



DEPARTMENT OF THE NAVY  
COMMANDER NAVAL AIR FORCES  
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5830  
Ser N00/152  
19 Apr 22

FINAL ENDORSEMENT on CAPT (b) (3) (A), (b) (6), USN ltr 5830 of 4 Feb 22

From: Commander, Naval Air Forces  
To: File

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE 31 AUGUST 2021 AVIATION MISHAP THAT OCCURRED  
ONBOARD USS ABRAHAM LINCOLN (CVN-72)

Encl: (118) CDR (b) (3) (A), (b) (6), USN, ltr 5340 of 11 Apr 22

1. This command investigation [hereinafter “command investigation”] was convened to inquire into the facts and circumstances surrounding the incident on 31 August 2021 that resulted in the loss the MH-60S aircraft (BUNO 167899), call sign LOOSEFOOT 616 (LT 616) and five Sailors who tragically perished in the mishap. Enclosure (118) is the supplemental investigation [hereinafter “supplemental investigation”] convened to inquire into the material condition and performance of the Aviation Life Support Systems (ALSS) associated with the subject mishap.
2. I join Commander, THIRD Fleet and the investigating officer in extending my deepest condolences to the families and loved ones of LT Bradley Foster, LT Paul Fridley, AWS1 James Buriak, HM1 Sarah Burns, and HM2 Bailey Tucker.
3. I commend the crew of USS ABRAHAM LINCOLN for their expeditious response to this tragedy and the immediate rescue of AWS3 (b) (6), (b) (7) (C), (b) (3) (A). I would like to extend my deepest gratitude to the USS CINCINNATI and the Helicopter Maritime Strike (HSM) and Helicopter Sea Combat (HSC) squadrons who contributed to the search for our fallen Sailors.
4. After review of both the command and supplemental investigations, I hereby approve the findings of facts, opinions, and recommendations of the investigating officers as endorsed by Commander, U.S. THIRD Fleet with the below modifications.
5. The following modifications are hereby made to the command investigation:
  - a. Enclosures (10) and (20) of the command investigation provide conflicting accounts of the location of the pilots in the aircraft. However, enclosure (2) of the supplemental investigation clarifies this discrepancy. Therefore, Finding of Fact 45 of the command investigation is hereby rewritten to state “LT Foster was seated in the left pilot seat. LT Fridley was seated in the right pilot seat.”
6. The following corrective actions have been taken to address each likely cause of this mishap:

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a. On 14 September 2021, an H-60 Interim Rapid Action Change (IRAC), and an Engineering Advisory Report (EAR) were released to highlight proper use of the Spindle Pry Bar during maintenance and reemphasized possible damage when improperly used.

b. On 7 December 2021, an H-60 Interim Support Equipment Change (ISEC) was released directing the modification of the Main Rotor Head Spindle Pry Bar by adding a "hard stop" to ensure the spindle pry bar cannot be installed with the damper hose attached. 78% of all U.S. Navy Spindle Pry Bars have been inducted and completed to date.

c. On 24 January 2022, Naval Air Systems Command (NAVAIR) released an Urgent H-60 NATOPS Change providing amplifying information on Ground Resonance (Chapter 11 and Chapter 12), Damper Failures (Chapter 12), and updating Unusual Vibrations in Flight and Ground Resonance/Unusual Vibrations on Deck Emergency Procedures (Chapter 12). The change to the Emergency Procedure immediately addresses Recommendation 2 of the command investigation by emphasizing the need to move the Power Control Levers (PCLs) to the off position, and by having the Pilot Not At the Controls put their hands on PCLs prior to landing.

d. On 3 March 2022, an H-60 Airframe Bulletin (AFB) was released ordering the inspection and replacement of all main rotor damper hoses no later than 60 flight hours from that date. HSC-8 has been issued 24 Damper Lines for their six assigned aircraft. NAVAIR is currently conducting analysis to determine a standard periodicity for replacement versus "fly-to-fail" procedures currently used.

e. NAVAIR Aircrew Systems Program Office (PMA 202) review of Life Preserver (LPU) 36/37 design is ongoing to prevent unintended migration of inflation tube knurled locking ring.

f. NAVAIR Aircrew Systems Program Office (PMA 202) review of inspection periodicity is ongoing for knurled locking rings and CO<sub>2</sub> cartridge alignment.

7. I have directed the following actions for all H-60 commands and NAVAIR:

a. Aircrew shall continue to regularly train to these types of emergencies and incorporate lessons learned from this incident into all future aircrew briefings.

b. Aviation commands shall brief this mishap, the command and supplemental investigations, lessons learned, and revisit procedures related to ground resonance, damper failures, and unusual vibrations both in the air and on deck. Commands shall brief the importance of proper preflight of SEA bottles, proper attachment procedures for Emergency Release Assemblies, and develop standardized methods for installing and utilizing passenger and aircrew seats, including gunner seats.

8. I have directed my staff to forward this investigation to NAVAIR and to address the following:

a. Examine the design and feasibility of incorporating failure indications of the main rotor head damper system into the cockpit.

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- b. Examine the material design of the main rotor damper hoses to allow for material condition inspection to prevent in-flight failure.
  - c. Examine the depth at which a properly functioning LPU fails to provide effective flotation with a fully burdened life vest
  - d. Conduct random functional checks on 10% of squadron Ready For Issue (RFI) in-service LPUs to determine if the LPU functionality is an issue endemic to the Fleet.
  - e. Amend the requirements of the Naval Aviation Survival Training Program to require both auto inflation and manual inflation of at least one lobe for aircrew that utilize the LPU-73A/P and LPU-34B/P.
9. I have determined that no punitive or administrative action is warranted.
10. This investigation and enclosures will be maintained in the Force Judge Advocate office for Naval Air Forces, which may be reached at (b) (6), (b) (7)(C)



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