NAVAL SAFETY CENTER
NAVAL AIR STATION
NORFOLK, VIRGINIA 23511

131/th
5 February 1969

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6F

FOR OFFICIAL USE ONLY

NAVSAFECEN INVESTIGATION 32-69

Ref: (a) NAVAIREWORKFAC Pensacola msg 241946Z Jan 1969

1. INTRODUCTION

a. The Accident. SH-34J, BUNO 148006, assigned to TRAINING SQUADRON EIGHT (HT-8), NAS Ellyson Field, Florida, crashed in a wooded area 338 degrees, 18 miles from NAS Pensacola and was destroyed (ALFA) by impact and subsequent fire. The accident occurred at approximately 1715(S) on 15 January 1969. The instructor pilot, CAPT (b) (6) [redacted] USMC, (b) (6) [redacted] received minor injuries. The student pilot, 2ND LT (b) (6) [redacted] USMC, (b) (6) [redacted], received major injuries due to postimpact fire. The crewman, A/A Glenn A. MILES, USN, (b) (6) [redacted], received fatal injuries. There was minor damage to private timberland.

b. Synopsis of Flight. The aircraft departed NAS Ellyson Field at 1640(S) for a night instrument training flight. During the flight, the instructor demonstrated the use of the Tactical Air Navigation (TACAN) equipment aboard the aircraft and required the student to perform various navigational maneuvers utilizing TACAN. At approximately 1715(S) with the instructor at the controls, tail rotor control was lost. The aircraft yawed violently to the right, entered a flat spin, descended vertically into a pine forest and burned.

2. INVESTIGATION AND ANALYSIS

a. History

(1) Pilot (Instructor). CAPT (b) (6) [redacted] age 38, was designated a Naval Aviator on 26 September 1956 and had accumulated 5520 flight hours, 4620 of which were in helicopters including 899 hours in the H-34. He was designated a Helicopter Aircraft Commander (HAC) and Flight Instructor by HT-8 on 15 January 1968. CAPT (b) (6) [redacted] received his last NATOPS check flight on 3 January 1969 and was rated as an above average pilot and instructor.

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Enclosure (1)

(2) Copilot (Student). 2ND LT (b)(6) [redacted] age 22, entered the service 25 January 1967 and had accumulated 222 flight hours as a student aviator, 40 hours of which were in the H-34. He was considered an above average student.

(3) Crewman. A/A MILES, age 19, was a crew chief trainee. He had passed his Plane Captain's written exam with an excellent score and had been briefed thoroughly on aircraft emergencies. He had accumulated 8 total flight hours, all of which were in the H-34. On this flight his only duty was to sit on the left side of the aircraft and watch for other aircraft.

(4) Aircraft. SH-34J, BUNO 148006, was accepted by the Navy in February 1961 and had logged 2941 flight hours. The second progressive aircraft rework (PAR) was completed at Naval Air Rework Facility (NAVAIREWORKFAC) Jacksonville, during March 1966 and the eleventh calendar odd inspection was completed in October 1968 by HT-8. A total of 1084 hours had been flown ince PAR and 140 hours since the eleventh calendar odd inspection.

(5) Engine.

MODEL	1820-84D
SERIAL	W523534
DATE ACCEPTED	11 JAN 1960
OP HRS SINCE ACCEPTANCE	2114.7
NO OF OVHLS	3
OVHL ACTIVITY	JACKSONVILLE
OP HRS SINCE OVHL	621.6
TYPE OF CHECK	CALENDAR ODD
DATE CHECK COMPLETED	31 OCT 1968
OP HRS SINCE CHECK	139.6

(6) Weather. Weather was not a factor in this accident.

b. Field Investigation

(1) The wreckage was located in a wooded area 338 degrees, 18 miles from NAS Pensacola, Florida. The pilots' statements indicated that the aircraft had been traveling on a heading of 340 degrees at 1500 feet when tail rotor control was lost. Forward speed at the time of control loss was approximately 80 knots.

(2) The aircraft descended almost vertically through 80-foot pine trees in a flat spin around its rotor axis. On contact with the trees the helicopter broke into two sections at station 316 (just aft of the heater compartment).

