? Let me ask you some questions. What's the field of view of the night

vision goggle?

(b) (3) ██████████: It's approximately, like, 40 degrees field of view.

(b) (3) (A), ██████████: How about 40 degrees circular. That's what it is. What's the field of view of the naked eye?

(b) (3) ██████████: It's about 100 and -- I'd probably take it at about 180.

(b) (3) (A), ██████████: Yes, 210.

(b) (3) ██████████: You have your peripherals.

(b) (3) (A), ██████████: So we agree that there's more peripheral vision available unaided than aided?

(b) (3) ██████████: No, there's no peripheral vision unaided, especially at night.

(b) (3) (A), ██████████: There's no peripheral vision unaided at night? You can't see anything?

(b) (3) ██████████: No, there is. I think what, excuse me, yes, there is. You have peripheral vision at night. Obviously, what you're looking for is a light source or anything like that that's going to illuminate itself.

(b) (3) (A), ██████████: Okay.

(b) (3) ██████████: Yes.

(b) (3) (A), ██████████: So is there peripheral vision unaided in

the daytime?

(b) (3) ██████████: Unaided in the daytime, yes.

(b) (3) (A). ██████████: During a day flight, correct?

(b) (3) ██████████: Yes.

(b) (3) (A). ██████████: So I think we can agree that -- and I by the way I've been to the Tanker if you were not tracking, so, I mean, I know that when I'm Tanking, either single seat or in the V-22, I can see a lot peripherally in the daytime that is not available to me at night. Particularly under low light level conditions with a covert Tanker and my goggles down.

(b) (3) ██████████: I would agree with that.

(b) (3) (A). ██████████: Have you had a different experience?

(b) (3) ██████████: No, I would agree with that.

(b) (3) (A). ██████████: Okay. Have I persuaded you that there's more risk for night systems low light level Tanking than there is for day unaided Tanking?

(b) (3) ██████████: Yes. I would agree with you.

(b) (3) (A). ██████████: Okay. So how is that captured in VMFA-242, all weather 242's flight schedule and the ORM process and the risk assessment process? How is that captured? How is that codified? What do we do about it?

(b) (3) ██████████: What do we do about --

(b) (3) (A). ██████████ : Yes, what do you do about that at 242?

What's the process?

(b) (3) ██████████ : I think, again, we'd have to go back to just your currency and your proficiency at night systems.

(b) (3) (A). ██████████ : Okay.

(b) (3) ██████████ : And what does that mean is that we -- you have to assess, you know, based on the mission, based on the requirements. When was the last time this guy flew a night system first. And then -- and I think familiarity and proficiency would then lead into your decision.

(b) (3) (A). ██████████ : So lets say hypothetically we are the deceased mishap pilot and we've only got less than 20 total goggle hours and single digit hours on the NVCD. Would that be something you would consider that would elevate the risk?

(b) (3) ██████████ : Yes.

(b) (3) (A). ██████████ : Okay. Then how would you mitigate that?

(b) (3) ██████████ : I would probably go into a discussion with him about, obviously, Tanking at night on NVCD's, talking about the covert lighting, talking about the sight picture of what you should be seeing, especially -- and if worst case scenario where, you know, loss of essay to talk about how -- if the Tanker is going to be covert, to how to request in, you know, Christmas tree lights back

on so we can maintain essay of all players at that point. I think it would just into the -- I think it would go into the brief because what we would -- what we would want to do is obviously talk about the risk prior to going flying.

(b) (3) (A), [REDACTED]: For sure.

(b) (3) [REDACTED]: Yes.

(b) (3) (A), [REDACTED]: I'm talking about the schedule writing process, but yes, you're into the flight. That's fine too. So in the schedule writing process, what would you do to mitigate the risk in the schedule writing process?

(b) (3) [REDACTED]: I think the conversation is -- so we are talking about flight leadership. Depending on who is --

(b) (3) (A), [REDACTED]: I'm not. I'm talking about risk management.

(b) (3) [REDACTED]: That's what I'm saying. But, I'm trying to get to is on the flight schedule, the flight lead that you would probably assign to that mission would probably be a guy that you're comfortable with given that appropriate level of brief or bring that into his brief.

(b) (3) (A), [REDACTED]: Would you, as a field grade officer in 242, would put (b) (3) (A), [REDACTED] in that category as one of the best flight leads?

(b) (3) ██████ : Yes, sir.

(b) (3) (A), ██████ : Okay. Would you bring human factors into that discussion as an ASO?

(b) (3) ██████ : Yes, sir.

(b) (3) (A), ██████ : Does (b) (3) (A), ██████ have any human factors?

(b) (3) ██████ : He has a few.

(b) (3) (A), ██████ : Is he passed over for promotion?

(b) (3) ██████ : He has.

(b) (3) (A), ██████ : Is he going through a divorce?

(b) (3) ██████ : I'm not sure if he's going through a divorce.

(b) (3) (A), ██████ : (b) ██████ ██████ ██████ ██████ ██████ ?

(b) (3) ██████ : (b) (3) ██████ ██████ ██████ ██████ .

(b) (3) (A), ██████ : Is he -- do you have any, I mean, you've -- I'm not asking you to disclose the class or, I mean, the private conversations of the human factor counsel, which I know you've attended. But, can we agree that (b) (3) (A), ██████ has some level of human factors compared to other?

(b) (3) ██████ : Yes.

(b) (3) (A), ██████ : Okay. What about (b) (3) (A), ██████ ?

(b) (3) ██████ : I'm sure he has human factors as well. I mean, I'm sure he's -- not every day is he going as everybody likes.

(b) (3) (A), [REDACTED] : Okay. And (b) (3) (A), (b) (6) [REDACTED]
[REDACTED], is that right?

(b) (3) [REDACTED] : He does.

(b) (3) (A), [REDACTED] : Okay. So would you select (b) (3) (A), [REDACTED]
who's (b) (3) (A), [REDACTED]. Would you put him
on the night page and plan to fly in the middle of the night, if you
were the ASO?

(b) (3) [REDACTED] : I think what it comes down to is hopefully the
aircrew, if they're having an issue, would announce that, like, --

(b) (3) (A), [REDACTED] : How would they announce that?

(b) (3) [REDACTED] : Just by coming to safety and talking or coming
to ops and explaining that, you know, hey, I'm having a difficult
night, difficult time transitioning to the night due to these
factors.

(b) (3) (A), [REDACTED] : So who is the DOSS right now at VMFA?

(b) (3) [REDACTED] : (b) (3) (A), (b) [REDACTED].

(b) (3) (A), [REDACTED] : Was he present for the ULT?

(b) (3) [REDACTED] : He -- I don't recall if he was or not.

(b) (3) (A), [REDACTED] : Is it possible he was on leave in New
Zealand?

(b) (3) [REDACTED] : I think. I'm not sure what days that he was
gone. I know that he was on a trip in December, I don't know if

there was overlap days.

(b) (3) (A), [REDACTED]: Who was the ASO that reviewed flight schedule during the week of the ULT, are you familiar?

(b) (3) [REDACTED]: I am not familiar.

(b) (3) (A), [REDACTED]: Who is the acting DOSS, you said it was (b) (3) (A), [REDACTED]?

(b) (3) [REDACTED]: What's that?

(b) (3) (A), [REDACTED]: You said --

(b) (3) [REDACTED]: He was the acting DOSS. so he was the --

(b) (3) (A), [REDACTED]: So who's, like, the assistant DOSS or whatever you guys call it?

(b) (3) [REDACTED]: I believe (b) (3) (A), [REDACTED]. (b) (3) (A), [REDACTED] is the assigned ASO at the time.

(b) (3) (A), [REDACTED]: (b) (3) [REDACTED]? Okay.

(b) (3) (A), [REDACTED]: So he would have been the one who reviews the flight schedule and assesses -- did his analysis on the risk and on the teams?

(b) (3) [REDACTED]: I believe so.

(b) (3) (A), [REDACTED]: Okay.

(b) (3) (A), [REDACTED]: And so when you were the DOSS and you guys were reviewing flight schedules and doing the analysis, how did you show your work to the commanding officer?

(b) (3) ██████: Again, it would be the conversation. A lot of it, I think, would be injects to the schedule itself directly.

(b) (3) (A), ██████: So you would modify the flight schedule before it got to the CO?

(b) (3) ██████: It would be the conversation with the schedule writers or the OPSO and I think that would be the change before it even got to the CO's level.

(b) (3) (A), ██████: Okay.

(b) (3) ██████: So the CO had a clean product to look at.

(b) (3) (A), ██████: Okay. Tell me about the search and rescue capabilities here in Iwakuni.

(b) (3) ██████: So I know they have -- so the JAS, the JMSJF. Obviously, they have, I think it's -- I forget the numbers of the U.S. ones, but the sea planes that can land in up to three meters seas I believe it is. Pretty good on station time with them, pretty good range as well. Additionally, they have the little [inaudible] as well that can look to track down people, or aircraft, or anything like that. They also have cutters, so Coast Guard, essentially the Navy, the Jap team, Japanese Maritime Force as well. They can send out for them. I believe that's pretty much what we have.

(b) (3) (A), ██████: So you've been at 242 about a year and a half, right? And you were the DOSS during about a year of that?

Where is the nearest airborne search and rescue asset and what is their response time to the middle of the Itras South?

(b) (3) ██████████: The nearest one?

(b) (3) (A), ██████████: Yes.

(b) (3) ██████████: I think it -- I can't remember the name to be honest. I can't remember the name. It's just to the North of the Itras South one. I believe that's where they took Captain Reslar once they recovered him.

(b) (3) (A), ██████████: Well, before the mishap, were you aware of that location?

(b) (3) ██████████: What's that?

(b) (3) (A), ██████████: Did you come to learn about that after the mishap?

(b) (3) ██████████: I learned more about it after the mishap. I knew there was a SAR base there, additionally, our SAR-S that's here as well.

(b) (3) (A), ██████████: Are you familiar with OPNAV-3710?

(b) (3) ██████████: I am.

(b) (3) (A), ██████████: Okay. Do you know what it says about the wear of anti exposure suits?

(b) (3) ██████████: That it's, you know, required when the, I guess, the factors need it.

(b) (3) (A), [REDACTED]: So what are some of those factors? I mean as the DOSS I'm sure you've reviewed that and had conversations with your CO about it and your previous CO.

(b) (3) [REDACTED]: Yes, I did. So 3710, depending on the outside air temperature and the water temperature, would be, would need requirements to wear anti exposure suits.

(b) (3) (A), [REDACTED]: Okay. And would SAR response time be a part of that decision as well?

(b) (3) [REDACTED]: The SAR response?

(b) (3) (A), [REDACTED]: Yes. The SAR capability.

(b) (3) [REDACTED]: Yes, it would go into a factor. Obviously, the range and their ability to arrive on scene prior to the, I guess, the little table they have in the 3710 for the anti exposure suites. If they can arrive on station prior to that.

(b) (3) (A), [REDACTED]: And what is the rough response time from pulling the ejection handle to having an extraction capable SAR aircraft overhead you in the middle of the Itras South?

(b) (3) [REDACTED]: So if you're talking straight helo platforms, I think it's 16 minutes.

(b) (3) (A), [REDACTED]: One hour?

(b) (3) [REDACTED]: Yes.

(b) (3) (A), [REDACTED]: So you think a helicopter can fly -- you

think you can pull the handle and in one hour have a helicopter on top of you in the middle of the Itras South?

(b) (3) ██████████: I would hope so. But --

(b) (3) (A), ██████████: Okay. What gives you that impression?

(b) (3) ██████████: Based on the range from the maritime base to the North of Itras South. We don't have any of the -- I think from here would be a much more, I think it's like two and a half hours from here.

(b) (3) (A), ██████████: Two and a half hours?

(b) (3) ██████████: Yes, to the Itras South from here, with them having to stop to get gas.

(b) (3) (A), ██████████: Okay. Do you know what the time of useful consciousness would be for yourself, given your body composition in 68 degree water without your anti exposure suite?

(b) (3) ██████████: I do not.

(b) (3) (A), ██████████: So you were the DOSS for 242 and you're not familiar with how long --

(b) (3) ██████████: I would have to look up the chart, sir.

(b) (3) (A), ██████████: Okay. Do you know what the time until death would be in 68 degree water without your suite?

(b) (3) ██████████: No, sir. I'd have to look up the time.

(b) (3) (A), ██████████: Do you know what your survival time would

be with the anti exposure suite in 68 degree water and no wind?

(b) (3) ██████████: Probably increased from without it.

(b) (3) (A), ██████████: Okay. But you don't know --

(b) (3) ██████████: I don't know off the top of my head, sir.

(b) (3) (A), ██████████: Have you been through ASTC Aviation

Survival Training at the HELO Dunker?

(b) (3) ██████████: I have, sir.

(b) (3) (A), ██████████: Have you been to SERE school?

(b) (3) ██████████: I have, sir.

(b) (3) (A), ██████████: Okay. Did they talk about hypothermia

and cold weather survival?

(b) (3) ██████████: They did.

(b) (3) (A), ██████████: Do you know how much faster water extracts heat from the body core compared to air of the same temperature.

(b) (3) ██████████: I remember them briefing that. I don't remember exactly what it is. At what rate, I don't remember what rate.

(b) (3) (A), ██████████: Okay.

(b) (3) ██████████: I remember them talking about, that's why you should keep your helmet on, because the heat on your head, so to keep it on so.

(b) (3) (A), ██████████: Have you ever canceled a flight at 242?

(b) (3) ██████████: Personally for myself, sir?

(b) (3) (A), ██████████: Yes.

(b) (3) ██████████: I've been canceled for maintenance.

(b) (3) (A), ██████████: No. Have you ever canceled a flight for ORM, or CRM, or human factors?

(b) (3) ██████████: No, sir.

(b) (3) (A), ██████████: Okay. Have you ever known of anyone to do that?

(b) (3) ██████████: No, sir.

(b) (3) (A), ██████████: So nobody's ever looked at the weather and said it's icing, or there's thunderstorms, or there's a hazardous weather condition that prevents --

(b) (3) ██████████: I apologize. Yes, we've canceled for --

(b) (3) (A), ██████████: I would call that ORM, right?

(b) (3) ██████████: Yes, apology. So I thought you were talking about personal, like, human factors or anything like that.

(b) (3) (A), ██████████: No.

(b) (3) ██████████: No. Yes, sir, I have for -- canceled flights for weather. Yes, sir.

(b) (3) (A), ██████████: I guess a better way I should have asked for weather requirements, okay.

(b) (3) ██████████: Yes, sir.

(b) (3) (A), [REDACTED] : Have you ever done that while (b) (3) (A), (b) (6)

[REDACTED] [REDACTED] was commanding officer?

(b) (3) [REDACTED] : Yes, sir.

(b) (3) (A), [REDACTED] : And how did he respond?

(b) (3) [REDACTED] : He was absolutely like yes, no need to push it.

Exact words.

(b) (3) (A), [REDACTED] : Okay. Great.

Do you know what the currency interval is for air refueling? How many days?

(b) (3) [REDACTED] : I believe once every 180 days.

(b) (3) (A), [REDACTED] : One hundred and eighty days? And do you know what it is for night Tanking?

(b) (3) [REDACTED] : I don't know if there's a -- I don't, sir.

(b) (3) (A), [REDACTED] : You said that you're a division leader, right?

(b) (3) [REDACTED] : Yes, sir.

(b) (3) (A), [REDACTED] : So you could take somebody out to get initial Tanker qual?

(b) (3) [REDACTED] : Yes, sir.

(b) (3) (A), [REDACTED] : You could take a pilot who has never been to the Tanker and you could take him to the Tanker?

(b) (3) [REDACTED] : Yes, sir.

(b) (3) (A), [REDACTED]: And you're an ASO and the DOSS and you used to review the flight schedule?

(b) (3) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: Okay. But you don't know what the currency interval for the day Tanker off the top of your head?

(b) (3) [REDACTED]: One hundred and eighty days.

(b) (3) (A), [REDACTED]: You think it's 180 days?

(b) (3) [REDACTED]: Yes, sir.

(b) (3) (A), [REDACTED]: Okay. And do you know what the prerequisites are to go to the night Tanker?

(b) (3) [REDACTED]: I do not know off the top of my head, sir.

(b) (3) (A), [REDACTED]: Do you know what activities someone has to complete to log the initial night Tanker code?

(b) (3) [REDACTED]: I do not know, sir, off the top of my head.

(b) (3) (A), [REDACTED]: Okay. You don't have any idea?

(b) (3) [REDACTED]: Not off the top of my head.

(b) (3) (A), [REDACTED]: Have you ever been to the -- you did your initial night Tanker when?

(b) (3) [REDACTED]: Initial night Tanker, probably 2012.

(b) (3) (A), [REDACTED]: Where were you for that?

(b) (3) [REDACTED]: VMFA-W533.

(b) (3) (A), [REDACTED]: You did it at -- you didn't do it at 106?

(b) (3) ██████: For the night Tanker, yes, sir. I didn't do it
-- I don't believe I --

(b) (3) (A), ██████: You did a day Tanker?

(b) (3) ██████: I did a day Tanker off a Super Hornet 106. I
don't recall if it was daytime -- I don't remember -- I don't recall
doing a nighttime one.

(b) (3) (A), ██████: So you went to the night Tanker out in
Beaufort. Do you remember how many plugs you got?

(b) (3) ██████: Probably, I think they wanted to do three plugs
-- this is what I recall. I think it may have been, like, three
plugs or something like that.

(b) (3) (A), ██████: Okay.

(b) (3) ██████: A couple dry and then finally get gas.

(b) (3) (A), ██████: Okay. Do you feel like you're well
qualified to be a division leader?

(b) (3) ██████: Yes, sir.

(b) (3) (A), ██████: Why do you feel that?

(b) (3) ██████: Based on my experience, maturity, decision
making abilities, understanding the CRM process, and how I
understand the risk process. I don't have any issues voicing my
opinion or when risks are -- I don't feel that there is ever a
negative connotation when you voice your risk opinion. So I feel

comfortable in being able to say, hey I don't think this is right.

(b) (3) (A), [REDACTED]: Was the Ambien authorized for the ULT?

(b) (3) [REDACTED]: I'm not sure.

(b) (3) (A), [REDACTED]: Go-no go pills?

(b) (3) [REDACTED]: I do not believe so.

(b) (3) (A), [REDACTED]: Do you ever recall any conversations about the use of go-no go pills in preparation for the MAG-ULT?

(b) (3) [REDACTED]: There was a discussion. Purely because I wasn't on the night page, I didn't pay anything about it. So I didn't really think about it. And I have never tried it and I don't prefer to try it so.

(b) (3) (A), [REDACTED]: Okay.

Judge, you have anything?

(b) (3) (A), [REDACTED]: No, sir.

(b) (3) (A), [REDACTED]: Is there anything else that you think is related to this mishap that I haven't touched on that you'd like to bring up? We've got plenty of time. If you could do it all over again, what would we do differently and why. Please, be frank.

(b) (3) [REDACTED]: To be honest, it was -- I didn't see Captain Reslar that week because I was on the day page and he came in at the evening page, so I was already gone out of work at that point. So I think the week prior to was the last time that I saw him so, I

guess, there was a, you know, there was a discussion of 24-hour operations from home station at some point.

I think more in just rhetoric in the ready room talking about, you know, what's going on, you know, who's doing what. And then when the crews came out for, to transition to the 24-hour operations, I was on the day page. Normal operations, normal come into work operations, low impact to my daily schedule, you know, because I was on the day page for everything. The weather leading up to the Wednesday evolution was just horrible the entire time, so not a lot of flying got done.

So we would go through the hot pit procedures and then that was about it. So a lot of that got canceled for, you know, for weather and stuff like that. So much was getting canceled. I think just the organization, you know, if we're going to be going to (b) (6) or not going to be going to (b) (6) was a little bit frustrating.

(b) (3) (A), [REDACTED]: Tell me more about what you're talking about. Go to (b) (6), not go to (b) (6).

(b) (3) [REDACTED]: I think it's because the ULT --

(b) (3) (A), [REDACTED]: Like the [inaudible] you were talking about?

(b) (3) [REDACTED]: Yes. Using the ranges, the R-74, using the Pilsung range, or, you know, that was a bit frustrating because if

it was going to be a MAG exercise, you would hope that they would implement -- they would take care of the scheduling for the range.

(b) (3) (A). [REDACTED]: By they, you mean higher headquarters?

(b) (3) [REDACTED]: Yes, higher headquarters would do that. So that -- it felt at that point it was just, kind of, frustrating. Again, it wasn't an impact on my day so I didn't spend too much time -- thought on it because then I -- with our -- looking at the weather on Monday and Tuesday, I knew that we had a very, probably not a very, but just a little probability of actually executing due to the weather and the ceilings and everything like that.

So we would brief and we would talk and discuss and we would, you know, we would go through the whole process with the [inaudible], like, hey be prepared to slide right if we have to. And at that point, that was it, so you get kind of frustrated with that too because you're doing all these mission planning cycles, you come in on Sunday, doing the whole mission planning cycles and stuff and you just don't get to go execute.

So that kind of stuff, but I think that was about it for the week and unfortunately, like I said, I didn't see Captain Reslar the week prior to it. I'd only flown with him probably twice, but it was just unfortunate.

And even when I found out about it, I came in at 0645

normal time and everybody was, kind of, in a tizzy, had no idea what was going on. And the CO said you don't know? And I said I have no idea what you're talking about, what's going on? And they said let me talk to you real quick, and that was it.

That was the first I heard about it, so just a lot of, I would hate to say normal day operations for me, but other things I wasn't privy to because I wasn't a part of those execution pieces.

(b) (3) (A), [REDACTED] : Okay. Judge.

(b) (3) (A), [REDACTED] : Nothing, sir.

(b) (3) (A), [REDACTED] : Judge will swear you out.

[The witness was warned, sworn, and excused.]

(b) (3) (A), (b) (6) : Today is Thursday the 24th of January.

I am (b) (3) (A), (b) (6) . I am assisted by (b) (3) (A), (b) (6)

(b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) . We're interviewing (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) , can you state your full name for the record, spelling your last name?

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) .

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) , how would you like me to refer to you?

(b) (3) (A), (b) (6) : You can just call me (b) (3) (A), (b) (6) is fine.

(b) (3) (A), (b) (6) : Okay. Can I just call you (b) (3) if that's okay.

(b) (3) (A), (b) (6) : That will work.

(b) (3) (A), (b) (6) : You can call me (b) (3) or sir.

(b) (3) (A), (b) (6) : Sure.

(b) (3) (A), (b) (6) : (b) (3) , how long have you been in 242?

(b) (3) (A), (b) (6) : About two and a half years.

(b) (3) (A), (b) (6) : Okay. So do the math for me, when did you check in?

(b) (3) (A), (b) (6) : I checked into the squadron on November of 2016.

(b) (3) (A), (b) (6) : November of 2016? Where were you coming from?

(b) (3) (A), (b) (6) : I was at the MAG for a year when I first checked in here.

(b) (3) (A), (b) (6) : So you checked into the MAG --

(b) (3) (A), (b) (6) : I checked into the MAG in November of 15.

(b) (3) (A), (b) (6) : Roughly November of 15

(b) (3) (A), (b) (6) : Yep. And then I went on a IME to the 31st MEU for six months and then worked at the MAG for six months.

(b) (3) (A), (b) (6) : When did you get back from the 31st MEU?

(b) (3) (A), (b) (6) : May of 16 actually probably June, maybe June 2016.

(b) (3) (A), (b) (6) : May of 16? Sure. And then Okay. Great.

And what your MOS?

(b) (3) (A), (b) (6) : 7523.

(b) (3) (A), (b) (6) : Where did you go to the FRS?

(b) (3) (A), (b) (6) : I've been to multiple different FRS' but my initial qualification was BFA 125 in Lamore, California.

(b) (3) (A), (b) (6) : Did you subsequently refresh?

(b) (3) (A), (b) (6) : Twice, yes. At 101 Human AT 101 Miramar.

(b) (3) (A), (b) (6) : When's the last time you were at 101?

(b) (3) (A), (b) (6) : 2015. Summer 2015.

(b) (3) (A), (b) (6) : Have you been to SERES school?

(b) (3) (A), (b) : Yes.

(b) (3) (A), (b) (6) : Have you been to the HELO dunker?

(b) (3) (A), (b) : Yes.

(b) (3) (A), (b) (6) : When's the last time you went to the HELO dunker?

(b) (3) (A), (b) : 2015.

(b) (3) (A), (b) (6) : Okay. What are your qualifications and designation level under?

(b) (3) (A), (b) : Section lead.

(b) (3) (A), (b) (6) : Do you have any high quals?

(b) (3) (A), (b) : No.

(b) (3) (A), (b) (6) : Where were you in December of 2018?

(b) (3) (A), (b) : I was in the SKIV DIV VMFA 242 [ph].

(b) (3) (A), (b) (6) : Were you here in Iwakuni participating in ULT?

(b) (3) (A), (b) : That's correct; yes.

(b) (3) (A), (b) (6) : So you weren't TAD, you weren't on leave?

(b) (3) (A), (b) : No. I was not.

(b) (3) (A), (b) (6) : Okay. How did you participate in the ULT? What was your role?

(b) (3) (A), (b) : I was just a -- I was a pilot. Air crew, in it.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) : So I flew day crew, night crew, I was mid crew.

(b) (3) (A), (b) (6) : Okay. So what time did you report for duty?

(b) (3) (A), (b) : I think around -- probably like 11, 11 o'clock in the morning was my -- and then if I was flying it would adjust based off of my crew day. Required for my flight. I think the majority of my flights were scheduled to land no later than about 2100. So that gave me time to debrief.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) : In accordance with the SOP.

(b) (3) (A), (b) (6) : Yeah. So by any chance -- what's the crew day for SOP if you're landing at night?

(b) (3) (A), (b) : If you're landing after 2100? It's a ten hour day.

(b) (3) (A), (b) (6) : Was there any discussion about the use of Go or No Go pills in support of the exercise?

(b) (3) (A), (b) : Not officially to my knowledge. I don't know. I was not personally privy to any conversations with higher about Go or No-Go pills.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) : So that answers that.

(b) (3) (A), (b) (6) : Were you ever at any meetings with the CO

or leadership where it was discussed?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), (b) (6) : Okay. Do you have a dry suit?

(b) (3) (A), (b) (6) : I do.

(b) (3) (A), (b) (6) : Do you wear it much?

(b) (3) (A), (b) (6) : When the water's -- when it's required per op now.

(b) (3) (A), (b) (6) : Tell me about that.

(b) (3) (A), (b) (6) : [inaudible] It's got a complex series of water temperature requirements ec tera. So I have to get inside and look at it. And usually the ODO tells us before we walk, you're going here, the water is here, dress as required.

(b) (3) (A), (b) (6) : Okay. Have every stood ODO here?

(b) (3) (A), (b) (6) : Not here. I have stood ODO in the BATCH but only when we're short ODO's like in Australia.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Other than that there's no fucking water in Australia. Sorry. I cursed internationally.

(b) (3) (A), (b) (6) : I'm tracking. What do you know about the search rescue capabilities here in Iwakuni?

(b) (3) (A), (b) (6) : To my understanding it's pretty outstanding.

(b) (3) (A), (b) (6) : Do you know what the response time is?

(b) (3) (A), (b) (6) : I don't know what they're advertised response time

is. I know what, historically, what I've seen from mishaps that have been out here since I've been in the squadron.

(b) (3) (A), (b) (6) : Tell me more about that.

(b) (3) (A), (b) (6) : The previous mishap was at 115 for Camp Frederick essentially patrol flying training kind of thing. Our squadron was flying at the time so we heard his wing was in trouble in regard, saying an aircraft in the water. So we knocked off what we were doing, tried to get as much information as we could, told to come back in for this training, we landed as a squadron, we all went through the pits waiting for commanding officer or authority or the MAG CO to let us know that we could go out and try to help before anyone was on station.

And just in the amount of time it took us all to to get out jets refueled in the pits, it was our understanding that we had a US1 or US2 in route. You know they're fairly slow, so a couple hours but I know they have newer jet, that they have the ability to launch pretty quickly from other bases so. And I guess they're here probably here too, I think I've seen them. I would say within an hour or too is probably their normal response time from what I've seen.

(b) (3) (A), (b) (6) : And so -- in about an hour or two, do you feel like a recovery asset can be overhead --

(b) (3) (A), (b) : Yeah.

(b) (3) (A), (b) (6) : An aircrew in the central area of the inter south?

(b) (3) (A), (b) : Yea. Probably more like two maybe two maybe three, I think just with the speeds that they fly and there were -- and they were just getting the jet fired up and, you know, getting the general search -- inter south is pretty big so. I think the majority of the incidents we've had have been luckily, kind of, or in the northern part of it which is obviously the closer -- it's apparent northern to me but the closest to Iwakuni when I look down at the map is where I was going?

The western most if you will. South Northwest limits. Yeah but that makes sense. They haven't been to the far edges of the ITRA which would probably take another hour for a normal type of aircraft to get to if that makes sense.

(b) (3) (A), (b) (6) : Okay. It does. So we talked about OPNAV and you said its got a complex series of rules and regulations and shareable's in there. So have you ever been part of the decision making process about when to wear a dry suit and when not to?

(b) (3) (A), (b) : No. I think it's -- I mean it's pretty -- No. I have not.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) : I mean I guess I'm always part of the suiting wearing process of whether or not I choose to wear a dry suit or not. For previous commands, you know, tries and pack things like that where you may, potentially, fly over water. Temperature that is intermittently a degree or two cold enough that you would need one but the other end of the spectrum is that there is no SAAR effort within eight hours and you're going to die anyways. So if you want to wear a dry suit on a twelve hour flight to Spain from the East Coast of the United States. It's over to you what's more dangerous. Wearing a dry suit for twelve hours in the middle of the night and becoming dehydrated, essentially not being able to concentrate, or prolonging your time to death when you eject over the North Atlantic and nobodies going to get you anyways.

So in that perspective -- I guess I have, yeah.

(b) (3) (A), (b) (6) : And how did that, I mean, based on your body language and your tone, I assume that in the times you've done TRANSLANCE, you've elected not to wear your dry suit.

(b) (3) (A), (b) : That is correct. It is very difficult to use the restroom, you sweat a lot. It just makes it difficult and theres some -- the longest flights I've ever done in my career have been over the water like that so --

(b) (3) (A), (b) (6) : How many hours do you have in the Hornet?

(b) (3) (A), (b) : I have 1,000 hours in the Hornet.

(b) (3) (A), (b) (6) : How many hours do you have at night, roughly?

(b) (3) (A), (b) : Probably 300 or so. I probably have more night time just because I did some night ops in Afghanistan. So probably more than the average person at night.

(b) (3) (A), (b) (6) : Did you wear night vision goggles doing that?

(b) (3) (A), (b) : I did.

(b) (3) (A), (b) (6) : Did you wear ANVS-9's?

(b) (3) (A), (b) : When I was in Afghanistan I wore ANVS-9's. Since I've come to the squadron here I've worn the other type of -- I'm having a brain fart. I can't remember what they're called.

(b) (3) (A), (b) (6) : ANVS-11 NVG.

(b) (3) (A), (b) : Yeah. NVG.

(b) (3) (A), (b) (6) : Roughly how many hours do you have on the NVG?

(b) (3) (A), (b) : Probably 60 hours on the NVG.

(b) (3) (A), (b) (6) : So when you came to Iwakuni, you were a ANVS-9 guy and then when you joined the BATS you got your JHMCS helmet and you were then issues, at some point, ANVS-11's?

(b) (3) (A), (b) : Yes; NVG's. So I've always had a JHMCS helmet.

My squadron, my first two squadrons but first squadron got JHMCS. So we started out with it. I think even before they had like a program where you were -- I think at the time -- no, you could get it right when you joined the squadron. I think subsequently we have required people to, you know, have like 20 hours in the fleet or something like that before -- and it's usually just a matter of time before we get them a JHMCS helmet. Back in the day we didn't have a ton of them but our squadron had the most so.

We didn't have NVG and then we got out here and we were required to, yeah, have a certain amount of NVG time or JHMCS time and then take a class, go through the night lab with the NVGS. That's what I remember.

(b) (3) (A), (b) (6) : So tell me about that. What did you learn about the NVG?

(b) (3) (A), (b) : Just another night vision goggle.

(b) (3) (A), (b) (6) : Did you -- are there any performance differences between the ANVS-9 and the ANVS-11 that you were trained on?

(b) (3) (A), (b) : I think you can -- I mean the book answer is, yes. But the realistic answer is, flying at night is difficult and I don't notice a great difference between NVG's, ANVS-9's or ANVS-11 NVG's. To be honest I know you get a better field of view et

cetera, et cetera. And it's supposed to be a little better -- less scintillation there's some other random things you can look at in the book but for the most part flying with NVG's is flying with NVG's. It doesn't really matter what they are just like the -- I like the nominar [ph] of NVG's, it's not sticking out quite as far so it doesn't feel as heavy on your neck and I enjoy that.

