

CUI DEPARTMENT OF THE NAVY CHIEF OF NAVAL AIR TRAINING 250 LEXINGTON BLVD SUITE 179 CORPUS CHRISTI TX 78419-5041

5830 Ser N00/300 25 May 22

THIRD ENDORSEMENT on (b) (6)			
From: Chief of Naval Air Training To: File			
Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE TH-57C AIRCRAFT MISHAP ON 19 AUGUST 2021 INVOLVING INSTRUCTOR PILOT (b) (6) AND STUDENT NAVAL AVIATOR (b) (6) (b) (6)			
1. After careful review of the subject investigation, and per reference (a), I approve the findings of fact, opinions, and recommendations of the Investigating Officer (IO), Commanding Officer (CO), Helicopter Training Squadron (HT-18), and Commander, Training Air Wing FIVE except as set forth in paragraph 4 of this endorsement. Any delay beyond the prescribed 20 days was due to necessary additional investigative steps to provide a thorough and complete endorsement.			
2. Executive Summary			
a. On Thursday, 19 August 2021, (b) (6) and (b) (6) departed their home field at Naval Air Station Whiting Field in a TH-57C helicopter for regularly scheduled flight training syllabus maneuvers. (b) (6) served as the Instructor Pilot (IP) and (b) (6) received the flight training instruction as the Student Naval Aviator (SNA). The crew flew a helicopter assigned to HT-18 that crashed while conducting a power-recovery autorotation at Navy Outlying Field (OLF), Santa Rosa. The crash resulted in a Class Alpha mishap. I concur with the IO, CO, HT-18, and Commander, Training Air Wing FIVE that the injuries to (b) (6) and (b) (6) occurred in the line of duty and not due to their own misconduct.			
b. The investigation found no evidence that pointed to mechanical, maintenance, or weather-related issues causing the mishap. According to the interview with (b) (6) first student of the day (b) (6) nothing abnormal was noted with regard to her brief with (b) (6) leading up to the mishap flight. Interviews with the aircrew indicated the transit to the OLF and the maneuvers before the crash, including an identical one to the mishap maneuver conducted immediately before the crash were completed uneventfully. (b) (6) was fully qualified and current to instruct the flight.			
c. Though pilot error remains the most likely cause of the mishap, the scant available data does not lend a more precise conclusion about what led to the crash. Without benefit of a flight			

data recorder, I lack of critical information to determine exact causation. As CO, HT-18, and

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Commander, Training Air Wing FIVE explained, the TH-57 lacks a flight data recorder while the newly arriving TH-73 has one installed.

- d. CO, HT-18 ably highlighted three recommendations to enhance the safety of the autorotation procedure. Although this investigation cannot pinpoint a more specific cause, CNATRA personnel must follow all ORM and safety procedures to the utmost degree as crucial steps to prevent further mishaps.
- e. The Investigating Officer elected to make a line of duty determination concerning b) (6) in the absence of specific direction for such a finding. Following the requirements of reference (a), the line of duty findings for both (b) (6) and (b) (6) fully comport with the procedures for those made in other CNATRA aviation mishaps.
- 3. <u>Findings of Fact</u>. I approve the findings of fact of the IO, CO, HT-18, and Commander, Training Air Wing FIVE.
- 4. Opinions. I approve the opinions as written by the IO, subject to the following modifications below:
- a. Modify Opinion 4. Pilot error was the most likely fault for this mishap. The available evidence inhibits pinpointing a more precise cause for it (FF (13), (14), (15), (16), (19), (20), and (24)).
- 5. <u>Recommendations</u>. I approve the recommendations of the IO, and additional recommendations from the CO, HT-18. To further implement the recommendation, I direct the following:
- a. The Assistant Chief of Staff for Training (CNATRA N7) is tasked to review Recommendations 3 thru 5 and implement appropriate changes to curriculum and training events. In this review, Commander Training Air Wing FIVE will support CNATRA N7.
- 6. No administrative of disciplinary action is warranted.