(3) The forward section of the aircraft, consisting of the cockpit, troop compartment, radio compartment and heater compartment, stopped rotation, slid down a tree and came to rest on its left side.

(4) The rear section, consisting of the tail cone and pylon area, landed on its tail wheel and fell on its right side.

(5) During aircraft breakup, the tail rotor and tail rotor gear box assembly tore away from the tail pylon, struck a tree and came to rest approximately 50 feet from the pylon.

(6) The aircraft fuel tanks ruptured on impact and were ignited by the hot engine. Fire had almost destroyed the aircraft. All was ash or molten metal except the following:

(a) Part of the main rotor transmission and "A" frame support.

(b) The upper half of the engine.

(c) Part of the main rotor hub assembly with blades.

(d) Those items listed in reference (a).

(7) The magnesium fuselage had burned more rapidly than the tail rotor drive shaft could melt. An ash depression, or concave trace, of the tail rotor drive shaft section could be followed from the short shaft section through the complete length of the tail and tail pylon areas. No misalignment could be found, indicating the drive shaft had not failed between the short shaft and tail rotor gear box, except where the gear box and tail pylon had been separated by impact.

(8) The crewman was found in a location indicating that he was in his proper crew position at impact. Both male locking tangs for the crew seats' lap belts were found in an unlocked condition. The strong possibility exists that he was not strapped to his seat during descent. Incineration of the body was almost complete. No additional pathological indications of injury could be determined.

(9) Discussions with the student and instructor indicated that the instructor had demonstrated a point-to-point TACAN navigation problem to the 340 degree radial of the NAS Pensacola TACAN at 36 miles. The instructor was preparing to make a right turn to track inbound on the 340 degree radial when the aircraft yawed violently to the right approximately 45 degrees.

(10) Sikorsky Aircraft Engineering Report 50384, Volume 2, concerning tail rotor failure tests, indicates the aircraft will yaw to the right 36 degrees within 5 seconds progressing to a 55 degree yaw within 30-40 seconds if failure occurs at 80 knots.

(11) The instructor immediately disengaged the rotor system from the engine, "split the needles". After a moment, he reengaged the engine and rotor system, but airspeed had so deteriorated that the spin of the aircraft was only increased. During this time he remembers holding the cyclic in the neutral or center position.

(12) NAVWEPS 01-230HLB-1, page 5-7, indicates that, "Tail rotor failure while above 40 knots airspeed will be indicated by a loss of directional control accompanied by a nose right yaw. ...If the immediate terrain is not suitable for landing, flight may be continued...between 40 to 80 knots airspeed. ...Use ground reference to maintain left sideslip between 45 and 90 degrees; use roll indicator to keep left roll between 10 and 20 degrees; hold the rate of turn indicator on zero to maintain heading; hold the rate of climb indicator on zero to maintain altitude. ...A considerable increase in manifold pressure will be attendant with this condition." Reduced to proper pilot reaction, immediate addition of power is required to hold airspeed above 40 knots and forward, left cyclic movement to maintain forward flight.

(13) The student pilot received first through third degree burns of the buttocks and legs. He had been issued a flight suit not authorized by the section "H" allowance. It was an Air Force flight suit titled; "Coveralls, Flying, Man's, Very Light K2-B, 8415-265-7877, Medium Short, Spec MIL-C-6265E (USAF), Satellite Outwear Corp., DSA 100-67-C-0963, 26 Sep '66." The garment had no fire retardant capability and burned freely. The instructor wore the authorized NOMEX flight suit which was examined, found undamaged, and reissued.

(14) A review of tower and witnesses' statements indicate that NAS Ellyson tower was notified of the crash at 1730(S). Information of the crash was relayed by two civilian pilot witnesses who called Pensacola radio and flew to the crash site. Pensacola radio relayed the information to NAS Ellyson Field and dispatched the NAS Pensacola Search and Rescue (SAR) helicopter which arrived on the scene at 1800(S). The SAR helicopter rescue cable was too short for the 80 to 100 foot trees and was released while an Ellyson Field helicopter remained on the scene to direct rescue personnel. A Florida forestry service vehicle arrived at the scene at 1851(S) and the ambulance arrived at 2034(S). As no personnel survival kits were carried by the pilots, no first-aid treatment was available until arrival of the forestry service personnel. Medical assistance was not available for over three hours due primarily to lack of adequate SAR capability.