(b) (3) (A), (b) (6) : Okay. So you don't remember -- I mean the answer to the question is, aside from the benefit of the NBCD's of having the HUD display and being lighter, there's no appreciable differences in the performance of those two goggles.

(b) (3) (A), (b) (6) : Makes sense.

(b) (3) (A), (b) (6) : In your training, your experiences is that what you believe to be true?

(b) (3) (A), (b) (6) : Yeah, I mean, yeah. Sure.

(b) (3) (A), (b) (6) : Okay. have you ever heard of the term "IBOX" with regards to night vision goggles?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), (b) (6) : Okay. Have you been to the tanker at night?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : Did you normally wear your night vision goggles?

(b) (3) (A), (b) : I do.

(b) (3) (A), (b) (6) : So you leave you goggles down, looking through the tubes while conducting night systems air refueling?

(b) (3) (A), (b) : That's correct.

(b) (3) (A), (b) (6) : Do you ever give consideration of flipping your goggles up?

(b) (3) (A), (b) : I've experimented in my first fleet tour just based off of, like, environmental considerations, tanker illumination ability, things like that. I found -- and just my own external lighting. I found that it's easier to tank off of a tanker at night with your NVG's down from my own personal opinion.

(b) (3) (A), (b) (6) : Why do you feel that way?

(b) (3) (A), (b) : I feel like depending on the side of the tanker that your on, you can actually get a better -- you get a better perspective of the whole entire aircraft. If you have your NVG's set up just right, you can still, kind of, monitor people down below the NVG's but you always have that ability to take the brightest source of light is on the C130 or 135 or whatever. And if you move it just outside of you NVG, it doesn't de-gain them. So you can still get that -- you can still see the wing -- sorry -- the outline of the wing. It gives you a good horizon.

As soon as you try to look, usually at the other aircraft

or at the tanker if they have a single light that isn't NVG compatible which I guess it's common in some way shape or form depending on how things work out, you usually have to Defense Exhibit -- gain your goggles and you have to, kind of, look away from the light. So in my experience, yeah. That's kind of my own thought on it.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : I've noticed they're difficult -- that certain sides of the tanker are more difficult to tank off of at night if you're talking C130 wise. Just based off of when you're on the left hand side you're generally, kind of, looking to the right. So you see the tanker itself when you're on the left -- or the right hand side. You're generally looking to the right so you only see the wing tip. So you kind of lose some of that giant perspective that you have of the aircraft movement itself.

(b) (3) (A), (b) (6) : So when you go to the tanker at night, on the goggles, what do you like to with the lights on the hornet -- on your Hornet?

(b) (3) (A), (b) (6) : So typically when I'm flying with, for my brief, it's typically -- I'll explain to them that obviously there's overt and covert lining for the C130's. So depending on what kind of -- what they choose to do sometimes will show up on the tanker and

their lights will be off, sometimes they will show up on the tanker and their lights will be on. It's our prerogative to turn them off or turn them on, whatever works the best for us.

(b) (3) (A), (b) (6) : So it's pretty common to go to the tanker and the C130's lights will be completely off?

(b) (3) (A), (b) (6) : I don't know what I would define common, but have I joined on tankers when they ask me to call visual and I was like; are your lights on and they're like no. I was like, okay, you need to turn your lights on so I can see. So yeah. I guess -- have I had incidents of that? Yes. Most defiantly.

(b) (3) (A), (b) (6) : So when you say off and on, do you mean overt and covert?

(b) (3) (A), (b) (6) : That's correct. Overt and covert.

(b) (3) (A), (b) (6) : Okay. So when you say off you mean covert.

(b) (3) (A), (b) (6) : I do, yeah.

(b) (3) (A), (b) (6) : Okay. So when I use the word off I'm going to mean like midnight --

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Like not admitting.

(b) (3) (A), (b) (6) : Yeah.

(b) (3) (A), (b) (6) : So I'm going to say off, covert and

overt.

(b) (3) (A), (b) : Yeah. So at range, covert in my opinion might as well be off. I'm sorry, covert might as well be off at range. So anyways, back to your original question.

(b) (3) (A), (b) (6) : So they normally go covert?

(b) (3) (A), (b) : That is correct. Well, I mean I can't even say they normally go covert because when I was in Afghanistan we tanked covert. So my normal -- what I like to do is I have my pause lights turned all the way down so I just have my NVG formation lights on. That's for wingman consideration. It allows him to still see me but not be blinded by my jet. I will let them know that when the probe comes out, there is an NVG incompatible lighting that comes out. So you have the option, if you like, to potentially to pinky switch your lights completely off. That will make the light go away on the IFAR probe. It will allow you to see the basket and see a better delineation between the basket and the probe itself.

Typically I find that I leave that light on, I don't mind it but once I get into the basket, it makes judging distance from the hose, how far you reel the hose in prior to getting flow is sometimes a little bit difficult.

(b) (3) (A), (b) (6) : In that case you might give consideration to going midnight?

(b) (3) (A), (b) (6) : Potentially flicking your lights off for a second to get a good basis of size of where you're at in regards to the yellow lines on the basket and you can turn them back on or turn them back off.

(b) (3) (A), (b) (6) : How do you define a hazard?

(b) (3) (A), (b) (6) : A hazard is -- that's a good question. A hazard is probably anything that could cause loss of human life or -- yeah, a loss of human life can be considered a hazard.

(b) (3) (A), (b) (6) : How do you define a risk?

(b) (3) (A), (b) (6) : A risk is -- a risk is probably anything that could cause like injury or maybe damage to personal property but not risk of death. I don't know. That's probably how I would look at it. Yeah.

(b) (3) (A), (b) (6) : Have you ever heard the acronym ORM?

(b) (3) (A), (b) (6) : I have.

(b) (3) (A), (b) (6) : Can you define it for me?

(b) (3) (A), (b) (6) : Operational risk management.

(b) (3) (A), (b) (6) : Do you know how many steps there are in the ORM process?

(b) (3) (A), (b) (6) : I think it's like a five step process.

(b) (3) (A), (b) (6) : Can you tell me how that's integrated into operations at 242?

(b) (3) (A), (b) : Yeah. So, I mean, it's one of those complex things from the brief on BAC. So initially when we get into the brief for any kind of flight, we'll -- one of the very first things that comes up in the briefing guide is whether or not anybody has any ORM issues. So we give everybody in the flight the opportunity to speak up if there's any reason they shouldn't be flying tonight or if there isn't anything that we should keep an eye out.

And usually that's a good thing or we'll tell people that, if I'm going to speak up during the ORM. I'll be like, hey, it's been a while since I've flown, it's been a while since I've flown at night, I haven't done this mission recently so I feel comfortable to fly and I feel like the brief will mitigate any kind of risk but keep an eye on me. That's something I would say but a majority of the time, most people if they've had an ORM issue for a flight, I would have heard about it or they would have -- we would expect. I think usually what we do is we would expect you to say something previous so we could get another air crew in.

So that's kind of at the brief level. And then obviously there's a whole series of risk mitigation that goes on when you're writing the flight schedule based off of currency requirements, when the last time you flew. Stuff like that. We mitigate risk and kind of apply that ORM process when we put air crew with select WISSO's

and what events they've been flying. We look at their total flight time and the 30, 60, 90 flight time. Whether or not they are currently qualified for an event and whether or not they should go flying.

And then, obviously there's going to be some ORM applied when the CO signs the schedule and when it gets routed through safety and safety looks at it. Whether or not they agree with the schedule and how it's written. So from -- when you look at a schedule, when it gets routed through safety and maintenance, they all have their own little checklist. You know maintenance probably has what they're looking at whether or not there's a number of aircraft.

But you know, when the schedule goes through DOSS, obviously the DOSS, a hot minute ago, there was like fifteen step thing I would just set the schedule down, I would look at this little sheet that was tacked up on my board and it said, you know, is everybody current and qualified? It was just a standard checklist you went down and you could just quickly ask the schedule writer those questions. Do all these steps make sense and that would be suffice with me signing the schedule off as the DOSS.

So if that answers your question. That's kind of my summary of how ORM -- ORM is kind of a broad spectrum. I'm sure

there's probably even more levels of ORM where the MAG has to allow us to go flying or they probably get briefed at ops SYNCS or, you know, commander's update briefs and things like that on what the squadron execution is going to be for the week or for the month. And, you know, the MAG CO probably has some semblance of say on whether or not we're actually going to do that or not do that. Things like that. So I think it's kind of a broad term. I'd like to say it's applied at numerous levels.

(b) (3) (A), (b) (6) : What is your current job in the squadron?

(b) (3) (A), (b) : I am the assistant operations officer.

(b) (3) (A), (b) (6) : So is that, as you just alluded to, you assist or review the development of the flight schedule?

(b) (3) (A), (b) : I do. So I haven't been the OPSO very long or the AOPSO very long. So I found that technically the AOPSO is more of a future operations position. So I deal with outside of thirty days when the OPSO is out and the SCIZZO's need guidance. Typically what I'll do is try to lead them in the right direction but I like to think my job is more of long term planning. Vice current operations which is really what the OPSO.

(b) (3) (A), (b) (6) : What role did you have in the planning of the ULT?

(b) (3) (A), (b) : None. I had just taken over as the AOPSO. I was

the assistant aviation maintenance prior to that so I didn't know anything about it.

(b) (3) (A), (b) (6) : What role did you have in the preparation of the flight schedules?

(b) (3) (A), (b) (6) : For that day I didn't have any.

(b) (3) (A), (b) (6) : Is it common to have a flight schedule that doesn't have something on it but you guys could do it anyway? Specifically air refueling?

(b) (3) (A), (b) (6) : Is it common for a flight schedule to have something on it that you go do anyways?

(b) (3) (A), (b) (6) : Not have something on it.

(b) (3) (A), (b) (6) : Not have something on it.

(b) (3) (A), (b) (6) : Is it common to do something not on the flight schedule?

(b) (3) (A), (b) (6) : Yeah. Yeah. I would say it is.

(b) (3) (A), (b) (6) : Tell me about that.

(b) (3) (A), (b) (6) : Well, if I go on a cross country and I brief, I get approved by the MAG or from the CO through the MAG that I'm going to go do, you know, close air support in support of the 31st MEU's MEUX in Okinawa. And we get down there and we check in, we check in with the MEU AIRO and the weather is unworkable from two to ten thousand feet and he doesn't have any work for us. The JTECHS

are going home, as long as we can appropriately brief a back up plan, which that's a slide in our briefs. What's our back up plan for today? So we could potentially brief a 1 v 1 BFM high aspect where we'll go into the airspace that is already utilized and we'll execute the brief -- the back up brief game plan which is. So I would say, yeah. It's not uncommon as long as it's covered in the brief I don't think anybody would have any problems with that.

I know in previous squadrons every potential code that you could ever do is annotated on the flight schedule and our squadron is usually the primary code but there are times that you have to flex a little bit in order to get the proper train -- or get some semblance of training from a flight that could have potentially have gone south. Or you know, all the requirements to bring a flight together for execution have, kind of, slipped away via weather or maybe the JTECH just didn't show up. I've seen that before too.

(b) (3) (A), (b) (6) : So in the context of this mishap and you as a section leader, if you for whatever reason were in (b) (3) (A), (b) (6) position, it sounds like you would've done the same thing?

(b) (3) (A), (b) (6) : I would've. Yeah. Most definitely.

I mean as long as you mitigate that with -- yeah, I would have done the same thing. I would have gone flying as long as I knew about it prior to the brief and I could at least talk to it, to

mitigate, to apply ORM in that portion and let my wingman know, kind of, what I expect of him.

I will say that there's a slide on our brief that's what's different today? Is it night? Is it air refueling? Et cetera. But, you know, air refueling is kind of admin. We reference things that are somewhat standard as administrative parts of the flight. Like I don't strictly -- I don't specifically cover how I want you to take off. I tell you, I want you on the runway and this is the kind of takeoff we're going to do but I don't tell you the stick and radar mec on how to do it. So that little quip it for air to air refueling, I may talk a little bit more about but I wouldn't necessarily anchor down on it. I would read the room somewhat and look at people's confidence and their comfort level.

(b) (3) (A), (b) (6) : So you would expect the mishap pilot to been able to go out and complete air refueling without any specific guidance?

(b) (3) (A), (b) : I would have expected him to be able to do that, yes. It turns out, I mean, I won't guess. I don't know what happened so.

But I would expect that both aircraft could safely go out and do air refueling and come back and land and have nothing freaking happen.

(b) (3) (A), (b) (6) : Okay. And you don't consider doing a 1 v 1 BFM when the flight schedule says do CAS? You don't consider that to be a deviation from the flight schedule?

(b) (3) (A), (b) (6) : No, I do not.

(b) (3) (A), (b) (6) : And you don't consider going to the tanker when there's no tanker code or tanker notes in the flight schedule? You don't consider that to be a deviation from the flight schedule?

(b) (3) (A), (b) (6) : No, I do not. I wouldn't consider it. I mean in the context of what we're discussing, I guess you have to bring it up. And I would expect anybody to bring it up but no it's not uncommon to go out and do something different. It's not uncommon in a combat area -- you know, in Afghanistan or Iraq to go out with the plan of doing one thing and the next thing, you're intercepting a bogie. Like, you may not brief that but you go do it because you can rely on the training and the experience you have in some way shape or form to get the job done.

(b) (3) (A), (b) (6) : Did you intercept a lot of bogies in Afghanistan?

(b) (3) (A), (b) (6) : One.

(b) (3) (A), (b) (6) : Really?

(b) (3) (A), (b) (6) : Yeah. It was a UAV that lost its data link, we

were supposed to shoot it down.

(b) (3) (A), (b) (6) : Okay. Do you consider flying out of Iwakuni to be combat operations?

(b) (3) (A), (b) (6) : No, I do not.

(b) (3) (A), (b) (6) : Okay. Do you have any idea of what your survival time would be in 68-degree-water without a dry suit?

(b) (3) (A), (b) (6) : 5 hours.

(b) (3) (A), (b) (6) : Is that survivable -- is that until you or until you go unconscious?

(b) (3) (A), (b) (6) : I don't know. I'm just throwing a number out there.

(b) (3) (A), (b) (6) : That's fine. I'm asking your gut instinct, that's the question.

(b) (3) (A), (b) (6) : In 68-degree-water, am I in a raft or am I floating in the water?

(b) (3) (A), (b) (6) : You're submerged in water, you're not in the raft.

(b) (3) (A), (b) (6) : Am I conscious or unconscious?

(b) (3) (A), (b) (6) : I'm asking you how long until you go unconscious and I'm asking how long until you die?

(b) (3) (A), (b) (6) : Okay. I would probably go unconscious -- I don't know. I'm pretty tough and I've got low body fat. I'd say I'd

probably go unconscious in 5 hours. I'd probably die in 7 hour.

(b) (3) (A), (b) (6) : Okay. Good guess.

Do you fly with (b) (3) (A), (b) (6) much as your wingman?

(b) (3) (A), (b) (6) : I have flown with (b) (3) (A), (b) (6) as my wingman before.

(b) (3) (A), (b) (6) : How did he do?

(b) (3) (A), (b) (6) : I won't say he was an above average pilot, I won't say he's a below pilot. He was probably average at best.

(b) (3) (A), (b) (6) : Did you ever fly with (b) (3) (A), (b) (6) in your trunk?

(b) (3) (A), (b) (6) : I did.

(b) (3) (A), (b) (6) : How did he do?

(b) (3) (A), (b) (6) He's and above average WISSO.

(b) (3) (A), (b) (6) : You ever fly with (b) (3) (A), (b) (6) ?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : How did he do?

(b) (3) (A), (b) (6) : He's above average.

(b) (3) (A), (b) (6) : When you guys prepare the flight schedule at 224, do you have the XO, OPSO, AMO, ASO, ORDINANCEO or anyone else review the schedule prior to the CO's signature?

(b) (3) (A), (b) (6) : The OPSO, the DOSS and the AMO all review it and then it's not uncommon for, say, the PTO to have some injects prior

to going to the OPSO for a quick review before it gets up the process.

(b) (3) (A), (b) (6) : Tell me about that process.

(b) (3) (A), (b) (6) : They walk around with a clipboard and ask them to review it for their portion of the flight schedule. They sometimes caviat, I'm not interested in name changes for maintenance, I'm interested can you support the air -- can you support the flight schedule with the any number of aircraft that we're showing in DOSS. I'm not interested in you to say, hey, I sure would like to fly this flight. I'm interested in you to look at the schedule from a safety and aspect and does it look and see safe.

(b) (3) (A), (b) (6) : And sir, how is the CO to know that all of those section heads have looked at the flight schedule?

(b) (3) (A), (b) (6) : I think there is -- well, I mean, with one-hundred-percent uncertainty, I don't know. I've had different squadrons do different things and I've never been in the routing process. I used to sign it as the DOSS, put my initials on it as the DOSS to say that I agreed with what the schedule invoked in regards to safety. I think that is not a requirement. I think it has been a recommendation and its came and gone over the, you know, thirteen years I've flown the hornet so.

(b) (3) (A), (b) (6) : Is it done at VMFA 242?

(b) (3) (A), (b) : To my understanding, right now it does. Yeah.

(b) (3) (A), (b) (6) : So to your understanding, the flight schedules are signed off by the Doss?

(b) (3) (A), (b) : Yeah.

(b) (3) (A), (b) (6) : And the AMO?

(b) (3) (A), (b) : Yeah. I would argue that the DOSS and the aviation safety officer probably have -- the ASO has more knowledge in regards to safety than the DOSS does. So I would argue that if -- in absence of the DOSS if the DOSS is gone, they would probably either put a dash or typically what we would do, when I was gone, we would have the safety officer review it because he was super smart on all things safety. As they should because they're actually school trained aviation safety officers.

(b) (3) (A), (b) (6) : So about the time of the mishap, who would be signing off on the flight schedule before it gets to the CO?

(b) (3) (A), (b) : It would have been (b) (3) (A), (b) (6), the OPSO. Probably (b) (3) (A), (b) (6) or (b) (3) (A), (b) (6) who is the DOSS/ASO. It would have been (b) (3) (A), (b) (6) the AMO or maybe (b) (3) (A), (b) (6) as the AAMO.

(b) (3) (A), (b) (6) : And they'd be initialing on the flight schedule?

(b) (3) (A), (b) (6) : Yeah.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : Did you guys ever use anything called an ORM or risk assessment worksheet at 242?

(b) (3) (A), (b) (6) : The actual sheet before you go flying?

(b) (3) (A), (b) (6) : Yeah.

(b) (3) (A), (b) (6) : No. We use those, I think it was a requirement for, I don't know, a year at my previous command and then it went away so.

(b) (3) (A), (b) (6) : What was your previous command?

(b) (3) (A), (b) (6) : VMFA 122 East Coast Hornet Squadron.

(b) (3) (A), (b) (6) : So when you were back at MAG 31 you guys did it for a while and then you stopped?

(b) (3) (A), (b) (6) : Yeah. Yep. We did it. It was MAG guidance from -- it was directed by the MAG to do it and then they rescinded the requirement. It wasn't -- because it wasn't written anywhere outside of the MAG SOP and I think they changed the MAG SOP.

(b) (3) (A), (b) (6) : So like a new MAG CO came in and got rid of it?

(b) (3) (A), (b) (6) : That's correct. Yep.

(b) (3) (A), (b) (6) : Was there any -- were you around when that happened, do you know why they got rid of that requirement?

(b) (3) (A), (b) : No, I do not.

(b) (3) (A), (b) (6) : Just know it was taken care of?

(b) (3) (A), (b) : Yeah.

(b) (3) (A), (b) (6) : Okay. So is there anything about the mishap, the facts, the circumstances about this that you think that I need to know?

(b) (3) (A), (b) : To be honest with you I don't know -- I probably know just as much about this as you do. I know that somebody died and we had people survive and it's unfortunate all the way around but I don't really know.

(b) (3) (A), (b) (6) : You know what, is there anything different that the Marine Corps could do to reduce the probability of a mishap like this in the future?

Is everybody getting plenty of flight time?

(b) (3) (A), (b) : Yes and no. I would say some months flight times are abundant and some months -- this is common knowledge, I'm not saying anything everybody doesn't already know. Flight time can sometimes be hurting. I would say generally speaking in my time in 242, our flight time has been above average. Since I've been here over two and half years. We're kind of in a dry spell unfortunately over the past five months which strictly, kind of, based off of TEEP.

And you know we surge all of our aircraft to go on a detachment somewhere for two months and we come back with deferred maintenance that we have to do so we surge to execute the detachment and then it hurts on the backside with maintenance because we're catching up on the deferred maintenance that we had. So the things we could do, we could lower the TEEP, yeah we could change how much we're doing detachments out here.

You know the other end of the spectrum is we need those detachments in order to get certain types of currency we can't get here on mainland Japan.

(b) (3) (A), (b) (6) : Have you ever heard of anything like this happening before?

(b) (3) (A), (b) : I have never fucking heard of another aircraft -- I have never heard of a fighter crashing into a tanker and having a catastrophic mid-air. No. Has there ever been one?

(b) (3) (A), (b) (6) : That's what I'm asking. Are you familiar with -- yeah. Are you familiar with the receiver -- a fighter receiver striking a tanker in the history of air refueling? I mean or in recent -- or obviously in recent history. Not in Vietnam Air Force off the chart but like --

(b) (3) (A), (b) : No, I get what you're saying. I know we had -- well I mean before I joined the squadron we had a jet clip the

basket.

(b) (3) (A), (b) (6) : Tell me about that.

(b) (3) (A), (b) (6) : He clipped the basket.

(b) (3) (A), (b) (6) : And what month and year was that?

(b) (3) (A), (b) (6) : It was like 2015, 2014, 2015. Something like that.

(b) (3) (A), (b) (6) : How did he -- when you say clipped the basket, so he was effecting a fuel transfer --

(b) (3) (A), (b) (6) : No, it was my understanding --

(b) (3) (A), (b) (6) : -- and it plugged in and the basket broke off and flew home the basket on the probe?

(b) (3) (A), (b) (6) : I think it was my understanding that he got situational awareness when they were departing the tanker. He was unsure on his position relative to his flight lead and his wingman and he -- I think he clipped a basket.

(b) (3) (A), (b) (6) : I'm sorry. I just don't know what you mean by clipped a basket.

(b) (3) (A), (b) (6) : Well I think -- I mean I don't -- I was never -- I wasn't in the squadron when it happened and I didn't get a full debrief on it but I think his aircraft struck the refueling hose that comes out of the back of a C130.

(b) (3) (A), (b) (6) : With what part of his airplane, like the

wing or something?

(b) (3) (A), (b) : I don't know. I literally don't know.

(b) (3) (A), (b) (6) : So that -- did the basket, like, fall off into the ocean or what?

(b) (3) (A), (b) : I don't know.

(b) (3) (A), (b) (6) : You don't know anything about it is what you're saying?

(b) (3) (A), (b) (6) Not really, no. I just know it happened.

(b) (3) (A), (b) (6) : And you got here in May of 16?

(b) (3) (A), (b) : In the squadron of May of 16 that is correct. No. November of 16.

(b) (3) (A), (b) (6) : So were you on the 31st MEU during April of 2016?

(b) (3) (A), (b) : Yes.

(b) (3) (A), (b) (6) : And when did you get back from the 31st MEU, November?

(b) (3) (A), (b) : We got off the ship mid May and I came back to the MAG in mid June.

(b) (3) (A), (b) (6) : So you're in the MAG in June of 16?

(b) (3) (A), (b) : That's correct.

(b) (3) (A), (b) (6) : So you're on MAG 12 staff in June of 16?

(b) (3) (A), (b) : That's correct.

(b) (3) (A), (b) (6) : You were there for four or five months and then you made your way over to the BATS?

(b) (3) (A), (b) (6) : Yeah.

(b) (3) (A), (b) (6) : So in June of 2016, you were not part of any conversation about a mid air collision between a 242 and 152?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : What was your position at the MAG at that time, sir?

(b) (3) (A), (b) (6) : I was the plans officer. So I worked KTO planning down in the vault downstairs.

(b) (3) (A), (b) (6) : And sir, during the swing shift, who was the senior officer in the swing shift for the ULT?

(b) (3) (A), (b) (6) : I feel like our XO was on the swing shift as well so I would have to say the XO.

(b) (3) (A), (b) (6) : How many field grade officers were on the swing shift?

(b) (3) (A), (b) (6) : I don't know.

(b) (3) (A), (b) (6) : Was it more than you and the XO?

(b) (3) (A), (b) (6) : I cannot say with a hundred percent certainty. Yes. Maybe. I don't know. Like -- I don't know.

(b) (3) (A), (b) (6) : Do you remember if there was any field

grade officers on the night shift.

(b) (3) (A), (b) (6) : I don't think there were any field grade officers on the night shift, no.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : So you feel like the night shift was kind of the captains and the new guys, which are all captains. And it seemed like the day shift had like the CO and the mid shift had the XO and then we had basically the new guys on the night shift. Is that kind of how you remember it?

(b) (3) (A), (b) (6) : I mean (b) (3) (A), (b) (6), while being only a captain is one of the most experienced pilots we have in the squadron. So.

(b) (3) (A), (b) (6) : How can he be a captain and be one of the most experienced pilots in the squadron? You're a major.

(b) (3) (A), (b) (6) : Yeah. Well, he's -- I mean he came fleet to fleet so his currency -- you know he did, like, a second Iraq deployment if you will. So we consider him experienced because he, you know, he's been to combat and he dropped ordinance recently, and then he came straight from a deployed combat squadron to our squadron. So he didn't have any time out of the cockpit of the hornet, if you will. And just his qualification level. He's a super qualified captain.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : So I don't remember -- I don't know what the planning -- I don't know what the thought process was in regards on how we broke down the flight crews at all but I'm assuming we probably had like two crews or three on each schedule depending on how many people we had. I wouldn't be surprised if (b) (3) (A), (b) (6) was the most experienced guy on the night crew. Maybe we -- I don't know. Maybe our OPSO tried to divvy up our WTI's and (b) (3) (A), (b) (6) is almost a WTI. So tried to divvy up some experience based off of what was going to happen.

(b) (3) (A), (b) (6) : Okay. Is there anything that you'd like to add?

(b) (3) (A), (b) (6) : Not that I can think of.

(b) (3) (A), (b) (6) : Judge, anything?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Judge will swear you out.

[The witness was warned, sworn, and excused.]

Fuku Air Traffic Control Transcription

2 April 2019

Taken from:

- F02 1558-1604mono.mp3
- F02 1821-1832.ver2mono.mp3
- F08 1603-1612.ver2mono.mp3
- F08 1647-1822mono.mp3

Listed Chronologically:

- Profane 11 checked in with Fuku Control at 0059 passing 13,300' for 15,000'
- Profane 11 contacted Fuku Control at 0100 and was cleared direct the SUC VORTAC at 17,000'
- Profane 11 contacted Fuku Control at 0102 and was cleared to switch frequency 300.2
- Profane 11 contacted Fuku Control at 0104 level at FL270
- Profane 11 contacted Fuku Control at 0110 to cancel radar services and request local altimeter setting
- Profane 11 contacted Fuku Control at 0147 to report an emergency
- Profane 11 contacted Fuku Control at 0150 and passed the crash location as N32 38.6268 E134 38.1244
- Profane 11 contacted Fuku Control at 0153 and asked the question "Looking for confirmation that search and rescue has been notified?"
- Profane 11 was contacted by Fuku Control at 0203 to confirm which aircraft were in the water. Profane 11 responded with "Profane 12 is in the water. Sumo 41 is in the water"
- That Profane 11 was contacted by Fuku Control at 0207 asking "to confirm there was a collision between Profane 12 and Sumo 41?" To which Profane 11 responded "Affirmative"
- Profane 11 contacted Fuku Control at 0213 asking for "update and search and rescue assets" To which Fuku control responded with "say again" and then "search and rescue should be coming"
- Profane 11 contacted Fuku Control at 0227 asking for "status of search and rescue"
- Profane 11 attempted to contact Profane 12 on 121.5 at 0241 with no audible response
- Profane 11 attempted to contact Sumo 41 on 121.5 at 0243 with no audible response
- Fuku Control contacted Profane 11 at 0248 requesting Profane 11's fuel status to which Profane 11 responded with "15 minutes"
- Fuku Control contacted Profane 11 at 0251 requesting survivor location to which Profane responded with "Negative. Searching at 10,000 "
- Profane 11 contacted Fuku Control at 0252 advising that they observe a "strobe beacon in the water"
- Profane 11 contacted Fuku Control at 0254 with a latitude and longitude of a possible survivor
- Profane 11 contacted Fuku Control at 0256 and provided the beacon location as N32 37.78 E135 03.16
- Fuku Control contacted Profane 11 asking if Profane 11 had observed a parachute or liferaft to which Profane 11 responded "negative"
- Profane 11 contacted Fuku Control at 0311 at flight level 260 requesting to return to Iwakuni direct
- Fuku Control contacted Profane 11 at 0312 with squawk 1735, radar contact and cleared Profane direct to Iwakuni at FL330
- Fuku Control contacted Profane 11 at 0314 with clearance to FL360
- Fuku Control contacted Profane 11 at 0321 with clearance to change to frequency 227.2

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





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

IN REPLY REFER TO:

5830

SJA

23 APR 2019

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

Subj: SECOND REQUEST FOR EXTENSION ICO 6 DECEMBER 2018 MID-AIR
COLLISION MISHAP COMMAND INVESTIGATION

Ref: (a) IO Appointment Letter 5830/CG dated 10 Dec 18

1. I request an extension of time for completing the command investigation for which I have been appointed by the reference. I request a new submission date of 31 May 2019.

2. The reason for this request is to allow the transcription service provider to complete transcriptions for the interviews.

