



DEPARTMENT OF THE NAVY  
COMMANDER NAVAL AIR FORCE PACIFIC  
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5830  
Ser N00/719  
14 Sep 16

FINAL ENDORSEMENT on COL (b) (6), (b) (3) (A) , USMC, ltr of 5 Jul 16

From: Commander, Naval Air Force, Pacific  
To: File

Subj: COMMAND INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING  
THE NAVY FLIGHT DEMONSTRATION SQUADRON CLASS A AVIATION  
MISHAP IN SMYRNA, TENNESSEE, ON 2 JUNE 2016

Ref: (a) CNATRA ltr 5830 Ser 00/0412 of 25 Aug 16  
(b) JAG Manual, Chapter II

1. I have reviewed reference (a), and, except as modified below, I approve the investigating officer's findings of fact, opinions, and recommendations. Additionally, I concur in part with the endorsement from Chief of Naval Air Training (CNATRA).

2. Executive Summary

a. Captain Jeffrey Kuss, USMC, was fully qualified to fly the F/A-18C aircraft and was universally recognized as one of the most meticulous and professional Blue Angel pilots by his teammates. In addition, he had accumulated 1,686.5 total flight hours and had no previous military mishaps or flight violations. The Blue Angels were in Smyrna, Tennessee for the Great Tennessee Air Show and Captain Kuss occupied the #6 position within the Blue Angels' final demonstration.

b. On 2 June 2016, Captain Kuss performed a Tactical Demonstration of an F/A-18C aircraft during a practice flight in Smyrna, Tennessee. During the execution of a "Split S" maneuver, Captain Kuss deviated from approved procedures which, compounded by several tactical errors and loss of situational awareness created a rate of descent during that maneuver that could not be arrested and resulted in ground impact. Based on the investigation, weather conditions and fatigue were contributing causal factors, but ultimately, the mishap was due to pilot error. Several indicators from Captain Kuss' behavior on the morning of the mishap suggest he was fatigued: Captain Kuss did not sign his A sheet (accepting his aircraft) prior to the mishap flight and did not turn on his transponder (mode 3 IFF squawk) prior to take off for the mishap flight (both omissions were out of character). Additionally, he failed to retard the throttle out of afterburner during the mishap maneuver despite verbalizing his intent to do so on the radio. On the day of the mishap, potential weather impacts of a scattered to broken cloud layer were discussed by Captain Kuss and the Lead Solo. Clouds at about 3,000 feet near the projected flight path did not impact the solos ability to fly, but that weather was likely a contributing factor to Captain Kuss' decision to initiate the "Split S" maneuver below the normal altitude. Airspeed higher than normal for the maneuver and the lower starting altitude limited decision-making opportunities and removed margins of error for corrections to the flight trajectory.

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3. First Endorsement. I concur with the CNATRA endorsement, except to disapprove Opinion 4 (b). I believe that weather was a factor, and contributed to a lower than normal starting altitude for the “Split S” maneuver.

4. Investigation

a. Findings of fact. I concur with the investigating officer’s findings of fact (FoF), except FoF 190, which should be modified to read as follows: “Capt Kuss showed signs of fatigue on Thursday, 2 June 2016 as evidenced by out-of-character habit pattern omissions, such as not signing the A sheet, not turning on IFF, and not deselecting afterburner after verbalizing it on the radio.” [Enclosure (6), (39)-(41), (60), and (65)]

b. Opinions. The Opinions of the investigating officer are hereby approved. In addition, I add Opinion 28, which shall read: Captain Kuss appeared to suffer from fatigue on the day of the mishap and that his fatigue was a contributing factor in the mishap. [FoF (6), (88), (91), and (190)]

c. Recommendations. I concur with the investigating officer’s Recommendations and will hereby take, direct, and/or request action as noted in paragraph 5 below.