(15) NAVAIR 01-230HLB-1 (UH-34J NATOPS) requires a personnel survival kit of approved design and survival equipment appropriate to the climate of the area to be worn on all flights in naval aircraft.

c. Disassembly Inspection. A Priority Disassembly Inspection was conducted by NAVAIREWORKFAC Pensacola on the tail rotor hub assembly and gear box, lower half of upper tail rotor drive coupling, shaft assembly (upper and lower) tail rotor drive, output and input ends of the intermediate gear box, male and female portions of the quick-disconnect, numbers 3 and 4 tail rotor shaft assemblies, all tail rotor drive shaft carrier bearings and the tail rotor servo pilot valve. Results of the subsequent engineering analysis indicated no failure in the gears, quick-disconnect couplings or support bearings. There was no indication of rotation by the drive shaft at impact.

3. CONCLUSIONS

a. The most probable cause of this accident was failure of the tail rotor drive shaft in the short shaft area.

b. A contributing factor of this accident was the instructor's failure to follow approved recovery procedures.

4. OTHER DISCREPANCIES

a. The lack of adequate SAR capability caused excessive delay in rescue and medical care.

b. The use of a nonstandard flight suit is in effect in the Pensacola area.

c. Survival equipment as required by NAVAIR 01-230HLB-1 is not carried.

5. ACTION COMPLETED

a. An ad hoc committee for Helicopter Aircrew Equipment currently is working on inadequate hoist problems and will report their findings to the Aero-Space Crew Equipment Department of the Naval Air Development Center in March of 1969. SAR procedures, to include type aircraft and equipment required, will be discussed at the Tri-Service Safety Conference of 4, 5, and 6 February 1969.

b. The Naval Safety Center representative briefed the squadron safety officer on requirements for proper flight suits.

c. The Aviation Safety Officer for the Chief of Naval Air Training reports that a quantity of NOMEX flight suits are now on hand and are being issued as replacements for all nonfire retardant flight suits.

d. A CROSSFEED article, utilizing pictures of the flight suits involved in this accident, is being prepared.

Distribution:
List "A"
CNO (OP-05F)(OP-098)

AIRCRAFT ACCIDENT REPORT
OPNAV FORM 3750-1A (Rev. 3-63) [redacted]1

SPECIAL HANDLING REQUIRED *in accordance with Para. 66, OPNAV INSTRUCTION 3750.[redacted]ective edition*

OPNAV REPORT 3750-1

PART 1 GENERAL

SECTION A. IDENTIFICATION

1. AIRCRAFT ACCIDENT BOARD APPOINTED BY	2. SERIAL NO.	3. DTG (LOCAL) OF MISHAP	4. MODEL AIRCRAFT	5. BUREAU NUMBER
Commanding Officer	3-69A	151715S Jan	SH-34J	148006

6. TO: Commander, Naval Aviation Safety Center

7. VIA: CNABATRA
CNATRA

8.

9. LOCATION OF MISHAP: 638/37 NAS Pensacola TACAN

10. DAMAGE: ALPHA

11. TIME OF DAY	12. TIME IN FLIGHT	13. FLIGHT CODE
Dusk	0+35	3D2

14. CLEARED FROM: NAS Ellyson TO: NAS Ellyson

15. TYPE CLEARANCE	16. AIRSPEED	17. A/C WEIGHT
VFR	80 Kts P	10,000

18. BRIEF DESCRIPTION OF MISHAP
Tail rotor system failure in cruise

19. ELEVATION AT TIME OF MISHAP: S.1500 TERRAIN 1225

20. LIST MODEL, BUNO, REPORTING CUSTODIAN AND DAMAGE CLASSIFICATION OF ANY OTHER A/C INVOLVED *(Complete OPNAV Form 3750-1 for each A/C)*