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

Copy to:
SJA, 1st MAW



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

IN REPLY REFER TO:

5830

CG

23 APR 2019

From: Commanding General, 1st Marine Aircraft Wing

To: (b) (3) (A), (b) (6) USMC

Subj: SECOND REQUEST FOR EXTENSION ICO 6 DECEMBER 2018 MID-AIR
COLLISION MISHAP COMMAND INVESTIGATION

1. Returned. Your request for an extension is granted. Your investigation is now due 31 May 2019

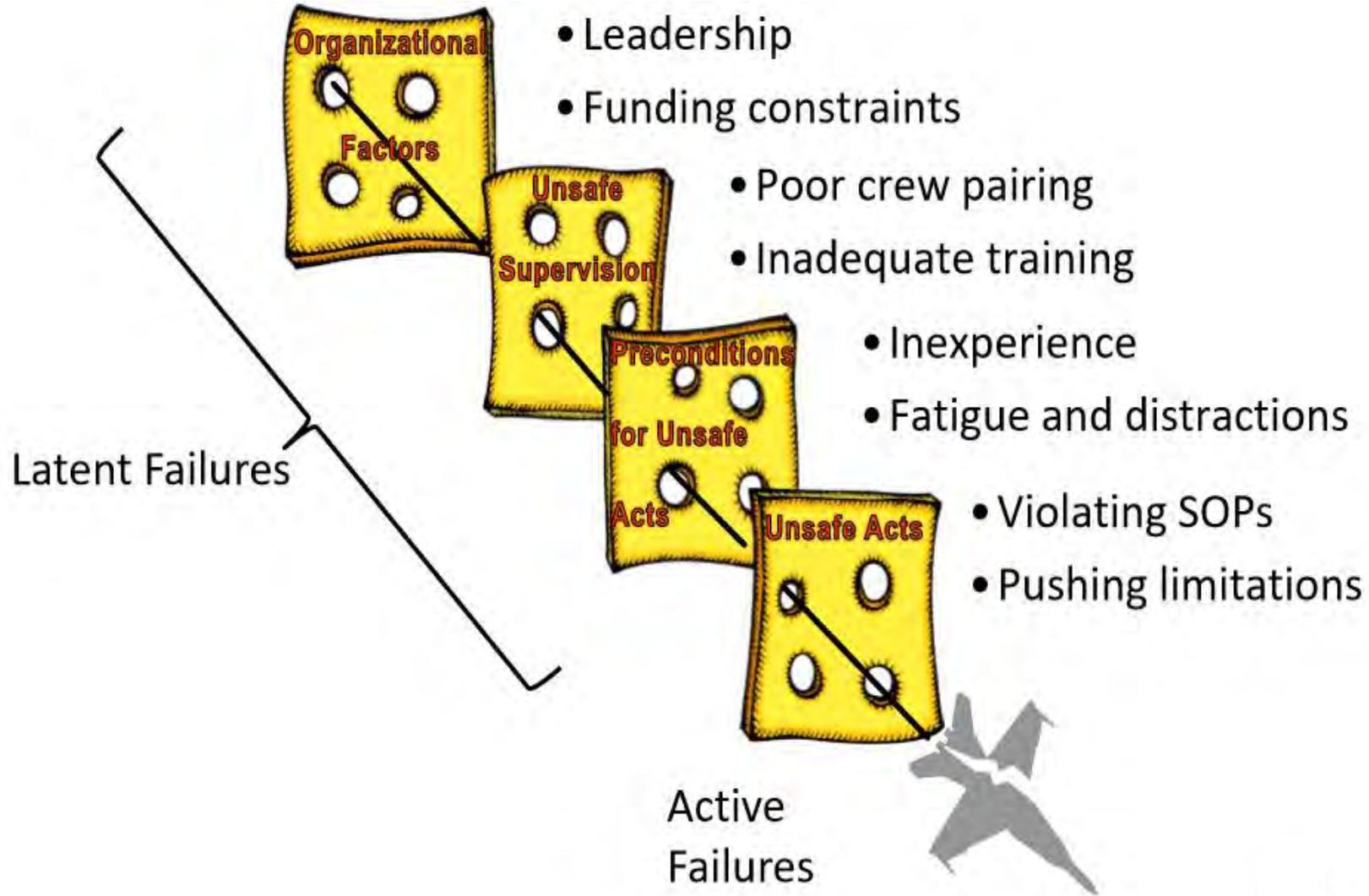

T. D. WEIDLEY

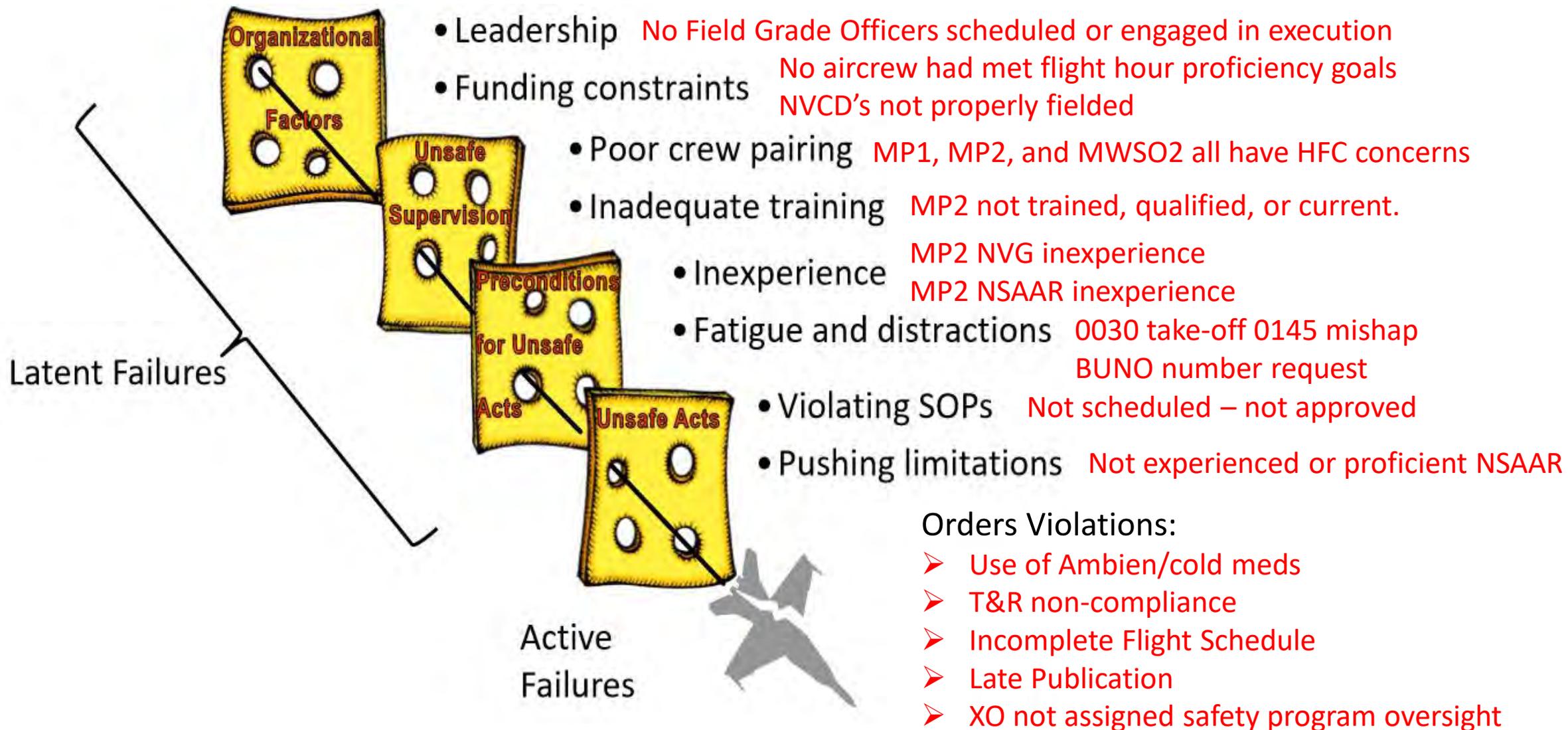
Copy to:
SJA, 1st MAW

MAG-31 ORM SHEET USAGE SUMMARY

Squadron	ORM Sheets	Flight Sched Signature	Flight Leads Review/Sign ORM?
115	In use. :“Threat and error management worksheet” signed by AMO/OPSO/DOSS and CO when routed.	CO only	No. ORM review conducted in brief.
224	In use. Signed by OpsO/DOSS/CO when schedule is routed.	CO only	Yes
251	In use. Signed by OpsO/DOSS/CO when schedule is routed.	CO only	Yes
312	In use. Reviewed by Mx Cntl. Signed by OpsO/DOSS/CO when schedule is routed.	CO only	Yes
533	In use. Signed by OpsO/DOSS/CO when schedule is routed.	CO only	Yes

HQMC Safety Division
Strategy for Aircrew/Flight Excellence (SAFE)
24 August 2018





(b) (3) (A), (b) (6) : I'm (b) (3) (A), (b) (6) Today is January the 24th, 2019. We're in Iwakuni, Japan. (b) (3) (A), (b) (6) (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) are present in the room with the next witness.

Please state your name for the record, spelling your last name.

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) Last name is (b) (3) (A), (b) (6)

(b) (3) (A), (b) (6) How would you like for me to refer to you?

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) is fine.

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) Is that your call sign?

(b) (3) (A), (b) (6) : Yes, sir.

(b) (3) (A), (b) (6) : It's a play on your last name, I guess?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : I like it. They call me school, so I can relate to that.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : (b) (3) (A), (b) (6) with a (b) (3) (A), (b) (6) because of my poor spelling skills and my poor education.

Where were you on August of 2018 -- I'm sorry. December of 2018?

(b) (3) (A), (b) (6) : With the squadron.

(b) (3) (A), (b) (6) : Okay. Did you participate in the ULT?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : What was your role and responsibility?

(b) (3) (A), (b) (6) : I was on the night page with the mishap

crew.

(b) (3) (A), (b) (6) : Okay. What is your military occupational specialty?

(b) (3) (A), (b) (6) : 7523.

(b) (3) (A), (b) (6) : Okay. So you're a hornet pilot?

(b) (3) (A), (b) (6) : A hornet pilot, correct.

(b) (3) (A), (b) (6) : Okay. When did you get your wings?

(b) (3) (A), (b) (6) : February of 2012. It was February 17th.

(b) (3) (A), (b) (6) : When did you complete the FRS?

(b) (3) (A), (b) (6) : February of 2000 -- it was either January or February of 2013.

(b) (3) (A), (b) (6) : When did you check-in to 242?

(b) (3) (A), (b) (6) : September of 2017.

(b) (3) (A), (b) (6) : September of 17. So you've been in the squadron almost a year and a half.

(b) (3) (A), (b) (6) : A year and a half, correct.

(b) (3) (A), (b) (6) : What squadron were you in before?

(b) (3) (A), (b) (6) 224 on the East Coast.

(b) (3) (A), (b) (6) How are 224 and 242 different?

(b) (3) (A), (b) (6) They're both two-seat squadrons.

Honestly, it wasn't too much different, I guess.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) Both had pretty good ready rooms.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) Follow-up procedures.

(b) (3) (A), (b) (6) Where you in the squadron space during

the mishap?

(b) (3) (A), (b) (6) Yes.

(b) (3) (A), (b) (6) What were you doing?

(b) (3) (A), (b) (6) I was doing some ground job work.

(b) (3) (A), (b) (6) What is your ground job?

(b) (3) (A), (b) (6) : Airframes OIC.

(b) (3) (A), (b) (6) So you're downstairs with two guys?

(b) (3) (A), (b) (6) With maintenance, correct.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) I don't remember exactly. I was

probably working on ASN reviews or something like that.

(b) (3) (A), (b) (6) Did you attend any confirmation briefs
about the whole exercise?

(b) (3) (A), (b) (6) No, just in the squadron itself the Thursday prior.

(b) (3) (A), (b) (6) Tell me about that.

(b) (3) (A), (b) (6) So the OPSO, (b) (3) (A), (b) (6) had all of the aircrew available come in. They had some slides of what to expect and then talked about the three crews. So morning slash day crew, mid crew. That was about 10 til 10, I guess. And then the night crew which started about 8 or 10 at night. And then I found out I was on the night crew for the next week. He had kind of set the flows of what we were doing and when we were expected to fly.

(b) (3) (A), (b) (6) So you knew that you were expected to fly at the same time the mishap crew was flying?

(b) (3) (A), (b) (6) I was on the schedule to fly the next day, so Thursday morning, I believe. So the morning of the 7th.

(b) (3) (A), (b) (6) Like 24 hours later?

(b) (3) (A), (b) (6) 24 hours later than the mishap, correct.

(b) (3) (A), (b) (6) Okay. The earlier morning hours and periods of darkness.

(b) (3) (A), (b) (6) Correct. Probably -- I don't remember the schedule exactly. I know that the night of the mishap, they were told to start their engines after midnight, like, after the clock rolled over past 00.

(b) (3) (A), (b) (6) We're you guys authorized the use of go
or no-go pills?

(b) (3) (A), (b) (6) No. It was asked for by some of the
aircrew.

(b) (3) (A), (b) (6) How was it asked?

(b) (3) (A), (b) (6) I know it was mentioned in chats, like,
officer chats on WhatsApp.

(b) (3) (A), (b) (6) What's that about? What is WhatsApp?

(b) (3) (A), (b) (6) It's a messaging software.

(b) (3) (A), (b) (6) Oh like on your cell phone. Like on an
iPhone?

(b) (3) (A), (b) (6) Yes. Correct.

(b) (3) (A), (b) (6) Okay. And you guys have like a chat room
where you guys just talk about like what time the next brief is and
what's going on in the squadron?

(b) (3) (A), (b) (6) Right. Yeah.

(b) (3) (A), (b) (6) Social stuff as well as probably official
stuff?

(b) (3) (A), (b) (6) Correct. There's like an officer's
official one and then there's one that's, like, social.

(b) (3) (A), (b) (6) Do you have like a JOPA one too?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Junior officers. So how many different chat rooms are you aware of?

(b) (3) (A), (b) (6) Three for the squadron.

(b) (3) (A), (b) (6) So official, social, and JOPA?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) I just made up JOPA. Is that what you guys call it?

(b) (3) (A), (b) (6) Something along those lines, sir.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) It's all captains and below.

(b) (3) (A), (b) (6) Okay. That's cool.

(b) (3) (A), (b) (6) : I think it may have been used to ask the person as well?

(b) (3) (A), (b) (6) Who?

(b) (3) (A), (b) (6) About the go, no-go pills.

(b) (3) (A), (b) (6) Who did they ask?

(b) (3) (A), (b) (6) A doctor.

(b) (3) (A), (b) (6) Oh, the flight surgeon.

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Is the flight surgeon on that chat with you guys?

(b) (3) (A), (b) (6) Yes.

(b) (3) (A), (b) (6) Does he or she respond to any questions about go or no-go pills on the app?

(b) (3) (A), (b) (6) Yes. He said that we weren't authorized. I guess somebody mentioned, I forget who. If it was him or OPSO that the MEF general said no.

(b) (3) (A), (b) (6) The MEF CG said no?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) General Smith?

(b) (3) (A), (b) (6) Either him or Weidley.

(b) (3) (A), (b) (6) The wing CG?

(b) (3) (A), (b) (6) Yeah. I think it might have been the wing CG.

(b) (3) (A), (b) (6) Okay. So did you take go or no-go pills?

(b) (3) (A), (b) (6) I did not.

(b) (3) (A), (b) (6) Why not?

(b) (3) (A), (b) (6) Well, they said we could not.

(b) (3) (A), (b) (6) Did you have some?

(b) (3) (A), (b) (6) I have a trial I still have not taken.

(b) (3) (A), (b) (6) When were you given a trial?

(b) (3) (A), (b) (6) By the previous flight deck about a year ago.

(b) (3) (A), (b) (6) At 242?

(b) (3) (A), (b) (6) Correct. Correct.

(b) (3) (A), (b) (6) So the flight surgeon at 242 issued out no-go pills for a ground trial in approximately December of 2017? You said about a year ago. January of '17?

(b) (3) (A), (b) (6) I can't remember the exact date, but sometime around then.

(b) (3) (A), (b) (6) What was the purpose of that?

(b) (3) (A), (b) (6) He just noticed on my paperwork that I hadn't done the trial yet.

(b) (3) (A), (b) (6) Oh, I see.

(b) (3) (A), (b) (6) So he wanted to see if I wanted to do the trial. So most air crew do the trial at some point. I just hadn't done it.

(b) (3) (A), (b) (6) And what's the purpose of the trial?

(b) (3) (A), (b) (6) Just to see how you react to taking the go pill and no-go pill.

(b) (3) (A), (b) (6) And how did you react?

(b) (3) (A), (b) (6) I hadn't taken it, so I don't know.

(b) (3) (A), (b) (6) So you were provided them a year ago, but you never consumed them?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) And you didn't turn them in?

(b) (3) (A), (b) (6) No. I still have them.

(b) (3) (A), (b) (6) : Okay. Are you familiar with OPNAV 3710?

Have you read it?

(b) (3) (A), (b) (6) I've read through it. I haven't read, like, the whole thing.

(b) (3) (A), (b) (6) Have you read the part that talks about go, no-go pills?

(b) (3) (A), (b) (6) The doctor sent that out.

(b) (3) (A), (b) (6) What does it say?

(b) (3) (A), (b) (6) I can't remember.

(b) (3) (A), (b) (6) How did the doctor send it out?

(b) (3) (A), (b) (6) Like a picture on his phone.

(b) (3) (A), (b) (6) Like he screenshotted the phone. Did he put it on the WhatsApp?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Okay. What is OPNAV 3710 say about dry suits? Anti-exposure suits?

(b) (3) (A), (b) (6) So if water temp is below 60 or the windchill, the air temperature and windchill is below 32, it's mandatory. Above that, it's at the CO's discretion.

(b) (3) (A), (b) (6) Okay. What did your CO say about dry suits during the week of the wing ULT?

(b) (3) (A), (b) (6) I think he mentioned, like, to follow
OPNAV.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) I don't remember exactly if he mentioned
specifically --

(b) (3) (A), (b) (6) What was the forecast sea-surface
temperature during the wing ULT in December of 2018? Was it
briefed?

(b) (3) (A), (b) (6) I'm pretty sure the flights look at it.
I didn't look at it because I wasn't going to be flying that night.

(b) (3) (A), (b) (6) But you were flying the next night?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) And we'd assume that the sea-surface
temperature would be reasonably stable.

(b) (3) (A), (b) (6) Right. I hadn't looked at it yet.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) But I'm pretty sure it was actually on
the warmer side, like 70's.

(b) (3) (A), (b) (6) And you think the sea-surface temperature
was above 70 degrees --

(b) (3) (A), (b) (6) I think so.

(b) (3) (A), (b) (6) -- in the intra south. Were you

scheduled to go to the intra south as well?

(b) (3) (A), (b) (6) Next night, correct.

(b) (3) (A), (b) (6) Okay. So you would have been flying in the same air space over the similar waters 24 hours later?

(b) (3) (A), (b) (6) Right.

(b) (3) (A), (b) (6) And you believe the sea-surface temperature to be 70 degrees?

(b) (3) (A), (b) (6) I don't know exactly. I'd have to look at it.

(b) (3) (A), (b) (6) Okay. Were you planning to wear your dry suit the next night?

(b) (3) (A), (b) (6) Depending on the temperature.

(b) (3) (A), (b) (6) How many times have you worn your dry suit at 242?

(b) (3) (A), (b) (6) In 242, I think twice.

(b) (3) (A), (b) (6) Twice?

(b) (3) (A), (b) (6) Last winter. Yeah. I've worn it a bunch in my previous squadron.

(b) (3) (A), (b) (6) : Why did you wear it a bunch in your previous squadron.

(b) (3) (A), (b) (6) : We flew up to [inaudible], Japan. So in January, that's all the way up north. It's pretty much the same

latitude as Vermont. So if you eject, you're not surviving, especially without a dry suit.

(b) (3) (A), (b) (6) Got you. Did your previous commander, at VMFA-242, ever discuss that with you guys in the ready room?

(b) (3) (A), (b) (6) Yeah.

(b) (3) (A), (b) (6) How did he discuss it?

(b) (3) (A), (b) (6) Same thing. We'd follow procedures.

(b) (3) (A), (b) (6) When you say follow procedures, you mean fly with OPNAV?

(b) (3) (A), (b) (6) Correct. Comply with OPNAV.

(b) (3) (A), (b) (6) Have you ever conducted air refueling in the hornet?

(b) (3) (A), (b) (6) Many times.

(b) (3) (A), (b) (6) When was the last time?

(b) (3) (A), (b) (6) This past summer. We were in Australia.

(b) (3) (A), (b) (6) In August?

(b) (3) (A), (b) (6) Coming back from Australia would actually be the last. And that was --

(b) (3) (A), (b) (6) And was that behind a STRAT tanker or behind a C130?

(b) (3) (A), (b) (6) STRAT tanker.

(b) (3) (A), (b) (6) Day or night?

(b) (3) (A), (b) (6) Day.

(b) (3) (A), (b) (6) When was the last time you did it at night?

(b) (3) (A), (b) (6) During pich-black in Australia.

(b) (3) (A), (b) (6) What month and year was that?

(b) (3) (A), (b) (6) Probably August in the past year, 2018.

(b) (3) (A), (b) (6) And what kind of tanker was it?

(b) (3) (A), (b) (6) C130. Both Marine Corps from 152 as well as a Canadian C130.

(b) (3) (A), (b) (6) Okay. What was the light level condition, do you remember?

(b) (3) (A), (b) (6) Those were mostly at pretty low light level.

(b) (3) (A), (b) (6) Low light level.

How late in the day was it, or late in the night? Was it 2300 or was it like 1900? Was it pinky or was it super dark?

(b) (3) (A), (b) (6) No it was definitely dark. It was well after.

(b) (3) (A), (b) (6) It was well after Double ENT?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) What type of night vision goggles were you wearing, do you remember?

(b) (3) (A), (b) (6) NVCDs.

(b) (3) (A), (b) (6) So ANVS-11s?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) How many hours do you think you have, roughly, on the (b) (3) (A), (b) (6) ballpark, in the airplane?

(b) (3) (A), (b) (6) I'd say about 70 or 80.

(b) (3) (A), (b) (6) How many hours do you think you have on the (b) (3) (A), (b) (6) the old goggles?

(b) (3) (A), (b) (6) About the same. Probably a little bit more, honestly.

(b) (3) (A), (b) (6) So maybe 100 hours on the ANVS-9s back at 224. And then, you came here.

Did you ever fly with the 9s at 242?

(b) (3) (A), (b) (6) Yes. I did before my JHMCS was fit?

(b) (3) (A), (b) (6) Okay. So after you came here you were flying on the 9s. Your JHMCS was fit and you got your ANVS-11s here in Iwakuni, right?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Approximately what month and year was that that you actually received custody of the ANVS-11s for your use?

(b) (3) (A), (b) (6) Well, they check them out each flight.

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

When was your helmet good to go though?

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

: It was pretty early on. Probably --
this is just purely a guess. Probably October, November of 2017.

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

So a little over a year ago. A year and
a few months ago.

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

Correct.

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

So you were flying with 9s for a couple
years. You had 100 hours or so. You came here and you flew with 9s
for a little bit. And then, the eventually got your JHMCS helmet
fit. And then, you became ANVS-11 capable.

So tell me what you did before your first ANVS-11 flight
that was different.

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

It's a different focusing technique.

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

Let me ask the question differently.

What specific training did you receive on the ANVS-11?

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

: When I was in 101, we went through --
part of my refresh coming out here -- we went through night lab and
they talked about the differences there.

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

Okay. So you went to night lab at 101?

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

Correct.

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

What month and year was that most
recently?

(b) (3) (A), (b) (6) September, either August or September --
I think it was September of 2017.

(b) (3) (A), (b) (6) September of '17. Like right before you
came here?

(b) (3) (A), (b) (6) Right. Correct.

(b) (3) (A), (b) (6) Okay. And when you were at the night lab
at 101, what were you taught about ANVS-11 differences?

(b) (3) (A), (b) (6) You'll have a shorter lens. You'll tend
to have maybe a little bit more glare. But you'll have more visual
QD. And then, obviously, you'll have the imagery from the JHMCS in
your right eye, which you wouldn't have in the 9s at all because
they were in your old helmet.

(b) (3) (A), (b) (6) Okay. We're back on. We were
interrupted by a phone call of administrative nature. The line of
questioning taking place right now is about ANVS-11 training.

So what I'm attempting to learn from the witnesses is what
type of training he received transitioning from the ANVS-9 goggles
to the (b) (3) (A), (b) (6) And so far, I've got that you attended the
night lab in Miramar. And then, when you came to 242, did you have
any other specific training associated with the ANVS-11 that you can
recall aside from how to put them on your helmet?

(b) (3) (A), (b) (6) No.

(b) (3) (A), (b) (6) Any talk about the capabilities or limitations differences, aside from the HUD display?

(b) (3) (A), (b) (6) A little bit.

(b) (3) (A), (b) (6) What are some of those?

(b) (3) (A), (b) (6) I know that there is a little bit of differences. I can't recall off the top of my head. I know they have a little bit better clarity. But then, you also have more of a halo effect.

(b) (3) (A), (b) (6) More halo with the ANVS-11?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Okay. Any other characteristics differences that jump out in your mind from your training?

(b) (3) (A), (b) (6) No.

(b) (3) (A), (b) (6) Are you a night systems instructor?

(b) (3) (A), (b) (6) I started the training in the fall of 2017. But then, I got pneumonia and dropped out of that.

(b) (3) (A), (b) (6) Sorry.

Back on, hopefully for the last time. Let me just ask you one question. Did you receive specific formal training on the differences between the ANVS-9 and the ANVS-11 with regard to their capabilities and limitations in flight?

(b) (3) (A), (b) (6) I did at 101.

(b) (3) (A), (b) (6) Tell me what they taught you in brief.

(b) (3) (A), (b) (6) As far as focusing, so the 9 you get the outer-inner-outer for the adapter lens and I forget what the other one is called. And then, for the ANVS-11s, you only have the adjustment cluster to you eye.

(b) (3) (A), (b) (6) Do they talk about the capability differences?

(b) (3) (A), (b) (6) They did. I honestly can't remember exactly --

(b) (3) (A), (b) (6) Did they talk about performance differences between high-light level and low-light level between the two different systems and why?

(b) (3) (A), (b) (6) I believe they did. I honestly can't remember.

(b) (3) (A), (b) (6) Are you familiar with the term "eyebow" and as it applies to night vision goggles?

(b) (3) (A), (b) (6) Eyebow as far as focusing them like in the Hoffman?

(b) (3) (A), (b) (6) : No. Not the Hoffman box. But have you ever heard the word --

(b) (3) (A), (b) (6) : Like the visual field of view?

(b) (3) (A), (b) (6) No.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) If I say one set of goggles has one size eye box and another set of goggles has another size eyebox.

What does that mean to you? Have you heard that term?

(b) (3) (A), (b) (6) : I don't think -- I'm thinking it's the distance as far as the length of the tube. Obviously, I don't -- I haven't heard that term and if I did I can't recall.

(b) (3) (A), (b) (6) Have you been in the tanker at night?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) C-130?

(b) (3) (A), (b) (6) Yes.

(b) (3) (A), (b) (6) : Did the tanker go covert?

(b) (3) (A), (b) (6) Marine Corps tankers do.

(b) (3) (A), (b) (6) Why do the Marine tankers go covert?

(b) (3) (A), (b) (6) To help with your -- so you're not washing out your goggles in close with all of their external lights.

(b) (3) (A), (b) (6) Okay. Are there any specific rules and regulations that govern the wear of night vision goggles while conducting air refueling in the Marine Corps that you're aware of?

(b) (3) (A), (b) (6) Not that I'm aware of. It's my understanding that it's up to the wearer or the user. So it's allowed to tank with or without goggles.

(b) (3) (A), (b) (6) Okay. Okay.

Can you define a hazard? What's a hazard in aviation terms?

(b) (3) (A), (b) (6): Something that effects the safety of flight or damage to aircraft.

(b) (3) (A), (b) (6) Can you define risk?

(b) (3) (A), (b) (6) Risk what you're willing to accept to conduct a safe mission, but has potential hazards.

(b) (3) (A), (b) (6) Have you heard the acronym ORM?

(b) (3) (A), (b) (6) Correct. Yes.

(b) (3) (A), (b) (6) Do you know what it stands for?

(b) (3) (A), (b) (6) Operational risk management.

(b) (3) (A), (b) (6) Do you know how many steps there are in the ORM process?

(b) (3) (A), (b) (6) I believe there's five.

(b) (3) (A), (b) (6) Can you list them?

(b) (3) (A), (b) (6) Not off the top of my head right now.

(b) (3) (A), (b) (6) At your best guess?

(b) (3) (A), (b) (6) I kind of like, BAMCIS, I guess. Or analyze -- recognize the problem, analyze the problem, develop COAs, war-game if you're able to, and then enact whichever COA is best. And then, adjust throughout.

(b) (3) (A), (b) (6) What is your qualification and designation level in the F-18?

(b) (3) (A), (b) (6) : Division lead.

(b) (3) (A), (b) (6) So you're an F-18 division leader?

(b) (3) (A), (b) (6) : Correct.

(b) (3) (A), (b) (6) So you could take off with three other hornets and lead as the division of four F-18s to prosecute a target under day or night conditions?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) You could take four hornets and go to the tanker?

(b) (3) (A), (b) (6) Yes.

(b) (3) (A), (b) (6) You could take four hornets and drop live ordinance to danger forces or friendly forces engaged in combat with appropriate 9-Line brief?

(b) (3) (A), (b) (6) Yes.

(b) (3) (A), (b) (6) In your not familiar with the term eyebox?

(b) (3) (A), (b) (6) No.

(b) (3) (A), (b) (6) Justin?

(b) (3) (A), (b) (6) Nothing, sir. But as you mentioned, with your WhatsApp conversations, would you just be will to send us

over the conversations? Both the official, the unofficial, and then the Captain and below chats that you guys have maybe two to three weeks prior to the mishap up until the present day?

(b) (3) (A), (b) (6) I don't have those anymore.

(b) (3) (A), (b) (6) What happened with them?

(b) (3) (A), (b) (6) I cleared them out.

(b) (3) (A), (b) (6) When did you clear them out?

(b) (3) (A), (b) (6) I just purged them.

(b) (3) (A), (b) (6) When did you purge them?

(b) (3) (A), (b) (6) Recently within the past week. Nothing to do with this at all.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) I can't send them to you.

(b) (3) (A), (b) (6) Okay.

Is there anything that you feel you did during this mishap that could have significantly tributed to it or been caused on the mishap that I haven't touched on that you'd like to discuss?

(b) (3) (A), (b) (6) I think CAS factor was getting put through the CLT, whereas we had -- like working in maintenance, we had up aircraft since we got back from Australia. Two, plus or minus one, if that operational at a time.

(b) (3) (A), (b) (6) So that allowed for limited proficiency?

(b) (3) (A), (b) (6) Proficiency is way down.

(b) (3) (A), (b) (6) So low proficiency.

(b) (3) (A), (b) (6) And then, we were put into a MAG ULT or told to fly special late night hours that nobodies I don't think ever flown before. I, personally, haven't flown --

(b) (3) (A), (b) (6) So let's break those down for a second, okay?

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) So how many hours have you flown in the last six months in the F-18?

(b) (3) (A), (b) (6) I mean, a rough guess?

(b) (3) (A), (b) (6) Yes, please.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) Six months?

(b) (3) (A), (b) (6) You should be getting 16 hours a month, so that would be 75 hours.

Have you flown about 75 hours?

(b) (3) (A), (b) (6) No. I would say like 30.

(b) (3) (A), (b) (6) 60 hours?

(b) (3) (A), (b) (6) 30 to 40.

(b) (3) (A), (b) (6) 30. So and 6, so you're flying like 5 hours a month or 7 hours a month.

(b) (3) (A), (b) (6) Well, if we're going back to like August -- I flew a bunch in August in Australia.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) Quite a bit.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) But then once we got back in October, I think I flew two or three times prior to the mishap.

(b) (3) (A), (b) (6) Okay.

And then, so that would effect a pilot's proficiency then and their ability to do basic maneuvers if you will?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Basic -- manipulating the controls of the aircraft to maintain proper separation and those types of maneuvers, right?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Okay. The point's well taken.

The other point you made was flying in the middle of the night. So how many times in Iwakuni have you briefed at 2200, taken off at midnight, and landed at 0500?

(b) (3) (A), (b) (6) Never.

(b) (3) (A), (b) (6) Never. Why is that?

(b) (3) (A), (b) (6) We would always land -- maybe the latest

I had landed was midnight thirty or so. But most night flights, you'd brief maybe 1800 or so and then take off at 2000 when it's dark.

(b) (3) (A), (b) (6) So do you believe that flying between midnight and 5 a.m. is more hazardous than flying --

(b) (3) (A), (b) (6) Definitely.

(b) (3) (A), (b) (6) Why is that?

(b) (3) (A), (b) (6) I mean, just leading up to the mishap, we were trying to get on the night page, trying to sleep in as much as possible, going against are circadian rhythm, and then staying up every night before the mishap about one to two to three in the morning. You just don't feel right. Everybody is walking around a little loopy.

We just came back from the East Coast from the seven-day and it's basically the same thing being on the opposite side of the clock. you just don't feel right. It takes a long time for the jet lag to wear off.

(b) (3) (A), (b) (6) Are you familiar with wing order 3710?

(b) (3) (A), (b) (6) No.

(b) (3) (A), (b) (6) Are you familiar with 1st Marine Aircraft Wing Order 3710, SOP for flight operations?

(b) (3) (A), (b) (6) Of the SOP, yes.

(b) (3) (A), (b) (6) Have you read it?

(b) (3) (A), (b) (6) Yes. Not recently.

(b) (3) (A), (b) (6) Okay. What does it say about when you travel to 1st MAW, like when you fly here from CONUS, what does it say about how many days until you can fly again?

(b) (3) (A), (b) (6) 72 hours.

(b) (3) (A), (b) (6) Why is that?

(b) (3) (A), (b) (6) To get your body adjusted.

(b) (3) (A), (b) (6) So the Wing order acknowledges the need to adjust a pilot's circadian rhythms?

(b) (3) (A), (b) (6) Yes.

(b) (3) (A), (b) (6) How many days notice did your squadron have before they started night operations?

(b) (3) (A), (b) (6) We were briefed on the Thursday prior.

(b) (3) (A), (b) (6) So Thursday. So you had Friday, Saturday, Sunday, Monday, Tuesday, Wednesday -- six days?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Maybe five, depending on how you look at that. Five or six days?

(b) (3) (A), (b) (6) Right.

(b) (3) (A), (b) (6) Is that true?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Did you have any mandatory all-hands events during the daytime on Monday, Tuesday, or Wednesday?

(b) (3) (A), (b) (6) : No.

(b) (3) (A), (b) (6) : So its' suffice to say that the air crew on the night page, which you were on, had at least Saturday, Sunday, Monday, Tuesday, Wednesday, five days to shift their clocks from day to night?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Okay. Were you able to do that?

(b) (3) (A), (b) (6) : I think by Wednesday, I was feeling better. Sunday and Monday were definitely rough.

(b) (3) (A), (b) (6) So its' suffice to say that high headquarters recognized the risk and mitigated it with advanced scheduling and providing you guys the opportunity to shift your clocks? Or do you not feel that way?