Copy to: CNATRA(N4) CNATRA(N7) COMTRAWING FIVE



DEPARTMENT OF THE NAVY

COMMANDER
TRAINING AIR WING FIVE
7480 USS ENTERPRISE STREET SUITE 205
MILTON, FLORIDA 32570-6017

5830 Ser N00/073 24 Jan 22

SECOND ENDORSEMENT on (b) (6), ltr of 15 Dec 21		
From: Commander, Training Air Wing FIVE To: Chief of Naval Air Training		
Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE TH-57C AIRCRAFT MISHAP ON 19 AUGUST 2021 INVOLVING INSTRUCTOR PILOT (b) (6) AND STUDENT NAVAL A VIA TOR (b) (6)		
1. After careful review of the subject investigation, and in accordance with the JAGMAN, I concur with the findings of fact, opinions and recommendations of the Investigating Officer (IO) as modified by the Commanding Officer (CO), Helicopter Training Squadron EIGHTEEN (HT-18).		
2. Executive Summary		
a. On Thursday, 19 August 2021, a TH-57C aircraft assigned to HT-18 and piloted by (Instructor Pilot (IP)) and (I) (Student Naval Aviator (SNA)), crashed while conducting a power-recovery autorotation at Navy Outlying Field (OLF) Santa Rosa. I concur with the Investigating Officer and the squadron Commanding Officer that the injuries to (I) (I) (I) (I) (II) (II) (III) (
b. This investigation found no evidence that pointed to mechanical, maintenance, or weather related issues causing the mishap. It is reported that nothing abnormal was noted by (b) (6) with the brief, transit to the OLF, or any prior maneuvers before the crash, including an identical one to the mishap maneuver conducted immediately before the crash. As noted by the squadron Commanding Officer, while other instructors noted (b) (6) had shown some issues with air work on previous events, these issues were normal flight student issues that the flight syllabus is designed to instruct and correct. His prior performance and motivation in and out of the aircraft were well within the standards required of flight students. (b) (6) was fully qualified to conduct the flight and had previously demonstrated the ability to instruct the flight.		
c. Due to the inability of the mishap crew to recall the specifics of the incident, coupled with limited witness accounts of the event, and further inhibited by the lack of a flight data recorder, the specifics of the incident are unascertainable. I make no recommendation concerning a flight		

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE TH-57C AIRCRAFT MISHAP ON 19 AUGUST 2021 INVOLVING INSTRUCTOR PILOT

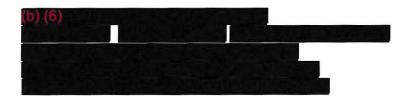
AND STUDENT NA VAL A VIATOR (b) (6)

data recorder as my Wing is presently transitioning from the TH-57 to the TH-73 helicopter that is equipped with such a device. Based on what the investigating officer could ascertain from factual data and limited recall of the crew, I concur with the IO and Commanding Officer that pilot error was the most likely cause. Due to the lack of information that could prove otherwise, the most likely scenario is that the SNA conducted the maneuver with an inherent error that the IP failed to recognize or correct in time. We are left with no other option than to piece together what we do know and draw this conclusion. As previously stated, the lack of a crash-survivable data recorder hindered the investigation process and coupled with the mishap crew's inability to recall exact details of the incident leaves us with the wholly unsatisfying determination of pilot error without the benefit of a specific cause.

- 3. Findings of Fact. I approve of the findings of fact of the Investigating Officer.
- 4. Recommendations. I approve of the recommendations of the Investigating Officer, as modified by the Commanding Officer.
- 5. No punitive action is warranted.



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CUI DEPARTMENT OF THE NAVY

COMMANDING OFFICER
HELICOPTER TRAINING SQUADRON EIGHTEEN
7413 USS ENTERPRISE STREET SUITE 102
MILTON, FL 32570-6011

5830 Ser N00/010 11 Jan 22

, ltr of 15 Dec 21

1. In accordance with the JAGMAN, I concur with the findings of fact, opinions, and recommendations of the Investigating Officer except as set forth in paragraph 4 of this endorsement.

2. Executive Summary.

FIRST ENDORSEMENT on 60 (6)

This investigation documents the complete loss of TH-57C Bureau Number 162813 and line of duty determination for the crew members. Accordingly, pursuant to my duty as Convening Authority and reference (a), subsection 0223.a.(1), I specifically concur with the Investigating Officer that the injuries to (b) (6) and (b) (6) occurred in the line of duty and not due to their own misconduct. and (b) (6) flew their helicopter to a local outlying field (OLF) to conduct a contact stage familiarization syllabus flight on 19 Aug 2021. Nothing abnormal was noted by with the brief, transit to the OLF, or any prior maneuvers conducted before the incident leading to the crash. Weather, aircraft maintenance, crew rest, and crew training and preparation all proved to be suitable to conduct the flight that day. While (6) shown some issues with air work on previous events, his prior performance and motivation in and out of the aircraft were well within the standards required of flight students. Despite being a relatively new instructor, (6) (6) had previously instructed 10 similar day contact training events including successfully completing a similar training profile with a less experienced tiltrotor student immediately preceding the mishap flight. Additionally, according to all available information, the mishap flight itself was flown in strict compliance with all governing directives including building up to power off maneuvers, and demonstrating the first example of each power off maneuver. Unfortunately, approximately half way through the flight and immediately after a prior practice autorotation, the crew commenced another practice autorotation that precipitated the crash.