SECTION B. CONTRIBUTING FACTORS

✓	FACTOR	✓	FACTOR	✓	FACTOR
	1. PILOT ERROR IN TECHNIQUE/JUDGMENT		9. SERVICING PERSONNEL		17. WEATHER
	2. PILOT DEVIATION FROM NATOPS PROCEDURES		10. LANDING SIGNAL OFFICER		18. DESIGN AIRCRAFT
	3. PILOT INCORRECT OPERATION OF A/C SYSTEM		11. OTHER PERSONNEL *(Specify)*		19. DESIGN CREW EQUIPMENT
	4. PILOT OTHER *(Specify)*		12. ADMINISTRATIVE		20. DESIGN OTHER *(Specify)*
	5. CREW		13. FACILITIES RUNWAY, OVERRUN TAXIWAY, FLIGHT DECK		21. ROLLING/PITCHING DECK ROUGH SEAS
	6. MAINTENANCE PERSONNEL		14. FACILITIES-NAV AIDS, LANDING AIDS (GCA, CCA, ILS, MIRROR)	X	22. MATERIAL FAILURE/MALFUNCTION
	7. MAINTENANCE SUPERVISORY PERSONNEL		15. FACILITIES-CATAPULT, ARRESTING GEAR *(Ship or field)*		23. UNDETERMINED
	8. SUPERVISORY OTHER *(Specify)*		16. FACILITIES OTHER *(Specify)*		24. OTHER *(Specify)*

1. NAME (Last, first, & middle initial)	2. RANK/RATE	3. FILE/SERVICE NO.	4. BRANCH OF SERVICE	5. [illegible]	6. AGE	7. [illegible]	8. [illegible]	9. POSITION	10. [illegible]
PILOT (at controls at time of mishap) [redacted]	CAPT	[redacted]	7560	USMCR	38	12	INST	RIGHT SEAT	F

SECTION C. PERSONNEL DATA — PILOT EXPERIENCE IN HOURS

ITEM			ITEM		
11. ALL MODELS		Mil & Civ/Mil 5520 /2917	17. CV LANDINGS DAY/NIGHT	ALL	295 / 37
12. ALL MODELS IN LAST 12 MONTHS		808		IN MODEL	8 / 3
13. ALL MODELS IN LAST 3 MONTHS		212	18. FCLP LANDINGS LAST 6 MONTHS DAY/NIGHT	ALL	0 / 0
14. ALL SERIES THIS MODEL	A/C	899		IN MODEL	0 / 0
	OFT/CPT	NA / NA	19. INSTRUMENT HOURS LAST 3 MONTHS ACTUAL/SIMULATED	ALL	2 / 8
15. ALL SERIES THIS MODEL LAST 12 MONTHS	A/C	808		IN MODEL	2 / 3
	OFT/CPT	NA / NA	20. NIGHT HOURS LAST 3 MONTHS	ALL	42 /
16. ALL SERIES THIS MODEL LAST 3 MONTHS	A/C	212		IN MODEL	42 /
	OFT/CPT	NA / NA	21. TOTAL HOURS IN JETS (if jet mishap) HELOS (if helo mishap)		4620
23. DATE/GRADE LAST NATOPS STANDARDIZATION CHECK		Jan 3, 1969 QUAL	22. LAST PRIOR FLIGHT ALL SERIES THIS MODEL	DATE	14 Jan 1969
				DURATION	3.5
			24. TYPE INSTRUMENT CARD		STANDARD

OTHER PERS.