I'm just trying to understand why -- I mean, I get it. We're flying in the middle of the night and that's hazardous. I', one to understand that and that's come up a lot. So I'd normally try to address it in these interviews. So for me as an outside investigator looking in. I, obviously, with 4000 hours and seven combat deployments, have done a lot of night flying in various aircraft. So I understand what you're saying and that is an issue.

I'm not debating you. I want to understand your point.

I see that the crews for scheduled from midnight to 5 a.m. That's a hazardous time to fly. That's the witching hour, so that's a risk.

(b) (3) (A), (b) (6) Right.

(b) (3) (A), (b) (6) So the risk is recognized. And then in my mind from what I understand, the risk was mitigated by everybody getting the word on Thursday or Friday before, who was on what crew, and when to come to work on Monday and Tuesday. Additively, having your personal time on Saturday and Sunday to adjust your personal schedule to provide.

Yourself, to include the mishap aircrew, would have had Saturday, Sunday, Monday, Tuesday, and Wednesday, five days, to move their clocks.

Do you feel like that's not enough time?

(b) (3) (A), (b) (6) I think that would be enough time. For me, personally, it was very difficult. I have (b) (3) (A), (b) (6) and

(b) (6)

(b) (6)

(b) (3) (A), (b) (6) So you have (b) (3) (A), (b) (6) and you were on the night crew?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Do you think your commanding officer knows you have (b) (3) (A), (b) (6)

(b) (3) (A), (b) (6) They do. Yes.

(b) (3) (A), (b) (6) Okay. We're back on the record after a brief intermission.

(b) (3) (A), (b) (6) as he's asked to be called, was just telling me he has (b) (3) (A), (b) (6) and he was scheduled for the night page.

The question is does your commanding officer know you have (b) (3) (A), (b) (6)

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

(b) (3) (A), (b) (6) Yes.

(b) (3) (A), (b) (6) Does -- are there any pilots in your squadron that do not have young children?

(b) (3) (A), (b) (6) There is a couple.

(b) (3) (A), (b) (6) Were any of those guys scheduled on the day page?

(b) (3) (A), (b) (6) Yes. Some of the newer guys. As far as pilots go -- actually, let me see.

(b) (3) (A), (b) (6) So let me ask it this way. Do you feel like the individual pilot's personal situation, i.e. being single or married, having young children, not having young children, was an act of consideration on the part of the operations department and your commanding officer for selecting which crews would fly in the

day and which crews would fly in the night?

(b) (3) (A), (b) (6) I think there was some consideration.

(b) (3) (A), (b) (6) So why do you think you were on the night page with (b) (3) (A), (b) (6)

(b) (3) (A), (b) (6) I think just because of my seniority and experience.

(b) (3) (A), (b) (6) Were you the senior pilot on the night page?

(b) (3) (A), (b) (6) No. (b) (3) (A), (b) (6) was.

(b) (3) (A), (b) (6) : How is he -- how much senior to you is he? Like three years, two years?

(b) (3) (A), (b) (6) I would say about a year.

(b) (3) (A), (b) (6) About a year senior to you?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) How does his qualification and designation level compare to yours?

(b) (3) (A), (b) (6) He is a division lead mission commander.

(b) (3) (A), (b) (6) So you're like the number two pilot on the night page kind of?

(b) (3) (A), (b) (6) Correct. (b) (3) (A), (b) (6) I think, is also about the same as me.

(b) (3) (A), (b) (6) Okay. Did you know that (b) (3) (A), (b) (6) was going

to the tanker that night?

(b) (3) (A), (b) (6) Yes.

(b) (3) (A), (b) (6) How did you know that?

(b) (3) (A), (b) (6) I answered a phone call from 152 when they offered gas for them.

(b) (3) (A), (b) (6) Did you --

(b) (3) (A), (b) (6) So I relayed it to him and then I killed the MAG.

(b) (3) (A), (b) (6) Okay. About what time was that?

(b) (3) (A), (b) (6) I believe 9 or 10. I don't know.

(b) (3) (A), (b) (6) So about 2100, the tanker crew called your ready room and said we're your tanker crew tonight basically?

(b) (3) (A), (b) (6) Yeah. Maybe an hour before that they offered -- I guess they had similar FRADS. I didn't see their schedule, but I guess they were just told to fly in the same timeframe, so they offered.

(b) (3) (A), (b) (6) Okay. And you feel that telephone call -- and then you referenced your squadron flight schedule?

(b) (3) (A), (b) (6) I talked to the flight lead, which was

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

(b) (3) (A), (b) (6) : And you talked to (b) (3) (A), (b) (6) So you talked to 152, then you talked to (b) (3) (A), (b) (6)

Did you and (b) (3) (A), (b) (6) reference the 242 flight schedule together?

(b) (3) (A), (b) (6) I left it up to him as the flight lead.

(b) (3) (A), (b) (6) So you basically just passed the word?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Hey, (b) (3) (A), (b) (6) you got a tanker-ish?

(b) (3) (A), (b) (6) I told him what they offered for the tanker.

(b) (3) (A), (b) (6) Okay. (b) (3) (A), (b) (6) was offered a tanker?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Did -- were you also aware of whether or not the tanker code was on or not on the flight schedule at that time?

(b) (3) (A), (b) (6) It wasn't on the schedule.

(b) (3) (A), (b) (6) So you were aware that it was not on the schedule?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Were you aware if a tanker note was or was not on the schedule at that time?

(b) (3) (A), (b) (6) If they were not previously scheduled, they would not have been on the schedule.

(b) (3) (A), (b) (6) Are you aware of the discussions between

yourself, (b) (3) (A), (b) (6) and the ODO about that?

(b) (3) (A), (b) (6) No. I didn't discuss that.

(b) (3) (A), (b) (6) Are you aware of your commanding officer being called and asked for a flight schedule change?

(b) (3) (A), (b) (6) I was not aware of that.

(b) (3) (A), (b) (6) Were you present?

(b) (3) (A), (b) (6) After I had passed the word, I went down to the maintenance spaces to work.

(b) (3) (A), (b) (6) Or just downstairs and isolated from or the isolated from the ready room.

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) Okay. Do you routinely do things at 242 that are not on the flight schedule?

(b) (3) (A), (b) (6) I would say, potentially, yes.

(b) (3) (A), (b) (6) Give me an example.

(b) (3) (A), (b) (6) If you are going to do an air-to-ground code --

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) -- but the weather could be bad, you'd brief an alternate mission, which the alternate mission would not be on the flight schedule.

(b) (3) (A), (b) (6) What's an example?

(b) (3) (A), (b) (6) : So if you were going to do close-air support, or roll-ins, let's say in the R-567, the pie -- but there's always potentially that for weather given Japan. And then, they'd say all right we're going to do a one v. one intercept or if you're BFN current, you can do ACM or basic fighting maneuvers.

(b) (3) (A), (b) (6) : Okay. And would that include a BFM code on the flight schedule?

(b) (3) (A), (b) (6) : It wouldn't be on the flight schedule.

(b) (3) (A), (b) (6) : Would you do air-to-air training roles before you went out?

(b) (3) (A), (b) (6) : Correct. Yes.

(b) (3) (A), (b) (6) : How would you do that and why?

(b) (3) (A), (b) (6) : It's required and it's part of your -- if that's something you briefed as a back up day plan, you would definitely brief air-to-air training roles.

(b) (3) (A), (b) (6) : Does 1 v. 1 BMF have code?

(b) (3) (A), (b) (6) : Yes.

(b) (3) (A), (b) (6) : So if you were scheduled for a CAS and you briefed 1 v. 1 BFM as an alternate mission, and you went out to the pie and it had a low level cloud deck which prevented you from doing role-ins, and then you did 1 v. 1 BFMs, would you come back and log BFM?

(b) (3) (A), (b) (6) Yes.

(b) (3) (A), (b) (6) How would you know the crew was current and qualified for BFM before you executed it?

(b) (3) (A), (b) (6) You would ask them. And then, if you didn't trust -- I mean we're all officers, so you should trust their word. But if you didn't trust it, you could always go to ops and verify there last flights. And ODO has a tracker of the last flight within 7, 2, and 14.

(b) (3) (A), (b) (6) Okay. So if I was to say the tanker falls into the same category as a backup mission if you were scheduled for a FAM and a tanker popped up, you could go hit the tanker without a flight schedule change?

(b) (3) (A), (b) (6) Yes. Assuming everybody has done it before and has had the initial code.

(b) (3) (A), (b) (6) So you're telling me that it's an accepted practice at VMFA-242 to go out and do things that are not on the flight schedule. That's what you're telling me?

(b) (3) (A), (b) (6) No. I'm not saying it's -- I wouldn't say that.

(b) (3) (A), (b) (6) Well, you just said that you can go do 1 v. 1 BFM, air-combat maneuvering if you're scheduled for CAS. So the commanding officer signed a flight schedule for CAS and you can

brief a backup plan and go do BFM if you log a BFM code. You just said that.

(b) (3) (A), (b) (6) Right. But the intent is to not do that. The intent is to do the code per the schedule.

(b) (3) (A), (b) (6) : I understand that. So the code per the schedule would be the priority tasking.

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) : But if that code was unobtainable due to weather or some other condition, then the section leader or the mission commander or the flight leader, whichever is appropriate for the size flight, could switch to another point. And at that point, the flight leader would have the responsibility of ensuring that all members of the flight were proficient and qualified?

(b) (3) (A), (b) (6) Correct.

(b) (3) (A), (b) (6) So the commanding officer no longer really has that because he signed a flight schedule for you to go do CAS. And you've determined you can't do CAS, so now you're going to go do BFM and that's all good?

(b) (3) (A), (b) (6) : As far as my understanding, yes.

(b) (3) (A), (b) (6) I mean, it sounds like you've done that or you've been a part of a flight where that took place.

(b) (3) (A), (b) (6) : Not very often. Usually it's a 1 v. 1

OUIY.

(b) (3) (A), (b) (6) Okay. 1 v. 1 OUIY. And then, weather intercepts. And then, you would come back and you would log that code. And would you like go tell the skipper, like, hey, man. The weather sucks so we did an OUIY and a 1 v. 1 and logged it.

(b) (3) (A), (b) (6) I mean, ops would know.

(b) (3) (A), (b) (6) Okay.

(b) (3) (A), (b) (6) We talk with the operations department.

(b) (3) (A), (b) (6) Would going to the tanker fall under the same category of that?

(b) (3) (A), (b) (6) I believe so. I mean, tanker is hard to come by, especially when you want it. So if it's offered -- it's good training for everybody to have.

(b) (3) (A), (b) (6) So if you had been (b) (3) (A), (b) (6) which you easily could have been with you designation and qualification level, do you feel you would have made the same decision at night even though it's not on the flight schedule?

(b) (3) (A), (b) (6) I would have, yes.

(b) (3) (A), (b) (6) How would you verify that yourself and Captain Resilard were current for night tanking?

(b) (3) (A), (b) (6) : Verbally ask him.

(b) (3) (A), (b) (6) What's the currency interval for night

tanking?

(b) (3) (A), (b) (6) : As far as I know, you performed it before.

(b) (3) (A), (b) (6) : So it's a one-time code?

(b) (3) (A), (b) (6) : I believe so.

(b) (3) (A), (b) (6) : It's not a 365-day code?

(b) (3) (A), (b) (6) : I'm not sure. I mean, if he had not done it within the year then I would not have done it. No.

(b) (3) (A), (b) (6) : Okay.

(b) (3) (A), (b) (6) : But I know that we all did it in August with everyone in Australia.

(b) (3) (A), (b) (6) : On a night tanker?

(b) (3) (A), (b) (6) : Correct.

(b) (3) (A), (b) (6) : The whole squadron did night tanking in August?

(b) (3) (A), (b) (6) : I mean, I can't verify that. But I would verify that with him prior to going. I mean I would take that time to brief it thoroughly.

(b) (3) (A), (b) (6) : Okay. Judge?

(b) (3) (A), (b) (6) : No, sir.

(b) (3) (A), (b) (6) : Thanks. The judge will swear you out?

[The witness was warned, sworn, and excused.]

[The investigative interview opened at 1118, 23 January 2019.]

(b) (6) Okay. We're on the record. The time is a little after 11:15 on Wednesday, the 23 of January, 2019.

Present in the is (b) (3) (A), (b) (6) (b) (3) (A), (b) (6) (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6) as court reporter.

We are interviewing (b) (3) (A), (b) (6) (b) (3) (A), (b) (6), would you, please, state your full name, spelling your last name for the record.

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

(b) (6) And (b) (3) (A), (b) (6) what do you go by?

(b) (6) (b) normally.

(b) (6) (b) (3) Is it okay if I call you (b) (3) (A), (b) (6)

(b) (6) Yes, sir.

(b) (6) Okay. You can call me (b) (3) (A), (b) (6) or sir, which ever you like.

Where were you in December of 2018?

(b) (6) In December of 2018, I was -- just the whole month essentially, I was at the -- here in Iwakuni basically with the squadron. I had just checked in a month prior.

(b) (6) So when did you check in to 242?

(b) (6) It was October 26ish. The end of October timeframe.

(b) (6) Okay. Great. And so, are you a replacement pilot? Did you just come from 101?

(b) (6) Yes, sir. I just came from 106 actually.

(b) (6) Nice. So you earned the MOS 7523 then in what September-ish?

(b) (6) Yes, sir. Right around then.

(b) (6) Okay.

(b) (6) I'm trying to remember when the boat was. It would have been September, sir.

(b) (6) Why did you choose to come to Iwakuni?

(b) (6) This is something my wife and I had talked about pretty much as soon as we got into the Marine Corps. Like, kind of, the whole, like, see the world thing essentially. So it's funny. Most guys didn't want to go to Japan. We actually had to, kind of, like, fight to get out here because of her medical clearance and stuff.

(b) (6) Oh yeah.

(b) (6) I'm glad it worked out.

(b) (6) Yeah, I've lived that. Getting the overseas clearance for your dependents can be a painful experience and is definitely a barrier to an assignment overseas for Okinawa and Iwakuni.

(b) (6) Yes, sir.

(b) (6) So I commend you for working through that. You said most guys didn't want to come to Iwakuni.

Why is that? Is it not popular at 106 to try to get

orders to Iwakuni?

(b) (6) There aren't many Marine at 106. But the Navy side also trying to get Iwakuni, I think it's a lot of it. You know, most people don't want to live overseas. They like to visit overseas, but they don't want to actually spend all of their time there. And most of the experience there is with my Navy counterparts, and, for them, CAC-5 is extremely demanding.

Going back to Maridian where there were more Marines there, I think most guys wanted the Mirimar. It was, kind of, the most desirable, especially for the single guys. I think it was just because of the -- outside the squadron life, you know. Guys want to live in Southern California, that sort of thing.

Japan, I guess, living there is probably -- I don't know if they're intimidated by it. They don't think it would be as fun. But like I said, my wife and I had never been outside the country so we wanted to do something different.

(b) (6) Did you conduct air refueling as a student at the FRS?

(b) (6) I did.

(b) (6) What type of tanker?

(b) (6) It was off of a super hornet actually.

(b) (6) Day, night, both?

(b) (6) Both.

(b) (6) How did that go?

(b) (6) It went pretty for me actually. My experience is very limited. It's only two flights. I think it's the same at 101 when they do a unit day flight and a night flight with another F-18 flying as, like, a tanker coach. So he's, kind of, off to your side and, you know --

(b) (6) So you launched three jets. A rhino with a basket, you're in a D- or B- hornet, I guess. And then another hornet as your section lead.

(b) (6) Yes, sir. We're actually solo when we do it. So I was in a Charlie and they probably launched. The way they worked it, and I'm sure it's different with the KC-130's, I'm sure, at 101. But for 106, yeah, they launch the ARS super hornet. And then, they'd probably have two or three students. We'd launch, like, five minutes after each other, essentially, so we're arriving into the area. And then, they have another lead either in the legacy or in a super hornet out there, who's the coach.

So as we come up and join in on the tanker, go and do our plugs essentially once were complete and we, kind of, get cleared off right side. And then, usually, head back and shoot some approaches or something if we need them for currency.

(b) (6) So for your night tanking, do you wear night vision

goggles?

(b) (6) No. At that point -- actually, we're not qualified, I guess, to do that. We get one NVG flight in the FRS. That's dueled up in a Delta with a stick in the back, and it has to be with -- I'm not sure the exact name of the qual on the Navy side -- but it's with some sort of, like, NSI instructor equivalent, who actually takes you up on your first and only FRS NVG flight. So I have one flight on NVGs. I haven't flown with NVG's here.

MJ: Were those probabl't ANVS-9s or do you think they were ANVS-11s?

(b) (6) They were the ANVS-9s. The older ones.

(b) (6) So you went to the -- so your only night tanker experience is night unaided.

(b) (6) Yes, sir.

(b) (6) How did it go? You said it went good?

(b) (6) It went pretty well.

(b) (6) No big deal. How many times have you flown at 242 roughly?

(b) (6) This past weekend, I got in seven flights. Prior to that, I had flown three.

(b) (6) So you've had ten flights in 242 and today is January 19. So November, December, and January, you've been almost here for 90

days.

(b) (6) Yes, sir.

(b) (6) You've had ten flights, but seven of them were this weekend.

(b) (6) Yes, sir. I had one flight prior to the mishap.

(b) (6) Okay. During the week of the exercise, what were you doing?

(b) (6) I was standing a shift of ODO, essentially every day.

(b) (6) Okay. That's good.

So were you on ODO at the time of the mishap?

(b) (6) No, I was not. I believe I turned over with (b) (3) (A),

(b) (3) (A), maybe two hours prior to the mishap.

(b) (6) What are some -- as a qualified ODO at 242 -- what are some of your key responsibilities as you stand duty?

(b) (6) So the big one is we are obviously responsible for the general, I guess, conduct of the flight schedule and making sure things are progressing as expected. Coordinating with maintenance, getting side numbers, checking weather, essentially providing their air crew with just, sort of, the safety of flight, kind of, stuff that they need.

You are there as the initial point of contact with the base ops during the exercise, particularly with the MAG as to things

like passing information of who's taking off. If there is any sort of contingencies or anything that happens, which nothing happened during my time. In fact most of my time as ODO, there weren't flight ops being conducted at the moment. I was just on ODO because I guess we were conducting twenty-four hour keeping the MAG OP. MOCK was running twenty-four hours, so I think they wanted that duty covered.

(b) (6) When you do stand ODO and actual flights are taking place, do you maintain an original flight schedule?

(b) (6) Yes, sir.

(b) (6) Tell me how you do that.

(b) (6) So there is a papaer copy that's actually put by ops. We have a folder. It essentially goes into there and that's the signed schedule that is given for that day. And then, one of the responsibilities as ODO is if any changes do arise, get them approved by the CO if necessary. And in red pen, write in on that paper schedule to indicate what got changed. They had to slide their take off times, were there air space issues, did they have to go to a different area, that sort of thing.

(b) (6) Do you note the take off and land times, the actual -- you have the scheduled take off and land time --

(b) (6) Yes, sir.

(b) (6) And obviously the actual is usually a few minutes off that, even on the best day.

Do you make a note of that?

(b) (6) Yes, sir. They call their taxi and that's usually -- taxi plus, like, five minutes til take off is usually what they'll say. And then, they'll call safe on deck. I'll note that. It may not be exact with what ends up getting logged in UMA, which is what -- they hand us their UMA NAVFLERE. And that's the, I guess, the authoritative down to the minute time. And that's what I'll log in MSHARP as the ODO as well.

(b) (6) So what are some examples of some flight schedule changes that you may have made at 242?

(b) (6) The ones I've experienced have usually been, like, range space issues. So there may be some kind of conflict or weather is poor in one area. So that will essentially go on decast and then potentially talking to base ops about a different clearance to send them maybe, you know, to the PIE instead of the intra south or something like that.

Other ones, obviously, you have time slides which I guess are not a huge deal generally as long as they don't effect follow on flow. I'm trying to think of what other ones I've actually personally experienced.

(b) (6) Have you ever routed a schedule change to your commanding officer?

(b) (6) I have had one that had to get approved. I'm trying to remember what it was. It was a mission change and I think it was -- I don't know if the intent was to fly a PRO, or something like that, but the weather was precluding that, and they ended up launching just straight into the GCA pattern to knock out some approaches for currency. And that was the one think that I had to get approved.

(b) (6) What is your guidance on what is necessary to get approved and what's not?

(b) (6) I'm not really sure. I'd have to -- I never heard of anything specific as in this would require a change and this wouldn't. I mean, there's obviously bigger items like if your launching a flight that wasn't originally planned or an aircrew change would be a pretty significant because that would require looking into the aircrew currently. Aircrew change, a mission change is something we've typically done.

(b) (6) When you say change the mission, do you mean like changing a TMR code?

(b) (6) Like a TNR code. Yes, sir.

(b) (6) And adding a TNR code that would also constitute a change in mission in your mind?

(b) (6) I would. Yeah, I guess so.

(b) (6) Like if you're scheduled for a FAM and you added like a CAS and a FAM or something like that or an OES or whatever?

(b) (6) I think it would if there was a change like if the change would significantly effect, like, alter the conduct of the flight, it would make sense to have to route up.

(b) (6) Okay.

(b) (6) I don't know if I've ever seen specific guidance on what does and does not need to be routed. I've generally aired on the side of being the new guy, don't have a secret ask somebody, at least talk to ops about it. And then, they can give you guidance as far as --

(b) (6) And what's your understanding of who's authorized to approve a change to the flight schedule?

(b) (6) I mean, it's all through the CO. If I had a question, though, I'd probably go talk to OPSO or assistant OPSO first just to, you know, QA that and see if I do actually need to bug the skipper with it or to verify that, yeah, you need to go get the sign-off.

(b) (6) Okay.

(b) (6) What was your ODO change during the exercise?

(b) (6) What times did we change? 2200 or 2300, I think.

(b) (6) So you came off ODO at 2200 or 2300 on the fifth of December?

(b) (6) If that was during the week of the exercise, then yeah. It was the same time every day.

(b) (6) Okay. Did you make any changes the flight schedule regarding the mishap flight?

(b) (6) Not that I'm -- no.

(b) (6) There was no changes to the flight schedule that you were aware of? A change in mission?

(b) (6) There wasn't, no.

(b) (6) Okay.

(b) (6) You said you worked primarily during the day?

(b) (6) It was in the evenings.

(b) (6) So tell me your shift time again.

(b) (6) We did an eight hour two hours prior.

(b) (6) Roughly.

(b) (6) Getting there probably, like, early to midafternoon. I think I got there about 1400 like 14 -- it was a twelve-hour shift. 14 to -- 0200 is when I left. But then we actually covered ODO -- it was like -- it might have been 1600 to midnight I think is when I was actually at the desk. And then, we had two hours of just overlap time in case somebody needed assistance with anything else.

(b) (6) So I'm confused. So you were not on duty during the mishap?

(b) (6) No, I was not.

(b) (6) You were available to be on duty at that time and day, but someone else was covering it on that day. Because the mishap was 2200, which means you had been on duty.

Am I confused?

(b) (6) He would either have been coming off of duty, but he would have been there for the change in the schedule.

(b) (6) That's what I'm getting at.

(b) (6) The mishap was at 2200?

(b) (6) The brief time was.

(b) (6) Oh, the brief time.

(b) (6) The mishap was at 0200. They took off at midnight.

(b) (6) Oh, they did brief while I was on duty.

(b) (6) Okay. So you were the ODO that gave them their preflight brief.

(b) (6) Yes. The brief regarding their weather and their air space.

(b) (6) Okay. That was our question.

(b) (6) Oh, sorry about that.

(b) (6) What was your understanding of what their mission was that

night?

(b) (6) I had heard that they were going to go tank. I didn't know what they were doing beyond that.

(b) (6) What that noted on the flight schedule that you had at the ODO desk?

(b) (6) I don't recall what the -- whenever the flight schedule was signed that was what we had.

(b) (6) Okay.

(b) (6) I'm not super familiar with what the codes were, especially at the time. I hadn't started really much TNR training.

(b) (6) Okay. So how did you find out that they were going to the tanker? Did the tanker guys call you or did (b) (3) (A), (b) (6) tell you that he was going to the tanker? How did you come to learn about the tanker.

(b) (6) The tanker guys had called and I had put them on the phone with (b) (3) (A), (b) (6) and he had coordinated something with them. I'm not really sure.

(b) (6) That was like 9 p.m., 10 p.m.-ish?

(b) (6) I don't recall what time they called, but they did call while I was on duty. It could have been that. I think it was probably early than that, but --

(b) (6) Okay. Did (b) (3) (A), (b) (6) talk to you about any change in

the flight schedule or anything like that?

(b) (6) No, sir.

(b) (6) Who else was in the squadron spaces? Was the CO, XO, AMO, any department heads around?

(b) (6) I believe the XO was around at that time.

(b) (6) What's his name?

(b) (6) (b) (3) (A), (b) (6) I'm not one-hundred percent sure that he was, but I know that he was around a lot of times during the exercise while I was there. It was because he was that was kind of the shift -- it was when his shift worked out. I'm trying to think who else would have been around, department head-wise.

I don't believe the XO was there, but I'm not certain of that. (b) (3) (A), (b) (6) is the only, I guess, O-4 or above that I'm -- think was there.

(b) (6) But you don't remember seeing him that night?

(b) (6) Not specifically that night. I remember seeing him some of the nights. I don't know if it would have been that night.

(b) (6) Do you remember specifically on that night who was there?

(b) (6) Other the mishap four aircrew -- who else was there?

(b) (6) Did you talk to (b) (3) (A), (b) (6) at all that night?

(b) (6) (b) (3) (A), (b) (6) I'm sure I did. Obviously, I gave them,

like, their weather before their flight, or before their brief.

(b) (6) How did everybody seem? Tired or awake?

(b) (6) They seemed awake. We didn't really start flying nights until I think three days into it. No one seemed overly tired. You know, it's obviously like a kind of shift in time for everybody. But they seemed normal.

(b) (6) Okay.

(b) (6) Did -- do you remember if you guys were taking go pills or no-go pills, or anything like that?

(b) (6) Go pills and no-go pills, from what I had heard, were specifically not authorized. And that came from, I heard, as high up as the wing. They did not want any performance enhancing drugs used. It wasn't a huge concern for me just standing ODO, but I know some of the aircrew had mentioned that, like, they would have liked them in that scenario.

But I had heard that it had come down from higher that they weren't authorized.

(b) (6) Who did you hear mention that they would like to take go-no-go pills?

(b) (6) I know a lot of guys were talking about it. I know some of the air -- I don't remember specifically who. It was mostly for the no-go pills to try and readjust their schedule. So it would

have been the guys probably flying nights who had mentioned it would make it easier for the transition. I guess they attempted to mitigate -- the endeavor to mitigate that with the three days of no night flying.

It was three days of no night flying, but everyone had to be there for their shift. So essentially, while I was sitting at the ODO desk, no flights were in the air and they were, I guess, mission planning, studying, doing what ground jobs they could, essentially during that time.

(b) (6) So you're talking about, like, Monday night and Tuesday night everybody had to come in at that time of day --

(b) (6) Yes, sir. We established it initially.

(b) (6) -- to adjust their clocks.

(b) (6) Yes, sir. And that was established by our ops at I assume at the direction of MAG or somebody that yeah we establish essentially three overlapping twelve hour shifts.

(b) (6) How is that communicated?

(b) (6) It was communicated in a brief probably the week prior. It's an AMO conducted by SPOOL or OPSO. And that was -- they mentioned that these are the three shifts and these are the air crew that will be on the shifts. These are the ODOs for each shift.

(b) (6) Who was the flight crew for the night shift?

(b) (6) It was the four mishap aircrew and then I'm trying to think if there was anyone else. There were definitely other aircrew assisting. I mean one or two more. It may have been, (b) (3) (A), (b) (6) may have been on that shift. (b) (3) (A), (b) (6) I'm not certain. The only four that are stuck in my head obviously are the four mishap air crew. But there were more than them.

(b) (6) Monday and Tuesday, how much did you interact with them and talk with them during your shift?

(b) (6) I talked a fair amount mostly because they go and try to do their ground jobs and then it's the middle of the night so you kind of -- you send out all of your emails and you're waiting for people to respond back. So they would be in and out of the ready room pretty regularly studying, getting coffee, that sort of thing.

(b) (6) And they were the ones who expressed that they would have liked to have had no-go pills.

(b) (6) Yeah. Some of the air crew definitely expressed it. I don't remember specifically who.

(b) (6) Okay.

(b) (6) It's something that was talked about.

(b) (6) All right. Anything else?

(b) (6) No, sir.

[The witness was warned, sworn, and excused.]