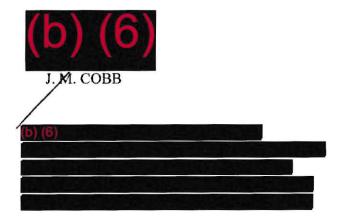
The lack of a flight data recorder combined with the inability of either crew member to recall the events precipitating the crash prevents a detailed analysis of the causation of the crash.

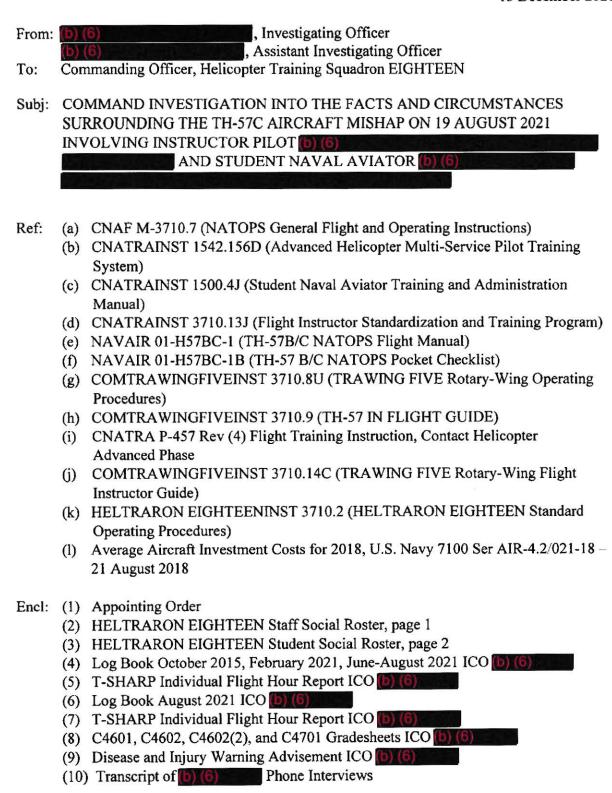
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AND STUDENT NAVAL AVIATOR (b) (6)

Though one eyewitness to the crash noted slower main rotor rotation than normally required, all other aspects of the autorotation event cannot be precisely ascertained. Accordingly, the paucity of information inhibits me from arriving at any precise, assured conclusions about the root cause of the crash other than those of the investigation. The primary deduced conclusion is that pilot error was the most likely cause. It is probable that an error was made by (b) (6) that was not identified or reacted to in time by (b) (6) to prevent the mishap. The lack of detailed information immediately prior to the mishap poses difficulties to providing exact remedies to ensure we do not repeat the same mistakes in the future beyond emphasizing defensive posturing, heightening awareness, and continuing instructor proficiency training. Among the many advances in the newly arriving TH-73A, this helicopter will arrive equipped with a crash-survivable flight data recorder which would surely shed further light on an incident like this.

- 3. Findings of Fact. I approve of the findings of fact of the Investigating Officer.
- 4. <u>Recommendations</u>. I approve of the recommendations of the Investigating Officer, subject to the following modifications and additions.
- a. Add Recommendation 3: "Conduct training with all Training Air Wing FIVE instructor pilots on this mishap and enhanced defensive posturing."
- b. Add Recommendation 4: "Incorporate the Flight Instructor Guide Autorotation discussion into all squadron flight briefing binders and require crews brief and review the criteria for instructor intervention during an autorotation for all flights where practice autorotations will be conducted."
- c. Add Recommendation 5: "Incorporate autorotation-related scenarios into defensive posture simulators and instructor proficiency flight discussions. Emphasize potential for incorrect procedures and control inputs in a maneuver and techniques to intervene early or recover.
- 5. No punitive action is warranted.