25. NAME (Last, first, & middle initial)	26. CREW	27. RANK/RATE	28. BRANCH OF SERVICE	29. FILE/SERVICE NO.	30. UNIT	31. [illegible]	32. [illegible]	33. POSITION
MILES, Glenn A.		AA	USN	[redacted]	HT-8	A	Obs.	Crew

OP-03F

AIRCRAFT ACCIDENT REPORT
OPNAV FORM 3750-1A (Rev. 3-63) Pa

SPECIAL HANDLING REQUIRED in accor[redacted]e with
Parc. 66, OPNAV INSTRUCTION 3750.6, [redacted]ctive edition

OPNAV REPORT 3750-1

PART I GENERAL

SECTION A. IDENTIFICATION

1. AIRCRAFT ACCIDENT BOARD APPOINTED BY	2. SERIAL NO	3. DTG (LOCAL) OF MISHAP	4. MODEL AIRCRAFT	5. BUREAU NUMBER
Commanding Officer, HT-8	3-69A	151715S Jan	SH-34J	148006

6. TO: Commander, Naval Aviation Safety Center

7. VIA: CNABATRA
CNATRA

8.

9. LOCATION OF MISHAP

10. DAMAGE

11. TIME OF DAY

12. TIME IN FLIGHT

13. FLIGHT CODE

14. CLEARED
FROM: TO:

15. TYPE CLEARANCE

16. AIRSPEED

17. A/C WEIGHT

18. BRIEF DESCRIPTION OF MISHAP

19. ELEVATION AT TIME OF MISHAP
S. L. TERRAIN

20. LIST MODEL, BUNO, REPORTING CUSTODIAN AND DAMAGE CLASSIFICATION OF ANY OTHER A/C INVOLVED (Complete OPNAV Form 3750-1 for each A/C)

SECTION B. CONTRIBUTING FACTORS

✓	FACTOR	✓	FACTOR	✓	FACTOR
	1. PILOT ERROR IN TECHNIQUE/JUDGMENT		9. SERVICING PERSONNEL		17. WEATHER
	2. PILOT DEVIATION FROM NATOPS PROCEDURES		10. LANDING SIGNAL OFFICER		18. DESIGN AIRCRAFT
	3. PILOT INCORRECT OPERATION OF A/C SYSTEM		11. OTHER PERSONNEL (Specify)		19. DESIGN CREW EQUIPMENT
	4. PILOT OTHER (Specify)		12. ADMINISTRATIVE		20. DESIGN OTHER (Specify)
	5. CREW		13. FACILITIES-RUNWAY, OVERRUN, TAXIWAY, FLIGHT DECK		21. ROLLING/PITCHING DECK ROUGH SEAS
	6. MAINTENANCE PERSONNEL		14. FACILITIES-NAV AIDS, LANDING AIDS (GCA, CCA, ILS, MIRROR)		22. MATERIAL FAILURE/MALFUNCTION
	7. MAINTENANCE SUPERVISORY PERSONNEL		15. FACILITIES-CATAPULT, ARRESTING GEAR (Ship or field)		23. UNDETERMINED
	8. SUPERVISORY OTHER (Specify)		16. FACILITIES OTHER (Specify)		24. OTHER (Specify)

SECTION C. PERSONNEL DATA

1. NAME (Last, first, & middle initial)	2. RANK/RATE	3. FILE SERVICE NO.	4. DESIGNATOR	5. BRANCH OF SERVICE	6. AGE	7. YEARS EXP. DNA	8. BILLET	POSITION	NOTARY CODE
PILOT (in control at time of mishap) [redacted]	2/LT	[redacted]		USNCR	23	0	Student	Left Seat	B

ITEM			ITEM		
11. ALL MODELS		222	17. CV LANDINGS DAY/NIGHT	ALL	8 / 0
				IN MODEL	0 / 0
12. ALL MODELS IN LAST 12 MONTHS		222	18. FCLP LANDINGS LAST 6 MONTHS DAY/NIGHT	ALL	82 / 0
				IN MODEL	0 / 0
13. ALL MODELS IN LAST 3 MONTHS		60	19. INSTRUMENT HOURS LAST 3 MONTHS ACTUAL/SIMULATED	ALL	0 / 0.7
				IN MODEL	0 / 0
14. ALL SERIES THIS MODEL	A/C	40	20. NIGHT HOURS LAST 3 MONTHS	ALL	5 /
	OFT/CPT	NA / NA		IN MODEL	5 /
15. ALL SERIES THIS MODEL LAST 12 MONTHS	A/C	40	21. TOTAL HOURS IN JETS (if jet mishap) HELOS (if helo mishap)		60
	OFT/CPT	NA / NA			
16. ALL SERIES THIS MODEL LAST 3 MONTHS	A/C	40	22. LAST PRIOR FLIGHT ALL SERIES THIS MODEL	DATE	14 Jan 196
	OFT/CPT	NA / NA		DURATION	3.0
23. DATE/GRADE LAST NATOPS STANDARDIZATION CHECK		NA	24. TYPE INSTRUMENT CARD		NA