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

IN REPLY REFER TO:

5830

SIA
30 MAY 2019

From: Commanding General, 1st Marine Aircraft Wing
To: File

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MID-AIR COLLISION 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 28 APRIL 2016 OFF THE
COAST OF JAPAN

Ref: (k) M-SHARP Software User Manual, Software Version 2.16.9, Document Release Date
of 12 Mar 19

1. I have reviewed the subject command investigation.
2. The investigating officer's findings of fact, opinions, and recommendations are approved, with the exception of the following findings of fact, opinions, and recommendations.
3. The following findings of fact are disapproved:
 - a. FF 10.
 - b. FF 14.
 - c. FF 15.
 - d. FF 17.
 - e. FF 23.
 - f. FF 25.
 - g. FF 43.
 - h. FF 57.
4. The following findings of fact are modified:
 - a. FF 16 is modified to read: "(b) (3) (A), (b) (6) USMC (CO of VMFA(AW)-242 during the mishap) provided a statement to the IO on 7 March 2019. The IO conducted an interview with (b) (3) (A), on 2 April 2019. [Encl (26-28)]"
 - b. FF 75 is modified to read: "The MT aircrew confirmed no visible damage to the tanker other than the sheared fuel hose and missing drogue, and the MT aircrew and crash fire rescue

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MID-AIR COLLISION 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 28 APRIL 2016 OFF THE COAST OF JAPAN

confirmed no fire before the MT taxied to the lower ramp and shut down. [Encl (16-21), (24-25)]”

5. The following findings of fact are added:

a. FF 138 – There is no evidence of a schedule change or modification for 28 April 2016. [Encl (62)]

b. FF 139 – The sortie pre-requisites to execute AAR-2202 are AAR-2201, FAM-2102, and SFAM 2101. [Ref (h)]

c. FF 140 – The definition of “currency” is: “Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for aircrew individual type mission profiles can be found in Chapter 3 of the Program Manual.” [Ref (h)]

d. FF 141 – The M-SHARP 2.0 Software User Manual describes the “Log Book Adjustments” feature of M-SHARP that contains a tool used to “baseline” a Marine’s log book in order to ensure the accuracy of training logged in M-SHARP, which is accomplished by “adjusting the flight hour totals in an aircrew log book” and “entering T&R events into a flying squadron or a ground unit log book.” [Ref (k)]

e. FF 142 – The Event Proficiency Audit Report of the mishap pilot (MP) was provided to the investigating officer (IO). [Encl (68)]

f. FF 143 – The MP’s Event Proficiency Audit Report depicts that the code for day aerial refueling (AAR-2201) was “Chain Updated” for Method on 22 February 2016 for the Environment of “HLL” and a Parent Method of “Mirrored.” [Encl (68)]

g. FF 144 – The MP’s Event Proficiency Audit Report depicts that the code for night aerial refueling (AAR-2202) was “Mirrored” for Method on 22 February 2016 for the Environment of “HLL” and a Parent Method of “Baselined.” [Encl (68)]

h. FF 145 – The MP stated in his e-mail correspondence with the IO that his “Last Tanker: 3/28/16 (I believe it was a KC-135 on the way home from a detachment).” [Encl (66)]

i. FF 146 – The MP’s Event Proficiency Audit Report depicts that the code for day aerial refueling (AAR-2201) was “Mirrored” for Method on 28 March 2016 for the Environment of “Day” and a Parent Method of “Logged.” [Encl (68)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MID-AIR COLLISION 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 28 APRIL 2016 OFF THE COAST OF JAPAN

j. FF 147 – The MP's Event Proficiency Audit Report depicts that the code for night aerial refueling (AAR-2202) was "Chain Updated" for Method on 28 March 2016 for the Environment of "Day" and a Parent Method of "Mirrored." [Encl (68)]

k. FF 148 – As of 5 May 2016, the flight hours with night vision goggles (NVGs) for the MP over the proceeding 30/60/90 days were respectively 2.0 hours/3.2 hours/7.7 hours and 12.0 hours for his total career NVG hours. [Encl (65)]

l. FF 149 – As of 5 May 2016, the flight hours with NVGs for the MWSO over the proceeding 30/60/90 days were respectively 2.0 hours/4.9 hours/6.5 hours and 22.6 hours for his total career NVG hours. [Encl (65)]

m. FF 150 – Per M-SHARP, the MP met the sortie pre-requisites to execute AAR-2202. [Encls (67), (68)]

n. FF 151 – The MP was not "current" to execute AAR-2202. [Encls (67), (68)]

o. FF 152 – The MP and mishap flight lead (MFL) were not authorized to conduct night aerial refueling missions because the daily flight schedule did not include AAR-2202. [Encl (62)]

p. FF 153 – 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 28 April 2016. [Encls (58-59)]

q. FF 154 – Reference (j) is the NATO Standard for "Air-to-Air Refueling" published by the NATO Standardization Agency in November 2013. [Ref (j)]

r. FF 155 – Paragraph 2.5 of Reference (j) describes the standard NATO "Joining – Probe and Drogue Tankers" from the "Echelon Left Position" as the following: "The left-hand side of the tanker is allocated for joining aircraft, unless the lead tanker directs otherwise. The exact location of the Echelon Left position is dependent upon the availability of rearward facing observers or boom operators that can monitor receivers; see the Tanker's National SRD for tanker configuration." [Ref (j)]

s. FF 156 – Paragraph 2.6.d of Reference (j) states under "Collision Avoidance" the following: "Receivers are responsible for ensuring that the airspace they are moving into is clear of other aircraft. In addition, moving receivers are mutually responsible for ensuring that they do not collide with the other repositioning aircraft." [Ref (j)]

t. FF 157 – Paragraph 2.28.e.4 of Reference (j) states under "Contacts/Disconnects – Straight and Level" the following: "There is considerable potential for receiver pilot disorientation during AAR, particularly at night or when horizons are ill defined; this can be exacerbated by the wing

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MID-AIR COLLISION 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 28 APRIL 2016 OFF THE COAST OF JAPAN

anhedral/dihedral of some tankers giving false horizontal cues. Ideally, all contacts and disconnects should occur in straight and level flight, although by day experienced pilots may make contacts/disconnects in steady turns, climbs and descents providing the formation is clear of cloud and the drogues are stable.” [Ref (j)]

u. FF 158 – Paragraph 2.28.e.7 of Reference (j) states under “Contacts/Disconnects – Night” the following: “By night, extra caution is needed to guard against disorientation. Therefore, with due regard to prevailing visual conditions, the tanker may permit contacts and disconnects at night whilst in a steady turn/climb/descent. Where a receiver pilot subsequently elects to make contact or disconnect only in straight and level flight, they should, if possible, inform the tanker. Some nations will not permit night contacts or disconnects in a steady turn/climb/descent unless operationally necessary.” [Ref (j)]

v. FF 159 – The VMFA(AW)-242 standard operating procedures (SOP) for air-to-air refueling states the following: “When tanking in a MOA, ensure entry altitude is at or below the tanker block (post canceling IFR and proceeding VFR, take your rate of descent as required to meet altitude adherence).” [Encl (71)]

w. FF 160 – The VMFA(AW)-242 SOP does not address the use of Night Vision Goggles (NVGs). [Encl (71)]

x. FF 161 – The VMFA(AW)-242 SOP does not address the lighting configurations while conducting night aerial refueling. [Encl (71)]

y. FF 162 – A “Midair Collision (MIDAIR)” is defined as the following: “Collision between aircraft or UAV when intent for flight exists. Flight, UAV. Includes: Mishaps resulting from collision between aircraft or UAV when intent for flight exists. Includes inadvertent contact during formation takeoffs and air-refueling operations.” [Encl (95); Ref (c), Chapter 3, Para. 315.m]

z. FF 163 – Reference (e) is OPNAVINST 5102.1D / MCO P5102.1B – “Navy & Marine Corps Mishap and Safety Investigation, Reporting, and Record Keeping Manual” of 5 October 2010. [Ref (e)]

aa. FF 164 – Paragraph 3004 of Reference (e) defines “Reportable Mishaps.” [Ref (e)]

bb. FF 165 – Within the “Reportable Mishaps” section of Reference (e), paragraph 3004.1 states the following: “Class A, B and C government property damage mishaps. This includes property damage caused by a government evolution, operation or vehicle to other government or non-government property.” [Ref (e)]

6. The following opinion is disapproved:

a. Opinion 8.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MID-AIR COLLISION 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 28 APRIL 2016 OFF THE COAST OF JAPAN

7. The following opinions are modified:

a. Opinion 1 is modified to read: "The Mishap Pilot (MP) lost spatial awareness in the low light level on the night of 28 April 2016 while wearing AN/AVS-9 Night Vision Goggles (NVGs). The F/A-18D he was flying impacted the tanker's right refueling basket, wedged the tanker's right refueling hose between the leading edge of the F/A-18D's right wing and LAU, and ultimately sheared off the refueling hose. [FF (5-11), (13-15), (17-18), (20), (22), (23-27), (34-37), (41-44), (45-52), (53-64), (65-67)]"

b. Opinion 4 is modified to read: "Operational Risk Management: For the mishap flight (MF), the process of aircrew training management and schedule writing by Operations, DoSS, and the CO was inadequate as all levels of supervision failed to identify that the MF would be the MP's first night aerial refueling since the Fleet Replacement Squadron. Mitigation measures should have been implemented 72-hours ahead of the planned sortie, rather than handing an unidentified risk to the event Flight Lead to be deciphered during event planning the day prior to or the day of the mission. VMFA(AW)-242 leadership failed to identify potential currency and proficiency risks. [FF (5-11), (13-15), (17-18), (20), (22), (23-27), (34-37), (39), (41-44), (45-52), (53-64), (65-67), (151)]"

c. Opinion 7 is modified to read: "The timeline for the stand-up of the joint VMGR-152 and VMFA(AW)-242 Aviation Mishap Board (AMB) was not in accordance with References (a) and (e) and contributed to the confusion of the classification of the mishap. Once initiated, the joint AMB prepared and released the Safety Investigation Report (SIR). [FF (87-89), (91), (93-94), (96-103), (111), (121-125), (162-165)]"

8. The following opinions are added:

a. Opinion 14 – The flight control inputs of the MP caused the MA to turn into the MT, make contact with the fuel drogue, and shear off a portion of the MT hose and the fuel drogue. [FF (59-62)]

b. Opinion 15 – Mission Planning: VMFA(AW)-242 leadership failed to supervise mission planning. The commanding officer (CO), executive officer (XO), department of safety and standardization (DoSS), and operations officer of VMFA(AW)-242 did not thoroughly review the daily flight schedule. These failures are evident in the fact that AAR-2202 was not included in the daily flight schedule. A close air support (CAS) mission in Okinawa, Japan, where the F/A-18D aircraft depart from and return to MCAS Iwakuni, requires a refueling event. This refueling event is a coded event (AAR-2202). The daily flight schedule should have included either AAR-2202 or AAR-2202X for the MP. There was also a failure of understanding by the VMFA(AW)-242 aircrews of what missions they were authorized to conduct. This is evident in the fact that the MP and MFL planned for and conducted a mission (AAR-2202) that was not authorized on the daily flight schedule for 28 April 2016. [FF (5-9), (12), (18-24), (34), (138-139), (152-153)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MID-AIR COLLISION 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 28 APRIL 2016 OFF THE COAST OF JAPAN

c. Opinion 16 – Risk Assessment: VMFA(AW)-242 leadership failed to conduct detailed risk assessment in coordination with the daily flight schedules. The CO, XO, DoSS, and operations officer also failed to identify that the MP would be conducting his first night aerial refueling mission since arriving from the Fleet Replacement Squadron. There is no evidence to demonstrate that VMFA(AW)-242 used a Risk Assessment Worksheet in their ORM process. [FF (5), (9), (13), (16), (18), (19-24), (138-151)]

d. Opinion 17 – When VMFA(AW)-242 identified illogical chaining of codes in M-SHARP, the VMFA(AW)-242 leadership should have, at a minimum, submitted a hazard report (HAZREP) in order to identify the illogical chaining. [FF (23), (26-27)]

e. Opinion 18 – There are significant irregularities within the MP's Event Proficiency Audit Report for the event codes proceeding 28 April 2016. Both "baselined" and illogically "chained" event codes likely caused M-SHARP to depict the MP as current for AAR-2202 (night aerial refueling) as of 28 March 2016. The MP improperly received a "baselined" event code of AAR-2202 (night aerial refueling) on 22 February 2016 because of the "chained" event code of RQD-6109 (Day or Night Strategic Aerial Refueling (DC-10)) on either 11 February 2016 or 21 February 2016. There was also an illogical chaining of the MP's "logged" event codes on 28 March 2016. The "logged" event code of AAR-2201 (day aerial refueling) on 28 March 2016 "chained" the two event codes of RQD-6109 (Day or Night Strategic Aerial Refueling (DC-10)) and RQD-6111 (Day or Night Strategic Aerial Refueling (KC-135)). The two event codes of RQD-6109 and RQD-6111 then illogically "chained" the MP's AAR-2202 (night aerial refueling) on 28 March 2016. Despite having only conducted day aerial refueling event codes after joining VMFA(AW)-242, M-SHARP credited him for night aerial refueling event codes on both 22 February 2016 and 28 March 2016. [FF (23), (26-27), (139-150)]

f. Opinion 19 – There is an appearance that the organizational culture within VMFA(AW)-242 prevented junior naval aviators from bringing issues with training and mission planning to the attention of their leadership. Despite acknowledging the manpower shortfalls in the squadron during the quarterly training plan, VMFA(AW)-242 did not empower junior naval aviators like the MP to bring to the attention of squadron leadership his lack of experience in night aerial refueling or the fact that the daily schedule did not include AAR-2202. The MP, as a naval aviator and Marine Corps officer, should have volunteered the fact that this was going to be his first night aerial refueling mission in a low light level (LLL) environment. [FF (5), (18-22), (26-27), (145)]

g. Opinion 20 – Unless necessary, the MP and MFL should not have requested non-standard joins/departures during the aerial refueling control times (ARCTs). Unless necessary, the MT TPC should not have authorized non-standard joins/departures. The VMFA(AW)-242 SOP was insufficient in providing standardization for aircrews conducting air-to-air refueling. [FF (49); (154-161)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MID-AIR COLLISION 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 28 APRIL 2016 OFF THE COAST OF JAPAN

h. Opinion 21 – There are significantly different versions of the departure instructions requested and granted in ARCT-2. Based on the multiple versions of the events as recounted by witnesses and the significant amount of time that has passed since the Class C flight mishap, there is no clear description of the series of events that resulted in the F/A-18D shearing off the hose drogue of the KC-130J on 28 April 2016. Generally, two versions of the events were described by the witnesses. The first version of the event, as indicated by the statements of the VMGR-152 aircrew and the MWSO, involved the MP making contact with the right MT hose drogue while moving from the left hose to the reform position on the right side of the MT and MFL. The witnesses describe what appeared to be two contacts with the right hose drogue: the first contact was with the canopy of the MA and the second contact was with the wing of the MA that resulted in the hose drogue being wedged between the right wing and LAU. The second version of the event, as indicated by the statements of the VMFA(AW)-242 aircrews, involve the MP in the right reform formation, moving out of the right reform formation for departure, and then making contact with the right hose drogue while moving out of the right reform formation. [FF (53-56), (58-67), (162)]

i. Opinion 22 – The MP was using his AN-AVS-9 NVGs during the ARCT-2. His lack of experience with the NVGs, the covert lighting configuration of the MT, and LLL environment contributed to the MP's loss of situational awareness. The VMFA(AW)-242's SOP was insufficient in addressing whether NVGs were to be used by aircrews during night ARCT missions, insufficient in addressing the lighting configurations to be used during night aerial refueling missions, and insufficient in addressing standard joining and departing procedures to be used during aerial refueling missions. Both the MP and MWSO should have remained focused on the evolution of night aerial refueling prior to joining the MT and until completing their departure from the MT. In the conduct of ARCTs, sole focus for the TACAIR crew should be the ARCT mission. Compounding his lack of experience, the MP rushing because of low fuel states contributed to the mishap. [FF (50-51), (54-55), (59), (65-67), (141-149), (154-161)]

j. Opinion 23 – The two separate aircrews involved in the MIDAIR subjected themselves to post-flight medical examinations in the early morning hours of 29 April 2016 because they were either (1) directed by their chains of command to undergo the post-mishap medical examination or (2) the aircrew members considered the flight mishap to have been such a significant event that they independently understood the importance of documenting their own medical readiness within hours of the flight mishap. Both aircrews took steps that are only required in the aftermath of a significant flight mishap. [FF (29), (79-80), (85), (86), (88)]

k. Opinion 24 – On 6 May 2016, the CO of MAG-12 informed the Commanding General of 1st MAW that the MIDAIR collision cost analysis crossed the threshold of a Class D flight mishap. Given the potential magnitude and severity of the MIDAIR, and though not explicitly required, the CO of MAG-12 should have directed an administrative investigation as a tool to gather, analyze, and record relevant information about the flight mishap. At a minimum, there should not have been a delay in initiating an AMB until 11 June 2016. The CO of MAG-12 should not have waited on the analysis of the Naval Safety Center to convene the AMB. The

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MID-AIR COLLISION 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 28 APRIL 2016 OFF THE COAST OF JAPAN

uncertainty related to the initial reporting of the incident further justified the importance of a prompt, neutral, and thorough examination of the flight mishap. It is evident through some of the actions of the squadrons (submission to medical examinations, taking pictures of the damage, reporting to the SDO, and estimating damage costs) that momentum at some point had begun towards conducting an administrative investigation. However, no administrative investigation was completed prior to this current investigation. [FF (68-69), (71-96), (123), (99-103), (162-165)]

l. Opinion 25 – Based on the timelines, the immediate actions of mishap aircrews, the concurrent efforts of cost analysis, and the statements regarding costs made by the CO of VMFA(AW)-242 in the days after the Class C flight mishap, the COs of MAG-12, VMFA(AW)-242, and VMGR-152 consistently undervalued the cost estimates of the flight mishap. Regardless, after the Naval Safety Center confirmed the actual threshold of the classification, the failure to order an administrative investigation into the underlying causes of the Class C flight mishap demonstrated a significant departure from a prudent and careful investigation of events. [FF (68-69), (71-96), (162-165)]

m. Opinion 26 – A Human Factors Board (HFB) is not designed to hold Marines accountable. Therefore, the convening of a HFB was insufficient to hold the aircrews and their leadership responsible for the aviation mishap. The VMFA(AW)-242 squadron leadership, MAG-12 leadership, or the 1st MAW leadership should have convened a Field Flight Performance Board for the aircrews. [FF (99), (104-110), (126-129), Ref (g)]

n. Opinion 27 – Some of the actions of and statements by members of VMGR-152 indicate that an administrative investigation was likely started by VMGR-152. However, it is unclear whether this administrative investigation was formally started by VMGR-152 and why the initial investigative steps were not followed up by either the squadron or MAG-12 leadership. [FF (79-80), (82-86), (90-94), (126-129)]

o. Opinion 28 – The COs and staffs of MAG-12, VMFA(AW)-242, and VMGR-152 failed to address the underlying issues identified in the Class C Mishap. The illogical chaining of events on M-SHARP was identified, but there is no evidence to demonstrate that the commands requested this issue be corrected. Though updates were made to the VMFA(AW)-242 SOP, the VMFA(AW)-242 leadership did not improve the efficacy of ORM, to include the use of RAWs, and detailed mission planning. Also, VMFA(AW)-242, VMGR-152, and MAG-12 failed to capture the Class C flight mishap in their command chronologies. Though the squadrons indicated that a joint squadron debrief occurred, there was no institutional knowledge captured about the Class C flight mishap. The command chronologies of VMFA(AW)-242, VMGR-152, and MAG-12 should have indicated the 28 April 2016 Class C flight mishap alongside any other Class A, B, C, or D flight mishaps in order to ensure proper situational awareness for squadrons of recent flight mishaps. [FF (26-27), (130-137), (141), (143-144), (146-147)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MID-AIR COLLISION 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 28 APRIL 2016 OFF THE COAST OF JAPAN

9. The recommendations are approved, with the exception of the following:

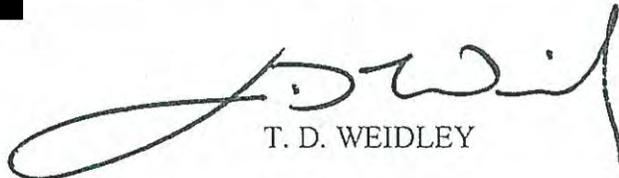
a. Recommendation 1 is approved with the following modification: "MAG-12" should replace "VMFA(AW)-242."

b. Recommendation 4 is disapproved.

10. The supervisory and leadership failures described above in Opinions 3, 4, 6, 15, 16, 17, 18, 21, 23, 24, 25, 26, 27, and 28 involve personnel who are no longer members of the 1st Marine Aircraft Wing. As such, I intend to forward this investigation to the appropriate General Court-Martial Convening Authorities for their review and determination of appropriate administrative or disciplinary action.

11. This investigation is closed.

12. The point of contact for this matter is the 1st Marine Aircraft Wing Staff Judge Advocate, (b) (3) (A), (b) (6) available at DSN (b) (3) (A), (b) (6) and (b) (3) (A), (b) (6)



T. D. WEIDLEY

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



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

IN REPLY REFER TO:
5830
IO
11 May 19

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

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON
242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152
KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF
OKINAWA, JAPAN

Ref: (a) JAGINST 5800.7F, Manual of the Judge Advocate General
(b) OPNAVINST 3710.7U, Naval Air Training and Operating Procedures
Standardization General Flight and Operating Instructions
(c) OPNAVINST 3750.6S, Naval Aviation Safety Management System
(d) MCO 5100.29B, Marine Corps Safety Program
(e) OPNAVINST 5102.1D CH-2 / MCO P5102.1B Ch 2, Navy and Marine Corps
Mishap and Safety Investigation, Reporting, and Record Keeping
(f) COMNAVAIRFORINST 5420.1G, Field Naval Aviator Evaluation Board (FNAEB)
Procedures
(g) MCO 1000.6, Assignment, Classification, and Travel System Manual (ACTSMAN)
(h) NAVMC 3500.50C, F/A18A/B/C/D Training and Readiness (T&R) Manual
(i) NAVMC 3500.53B, KC-130J Training and Readiness (T&R) Manual
(j) ATP-3.3.4.2, NATO Standard Air-to-Air Refueling ATP-56

Encl: (1) Appointing Order dtd 23 Jan 2019
(2) Command Investigation Contacts - 28 April 16 VMFA(AW)-242 - VMGR-152
Incident/Aviation Mishap
(3) E-mail Correspondence (Subject: MAW CI) - Command Investigation Introduction
to the Marines and Chains-of-Command involved with the 28 Apr 2016
VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident dtd 7 and 24 Mar 2019
(4) E-mail Correspondence (Subject: MAW CI - Written Statement Prep) - Command
Investigation Introduction - Written Statement Preparation for the Marines and
Chains-of-Command involved with the 28 April 16 VMFA(AW)-242 - VMGR-152
Aerial Refueling Incident dtd 8 and 24 Mar 2019
(5) Command Investigation Interview - Intent and Questions for the Marines and
Chains-of-Command involved with the 28 Apr 2016 VMFA(AW)-242 - VMGR-152
Aerial Refueling Incident dtd 9 Mar 2019
(6) Command Investigation Extension Request dtd 19 Mar 2019
(7) Command Investigation Extension Approval dtd 19 Mar 2019
(8) Command Investigation Extension Request dtd 5 Apr 2019
(9) Command Investigation Extension Approval dtd 5 Apr 2019
(10) Command Investigation Extension Request dtd 24 Apr 2019

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON
242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152
KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF
OKINAWA, JAPAN

- (11) Command Investigation Extension Approval dtd 30 Apr 2019
- (12) Privacy Act Statement of (b) (3) (A), (b) (6) USMC dtd 12 Mar 2019
- (13) Statement of (b) (3) (A), (b) (6) USMC dtd 12 Mar 2019
- (14) Summary of Interview with (b) (3) (A), (b) (6) USMC dtd 25 Mar 2019
- (15) Interview follow-up from (b) (3) (A), (b) (6) USMC dtd 1 Apr 2019
- (16) Privacy Act Statement of (b) (3) (A), (b) (6) USMC dtd 24 Mar 2019
- (17) Original Statement provided in April 2016 of (b) (3) (A), (b) (6) USMC dtd 24 Mar 2019
- (18) Statement of (b) (3) (A), (b) (6) USMC dtd 24 Mar 2019
- (19) Summary of Interview with (b) (3) (A), (b) (6) USMC dtd 4 Apr 2019
- (20) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 13 Mar 2019
- (21) Summary of Interview with (b) (3) (A), (b) (6) USMC, dtd 20 Mar 2019
- (22) Privacy Act Statement (b) (3) (A), (b) (6) USMC, dtd 13 Mar 2019
- (23) Response to Questions from (b) (3) (A), (b) (6) USMC, dtd 3 Apr 2019
- (24) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 12 Mar 2019
- (25) Statement of (b) (3) (A), (b) (6) USMC, dtd 12 Mar 2019
- (26) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 7 Mar 2019
- (27) Statement of (b) (3) (A), (b) (6) USMC, dtd 7 Mar 2019
- (28) Summary of Interview with (b) (3) (A), (b) (6) USMC, dtd 2 Apr 2019
- (29) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 15 Mar 2019
- (30) Statement of (b) (3) (A), (b) (6) USMC, dtd 26 Mar 2019
- (31) Summary of Interview with (b) (3) (A), (b) (6) USMC, dtd 2 Apr 2019
- (32) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 8 Mar 2019
- (33) Statement of (b) (3) (A), (b) (6) USMC, dtd 8 Mar 2019
- (34) Summary of Interview with (b) (3) (A), (b) (6) USMC, dtd 1 Apr 2019
- (35) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 15 Mar 2019
- (36) Statement of (b) (3) (A), (b) (6) USMC, dtd 30 Mar 2019
- (37) Summary of Interview with (b) (3) (A), (b) (6) USMC, dtd 1 Apr 2019
- (38) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 3 Apr 2019
- (39) Statement of (b) (3) (A), (b) (6) USMC, dtd 3 Apr 2019
- (40) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 28 Mar 2019
- (41) Statement of (b) (3) (A), (b) (6) USMC, dtd 1 Apr 2019
- (42) Summary of Interview with (b) (3) (A), (b) (6) USMC, dtd 2 Apr 2019
- (43) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 27 Mar 2019
- (44) Statement of (b) (3) (A), (b) (6) USMC, dtd 1 Apr 2016
- (45) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 26 Mar 2019
- (46) Statement of (b) (3) (A), (b) (6) USMC, dtd 27 Mar 2019
- (47) Summary of Interview with (b) (3) (A), (b) (6) USMC, dtd 30 Mar 2019
- (48) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 26 Mar 2019
- (49) Statement of (b) (3) (A), (b) (6) USMC, dtd 28 Mar 2019
- (50) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 26 Mar 2019
- (51) Statement of (b) (3) (A), (b) (6) USMC, dtd 1 Apr 2019
- (52) Summary of Interview with (b) (3) (A), (b) (6) USMC, dtd 20 Apr 2019

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

- (53) Privacy Act Statement of (b) (3) (A), (b) (6) USMC, dtd 26 Mar 2019
- (54) Statement of (b) (3) (A), (b) (6) USMC, dtd 26 Mar 2019
- (55) Summary of Interview with (b) (3) (A), (b) (6) USMC, dtd 28 Mar 2019
- (56) E-mail Correspondence - Request for Information (RFI) and Responses - VMGR-152 Schedule, Operational Risk Management - Risk Assessment Worksheet (RAW)), Qualification, Currency, and Tanker Special Instructions (SPINS) RFI, dtd 8 Mar 2019
- (57) E-mail Correspondence - Request for Information (RFI) with Responses - VMFA(AW)-242 Schedule, Operational Risk Management - Risk Assessment Worksheet (RAW), Qualification, Currency, and Tanker SPINS RFI, dtd 8 Mar 2019
- (58) VMGR-152 Flight Schedule dtd 28 Apr 2016
- (59) VMGR-152 Risk Assessment Worksheet dtd 28 Apr 2016
- (60) VMGR-152 Transport Pilot in Command Hotboard dtd 28 Apr 2016
- (61) VMGR-152 Transport Second Pilot Hotboard dtd 28 Apr 2016
- (62) VMFA(AW)-242 Flight Schedule dtd 28 Apr 2016
- (63) VMFA(AW)-242 Squadron Aircrew Qualifications dtd 20 Jan 2016
- (64) VMFA(AW)-242 Quarterly Training Plan for April-June 2016 dtd 16 Apr 2016
- (65) VMFA(AW)-242 Hotboard dtd 5 May 2016
- (66) Response to Currency Questions by (b) (3) (A), (b) (6) USMC dtd 3 Apr 2019
- (67) MSHARP Log Book Report for (b) (3) (A), (b) (6) 5/1/2015-12/1/2018 dtd 1 Apr 2019
- (68) MSHARP Air-to-Air Refueling (AAR) Event Proficiency Audit Report for (b) (3) (A), (b) (6) as of 04/01/2019
- (69) Air to Air Refueling Card - Sumo 04 dtd 28 Apr 2016
- (70) Lite Level Planning Calendar for Kadena AB for April 27-30 2016
- (71) VMFA(AW)-242 Squadron Standard Operating Procedures dtd 23 Oct 2015
- (72) E-mail Correspondence (Subject: Flash Report) - Incident Description to (b) (3) (A), (b) (6) from (b) (3) (A), (b) (6) originating from (b) (3) (A), (b) (6) dtd 2247 28 Apr 2016
- (73) 28 Apr 2016 VMFA(AW)-242 In-Flight Emergency Incident Report, 1st MAW Incident Report System Database
- (74) VMFA(AW)-242 F/A-18D Pictures after recovery to Kadena Airbase from (b) (3) (A), (b) (6) dtd 28 Apr 2016
- (75) VMFA(AW)-242 F/A-18D Pictures after recovery to Kadena Airbase from (b) (3) (A), (b) (6) dtd 29 Apr 2016
- (76) E-mail Correspondence (Subject: information about April 2016) from (b) (3) (A), (b) (6) introducing four e-mails (Enclosures 69, 72, 74, and 75) discussing the Mishap Determination (of the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 13 Mar 2019
- (77) E-mail Correspondence (Subject: Aileron on 00) discussing Initial Cost Breakdown (for the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 1654 4 May 2016
- (78) E-mail Correspondence (Subject: Pictures of F/A-18 Damage) - Pictures of the VMFA(AW)-242 F/A-18D involved in the 28 Apr 2016 VMFA(AW)-242 - VMGR-

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

- 152 Aerial Refueling Incident to (b) (3) (A), (b) (6) from his Aide-de-Camp dtd 5 May 2016
- (79) E-mail Correspondence (Subject: 242 Aileron aircraft) discussing Initial Cost Estimate and Mishap Determination (for the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 0306 6 May 2016
 - (80) E-mail Correspondence (Subject: Class D SIR) discussing the Incident Cost and Mishap Determination (for the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 1231 6 May 2016
 - (81) E-mail Correspondence (Subject: RFI Answers) discussing the Maintenance and Supply Cost Determination, Mishap Determination, and Reporting Requirements (for the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 0723 11 May 2016
 - (82) E-mail Correspondence (Subject: CLASS D: \$48,364) discussing the final Maintenance and Supply Cost Determination (for the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 1259 11 May 2016
 - (83) E-mail Correspondence (Subject: VMFA(AW)-242 Mishap Upgrade) discussing the Class C Mishap Determination and Mishap Board Identification (for the 28 Apr 16 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 0107 1 June 2016
 - (84) E-mail Correspondence (Subject: Safety Center Email) discussing the Class C Mishap Determination and the Command Responsible for the Mishap Board (for the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 2127 1 Jun 2016
 - (85) E-mail Correspondence (Subject: AMB) discussing the Class C Mishap Aviation Mishap Board Member COAs (for the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 1305 9 Jun 2016
 - (86) E-mail Correspondence (Subject: 242 AMB) discussing the Class C Mishap Aviation Mishap Board Member Composition and Way Forward (for the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 1352 16 Jun 2016
 - (87) E-mail Correspondence (Subject: 152/242 AMB Composition Decision) discussing the Class C Mishap Aviation Mishap Board Member Composition and Way Forward (for the 28 Apr 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Incident) dtd 1526 16 Jun 2016
 - (88) VMFA(AW)-242 SOP rev 5 Draft dtd 18 Jul 2016
 - (89) VMFA(AW)-242 SOP dtd 1 May 2018
 - (90) VMFA(AW)-242 Risk Assessment Worksheet Blank dtd 25 Mar 2019
 - (91) Recall Letter, (b) (3) (A), (b) (6) USMC, dtd 6 May 2016
 - (92) MAG-12 Command Chronology (April-September 2016) dtd 28 Feb 17
 - (93) VMFA(AW)-242 Command Chronology (April-September 2016) dtd 12 Sep 16
 - (94) VMGR-152 Command Chronology (April-September 2016) dtd 18 Nov 16
 - (95) Marine Corps, Navy and Naval Aviation Safety, Aircrew Performance and Administrative References and Definitions

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON
242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152
KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF
OKINAWA, JAPAN

Preliminary Statement

1. In the research and writing of this Command Investigation report three years after the 28 April 2016 VMFA(AW)-242 - VMGR-152 Air-to-Air Refueling Incident which was subsequently identified as a Class C Flight Mishap, the Investigating Officer recognized and repeatedly communicated to all witnesses that an objective inquiry into the incident was required. Isolating the associated facts of the April 2016 incident was extremely challenging given the December 2018 VMFA(AW)-242 – VMGR-152 Class A Flight Mishap which occurred in a strikingly similar environment. Repeatedly, it was vital to strive to isolate facts from opinion and hearsay understanding this administrative report will be scrutinized by those searching for an answer to why the December 2018 mishap occurred. Many of those interviewed took a step back once they understood fact based statements and interviews were required. However, passion still crept into statements and conversations. This passion is quite evident in much of the original e-mail communication referenced in this report. This report's findings of fact and enclosures must be understood in their entirety to effectively separate not fully informed conjecture and passionate opinions. The intent of this investigation is to evaluate all evidence with an aim to find the commonality in the statements and interviews in order to identify the unimpassioned facts of the 28 April 2016 Class C Flight Mishap and provide relevant opinions and salient recommendations.
2. This command investigation acknowledged the sentiments and perceptions of all interviewed witnesses about the 28 April 2016 Class C flight mishap and subsequent reporting. However, this command investigation relied on findings of fact supported by the evidence gathered during the course of the investigation. In accordance with Reference (a), a command investigation "shall arrive at findings of fact only if supported by a preponderance of the evidence, i.e., more likely than not" as the standard of proof. Further, an investigation "may not speculate on the causes of an incident. Reasonable inferences drawn from evidentiary enclosures or personal observations, however, are permissible."
3. At approximately 2015 on 28 Apr 2016 upon completion of low-light air-to-air refueling, the Mishap Pilot (MP) rejoined in the right echelon position. Subsequently as the F/A-18D section departed the tanker, the MP lost spatial awareness. In flight, the Mishap Aircraft (MA) canopy impacted the KC-130J's refueling basket before the refueling hose wedged between the leading edge of the F/A-18's right wing and LAU-7; ultimately the basket and 6-8 feet of refueling hose sheared off and was retained between the F-18D wing and LAU-7. During scheduling, VMFA(AW)-242 failed to properly identify the night aerial refueling event as the MP's initial night air-to-air refueling event in the fleet and subsequently did not adequately assess the associated risk nor facilitate relevant and appropriate risk decisions to be made at the appropriate level. During execution, the MP's lack of experience and the Mishap Flight Lead's (MFL) insufficient supervision contributed to the mishap.
4. Post-mishap reporting was efficient, but the subsequent timeline of the investigation was sub-optimal. While the incident's cost determination was in development, VMFA(AW)-242

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON
242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152
KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF
OKINAWA, JAPAN

conducted a Human Factors Board (HFB) on 6 May 2019 with a report provided to (b) (3) (A), (b) (b) (3) (A), on 10 May 2016. This HFB report was turned over to (b) (3) (A), (b) (6) in conjunction with the 13 May 2016 VMFA(AW)-242 Change-of-Command. Due to slow cost determination at the squadron level and review by the Naval Safety Center, the stand-up of the Aviation Mishap Board (AMB) was not timely. Although slow to form, once initiated, the AMB efficiently prepared and released the Safety Investigation Report (SIR). The combined VMGR-152 and VMFA(AW)-242 AMB formed 17 June 2016 and completed 8 August 2016.

5. In accordance with reference (a) and as directed by enclosure (1), a 1st Marine Air Wing (1st MAW) Commanding General (CG) directed Command Investigation (CI) was conducted to inquire into the facts and circumstances surrounding a mid-air collision of an 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 Okinawa, Japan on 28 April 2016. The directives and special requirements stated in enclosure (1) were met.