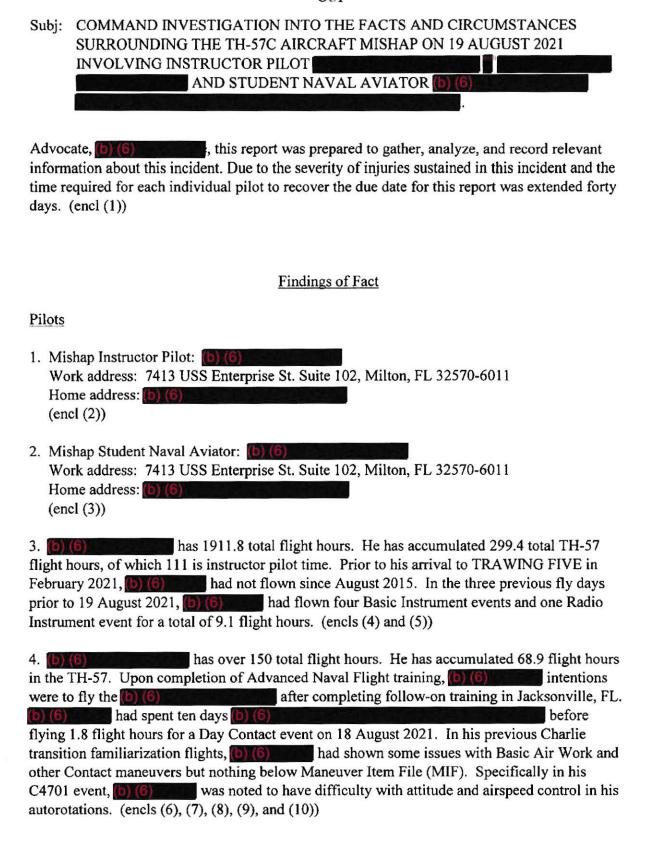


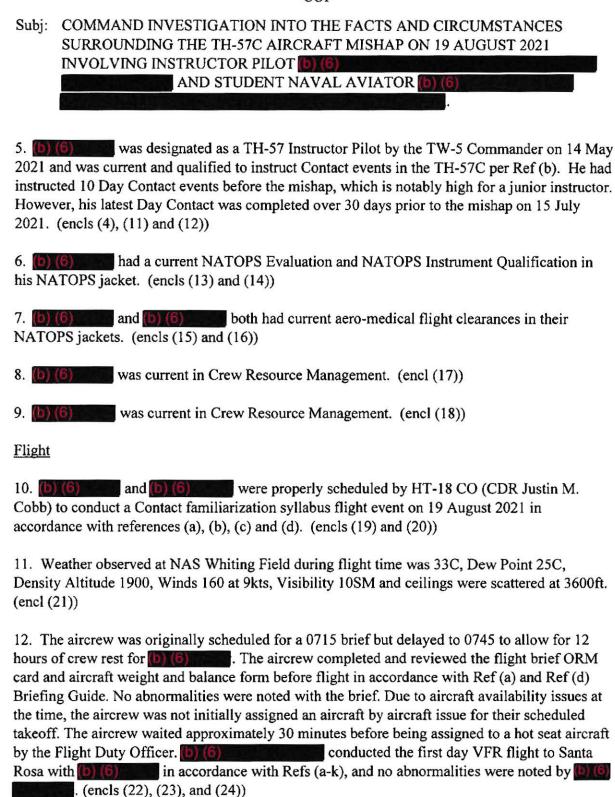
Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE TH-57C AIRCRAFT MISHAP ON 19 AUGUST 2021 INVOLVING INSTRUCTOR PILOT (6) (6) AND STUDENT NAVAL AVIATOR (11) Instructor Pilot Designation Letter ICO (12) Flight Personnel Qualification(s) ICO (13) NATOPS Evaluation ICO (6) (6) (14) NATOPS Instrument Rating ICO (b) (6) (15) Aero-Medical Flight Clearance ICO (6) (6) (16) Aero-Medical Flight Clearance ICO (b) (6) (17) NATOPS Jacket Personnel Training/Qualification Jacket ICO (6) (6) (18) NATOPS Jacket Personnel Training/Qualification Jacket ICO (b) (6) (19) HELTRARON EIGHTEEN Flight Schedule 19 August 2021 (20) Aviation Training Jacket Calendar Card ICO (6) (6) (21) DD175-1 19 August 2021, Valid 1800-2100Z (22) Aircrew Operational Risk Management Assessment (23) Aircrew Weight and Balance Calculation Form (24) Transcript of (b) (6) Phone Interview (25) Disease and Injury Warning Advisement ICO (6) (6) (26) Transcript of (b) (6) Phone Interview (27) OLF Santa Rosa Aircraft LOG (28) Witness Statement ICO (6) (6) (29) Photographs of Aircraft Wreckage Depicting Direction of Impact, Terrain of Impact, and Location (30) Statement of Injuries by (6) , Flight Surgeon (31) Average Aircraft Procurement Investment Report FY 2018 (32) Aircraft Recovery Effort Cost Itemization Supplied by Navy Region Southeast Navy On-Scene Coordinator Representative, (6) (6) (33) NALCOMIS OMA AADB SUMMARY REPORT for Aircraft 127 (BUNO 162813) pp 1-3, and 7 (34) NALCOMIS Configuration Management Outstanding Technical Directives Report (35) NALCOMIS OMA Aircraft/Equipment Workload Report for Aircraft 127 (BUNO