5. CNAF Directed Immediate Actions

a. Per section 0223 (b)(2) of reference (b), a complete copy of this investigation shall be forwarded to Commander, Naval Safety Center.

b. By copy of this endorsement, I direct that no changes to the airshow demonstration following FAA certification and CNATRA review be authorized without CNATRA approval.

c. By copy of this endorsement, I direct that the “Split S” maneuver no longer be performed in the show until further notice and upon final approval by CNATRA.

d. By copy of this endorsement, I direct that COMM CART (communications cart) training and standardization be established, to include individual responsibilities, in order to provide backup to the pilots on No Maneuver checkpoints. Additional altitude/safety calls, made by the pilots over the radio, will be added as part of this standardization to give the COMM CART personnel better situational awareness during maneuvers.

e. By copy of this endorsement, I direct that Dive Recovery Rules used for any maneuver be caveated with specific airspeed limitations.

f. By copy of this endorsement, I direct that a formal, personal ORM process for identifying risk prior to flying be put in place and that it be reviewed annually by CNATRA.

Subj: COMMAND INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING THE NAVY FLIGHT DEMONSTRATION SQUADRON CLASS A AVIATION MISHAP IN SMYRNA, TENNESSEE, ON 2 JUNE 2016

g. By copy of this endorsement, I direct that the Blue Angel SOPs be updated/published for the rest of the show season and before each new show season. Any SOP changes will be reviewed by CNATRA and formally acknowledged in writing by all team members before being incorporated.

h. By copy of this endorsement, I direct that the weather decision for the current show be made by the Boss with concurrence from the team, vice separate weather decisions by the Diamond and Solos.

i. By copy of this endorsement, I direct that a higher safety altitude/buffer be in place for the rest of the 2016 season.

j. By copy of this endorsement, I direct that all pilots will make positive radio confirmation of altimeter settings on deck prior to takeoff.

k. By copy of this endorsement, I direct that the Navy Flight Demonstration Squadron (NFDS) Commanding Officer (CO) review/approve all maneuvers and SOPs prior to FAA certification and approval by CNATRA.

l. By copy of this endorsement, I direct that one of the remaining shows this season (TBD) will be cancelled in order to provide a break and assess the team's performance.

m. By copy of this endorsement, I direct that the pilot selection criteria be updated to include a more holistic look at an applicant's overall career flight performance (July 2016 incorporated).

6. CNAF Directed Long Term Actions. At the conclusion of the 2016 NFDS season, I further direct the following:

a. By copy of this endorsement, I direct that an independent F/A-18 qualified, non-NFDS team assess NFDS for training, standardization, maintenance and culture, as well as review administrative and safety processes. This will be an annual review during the off season.

b. By copy of this endorsement, I direct that all maneuvers and altitudes be assessed for impact to the demonstration, with the goal of adding mitigations and altitude safety buffers.

c. By copy of this endorsement, I direct that future show season schedules be adjusted in order to provide more regular breaks and better flow to allow rest and regularly assess the team's performance.

d. By copy of this endorsement, I direct that the Prospective Commanding Officer (PCO) be selected and assigned earlier to allow more time to learn SOPs and to familiarize him/herself with the demonstration and team members.

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e. By copy of this endorsement, I direct that training and standardization at Winter Training be codified in all SOPs, reviewed and approved by NFDS CO and acknowledged by all team members in writing prior to the first show following El Centro.

7. Conclusion. Captain Kuss, USMC, represented the best and brightest of Naval Aviation. His professionalism, expertise, and love of flying made him a valued member of the Blue Angels and the United States Marine Corps. Nonetheless, the Blue Angels' mission is always subject to some degree of risk. Our procedures to maximize safety and minimize risk must be robustly implemented and methodically reviewed. We have to standardize the way Blue Angel SOPs are generated, published and acknowledged by all team members. In order to maintain safe and effective operations, the process required to make subsequent SOP changes must be strictly followed. The unique nature of the NFDS adds another risk dynamic. Every other squadron in the fleet has the ability to find a substitute pilot to complete the mission or execute an alternate mission. However, if one of the Blue Angel pilots is not ready, there are no other pilots who can readily cover their position for a show. The pressure to not let the team down and miss a performance, although unspoken, is tremendous. Fundamentally, we will create an environment for the NFDS where each pilot feels empowered to speak up before or during a brief if they are not physically or mentally prepared for a flight. Additionally, we will ensure the other pilots and members of the team are looking for those signs as well. We have well-established processes in the fleet for an aviator to "take a knee" and tell the operations officer that he/she is not ready for a flight, and that freedom must extend to the Blue Angels as well.

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

F. M. SHOEMAKER

Copy to:  
CNATRA  
COL (b) (6), (b) (3) (A)