6. The 23 March 2019 deadline for the CI was not met. Extension requests were submitted and approved on 19 March, 5 April, and 24 April 2019. [Encls (6-10)]

7. In order to understand this command investigation, a reader must first understand the references. A list of pertinent direction and definitions was consolidated from Marine Corps, Navy, and Naval Aviation Safety, Aircrew Performance and Administrative orders and definitions to provide a baseline of relevant Aviation Mishap investigation and reporting requirements. Therefore, a thorough review of Enclosure (95) is required to create a common understanding of interrelated references that apply to the command investigation of a flight mishap. The references and definitions in Enclosure (95) will assist the reader in understanding key terms used throughout the investigation.

8. The deliberate process pursued to investigate the incident was (1) an initial e-mail introduction providing notice of the 1st MAW CG directed CI; (2) a follow-up phone call once contact was established; (3) a follow-up e-mail request for a factual statement accompanied by a Privacy Act Statement for signature and an explanation of the difference between statements provided to an AMB and a CI; (4) a subsequent interview when appropriate; and (5) follow-up actions as deemed necessary from facts communicated in the written statements and/or during interviews. [Encls (2-5)]

9. Imbedded in the request for a written statement was an explanation of why a JAGMAN is conducted; a review of the Privacy Act Statement; and a detailed review of the privileged nature of an AMB Investigation and the privileged information in the AMB produced Safety Investigation Report (SIR).

10. After the first General Officer in the Chain of Command was notified of the investigation by the current 1st MAW CG, initial contact was made with fifteen (15) individuals. After receipt of

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

initial statements and conduct of initial interviews, the contact list expanded to twenty-four (24) persons.

11. The final contact list comprised of twenty (20) Officers, one (1) Staff Non-Commissioned Officer (SNCO), and three (3) Non-Commissioned Officers (NCOs), is broken into three identifiable groups:
 - a. those directly involved in the 28 April 2016 mishap, inclusive of ten (10) Marine Officers, SNCO, and NCOs in VMGR-152 and VMFA(AW)-242;
 - b. the VMGR-152 and VMFA(AW)-242 Chains-of-Command, inclusive of six (6) Marine Officers; and
 - c. those with direct knowledge of immediate and follow-on actions taken by the Chains-of-Command, inclusive of nine (9) Marine Officers in VMGR-152, VMFA(AW)-242 and MAG-12.
12. Receipt of the voluntary statements initiated coordination of twelve (12) interviews. The intent of the interviews was to amplify facts and provide professional perspective of the incident, incident reporting, and the subsequent investigations. The interviews focused on six topics: (1) Incident/Mishap Details; (2) Immediate Actions Taken (Incident Report and Initial Damage Assessment); (3) Continuing Actions Taken (Investigations initiated, the extent of the damage, and subsequent maintenance repairs); (4) External Influence (real or perceived); (5) Procedures/Lessons Learned; and (6) Accountability. In the wrap-up of each interview, the individual interviewed was asked for recommendations of additional questions that should be asked and for any additional facts of which the Investigating Officer (IO) should be made aware.
13. During the course of the investigation, contact and availability with the individuals involved with the 28 April 2016 incident now dispersed to commands world-wide challenged efficiency. The first statement was received 7 March 2019 and the final statement was received 11 April 2019. The first phone interview was conducted 20 March 2019 and final phone interview was conducted 22 April 2019.
14. The Mishap Pilot (MP) and the Mishap Weapons Systems Officer (MWSO) chose not to provide a voluntary statement. One SNCO, two NCOs, and two Officers were unreachable and/or chose to ignore the voluntary statement request.
15. Tragically, the VMGR-152 Commanding Officer (CO) at the time of the incident passed away in January 2019 and was therefore unable to provide a statement nor available to interview.
16. Both COs for VMFA(AW)-242 and VMGR-152 turned over Command (13 May 2016 and 27 May 2016 respectively) during the period between the incident (28 April 2016); the conduct of the VMFA(AW)-242 Human Factors Board (6 May 2016); and the combined VMFA(AW)-242 and VMGR-152 AMB (initiated on 17 June 2016 and completed on 8 August 2016).
17. In the aftermath of a flight mishap, two or three simultaneous investigations are conducted. For administrative investigations, the governing reference is Reference (a). For safety

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

investigations, the governing reference is Reference (c). An important dimension of safety investigations is the concept of safety privilege. Members of the Aviation Mishap Board (AMB) may give promises of confidentiality. However, statements provided to members of the command outside of the members of the AMB are not privileged communications. On 6 May 2016, the MWSO confided in his commanding officer his memory of the Class C flight mishap on 28 April 2016 through a written statement. However, this statement is not a safety privileged communication. The AMB was not formed until 17 June 2016. Therefore, the MWSO's signed and written statement, provided to his commanding officer, maintained in the turnover documents between commanding officers of VMFA(AW)-242, and provided to the investigating officer by the post-mishap CO of VMFA(AW)-242 is a statement outside of the safety investigation and included in this administrative investigation.

18. As a Marine Officer and Fixed Wing Attack Pilot, the IO maintains intermittent professional and personal relationship with several individuals who provided statements and were interviewed during the investigation to include the COs of VMFA(AW)-242, VMGR-152, and Marine Aircraft Group 12 (MAG-12) and the Commanding General of 1st MAW at the time of the incident. There are no conflicts of interest that precluded the IO from conducting a thorough and unbiased investigation.

Findings of Fact

Scheduling, Qualifications, Currency, and Event Pre-Requisites

1. On 28 April 2016 VMGR-152 Flight Schedule, "Event 2, Sumo 04" (b) (3) (A), (b) (6) (b) (3) USMC (hereinafter referred to as "Mishap Tanker Transport Pilot in Command (MT TPC)") and (b) (3) (A), (b) (6) USMC (hereinafter referred to as "Mishap Tanker Transport Second Pilot (MT T2P)") of VMGR-152 were scheduled for AAR-3602 (Air to Air Refueling (AAR) System / Panel Procedures), AAR-3600 (Fixed Wing Air to Air Refueling (FWAAR) / Tilt-Rotor Air to Air Refueling (TAAR)), and NS(H)-2151 (Night Systems (High) Low Light Level (LLL) Night Vision Device (NVD) Procedures). [Encl (58)]
2. VMGR-152 crewmembers included (b) (3) (A), (b) (6) USMC (hereinafter referred to as "Mishap Tanker Crewmaster One (MT CM 1)"), (b) (3) (A), (b) (6) USMC (MT CM 2), (b) (3) (A), (b) (6) USMC (MT CM 3), and (b) (3) (A), (b) (6) (b) (3) (A), USMC (MT CM 4). [Encl (58)]
3. All VMGR-152 members were qualified, current and complete with required sortie pre-requisites to execute the Night Air-to-Air Refueling event. [Ref (i), Encls (16-21), (24-25), (57-61)]
4. The VMGR-152 Risk Assessment Worksheet for 28 April 2016 was completed. [Encl (59)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

5. On the 28 April 2016 VMFA(AW)-242 flight schedule, "Event 6-1, Profane 61" (b) (3) (b) (3) (A), (b) (6) USMC (hereinafter referred to as "Mishap Pilot (MP)") and (b) (3) (A), (b) (6) (b) (3) (A), USMC (hereinafter referred to as "Mishap Weapon Systems Officer (MWSO)") of VMFA(AW)-242 were scheduled for SL-6307 (Section Leader Standardization and Designation (SL) Night CAS), CAS-3106 (Night CAS - Type 1, 2, and 3), CAS-3105 (Urban CAS), and NS-2402 (Night System Formation Flying). [Encl (62)]
6. On the 28 April 2016 VMFA(AW)-242 flight schedule, "Event 6-2, Profane 62" (b) (3) (b) (3) (A), (b) (6) USMC (hereinafter referred to as "Mishap Flight Lead (MFL)") and (b) (3) (b) (3) (A), (b) (6) USMC (hereinafter referred to as "Mishap Flight Lead Weapon Systems Officer (MFL WSO)") of VMFA(AW)-242 were scheduled for CAS-3106 (Night CAS - Type 1, 2, and 3), CAS-3105 (Urban CAS), and NS-2402 (Night System Formation Flying). [Encl (62)]
7. On the VMFA(AW)-242 flight schedule, "Event 6 (Profane 61 and 62)" was scheduled for a 4.0 hour Night Close Air Support (CAS) event. The mission was a Section Lead (SL) work-up with departure from Marine Corps Air Station (MCAS) Iwakuni, a CAS vulnerability (VUL) window in support of 5th ANGLICO/3rd RECON overhead Camp Courtney, and a return to MCAS Iwakuni. [Encl (63)]
8. Based on distances traveled, CAS missions originating from MCAS Iwakuni executed in Okinawa airspace require a tank-CAS-tank mission profile or a refueling stop on Okinawa (Kadena Airbase or MCAS Futenma). [Encl (63)]
9. On the 28 April 2016 VMFA(AW)-242 flight schedule, "Event 6, Profane 61 and Profane 62" were not scheduled for AAR-2202 (Night Aerial Refueling). [Encl 63]
10. While not scheduled for AAR-2202, the MP was qualified, current and complete with required sortie pre-requisites to execute a Pre-mission Air-to-Air Refueling – Night CAS – Post-mission Night Air-to-Air Refueling event. [Encls (63-68)]
11. While not scheduled for AAR-2202, the MFL was qualified and current to execute as the designated Flight Lead for a Pre-mission Air-to-Air Refueling – Night CAS – Post-mission Night Air-to-Air Refueling event. [Encls (63-65)]
12. The 28 April 2016 VMGR-152 Air-to-Air Refueling support for VMFA(AW)-242 was coordinated in early April. [Encl (13-21), (45-47), (53-55)]
13. There is no record of the VMFA(AW)-242 Risk Assessment Worksheet for 28 April 2016. [Encls (58)]
14. During event planning for the 28 April 2016, VMGR-152 and VMFA(AW)-242 Day and subsequent night Air-to-Air Refueling events, MT T2P and MP executed detailed coordination under the supervision of MT TPC and MFL. [Encl (13-21)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

15. In review of the daily flight schedule with the accompanying Hotboards and RAW; the VMFA(AW)-242 Operations Officer, Safety and Standardization Officer, and the Commanding Officer did not recognize that the scheduled event was the MP's initial Night Aerial Refueling look in the Fleet. [Encls (62-69)]

16. (b) (3) (A), (b) (6) USMC (CO of VMFA(AW)-242 during the mishap) provided a statement to the IO on 7 Mar 2016. The IO conducted an interview with (b) (3) (A), (b) (6) on 2 April 2016. [Encl (26-28)]

17. During the interview, when asked about ORM and Risk Assessment Worksheets used alongside the flight schedule, (b) (3) (A), (b) (6) communicated that ORM was continuous in the squadron. Though (b) (3) (A), (b) (6) did not recall specific risk assessment worksheets used, he did comment in his interview that he knew ORM associated with 'things that could get us in trouble' was a steady conversation within the Squadron Operations, Maintenance, and Safety and Standardization Departments. Commenting specifically on flight events in execution, "the brief captured the risks and the de-briefs assessed the ORM for the executed mission." [Encls (26-28)]

18. On 16 April 2016, the VMFA(AW)-242 "QUARTERLY AIRCREW TRAINING PLAN FOR APRIL-JUNE 2016" discussed combat readiness in depth. The training plan stated that "[t]he training department's focus is to maintain combat readiness in the near and distant future. Due to significant loss of highly qualified aircrew in the spring of 2016, the squadron will lack the instructor qualifications, combat leadership designations, and available aircrew (especially WSOs) required by [the F/A-18 T&R Manual] to execute all METs." [Encl (64)]

19. On 30 March 2019, (b) (3) (A), (b) (6) USMC (post-mishap VMFA(AW)-242 CO) provided a statement to the IO. On 2 April 2019, the IO conducted an interview with (b) (3) (A), (b) (6) [Encls (35-37)]

20. During his interview on 2 April 2019, (b) (3) (A), (b) (6) commented on the aircrew qualification build process in VMFA(AW)-242. He perceived that there was an overture of "Qual inflation and over reporting, over-reporting readiness" in the squadron and the "squadron pushed guys towards quals before they may have been ready." [Encl (37)]

21. (b) (3) (A), (b) (6) USMC (VMFA(AW)-242) was a Squadron Pilot from January 2016 until mid-May of 2016 before he turned over with the VMFA(AW)-242 Aviation Maintenance Officer (AMO) in late May 2016. (b) (3) (A), (b) (6) provided a statement to the IO on 1 April 2019. The IO conducted an interview with (b) (3) (A), (b) (6) on 18 April 2019. [Encl (50-52)]

22. During his interview, (b) (3) (A), (b) (6) commented broadly on his initial perceptions of VMFA(AW)-242 scheduling and the impact it had on pre-mission planning. (b) (3) (A), (b) (6) commented that "[i]t was open knowledge amongst the aircrew that the squadron did not plan adequately due to the lack of aircraft available." (b) (3) (A), (b) (6) expressed that it seemed "that many

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

times the flight schedule may have been written with no anticipation of being achievable.” He perceived that the result was “stress amongst younger aircrew preparing for evaluated events with little lead time for preparation.” [Encl (52)]

Air-to-Air Refueling Qualification and Currency

23. An Event Proficiency Audit conducted on MP’s flight history utilizing MSHARP identified that AAR-2202 (Night Aerial Refueling) was chained on 21 February 2016 when he tanked during the day on a Strategic Tanker and logged RQD-6109 (Day or Night Strategic Aerial Refueling). [Encls (67-68)]

24. Prior to 28 April 2016, the only previous night tanking evolution MP completed was a 1000-level unaided Night Aerial Refueling sortie while at the Fleet Replacement Squadron. [Encls (66-68)]

25. During weekly and daily flight schedule builds in April 2016, MSHARP chaining MP’s AAR-2202 after he logged RQD-6109 on 21 February 2016 caused VMFA(AW)-242 Squadron Operations to not recognize that the MP had not completed AAR-2202. On 28 April 2016, MP flew the night Air-to-Air refueling portion of the event as a perceived AAR-2202R (Refresh) when in actuality it was an AAR-2202X (initial 2000-level night qualification). [Encls (66-68)]

26. When asked during the 2 April 2019 interview, (b) (3) (A), commented on the chaining of codes: “I don’t remember any specific issues with MSHARP . . . [however] I remember complaints in Ops of illogical chaining.” [Encl (28)]

27. When asked during the 2 April 2019 interview, (b) (3) (A), (b) commented that as a learning organization, VMFA(AW)-242 learned from the 28 April 2016 incident and subsequently understood that MSHARP didn’t properly track Air-to-Air refueling codes and therefore had to be watched and tracked carefully until MSHARP was fixed. [Encl (37)]

Flight Planning, Air-to-Air Refueling (AAR) Coordination, and Brief

28. On 12 March 2019, the MFL provided a written statement to the IO. An interview was conducted on 25 March 2019 and a follow-up statement was provided on 1 April 2019. [Encls (12-15)]

29. On 24 March 2019, the MT TPC provided a written statement to the IO along with a copy of the original statement that he previously provided to the VMGR-152 ASO in April 2016. A follow-up interview was conducted on 4 Apr 2019. [Encls (16-19)]

30. On 20 March 2019, an interview with MT T2P was conducted by the IO. [Encls (20-21)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON
242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152
KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF
OKINAWA, JAPAN

31. On 3 April 2019, the MFL WSO provided a written response to the IO after receiving the investigation interview question template. [Encls (22-23)]
32. On 12 March 2019, MT CM 4 provided a written statement to the IO. [Encls (24-25)]
33. On 2 April 2016, (b) (3) (A), (b) provided the IO a statement from the MWSO dated 6 May 2016. The statement was found by (b) (3) (A), (b) in personal historical files maintained from his VMFA(AW)-242 Command tour. [Encl (91)]
34. During planning, a 24,000 pound off-load was coordinated between the MT T2P and MP. MT TPC directly supervised the coordination; MT TPC and MFL directly reviewed the planning prior to the Mission Briefs. [Encls (12-23), (58-62), (69)]
35. The initial Aerial Refueling Control Time (ARCT) was 1830. The second ARCT planned for 1915. [Encl (69)]
36. In Okinawa, sunset was at 1851, End of Evening Nautical Twilight (EENT) was 1949, with Low Light Level from 1950 to 0100. [Encl (70)]
37. The weather forecast was clear with no anticipated cloud cover nor turbulence in the working area. [Encls (12-13)]
38. The VMGR-152 brief was at 1445, with a 1615 take-off and 2130 land. [Encls (16-21), (58-62), (69)]
39. The VMFA(AW)-242 brief was at 1530, with a 1730 take-off and 2130 land. [Encls (12-15), (62)]
40. The VMGR-152 brief given by MT TPC, was standard with no significant issues highlighted as remembered by TPC, T2P, or CM 4. [Ref (b), (i); Encls (17-21), (24-25), (58-61), (69-70)]
41. The VMFA(AW)-242 brief was given by the MP. [Ref (b), (h); Encls (12-15)]
42. MFL recalled the brief was 'solid'; strong administration, tactical administration, tactical, and tanker administration. [Ref (b), (h); Encls (12-15)]
43. MFL led the discussion of night tanking considerations to include a tanker administration conversation and lighting given the utilization of Night Vision Devices (NVDs). [Ref (b), (h), Encls (12-15)]
44. MFL WSO, a Weapons and Tactics Instructor, stated the brief was in accordance with Appendix B, the F/A-18 Briefing Guide. [Reference (b), (h); Encls (12-15), (22-23)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON
242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152
KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF
OKINAWA, JAPAN

Flight Execution: Take-off, transit, and first ARCT

45. VMFA(AW)-242 aircraft take-off and transit was uneventful after departing approximately 30 minutes behind schedule due to maintenance issues. [Encls (12-15), (91)]
46. MFL statement of 12 March 2019 identified weather as “Wx: Overcast/broken 10’k, clear skies above, 0% illumination (no moon above the horizon). [Encls (12-13)]
47. MT TPC communicated during the 4 April 2019 interview, the “weather was clear...no turbulence was encountered, no cloud layers were observed” in vicinity of the refueling track. [Encl (19)]
48. The MT TPC indicated in his statement and interview that “Profane requested that we make a right turn to assist their join as they conducted an underrun of our aircraft due to what likely was misjudging closure rate.” [Encl (17), (19)]
49. MT TPC also commented that “They requested to join on the right, but I declined their request and told them to join on the left as originally cleared.” [Encl (17), (19)]
50. The MT TPC indicated that “Profane requested extra fuel on the front side due to lower than expected fuel state for their upcoming mission.” [Encl (17), (19)]
51. The F/A-18 section took 18,000 pounds of the 24,000 pounds of fuel during the initial ARCT. [Encls (18-19), (21)]
52. The MT TPC commented “post fueling, Profane flight was cleared right reform and once they were established they were cleared straight ahead and above.” Profane’s “departure was uneventful.” [Encl (18-19)]

In-flight Mishap

53. MFL indicated in his statement and interview that during the second ARCT rendezvous, “Profane 61” had radar issues – difficulties finding/obtaining SA to the C-130/tanker. “Profane 62” had radar SA – range to the tanker is beginning to get tight (decreasing), so Profane 62 took Tac-Lead [Tactical (TAC) Lead] on the right and executed an uneventful tanker join.” Due to the swap of TAC Lead to facilitate the tanker join, the Profane call-signs swapped as the section joined the MT’s ‘Echelon Left’ position. [Encls (12-15)]
54. MT TPC’s statement from 24 March 2019 commented that Profane “requested a join on the left and simultaneous plugging due to low fuel states.” [Encls (17-18)]
55. The MT TPC indicated that Profane “also requested we come to a 330 heading to assist in dragging them towards the northwest boundary of the Warning Area.” [Encls (17-18)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON
242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152
KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF
OKINAWA, JAPAN

56. The scheduled '-2 or Wing' F/A-18D (MFL in TAC Lead position) was complete with refueling on the right hose, moved to, and stabilized in the 'Echelon Right' position. [Encls (12-25), (91)]

57. The MFL, MFL WSO, and MWSO corroborated that as the MFL coordinated departure high with intent for a slight left turn (with vertical deconfliction established towards the filed route of flight from the Tiger Tanker Track to MCAS Iwakuni), the MP backed out of the left basket to the 'Left Astern' position, then proceeded to the 'Echelon Right' position (Post Air to Air Refueling Reform Position) joining outside (right) of the MFL. [Encls (12-15), (22-23), (91)]

58. At approximately 2015 on 28 April 2016, the scheduled VMFA(AW)-242 'Lead' F/A-18D aircraft (MA in the TAC Wing position) completed tanking on the left hose of the VMGR-152 KC-130J (Mishap Tanker (MT)). [Encls (12-25), (91)]

59. The MWSO's statement from 6 May 2016 described the following: "At this point Sumo was covert lighting. Once we had good fuel flow I switched our AUX frequency to Naha Control to work our clearance, and I turned down the boom freq in PRI. For the next couple minutes I only heard bits and pieces of the comm between Sumo and Profane, but I heard the departure instructions: high and to the left. Profane 61 [MFL] was satisfied first, and they went to starboard observation. About 30 seconds later Profane 62 [MP] was satisfied. We backed out, crossed under the C-130, and joined on the right hand side of Profane 61. I was looking through the goggles at this point, and I could see both Profane 61 and Sumo. Once we were to the right of Profane 61 we began to accelerate to depart. At this point I stopped scanning outside, and instead came inside the aircraft to set up the nav and comm. I wanted to make sure we had everything in order when the lead got passed back to us. I knew it would be a quick transition because we were on the northern border of the Tiger airspace. Profane 61 began a left hand turn per the departure instructions. I was still looking inside the aircraft, but I felt our jet turn to the left. At this point I thought we were in front of and above Sumo. As we were turning there was a sudden and loud whack on the canopy, followed by a substantial yaw to the right. I looked at the canopy, and then at the right wing. Through the goggles, I saw a tanker hose wedged in between the leading edge flap and the LAU on the right wing. The basket was still attached to the hose. We began an immediate climb and I gained a visual of Sumo below us at our right 2 o'clock. I alerted Profane 61 that we had a tanker hose and basket attached to our wing. From there we turned towards Kadena, since it was about 300 miles closer than Iwakuni." [Encl (91)]

60. The MFL's statement from 12 March 2019 described the following: "Profane 61/62 are now joined in normal starboard side ops (61 right of the C-130, 62 right of 61). Profane 61 [TAC Lead] Pilot and WSO both confirm over ICS they are visual of Profane 62 [TAC Wing] (stepped down low, not too sucked).

- Profane 61 request to depart Sumo 'up and left'
- Sumo 04 clears Profane Flight 'up and left'

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON
242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152
KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF
OKINAWA, JAPAN

- Profane 61 initiates climb / departure instructions (up/high and to the left).
- Approximately 40-60 seconds later, Profane 62 informs Profane 61 they have a part of hose/basket hanging from their right wingtip.
- Profane 61 conducts a battle damage check and confirms what Profane 62 was reporting; visual of a hanging refueling hose with basket intact to the hose that is wedged between the right leading edge flap and the LAU/AIM-9 CATM.
- Profane 61 informs Sumo 04 of the incident
- Profane 61/62 divert to Kadena AFB uneventfully.” [Encls (12-13)]

61. The MT TPC statement from 24 March 2019 described the following: “With Profane 62 [MP] satisfied on the left he was cleared to disconnect left go right reform. Profane 61/62 flight was then cleared to depart forward and above. I witnessed Profane 61 [MFL] start to depart as tasked. Profane 62 [MP] was witnessed passing from left to right past the tail section via my left window observer [MT CM4]. Prior to the right window observer attaining full visual of Profane 62 [MP] the crew felt a violent shake of the aircraft like severe turbulence. A few seconds later I witnessed Profane 62 [MP] moving from under my aircraft from the center towards the outer left side and forward. As this was not their cleared departure I called Profane 61 [MFL] over the AAR primary. ‘Profane 61 this is Sumo 04, be advised I cleared both aircraft to depart from my right side to proceed forward and above. I have Profane 62 on my left and low can you explain?’ ‘Sumo this is Profane 61, let my check with my dash 2.’ Approximately 4-5 seconds later he [MFL] came back ‘Yeah, Sumo my dash 2 has something on his wing that belongs to you.’ I immediately sent my Plane Captain into the back to inspect our hoses.” [Encls (16-17)]

62. The statement from MT CM4 described the following: “I [MT CM4] was positioned in the left paratroop window . . . The left receiver [MP] began to move aft to disconnect with the hose. I then called disconnect when the receiver decoupled the drogue. As the left receiver [MP] began moving to the right echelon, he crossed under our aircraft, and I gave the call that the receiver was crossing our six from left to right, low. The receiver [MP] then passed under the aircraft heading to the right side. At that time I hear what sounded like a jet and our aircraft had a jerking movement to the right. I stayed position in the left paratroop window while we received a call from the receivers that they have our drogue. I was then instructed to make sure that the drogue was still attached on the left hose, which it was still intact . . . Both hose were difficult to see since it was [sic] low visibility and between the strobes on the NVG’s they then confirmed that the entire hose was gone on the right side.” [Encls (24-25)]

63. The MFL and MFL WSO commented that with departure coordination complete, the MFL added power, climbed straight ahead for ~6-800’ and then turned left 20-30 degrees to intercept the filed route of flight to MCAS Iwakuni. [Encls (12-15), (22-23)]

64. The MFL, MFL WSO, and MWSO commented that at that point where the MFL added power, the MP went from a Right Echelon position, heard/felt a thump on the canopy (the right tanker basket), experienced a right yaw (induced by the right tanker hose wedging between the mishap aircraft (MA) right wing and LAU) followed by a left yaw (as the right tanker hose and

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

basket separated from the MT), and then smooth forward flight, climbing to where the MA viewed the MT low and right. [Encls (12-15), (22-23), (91)]

Night Vision Devices and Lighting Package

65. VMFA(AW)-242 used AN-AVS-9s during the event. [Encls (12-15), (22-23), (91)]
66. In the MFL's statement from 12 March 2019, he indicated: "Lights: Overt on join, Covert once joined/AAR (this was requested by Profance 61/Tac-Lead)." [Encls (12-13)]
67. All members of the flight remember goggles being used throughout the second ARCT and did not communicate 'de-goggling' nor 'goggling' after completion of the ARCT. [Encls (12-25), (91)]

Post Mishap Inflight Actions

68. After realization that the MA had the MT's right refueling basket trailing off of the right wingtip, the F/A-18D section and KC-130J separated, conducted the appropriate emergency procedure for their platform, and diverted as individual flights to Kadena Air Base (AB). [Encls (12-25)]
69. The VMFA(AW)-242 section conducted a visual 'Battle Damage Check' on the MA, executed a controllability check on the way to Kadena AB, and conducted an uneventful visual straight-in landing to runway 05 at Kadena AB. [Encls (12-15)]
70. Once the MA cleared the runway, the aircraft taxied to the standard Marine transient parking on the fighter ramp and shut-down. [Encls (12-15), (22-23), (91)]
71. The VMGR-152 aircraft trouble shot in the Warning Area. [Encls (16-21), (24-25)]
72. Unable to see the refueling hose due to the low light level, the MT executed the 'landing with trailing hose' emergency procedure, the most conservative emergency procedure given the uncertainty of damage to the refueling pod assembly, the possible fuel or hydraulic fuel spillage which could be ignited if the aircrew decided to pursue the 'hose guillotine' emergency procedure. [Encls (16-21), (24-25)]
73. With the emergency procedure complete, the MT conducted an ILS 05L approach to Kadena AB, minimized brakes and beta on landing, and stopped on the runway. [Encls (16-21), (24-25)]
74. The crew masters then exited the aircraft via the ramp, conducted a visual inspection, and FOD sweep. [Encls (16-21), (24-25)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

75. The aircrew confirmed no visible damage and the aircrew and crash fire rescue confirmed no fire before the MT taxied to the lower ramp and shut down. [Encl (16-21), (24-25)]

VMFA(AW)-242 Post-flight Actions

76. After shutdown, VMFA(AW)-242 pilots and WSOs conducted a walk around and post flight aircraft inspection of the MA. [Encls (12-15), (91)]

77. The tanker hose was wedged between the leading edge of the wing and the LAU and the basket was hanging, just barely touching the ground. [Encls (12-15), (22-23), (91)]

78. According to the MFL, the "plane was in pretty good shape, hose was there, some paint damage, minor dings on the leading edge, nothing gross...CATM-9 trailing fins damaged. Canopy, some black smear marks." [Encls (12-15)]

79. Immediately after the landing and post-flight inspection, the MFL WSO reported the incident to the chain of command: "Both F/A-18s were in right echelon (starboard reform) after refueling was completed. While departing the KC-130 aircraft, -2's aircraft contacted a portion of one of the two refueling hoses on the back of the KC-130 which resulted in a portion of the hose becoming attached to -2's aircraft right outboard wing." [Encls (22-23)]

80. MWSO commented that he and the MP reported to the MCAS Futenma Medical Clinic for lab-work on the morning of 29 April 2016. [Encl (91)]

VMGR-152 Post-flight Actions

81. After shutdown, VMGR-152 pilots and aircrew conducted "a thorough walk around and post flight inspection of the KC-130J, secured the aircraft, and reported safe on deck and the incident to the Squadron Flight Duty Officer (FDO). [Encls (16-21), (24-25)]

82. The MT TPC reported the incident details to the VMGR-152 FDO along with where and what time the incident occurred. [Encls (16-21), (24-25)]

83. The MT TPC asked the FDO to let him know if the CO wanted to discuss the incident. [Encls (16-19)]

84. The VMGR-152 Aviation Safety Officer (ASO) contacted the crew. [Encls (16-19)]

85. MP TPC took pictures of damage to the VMFA(AW)-242 aircraft on the night of 28 April 2016 and during the day on 29 April 2016. [Encls (74-75)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

86. VMGR-152 pilots and crew coordinated a post mishap medical examination after completion of required post-flight actions. The examinations and lab work was conducted at MCAS Futenma in the early morning hours of 29 April 2016. [Encls (16-21), (24-25)]

Mishap Reporting

87. The incident was reported to the 1st MAW CG by the VMFA(AW)-242 CO via the MAG-12 CO at 2247 28 April 2016. [Encl (72)]

88. The VMFA(AW)-242 CO provided the initial incident details, "the last F-18 backed out, post refueling, the tanker entered a right turn as the hornet went left. When the F-18 was in reform he noticed that the refueling hose was wrapped around the right wing of the LAU-7 ... The F-18s landed in RODN (Kadena) uneventfully and post flight inspection didn't indicate damage beyond black scuff marks from the hose. No physical damage was evident. A more detailed inspection will be conducted in daylight. A FLASH report is currently being written." [Encl (72)]

89. The incident report (MAG-12, VMFA(AW)-242, Aviation, In-Flight Emergency, 04/28/2016, 2015) was filed by VMFA(AW)-242 as follows: "This is an Aviation, Non-Injury, Non-Alcohol related incident. While conducting a night Air-to-Air refueling mission in the Tiger airspace, the F/A-18 aircrew heard a loud bang and noticed that the refueling hose was wrapped around their wing tip and no longer attached to the tanker. The aircrew successfully diverted into Kadena Air Base. The incident and divert were conducted over water. This report has been reviewed by (b) (3) (A), (b) (6) VMFA(AW)-242 CO." [Encl (73)]

90. On 8 March 2019, (b) (3) (A), (b) (6) USMC (post-mishap CO of VMGR-152) provided a written statement to the IO. A follow-up interview was conducted on 1 April 2019. [Encls (32-33)]

91. (b) (3) (A), (b) (6) stated that "I was told by a VMGR officer who went to begin the investigation in April, that when they went to get pictures of the F-18, despite obvious damage to the aircraft, the VMFA-242 maintainers were already taking it apart in order to fix it and were just treating it like a broken aircraft." [Encl (33)]

92. On 3 April 2019, (b) (3) (A), (b) (6) USMC (Executive Officer of VMFA(AW)-242 at the time of the mishap) provided a written statement to the IO. [Encls (38-39)]

93. In his 3 April 2019 statement, (b) (3) (A), (b) (6) commented that he met with the VMFA(AW)-242 "aircrew in the days following the incident in an effort to determine what happened, but there were gaps and variations in the story due to each person's situational awareness and memory of the event." [Encl (39)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

94. (b) (3) (A), further commented in his statement that "I recall we were lacking aircraft data for either one o[r] both of the aircraft involved which is recorded through the manual depression of the 'POS REC' button in the aircraft, so we weren't initially able to piece the event together that way." [Encl (39)]

95. On 15 March 2019, (b) (3) (A), (b) (6) USMC (CO of MAG-12 at the time of the mishap) provided a statement to the IO. [Encls (29-30)]