Preliminary Statement

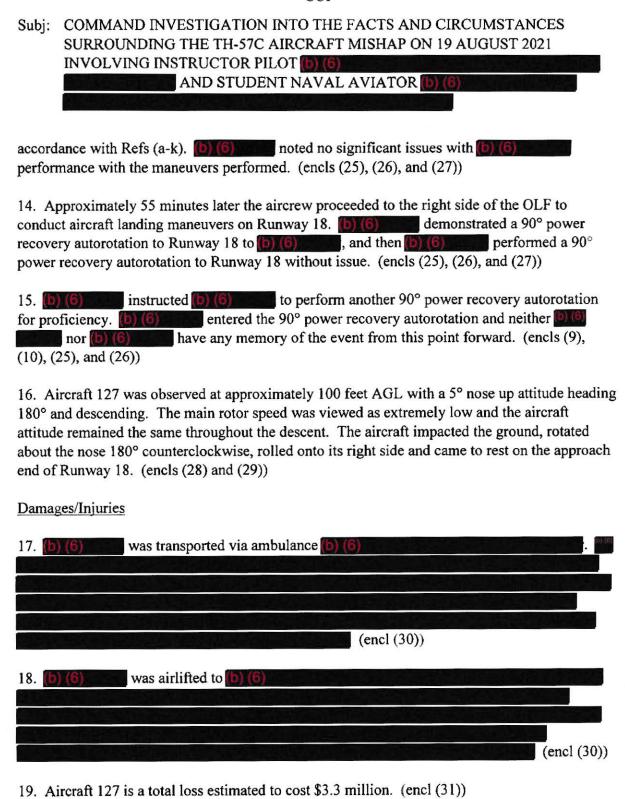
162813)

TH-57C BUNO 162813 (Aircraft 127) assigned to Training Air Wing FIVE at Naval Air Station Whiting Field impacted the ground at the approach end of runway 18 at KNGS, Navy Outlying Field Santa Rosa at 1340 CDT, resulting in a total loss of the aircraft and the medical evacuation of both aircrew. Through cooperation with the Chief of Naval Air Training Staff Judge





13. The aircrew executed a day VFR flight to Navy OLF Santa Rosa. The aircraft arrived at the OLF at 1242 CDT, split to the left side and proceeded to conduct flight syllabus training in



20. The total cost for Outlying Field Santa Rosa, Milton, FL, aircraft recovery and clean up was

\$135,198.01. (encl (32))

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Maintenance

- 21. Aircraft 127 was not overdue for any inspections. It had last flown 18 August 2021. (encl (33))
- 22. Aircraft 127 had incorporated all Airframe Bulletin and Airframe Change technical Directives. (encl (34))
- 23. Aircraft 127 had six open work orders prior to 19 August 2021. (encl (35))
- 24. As per ref (c), the TH-57 model aircraft does not contain a flight data recorder to preserve flight parameters for post-crash review.

Opinions

- 1. (b) (6) injuries were incurred in the line of duty and not due to misconduct. (FF (1), (3), (5), (6), (7), (8), (10), (12), (15), and (17))
- 2. (b) (6) injuries were incurred in the line of duty and not due to misconduct. (FF (1), (2), (4), (7), (9), (10), (12), (15), and (18))
- 3. Weather was conducive to the execution of the assigned Contact event during the time of flight and was in accordance with Ref (g) operating requirements for Contact events. (FF (11))
- 4. Pilot error was the most likely fault for this mishap. (b) (6)

 (FF (13), (14), (15), (16), (19), (20), and (24))
- 5. Maintenance was not at fault for the mishap. There were no unaddressed maintenance issues or actions leading up to the mishap flight. (FF (21), (22), and (23))

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AND STUDENT NAVAL AVIATOR (b) (6)

Recommendations

- 1. I recommend no further investigation into this mishap.
- 2. I recommend Training Air Wing FIVE and subordinate commands continue to maintain strict adherence to the applicable references listed in this report.