OTHER PERS. 25. NAME (Last, first, & middle initial)	26. DNA	27. RANK/RATE	28. BRANCH OF SERVICE	29. FILE SERVICE NO.	30. UNIT	31. RANK	32. BILLET	33. POSITION
MILES, Glenn A.								

OP-05F

AIRCRAFT ACCIDENT REPORT
OPNAV FORM 3750-1A (Rev. 3-63) Page 2

SPECIAL HANDLING REQUIRED *in accordance with Para. 66, OPNAV INSTRUCTION 3750.6, effective edition*

OPNAV REPORT 3750-1

PART II MAINTENANCE, MATERIAL, AND FACILITIES DATA

A. A/C HISTORY

1. DATE OF MANUFACTURE	2. FLIGHT HRS. SINCE ACCEPTANCE	3. NO. OF PAR/OVERHAUL	4. MONTHS SINCE LAST PAR/OVERHAUL	5. FLT. HRS. SINCE LAST PAR/OVERHAUL	6. LAST/PAR OVERHAUL ACTIVITY	7. TYPE OF LAST CHECK PERFORMED	8. FLIGHT HOURS SINCE LAST CHECK	9. DAYS SINCE LAST CHECK
30 Sept 1960	2941	2	34	1827	O & R JAX	11th CAL ODD	140	76

B. ENGINE HISTORY

	1. ENGINE MODEL	2. ENGINE SERIAL NUMBER	3. FLIGHT HRS. SINCE ACCEPTANCE	4. NUMBER OF OVERHAULS	5. WAS DIR. REQUESTED?	6. FLT. HRS. SINCE LAST OVERHAUL	7. LAST OVERHAUL ACTIVITY	8. TYPE OF LAST CHECK PERFORMED	9. FLIGHT HOURS SINCE LAST CHECK	10. DAYS SINCE LAST CHECK
(1)										
(2)										
(3)										
(4)										

C. COMPONENT HISTORY

	1. COMPONENT INVOLVED NOMENCLATURE	2. MANUFACTURERS PART NUMBER	3. TOTAL HRS. ON PART	4. NO. OF OV-HAULS	5. HOURS SINCE LAST OVERHAUL	6. OVERHAUL ACTIVITY	7. WAS DIR. REQUESTED?	8. SER. NO. FUR/AMPEUR
(1)								
(2)								
(3)								
(4)								

D. INCIDENTS & GROUND ACCIDENTS*

1. PARTS REPAIRED		3. DIRECT MANHOURS INVOLVED	2. PARTS REPLACED	
PART NUMBER	NOMENCLATURE		PART NUMBER	NOMENCLATURE

E. ENGINE FAILURES

JET ENGINE FLAMEOUT (Include intentional securing to prevent engine damage)

AT TIME OF FLAMEOUT	1. ALTITUDE	2. IAS	3. RPM	4. EGT	5. MANEUVER AT TIME OF FLAMEOUT	6. FUEL FLOW	7. ATTITUDE

8. G FORCES	9. RELIGHT ☐ ATTEMPTED ☐ ACCOMPLISHED	10. ALTITUDE	11. IAS	12. MAX EGT	13. FUEL CONTROL ☐ PRIMARY ☐ MANUAL	14. NO. RELIGHT ATTEMPTS