96. In his statement, (b) (3) (A), (b) (6) commented that "[t]he first time the incident came to my attention was a day after the event occurred. I received either a phone call or email from the Wing (either (b) (3) (A), (b) (6) or his chief of staff) inquiring as to what occurred. The CG saw the aircraft parked on the apron at Kadena AFB with the hose on the LAU. A picture was eventually sent to me from the Wing (either from the CG or the COS). Once informed, I immediately contacted the unit's CO, (b) (3) (A), (b) (6) to find out what had occurred. He came to my office to go over the incident." [Encl (30)]

Cost Determination

97. On 4 May 2016, VMFA(AW)-242's initial cost assessment of the F/A-18D damage was \$19,474.20. [Encl (77)]

98. On 4 May 2016, VMGR-152's initial cost assessment of the KC-130J damage was \$16,682.27. [Encl (77)]

99. On 6 May 2016, the MAG-12 initial assessment of cost using the 15% rule was \$21,976.54 – a Class D Mishap. [Encls (77), (79-80)]

100. On 11 May 2016, VMGR-152 and VMFA(AW)-242 met, reviewed costing data requirements and derived the VMFA(AW)-242 cost as \$28,072 and VMGR-152 cost as \$20,292 for a total cost of \$48,364 – a Class D Mishap. [Encl (82)]

101. The total cost of \$48,364 was submitted to the Naval Safety Center for review and final direction. [Encls (81-82)]

102. On 1 June 2016, the Naval Safety Center directed the 15% rule is not appropriate for two F/A-18D parts (aileron and the aileron shroud). [Encl (79)]

103. With no facts identifying the final cost determination by the Naval Safety Center, MAG-12, VMGR-152, or VMFA(AW)-242, the IO calculated the final cost determination. Adjusting the F/A-18D aileron and aileron shroud to full cost, VMFA(AW)-242's cost alongside the VMGR-152 cost increased the incident's total cost to \$146,510 – a Class C Flight Mishap. [Encl (95)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

VMFA(AW)-242 Human Factors Board (HFB)

104. On 6 May 2016, VMFA(AW)-242 held a Human Factors Board (HFB). [Encls (35), (37), (95)]
105. The "Human Factors Board Results regarding the Flight Incident with VMGR-252 on 28 April 16 dtd 10 May 16" is maintained in the private files of the VMFA(AW)-242 Commanding Officer, (b) (3) (A), (b) (6) [Encls (35), (37), (95)]
106. (b) (3) (A), (b) (6) does not recall directing the convening of the HFB, however he did turn over the HFB Results to (b) (3) (A), (b) (6) as the recommendations and mitigation measures were not complete and/or not able to be completed in the short period of time before the VMFA(AW)-242 Change of Command. [Encls (26-28), (35), (37), (95)]
107. VMFA(AW)-242 personnel designated by the CO to convene the board were the VMFA(AW)-242 Executive Officer (Chairman), Aviation Safety Officer, Operations Officer (Senior WSO), and Flight Surgeon. [Encls (35), (37), (95)]
108. The MP, MWSO, MFL, and MFL WSO were the subjects of the HFB. [Encls (35), (37), (95)]
109. Applicable internal/external friction and mitigation measures were documented. [Encls (35), (37), (95)]
- a. High Squadron operational tempo was discussed as internal squadron friction and external friction with families. [Encls (35), (37), (95)]
 - b. New jobs within the squadron without assistance was discussed as internal administrative friction. [Encls (35), (37), (95)]
 - c. Crew Coordination was discussed as being an issue prior to and during the event. [Encls (35), (37), (95)]
 - d. Night System proficiency, comfort with the goggles, and night tanking was discussed as an issue before and during the event. [Encls (35), (37), (95)]
110. Applicable scheduling and training recommendations and mitigation measures were documented and maintained in the private files of the VMFA(AW)-242 Commanding Officer, (b) (3) (A), (b) (6) [Encls (35), (37), (95)]

VMFA(AW)-242 Change of Commands and Personnel Turnover

111. On 13 May 2016, the VMFA(AW)-242 Change of Command from (b) (3) (A), (b) (6) USMC to (b) (3) (A), (b) (6) USMC was conducted. [Encls (26-28), (35-37)]
112. The VMFA(AW)-242 Human Factors Board Report was left for (b) (3) (A), (b) (6) review and use as the new Commanding Officer. [Encls (35-37)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

113. After the mishap and change of command, (b) (3) (A), (b) (6) implemented training recommendations and mitigation measures for VMFA(AW)-242. [Encls (35-37), (48-52)]

114. On 16 May 2016, at (b) (3) (A), (b) (6)'s initial All Officers Meeting (AOM), he directed an immediate review of flight administrative procedures while operating in the vicinity of a tanker in the VMFA(AW)-242's Standard Operating Procedures (SOP). [Encls (35-37)]

115. (b) (3) (A), (b) (6)'s changes were intended to be an immediate implementation of a very deliberate, administratively focused process approaching, refueling, and departing the tanker. [Encls (35-37)]

116. The process was imbedded and published in the 3 September 2016 VMFA(AW)-242 Squadron SOP. [Encls (35-37), (48-52)]

117. On 16 May 2016, (b) (3) (A), (b) (6) reduced the number of squadron personnel who had MSHARP Baseline privileges from fourteen (14) to approximately four (4). [Encl (35-37), (48-52)]

VMGR-152 Change of Commands and Personnel Turnover

118. The VMGR-152 Change of Command from (b) (3) (A), (b) (6) USMC to (b) (3) (A), (b) (6) USMC was 27 May 2016. [Encls (32-34)]

119. (b) (3) (A), (b) (6) USMC (the VMGR-152 Executive Officer (XO) at the time of the incident) provided a written statement on 26 March 2019. [Encls (45-47)]

120. In his statement, (b) (3) (A), (b) (6) commented that "I find it surprising that there was never a CI at either squadron, and actually think that one may have been done at 152, but it would now be irretrievable due to the unfortunate recent loss of the then-CO, (b) (3) (A), (b) (6)." [Encls (45-46)]

Aviation Mishap Board (AMB)

121. On 9 June 2016, to ensure the appropriate mix of subject matter expertise in order to properly analyze the mishap, the MAG-12 Director of Safety and Standardization (DoSS) recommended a joint composition VMGR-152 and VMFA(AW)-242 AMB to the MAG CO. [Encl (85)]

122. On 16 June 2016, the MAG-12 CO decided and communicated the specific make-up of the AMB joint composition directed to investigate the 28 April 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Class C Mishap. [Encls (86-87)]

123. On 17 June 2016, VMFA(AW)-242 released the Initial Notification of the mishap. [Encl (41)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

124. The AMB composition was made up of the Senior Member – VMGR-152; ASO – VMFA(AW)-242; Maintenance Representative – VMGR-152; Operations Representative – VMFA(AW)-242; and Flight Surgeon – VMFA(AW)-242. [Encls (40-42), (82-87)]

125. On 8 August 2016, the AMB investigating the 28 April 2016 VMFA(AW)-242 - VMGR-152 Aerial Refueling Class C Mishap released the Safety Investigation Report. [Encls (40-42)]

Lessons Learned

126. (b) (3) (A), (b) (6) USMC (post-mishap VMFA(AW)-242 DoSS), provided a statement on 26 March 2019. [Encls (48-49)]

127. In his statement, (b) (3) (A), (b) (6) commented that “I do not believe there was ever a Field Flight Performance Board or Command Investigation directed by [VMFA(AW)-242].” [Encls (48-49)]

128. (b) (3) (A), (b) (6) stated that “[b]ased on the results of the AMB, my Commanding Officer implemented the following procedural changes: baselining privileges for Training and Readiness (T&R) codes were significantly reduced and specific verbiage was included in the Squadron’s Standard Operating Procedures (SOP) regarding the conduct of air-to-air refueling.” [Encls (48-49)]

129. (b) (3) (A), (b) (6) stated that “a combined ‘lessons learned’ session was held between the two squadrons involved to discuss what occurred during the mishap and how to mitigate future air-to-air refueling issues.” [Encls (48-49)]

Command Chronologies

130. On 28 February 2017, MAG-12 published their Command Chronology for the time period of April 2016 through September 2016. [Encl (92)]

131. In the section labeled “Safety and Standardization,” the MAG-12 Command Chronology does not mention the Class C mishap that occurred on 28 April 2016. [Encl (92)]

132. On 12 September 2016, VMFA(AW)-242 published their Command Chronology for the time period of 1 April 2016 through 30 September 2016. [Encl (93)]

133. The MP was the Command Historian and point of contact for the VMFA(AW)-242 Command Chronology. [Encl (93)]

134. In the section labeled “Safety and Standardization,” the VMFA(AW)-242 Command Chronology does not mention the Class C mishap that occurred on 28 April 2016. [Encl (93)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

135. On 18 November 2016, VMGR-152 published their Command Chronology for the time period of 1 April 2016 through 30 September 2016. [Encl (94)]

136. The VMGR-152 Command Chronology states that “[p]otential hazards were identified, analyzed, and mitigated resulting in zero aircraft flight related and ground mishaps from April to September 2016.” [Encl (94)]

137. The VMGR-152 Command Chronology lists the last Class C Mishap to have occurred on 31 July 2015 and the last Class D Mishap to have occurred on 24 February 2015. [Encl (94)]

Opinions

Mishap Cause

1. The Mishap Pilot (MP) lost spatial awareness in the low light level on the night of 28 April 2016 while wearing AN/AVS-9 Night Vision Goggles (NVGs) which caused the F/A-18D he was flying to impact the tanker’s right refueling basket, further to wedge the tanker’s right refueling hose between the leading edge of the F/A-18D’s right wing and LAU, and ultimately shear off the refueling hose. [FF (5-11), (13-15), (17-18), (20), (22), (23-27), (34-37), (41-44), (45-52), (53-64), (65-67)]

2. Contributing factors to the mishap were (1) the limited proficiency and experience of the MP (10.0 NVG hours prior to 28 April 2016); (2) the low light level environment, (3) the resultant poor depth perception while using NVGs, and (4) the significant blooming of the MFL’s lights which amplified MFL’s movement as the MFL departed from the KC-130J’s right echelon as the MP had just settled into the re-join. Given the event description and training objectives as a section lead work-up, the MFL should have passed TAC Lead back to the MP, thus enabling the MP to continue the sortie as the lead aircraft focusing on flying his jet rather than overloading the MP’s bucket. [FF (5-11), (13-15), (17-18), (20), (22), (23-27), (34-37), (39), (41-44), (45-52), (53-64), (65-67)]

Supervision

3. VMFA(AW)-242’s insufficient monthly, weekly, and daily flight schedule planning and Operational Risk Management (ORM) contributed to the mishap. VMFA(AW)-242 leadership failed to (1) adequately address the concerns expressed in the Quarterly Training Plan through appropriate ORM; (2) properly plan for the air-to-air refueling mission (AAR-2202 (Night Aerial Refueling)) when it was not included in the daily flight schedule; and (3) schedule AAR-2202X (Night Air-to-Air Refueling - Intitial) on the weekly nor daily schedule which resulted in insufficient ORM to be conducted for the mishap event. [FF (5-11), (13-15), (17-18), (20), (22), (23-27)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES
SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON
242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152
KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF
OKINAWA, JAPAN

4. As VMFA(AW)-242 monthly flight schedules turned into weeklies and subsequently into daily schedules for execution, VMFA(AW)-242 leadership failed to identify potential currency and proficiency risks. For the MF event, the review of weekly and daily schedules by Operations, DoSS, and the CO was inadequate as all levels of supervision failed to identify that the MF would be the MP's first night aerial refueling in the fleet. The aircrew portion of an effective Risk Assessment Workksheet (RAW) identifies potential currency and proficiency risks to unit Pilot Training Officers, Weapons System Training Officers, and Schedulers to ensure timely and appropriate risk mitigation. Flight Leads should be fully enabled by the Command in the execution of events affected by dynamic environmental considerations (light levels, weather, etc.) which affect aircrew performance no matter the experience level. Specific to this incident, mitigation measures should have been implemented 72-hours ahead of the planned sortie rather than handing a yet to be identified risk to the event Flight Lead to be deciphered during event planning the day prior to or the day of the mission. [FF (5-11), (13-15), (17-18), (20), (22), (23-27), (34-37), (39), (41-44), (45-52), (53-64), (65-67)]

Mishap Reporting

5. The significant amount of time that passed between the 28 April 2016 Class C flight mishap and this investigation created challenges for those interviewed to accurately recall events and reporting timeline specifics. Marines interviewed provided various descriptions of the Class C Flight Mishap based on each individuals' situational awareness, vantage point, and memory. [FF (53-64), (68-75), (76-80), (81-86), (87-89), (91), (93-94), (96)]

6. The incident cost determination was convoluted – incident costs should have initially been estimated at the worst case (highest cost) and then reduced as corrective maintenance and associated supply details developed. [FF (97-103)]

7. The stand-up of the joint VMGR-152 and VMFA(AW)-242 Aviation Mishap Board (AMB) was not timely. However, once initiated the AMB efficiently prepared and released the VMFA(AW)-242 - VMGR-152 Air-to-Air Refueling Class C Flight Mishap (FM) Safety Investigation Report (SIR). All required reports associated with the 28 April 2016 Class C Flight Mishap were ultimately released and given time, were effectively clarified to the chain of command. [FF (87-89), (91), (93-94), (96), (97-103), (111), (121-125)]

Accountability and Lessons Learned

8. The Mishap Pilot (MP), the Mishap Flight Lead (MFL), the Mishap Weapon Systems Officer (MWSO) and Mishap Flight Lead Weapon Systems Officer (MFL WSO) were held accountable by the VMFA(AW)-242 Commanding Officer. [FF (104-110), (120), (127), (129)]

9. The Human Factors Board conducted 6 May 2016 developed several training recommendations for the flight members as well as developed salient talking points for

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING A MARINE ALL-WEATHER FIGHTER ATTACK SQUADRON 242 F/A-18D AND A MARINE AERIAL REFUELER TRANSPORT SQUADRON 152 KC-130J MID-AIR COLLISION ON 28 APRIL 2016 OFF THE COAST OF OKINAWA, JAPAN

subsequent All Officer Meetings where the flight members could share the lesson's learned with peers, seniors, and subordinates. [FF (104-110)]

10. VMFA(AW)-242 pro-actively standardized proper administrative procedures utilized in the aerial refueling environment by adjusting the Squadron SOP to ensure deliberate, steady airwork and headwork during Air-to-Air Refueling Operations. [FF (113-117), (128-129)]

11. A contemporaneous Command Investigation was likely not conducted even after the Air-to-Air Refueling incident was determined to be a Class C Flight Mishap. [FF (120), (127)]

Process Improvement

12. MSHARP should not chain AAR-2202 (Night Air-to-Air Refueling) after RQD-6109 (Day or Night Strategic Aerial Refueling) is executed and logged. [FF (5), (23-25)]

13. The new VMFA(AW)-242 SOP implemented on 3 September 2016 sufficiently addressed the air-to-air refueling procedural deficiencies identified in this investigation. [FF (114-116)]

Recommendations

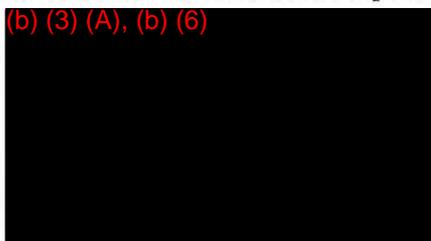
1. VMFA(AW)-242 conduct a comprehensive review of night aerial refueling procedures and best practices as well as internal planning methodology inclusive of Operational Risk Management (ORM) policies and procedures and scheduling quality assurance.

2. VMFA(AW)-242, MAG-12, and 1st MAW review deliberate Operational Risk Management (ORM) tools available within the USMC tactical fixed-wing communities to develop and implement a Risk Assessment Worksheet (RAW) that meets VMFA(AW)-242 requirements and needs.

3. No further investigation is required into the circumstances associated with the VMFA(AW)-242 F/A-18D and VMGR-152 KC-130J mid-air collision off the coast of Japan on 28 April 2016.

4. As no negligence existed nor was found during the investigation of the VMFA(AW)-242 F/A-18D and VMGR-152 KC-130J mid-air collision off the coast of Japan on 28 April 2016, no administrative action is required.

(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

05 JUN 2019

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

Subj: ANALYSIS OF FLIGHT/VOICE DATA RECORDERS FOR THE 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

Ref: (a) JAGINST 5800.7F
(b) (b) (3) (A), (b) (6) ltr 5830/IO of 30 May 19

1. In accordance with reference (a), reference (b) is returned to the investigating officer for further investigation.
2. You are directed to investigate the information recovered on the flight data recorder (FDR) and the voice data recorder (VDR) from KC-130J, BUNO 167981.
3. Include any additional findings of fact, opinions, and recommendations in your original report of investigation and submit no later than 14 June 2019, unless an extension of time is granted.
4. You shall seek legal advice from the Staff Judge Advocate, 1st Marine Aircraft Wing prior to signing the mishap report.
5. By copy of this appointing order, all staff sections and subordinate commanders are directed to furnish all necessary assistance.
6. 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 (b) (3) (A), (b) (6)


T. D. WEIDLEY

Copy to:
SJA, 1st MAW



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

IN REPLY REFER TO:

5830

SJA

14 JUN 2019

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

Subj: THIRD REQUEST FOR EXTENSION ICO 6 DECEMBER 2018 MID-AIR
COLLISION MISHAP COMMAND INVESTIGATION

Ref: (a) IO Appointment Letter 5830/CG dated 10 Dec 18

1. I request an extension of time for completing the command investigation for which I have been appointed by the reference. I request a new submission date of 24 June 2019.

2. I am pending receipt of the analysis from the voice and flight data recorders from BUNO 167981.

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

Copy to:
SJA, 1st MAW



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

IN REPLY REFER TO:
5830
CG
18 JUN 2019

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

Subj: THIRD REQUEST FOR EXTENSION ICO 6 DECEMBER 2018 MID-AIR
COLLISION MISHAP COMMAND INVESTIGATION

1. Returned. Your request for an extension is granted. Your investigation is now due 24 June 2019.


T. D. WEIDLEY

Copy to:
SJA, 1st MAW

Cockpit Voice Data Recorder Transcript as recovered from VMGR-152
KC-130J Buno 167981 Callsign Sumo41

All three aircraft are joined at 15,000', 242kts, and refueling is in progress.
Profane 11 is refueling from the right hose.
Profane 12 is refueling from the left hose.

01:06:54 Sumo41 intercom: "I wonder if (b) (3) heard them take-off? He's probably staying up in his room. There go my warriors. Ha-ha. I hope so." [More friendly chuckles.]

01:07:08 Tanker Common: Profane 11, "Profane 11 request disconnect echelon right."

01:07:11 Tanker Common: Sumo 41, "That is approved as requested."

01:07:12 Tanker Common: Profane 11, "Profane 11" [serves as an affirmative and acknowledgment of clearance]

01:07:16 Sumo 41 intercom: "disconnect right" [likely from the right side observer positioned in the right side jump door window and wearing night vision goggles]

01:07:19 Sumo 41 intercom: "11 is moving to the right - echelon" [same voice as previous communication, consistent with right side observer position]

01:07:27 Tanker Common: Sumo 41, "And... 11, you have a buno for me?"

01:07:31 Tanker Common: Profane 11, "Affirm, Aircraft 9 buno 164662" [IO recognizes this voice to be from MWSO1, tone is loud, clear, and confident]

01:07:38 Tanker Common: Sumo 41, "copy"

01:07:41 Sumo 41 intercom: "and... 11 is stable right echelon"

01:07:43 Sumo 41 TCAS traffic alert "Traffic. Traffic"

01:07:44 Sumo 41 intercom: "uh, there he is, cool"

01:08:17 Sumo 41 intercom: "disconnected left" [likely voice from left side observer positioned in the left side jump door window]

01:08:23 Tanker Common: Sumo 41, "Profane 12 looks like you are complete approved to echelon right."

01:08:29 Sumo 41 intercom: "uh, oh, was it intentional?" [In reference to the disconnect, as if to ask, did he fall out or deliberately separate due to being satisfied]

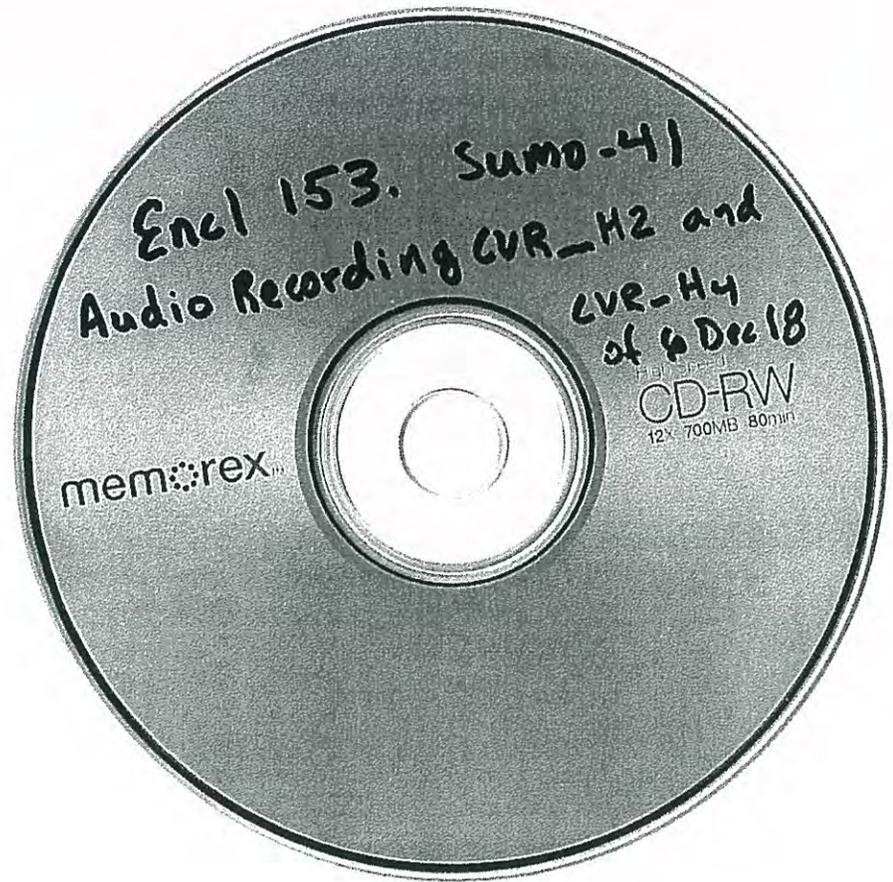
01:08:31 Tanker Common: Profane 12, "request echelon left if able" [IO voice recognition consistent with MWSO2, voice is muffled but understandable]

01:08:34 Tanker Common: Sumo 41, "That's approved. And, uh, what are you guys up to tonight?"

01:08:38 Tanker Common: Profane 11, "Whole lotta' nothin' "

01:08:39 Sumo 41 intercom: "Same"

01:08:39 Tanker Common: Sumo 41, "yeah. Same-Same"
01:08:42 Tanker Common: Sumo 41, "Hey, uh, you guys coming back at all?"
01:08:44 Tanker Common: Profane 11, "Uh, we are thinking about it. Whatta ya think? You guys got enough gas for us?"
01:08:49 Tanker Common: Sumo 41, "[chuckles] we got a ton of gas, yeah, absolutely."
01:08:51 Tanker Common: Profane 11, "Alright"
01:08:53 Sumo 41 intercom: "12 moving to the left side
01:08:54 Tanker Common: Profane 11, "We are gonna go blow the burners a little" [chuckling]
01:08:57 Tanker Common: Sumo 41, "Hey, uh, Profane 12, you got a, uh, buno?"
01:08:59 Tanker Common: Profane 12, "yeah, uh Profane 12, side number 11, buno 165416" [muffled voice, IO voice recognition consistent with MWSO2]
01:09:11 Tanker Common: Sumo 41, "ah, 41 copies"
01:09:12 Sumo 41 intercom: "What the hell do these guys... ." [think they are doing?]
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"
01:09:18 Sumo 41 intercom: "fuck yeah"
01:09:21 Tanker Common: Sumo 41, "ah, 41, left turn" [tone indicates executing the turn at this 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.. sheeit... what they gonna do? Visual on one. There you go (b) (3) (A) (4) (5) "
01:10:00 Sumo 41 intercom: wind noise and non-descript hollering.
01:10:02 -End of data-



memorex

Encl 153. Sumo-41
Audio Recording CUR_H2 and
CUR_H4 of 6 Dec 18

CD-RW
12x 700MB 80min

***** CASUALTY REPORT *****

Report Type: SUPP

Casualty Type: Nonhostile

Casualty Status: DECEASED

Casualty Category: Pending

Report Number: 1V218003Y

Personnel Type: Regular

Personnel Affiliation: Active Duty

Personnel Category: Obligated/Voluntary Service

Last Name: (b) (3) (A), (b) (6)

First Name: (b) (3) (A), (b) (6)

Middle Name: (b) (3) (A), (b) (6)

Service: United States Marine Corps

Military Rank: (b) (3) (A)

Military Unit of Assignment: VMGR-152

Date/Time of Incident (New/Old): 20181206/0150

Incident City: IWAKUNI

Incident Country: North Pacific Ocean

Circumstance: ON 6 DECEMBER 2018 AROUND 01:50 (b) (3) (A), (b) (6) WAS CREW ON THE VMGR-152 KC-130J OPERATING 200 NAUTICAL MILES SOUTH OF IWAKUNI CONDUCTING FIXED WING AIR-TO-AIR REFUELING WHEN AN AVIATION MISHAP OCCURRED. SEARCH AND RESCUE OPERATIONS ARE ON-GOING.

Died in/out of Medical Facility Treatment: Died Outside A Medical Treatment Facility

Date/Time of Death: 20181206/0150

Place of Death City: Iwakuni

Place of Death Country: Sea Of Japan

Duty Status: Present For Duty

Remarks: 16 June 2019: Analysis of recovered remains by the Armed Forces Medical Examiner has yielded a positive identification of (b) (3) (A), (b) (6)

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

Request the next of kin be notified for appropriate follow on disposition options.

***** CASUALTY REPORT *****

Report Type: SUPP

Casualty Type: Nonhostile

Casualty Status: DECEASED

Casualty Category: Pending

Report Number: 1V218002Y

Personnel Type: Regular

Personnel Affiliation: Active Duty

Personnel Category: Obligated/Voluntary Service

Last Name (b) (3) (A), (b) (6)

First Name (b) (3) (A), (b) (6)

Service: United States Marine Corps

Military Rank (b) (3) (A), (b) (6)

Military Unit of Assignment: VMGR-152

Date/Time of Incident (New/Old): 20181206/0215

Incident City: IWAKUNI

Incident Country: Sea Of Japan

Circumstance: ON 6 DECEMBER 2018 AROUND 02:15, MAJ BROPHY WAS CREW ON THE VMGR-152 KC-130J OPERATING 200 NAUTICAL MILES SOUTH OF IWAKUNI CONDUCTING FIXED WING AERIAL REFUELING WHEN AN AVIATION MISHAP OCCURRED AND SEARCH AND RESCUE OPERATIONS ARE ON GOING.

Died in/out of Medical Facility Treatment: Died Outside A Medical Treatment Facility

Date/Time of Death: 20181206/0150

Place of Death City: IWAKUNI

Place of Death Country: Japan

Duty Status: Present For Duty

Remarks: 16 June 2019: Analysis of recovered remains by the Armed Forces Medical Examiner has yielded a positive identification of (b) (3) (A), (b) (6). Request the next of kin be notified for appropriate follow on disposition options.

***** CASUALTY REPORT *****

Report Type: SUPP

Casualty Type: Nonhostile

Casualty Status: DECEASED

Casualty Category: Pending

Report Number: 1V218004W

Personnel Type: Regular

Personnel Affiliation: Active Duty

Personnel Category: Obligated/Voluntary Service

Last Name: (b) (3) (A),
(b) (6)

First Name: (b) (3) (A),

Middle Name: (b) (3) (A), (b) (6)

Service: United States Marine Corps

Military Rank: (b) (3)
(A) (b)

Military Unit of Assignment: VMGR-152

Date/Time of Incident (New/Old): 20181206/0150

Incident City: IWAKUNI

Incident Country: North Pacific Ocean

Circumstance: ON 6 DECEMBER 2018 AROUND 01:50, (b) (3) (A), WAS CREW ON THE VMGR-152 KC-130J OPERATING 200 NAUTICAL MILES SOUTH OF IWAKUNI CONDUCTING FIXED WING AIR-TO-AIR REFUELING WHEN AN AVIATION MISHAP OCCURRED. SEARCH AND RESCUE OPERATIONS ARE ON GOING.

Died in/out of Medical Facility Treatment: Died Outside A Medical Treatment Facility

Date/Time of Death: 20181206/0150

Duty Status: Present For Duty

Remarks: 14 June 2019: Analysis of recovered remains by the Armed Forces Medical Examiner has yielded a positive identification of (b) (3) (A), (b) (b) (3)

Request the next of kin be notified for appropriate follow on disposition options.

***** CASUALTY REPORT *****

Report Type: SUPP

Casualty Type: Nonhostile

Casualty Status: DECEASED

Casualty Category: Pending

Report Number: 1V218005BB

Personnel Type: Regular

Personnel Affiliation: Active Duty

Personnel Category: Obligated/Voluntary Service

Last Name: (b) (3)
(A), (b)

First Name: (b) (3)
(A), (b)

Middle Name: (b) (3) (A),

Service: United States Marine Corps

Military Rank: (b)

Military Unit of Assignment: VMGR-152

Date/Time of Incident (New/Old): 20181206/0150

Incident City: IWAKUNI

Incident Country: North Pacific Ocean

Circumstance: ON 6 DECEMBER 2018 AROUND 01:50, CPL BAKER WAS CREW ON THE VMGR-152 KC-130J OPERATING 200 NAUTICAL MILES SOUTH OF IWAKUNI CONDUCTING FIXED WING AIR-TO-AIR REFUELING WHEN AN AVIATION MISHAP OCCURRED. SEARCH AND RESCUE OPERATIONS ARE ON-GOING.

Died in/out of Medical Facility Treatment: Died Outside A Medical Treatment Facility

Date/Time of Death: 20181206/0150

Duty Status: Present For Duty

Remarks: 19 June 19: To date, three Marines have been individually identified. Analysis of the recovered remains continues by the Armed Forces Medical Examiner. However, the Armed Forces Medical Examiner, in conjunction with the recovery team, has indicated the likelihood of identifying (b) (3) (A), (b) is extremely low based upon preliminary analysis of recovered remains and the location where the remains were retrieved relative to the positioning of the cockpit and others involved in the mishap during refueling operations. Request the next of kin be notified."

***** CASUALTY REPORT *****

Report Type: SUPP

Casualty Type: Nonhostile

Casualty Status: DECEASED

Casualty Category: Pending

Report Number: 1V218006BB

Personnel Type: Regular

Personnel Affiliation: Active Duty

Personnel Category: Obligated/Voluntary Service

Last Name: (b) (6),
(3) (A)

First Name: (b) (6), (b)
(3) (A)

Middle Name: (b) (6), (b)
(3) (A)

Service: United States Marine Corps

Military Rank: (b)
(6)

Military Unit of Assignment: VMGR-152

Date/Time of Incident (New/Old): 20181206/0150

Incident City: IWAKUNI

Incident Country: North Pacific Ocean

Circumstance: ON 6 DECEMBER 2018 AROUND 01:50, (b) (6), (b) WAS CREW ON THE VMGR-152 KC-130J OPERATING 200 NAUTICAL MILES SOUTH OF IWAKUNI CONDUCTING FIXED WING AIR-TO-AIR REFUELING WHEN AN AVIATION MISHAP OCCURRED. SEARCH AND RESCUE OPERATIONS ARE ON-GOING.

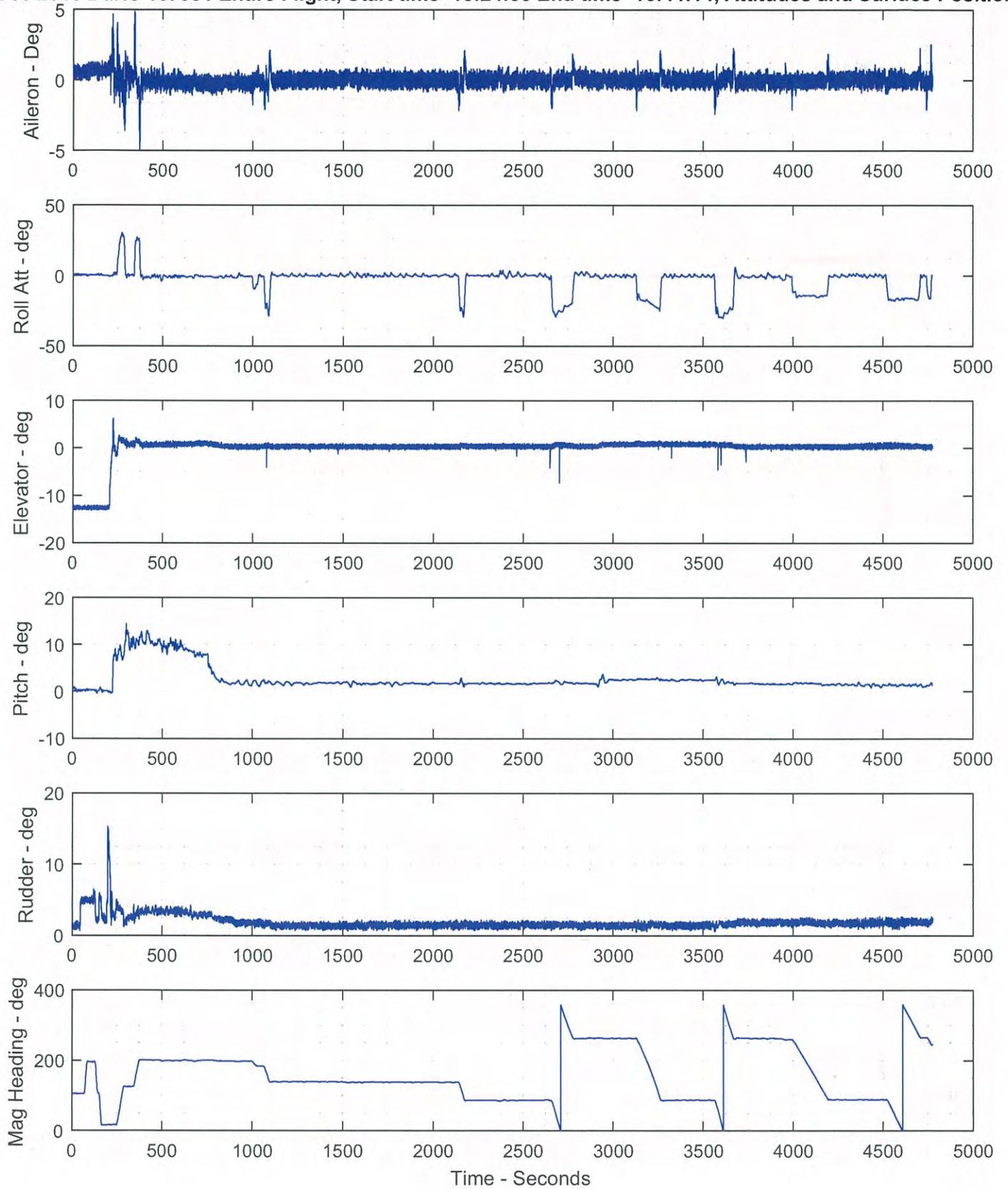
Died in/out of Medical Facility Treatment: Died Outside A Medical Treatment Facility

Date/Time of Death: 20181206/0150

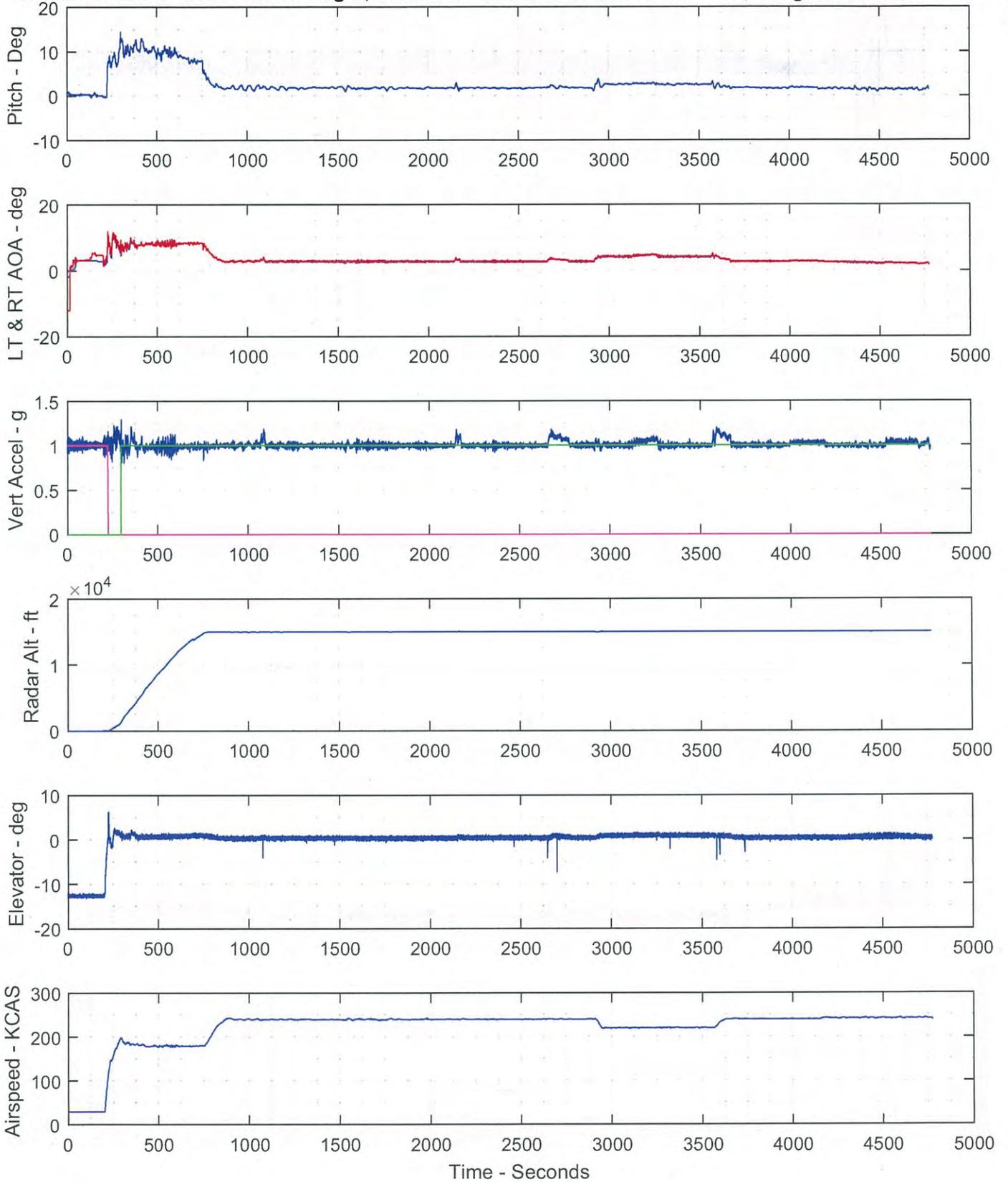
Duty Status: Present For Duty

Remarks: 19 June 2019: To date, three Marines have been individually identified. Analysis of the recovered remains continues by the Armed Forces Medical Examiner. However, the Armed Forces Medical Examiner, in conjunction with the recovery team, has indicated the likelihood of identifying (b) (6), (b) (3) (A) is extremely low based upon preliminary analysis of recovered remains and the location where the remains were retrieved relative to the positioning of the cockpit and others involved in the mishap during refueling operations. Request the next of kin be notified."

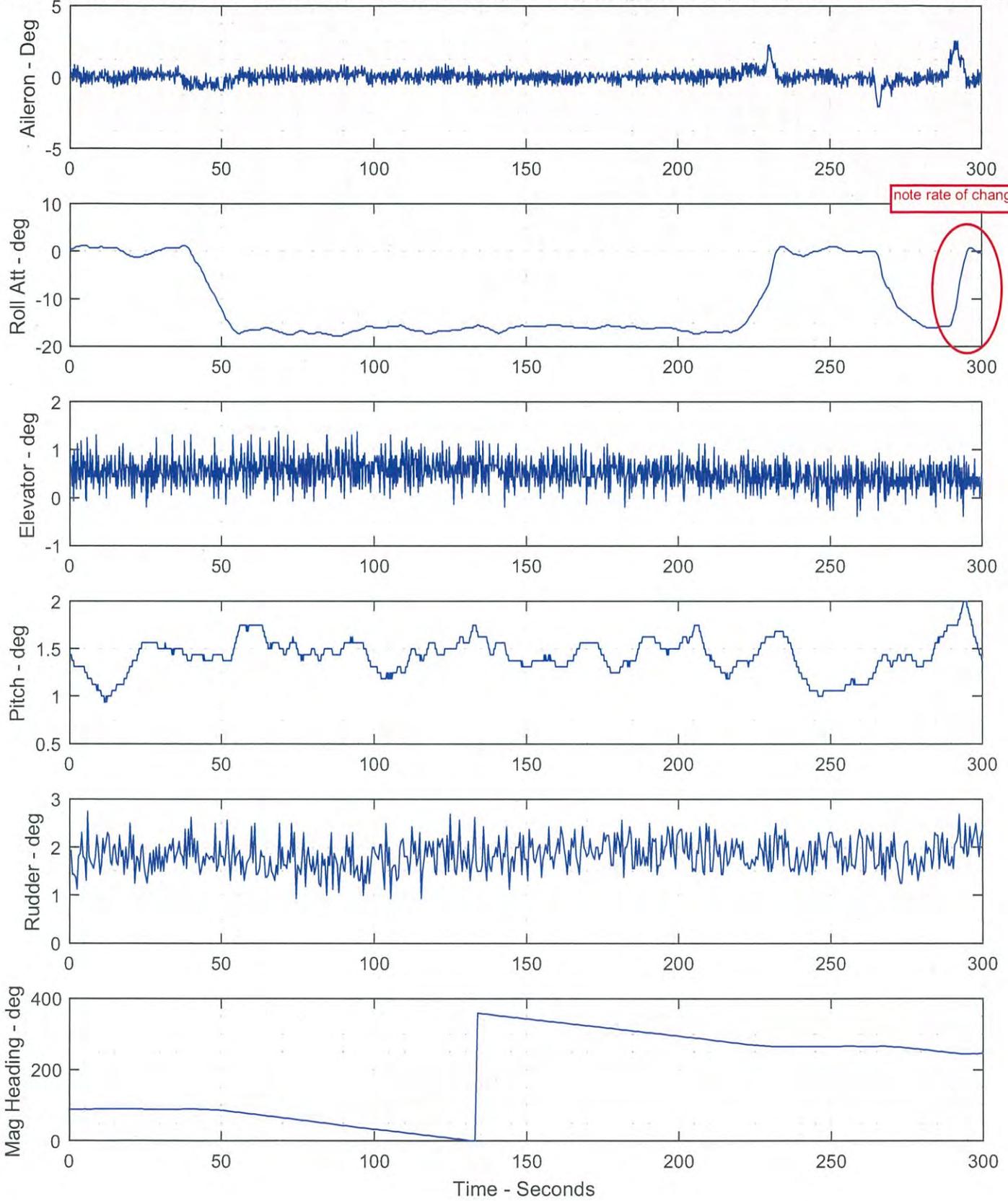
Dec 2018 BuNo 167981 Entire Flight, Start time=15:24:36 End time=16:44:14, Attitudes and Surface Positions



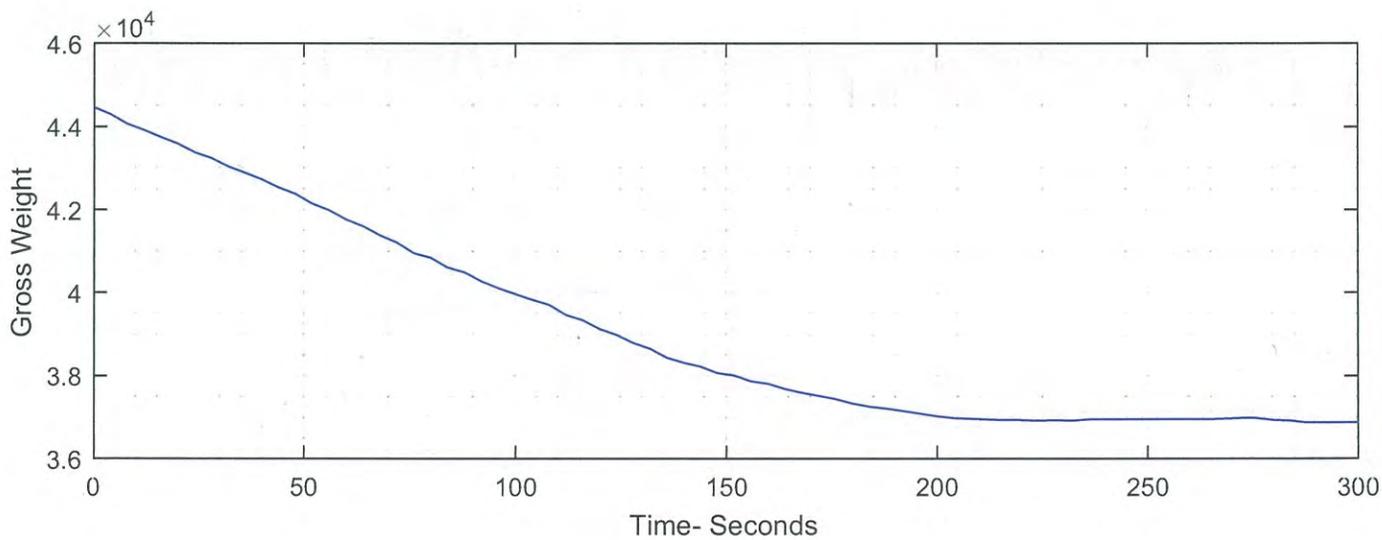
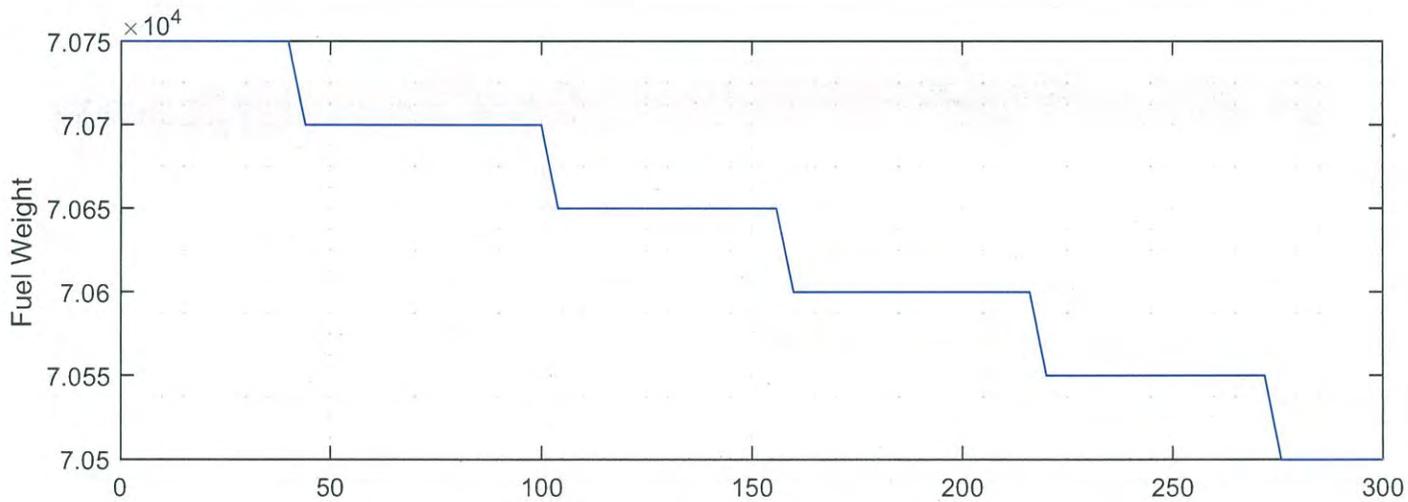
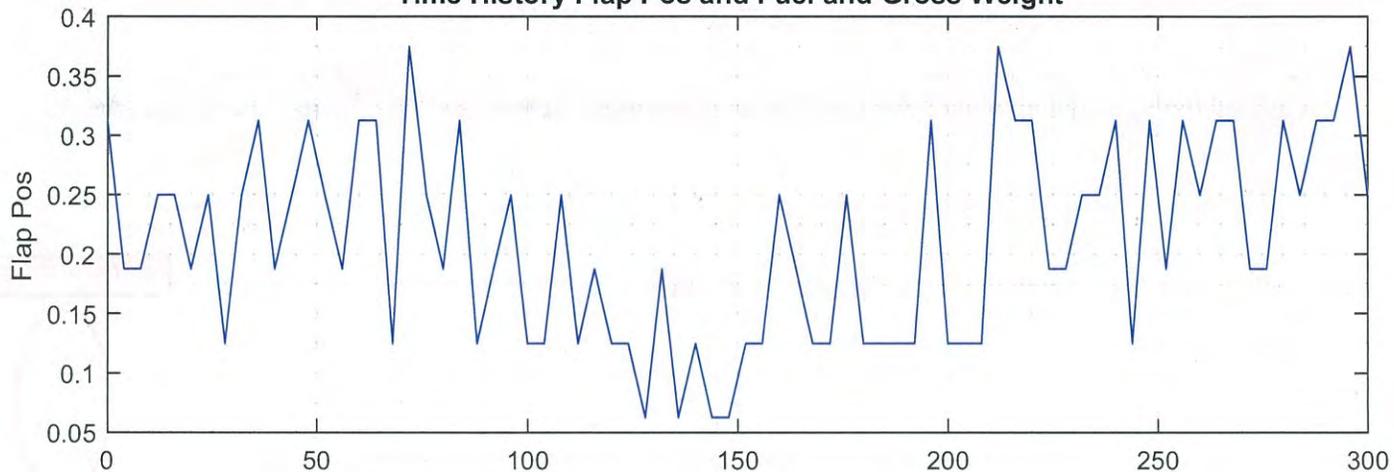
Dec 2018 BuNo 167981 Entire Flight, Start time=15:24:36 End time=16:44:14, Longitudinal Parameters



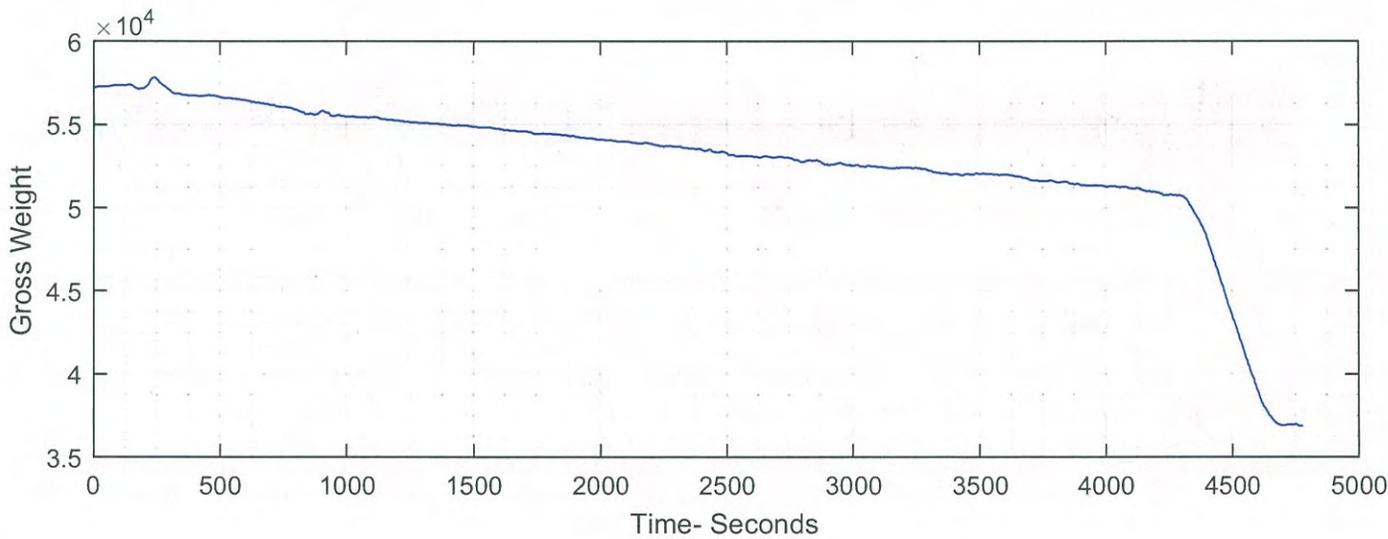
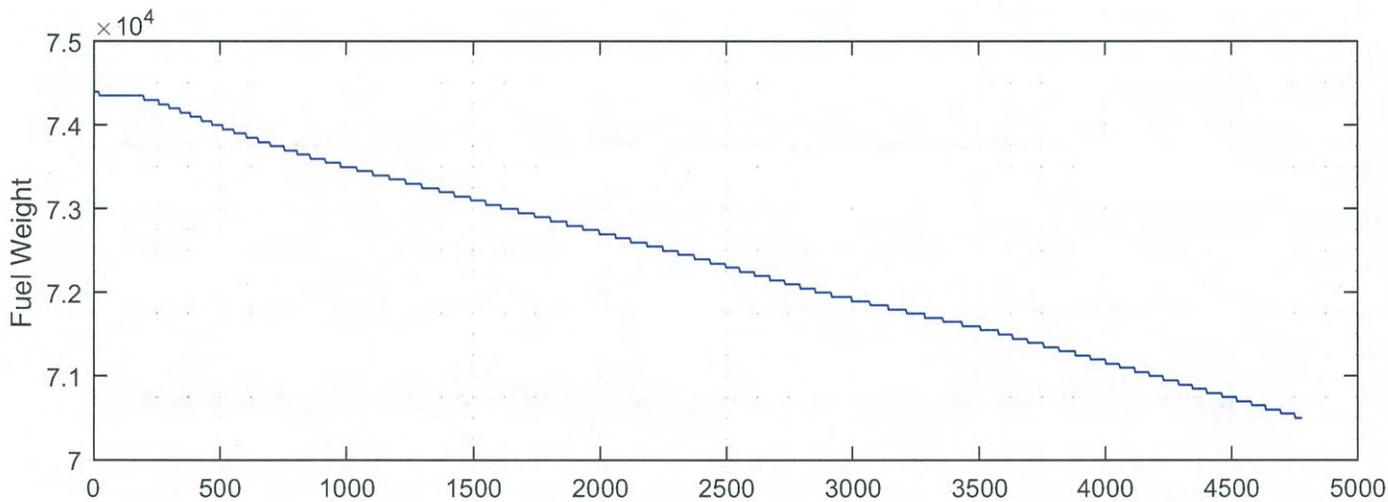
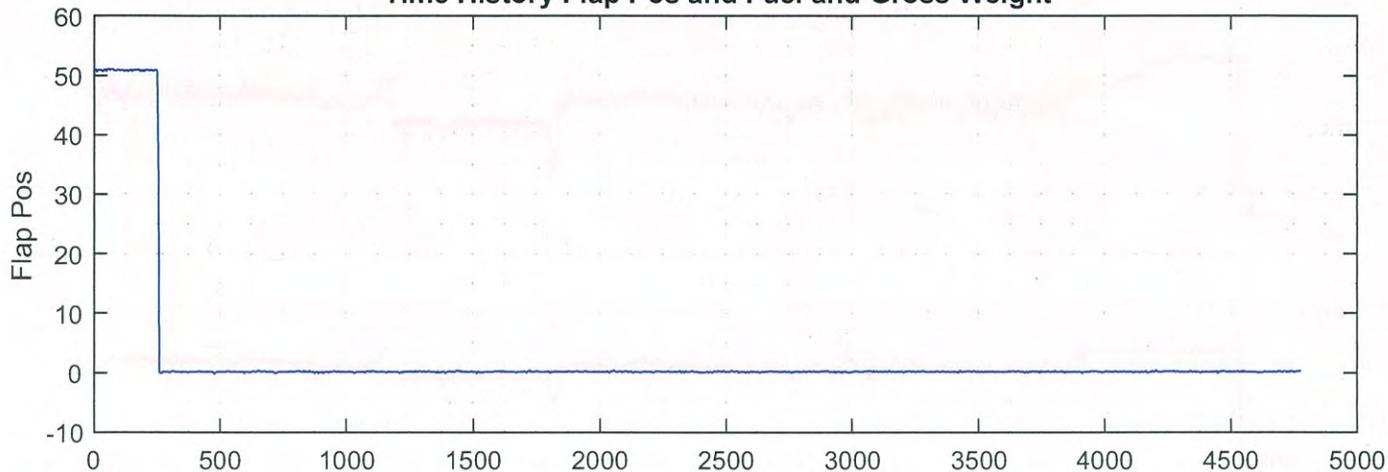
Dec 2018 BuNo 167981 Last 5 minutes, Start time=16:39:14 End time=16:44:14, Attitudes and Surface Positions



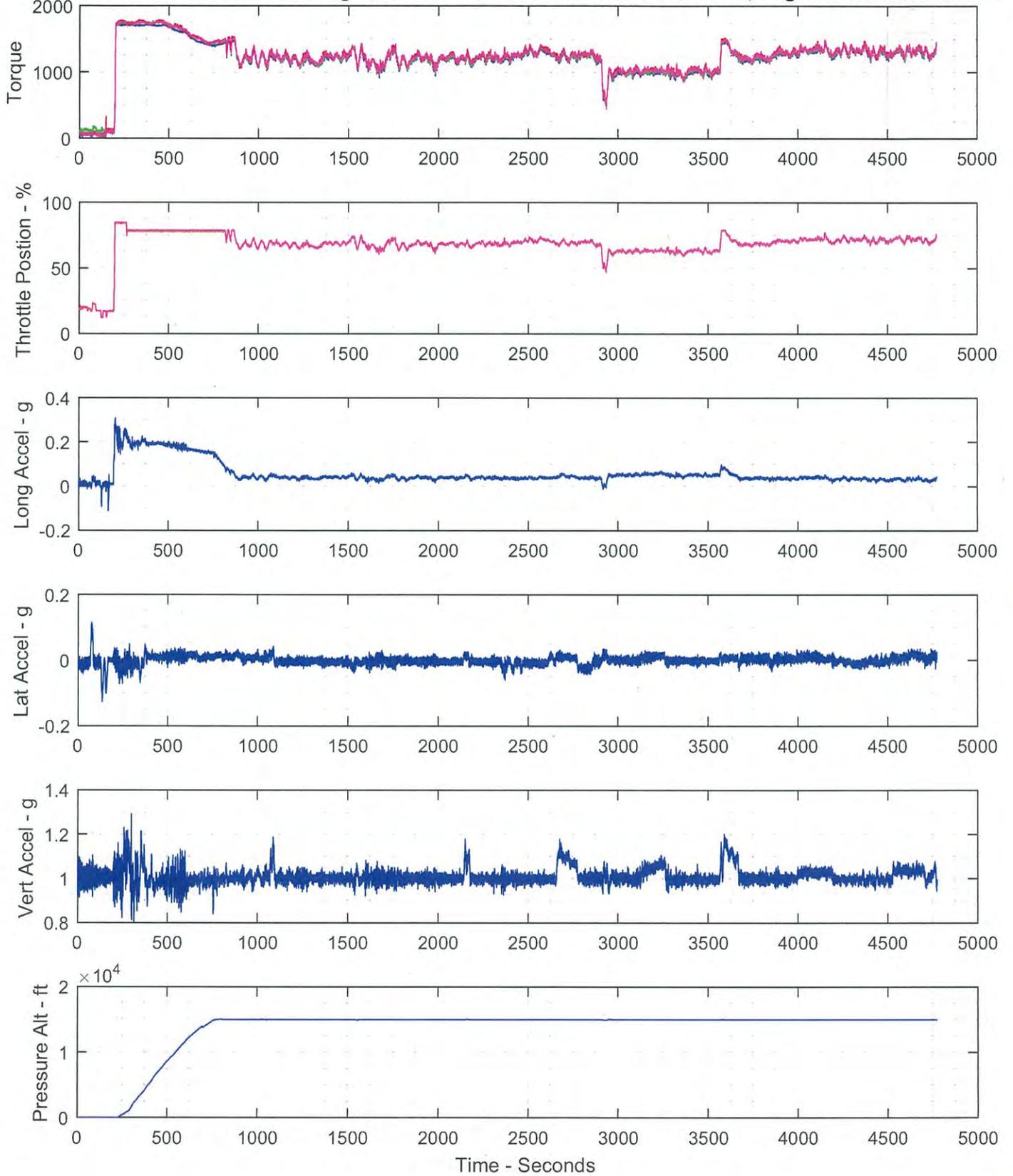
Time History Flap Pos and Fuel and Gross Weight



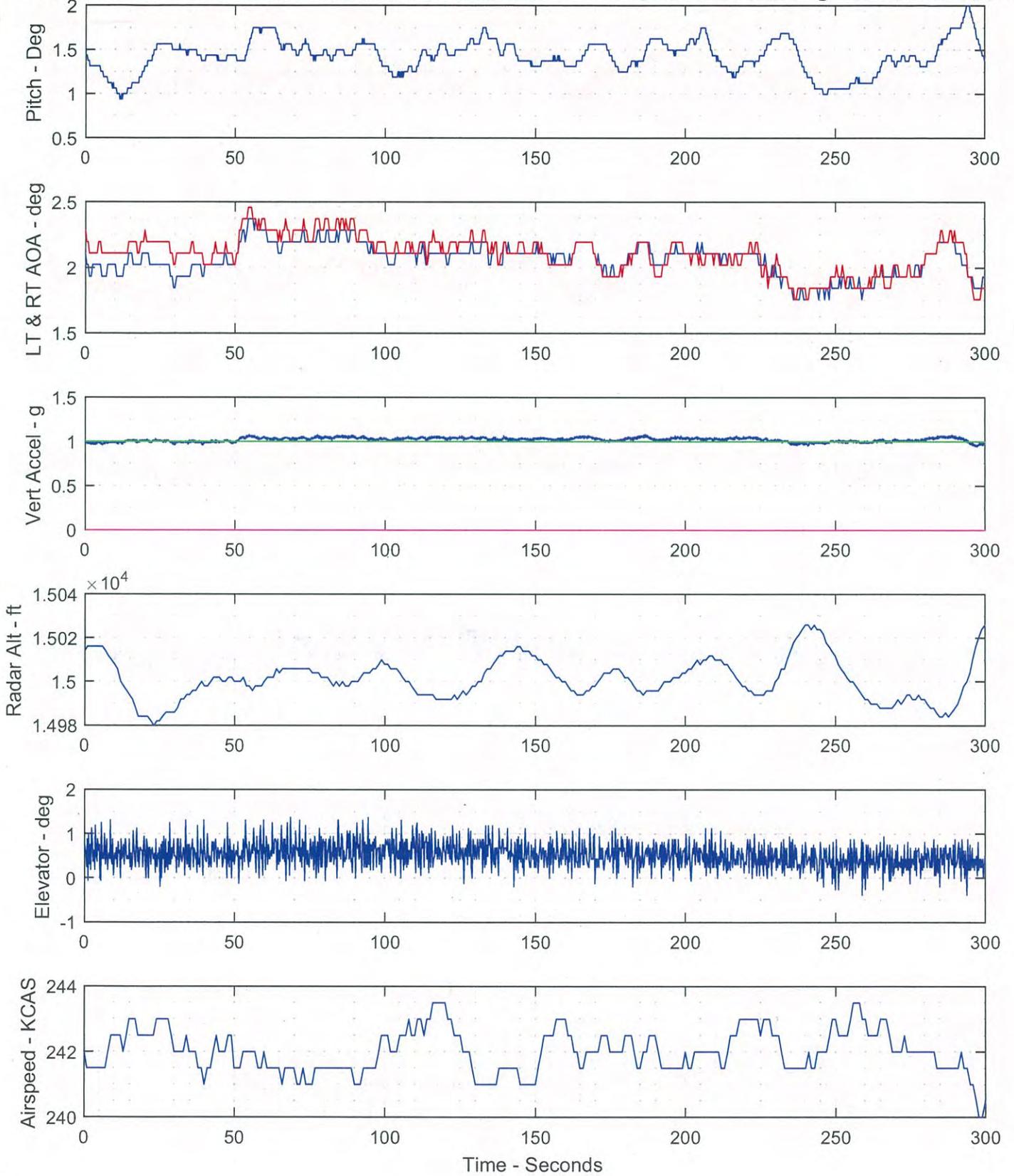
Time History Flap Pos and Fuel and Gross Weight



Dec 2018 BuNo 167981 Entire Flight, Start time=15:24:36 End time=16:44:14, Engine and Accelerations



Dec 2018 BuNo 167981 Last 5 minutes, Start time=16:39:14 End time=16:44:14, Longitudinal Parameters



Dec 2018 BuNo 167981 Last 5 minutes, Start time=16:39:14 End time=16:44:14, Engine and Accelerations