INTENTIONAL SECURE	15. ENGINE SYMPTOMS	16. CAUSE OF SYMPTOMS

RECIPROCATING ENGINE FAILURE

17. ALTITUDE	18. IAS	19. ATTITUDE	20. RPM	21. MAP	22. TORQUE/DMEP	23. FUEL FLOW PRESSURE	24. OIL PRESSURE

INTENTIONAL SECURE	25. ENGINE SYMPTOMS	26. CAUSE OF SYMPTOMS

F. OTHER REPORT

IDENTIFY OTHER REPORTS CONCERNING THIS MISHAP

1. AMPFUR SERIAL NUMBER _____ . *Info NASC on DIR request. See para. 38 OPNAVINST P3750.6E*
2. DIR MESSAGE REQUEST DATE-TIME-GROUP 182257Z JAN
3. OTHER PRELIMINARY MSG 160547Z JAN
4. SUPPLEMENTARY MSG 170011Z JAN

AIRCRAFT ACCIDENT REPORT
OPNAV FORM 3750-1A (Rev. 3-63) Pa[illegible]

SPECIAL HANDLING REQUIRED *in acc[illegible]ce with Para. 66, OPNAV INSTRUCTION 3750.6, [illegible]ertive edition*

OPNAV REPORT 3750-1

G. SHIPS DATA

1. EQUIPMENT INVOLVED ☐ CATAPULT ☐ ARRESTING GEAR	2. PRESSURE SETTING	3. WIND OVER DECK	4. RELATIVE WIND	5. APPROACH/END SPEED
6. MARK NUMBER	7. MODEL NUMBER	8. LOCATION OF SHIP	9. LAUNCHING BRIDLE AND BRIDLE ARRESTER	

10. CATAPULT/ARRESTING GEAR BULLETINS OR NOMOGRAMS USED

11. This portion shall be completed whenever (1) an aircraft accident involves arresting gear barrier and/or barricade equipment, or (2) an aircraft accident involves malfunctioning of arresting gear, barrier and/or barricade equipment. Incidents or routine damage to cables, weldings and other expendable equipment need not be reported herein.

ENGAGED	12. DECK RUNOUT (FEET)	13. RAM TRAVEL (INCHES)	14. CONTROL VALVE SETTINGS: CONSTANT PRESSURE DOME (P.S.I.)	CONSTANT PRESSURE RATIO	CONSTANT RUNOUT (WT. LBS.)	15. ACCUMULATOR PRESSURE (PSI)	16. COMMENTS *(for cable failures specify no. landings and months in service)*
DECK PENDANT							
DECK PENDANT							
BARRIER/ BARRICADE							

H. DEPLOYMENT

FOR ACCIDENTS ABOARD CARRIERS (complete on pilot)

1. DATE DEPLOYED CONUS	3. DAY HOURS/LANDINGS SINCE DEPLOYMENT	4. DAY HOURS/LANDING LAST 30 DAYS
2. NO. DAYS OPERATING PERIOD		
5. INST. HOURS LOGGED SINCE DEPLOYMENT ACTUAL/SIMULATED	6. NIGHT HOURS/LANDINGS SINCE DEPLOYMENT	7. NIGHT HOURS/LANDINGS LAST 30 DAYS

I. WEATHER

WEATHER AT SCENE OF MISHAP

1. CEILING	2. VISIBILITY	3. RELATIVE WIND DIRECTION AND VELOCITY	4. TEMPERATURE RUNWAY OUTSIDE AIR	5. DEW POINT	6. ALTIMETER SETTING
15,000	7NM	140° to 150°, 6-8 K	51°F	38°F	30.23

7. OTHER WEATHER CONDITIONS *(winds aloft, icing level, sea state, density altitude, as appropriate)*

DA -510

PART III ADDITIONAL INFORMATION

PART	SECTION	ITEM	1. REMARKS

see page 7 of dark

2. COPY DISTRIBUTION

200 NAVAVNSAFECN DIRECT (AAR)
~~1C/SUWEPS DIRECT (AAR)~~
1cc: CNABATRA
1cc: CNATRA
1cc: CMC
1cc: NAVAIRSYS-COMHOS (AIR 404)
1cc: AFIP
1cc: NAVPLTREPSI

3. GOVERNMENT PROPERTY

4. PRIVATE PROPERTY

5. DATE SUBMITTED TO CO

FEB 3 1969

(b) (6)

[redacted]

OP-OSF