AIRCRAFT ACCIDENT

IDENTIFICATION

NO.

7 07 23 1 93

FF4-1/A25
Serial:
80/ 11648
13 SEP 1957

SPECIAL HANDLING REQUIRED IN ACCORDANCE
WITH PART VII OPNAVINST 3750.6B

FOURTH ENDORSEMENT on VF-91 AAP ser 5-57 concerning F4-3
BUNO 135814 accident occurring 23 July 1957, pilot (b) [redacted]

From: Commander Naval Air Force, Pacific Fleet
To: Chief of Naval Operations (OP-57)
Via: (1) Chief, Bureau of Aeronautics (MA-61)
(2) Director, U. S. Naval Aviation Safety Center

Subj: VF-91 AAP ser 5-57

1. Forwarded, concurring in the conclusions and recommendations of the Aircraft Accident Board.

2. Paragraph 1.a. of the third endorsement implies an assignment of material failure as the primary cause. This is not concurred in. Material failure is a factor, however, the failure could have been caused by personnel error other than pilot. Therefore, the primary cause remains undetermined.

(b) (6) [redacted]
By direction

Copy to:
NAVAVSAFCEN(2)(Airmail)
CINCPACFLT
COMFAIRALAMEDA
CAG-9
CO, VF-91

01

open

P37-2/A25
Ser: 322/4506
30 August 1957

SPECIAL HANDLING REQUIRED IN ACCORDANCE
WITH PART VII OPNAV INSTRUCTION 3750.6B

THIRD ENDORSEMENT on CO, VP-91 AAR ser 5-57 concerning PJ-3, BuNo 135814 accident occurring 23 July 1957, pilot (b) (6)

From: Commander Fleet Air Alameda
To: Chief of Naval Operations (OP-57)
Via: (1) Commander Naval Air Force, Pacific Fleet
(2) Chief, Bureau of Aeronautics (AER-512)
(3) Director, U. S. Naval Aviation Safety Center

Subj: VP-91 AAR ser 5-57; forwarding of

Ref: (a) OPNAV Instruction 3750.6B

1. Forwarded, concurring in the conclusions and recommendations of the Aircraft Accident Board, and in the remarks contained in subsequent endorsements, subject to the following comments.

a. In view of the fact that an explosion did occur in the forward fuselage, coupled with oil on the windshield and smoke in the cockpit, it is considered that material failure or malfunction is a cause factor in this accident. If there is no pilot error involved, then the above factor is considered the primary cause of the accident.

b. Although the squadron is scheduled to deploy for six months in September 1957, the confusing situation regarding the "November Golf" designator might possibly arise subsequent to the deployment. The recommendation concerning the designator change is considered valid.

2. Information required by reference (a) and omitted from the basic report is as follows:

a. Part IV: Date submitted to Commanding Officer.

b. Pilots statement: Opinion as to how the accident could have been prevented.

c. Enclosure (2): Statement by the Accident Board as to the creditability of the witness.

3. It is noted that the headings of the First and Second Endorsements are not in accordance with paragraph F.7., Part VIII of reference (a).

Copy to:
BUAER (AER-512)
NAVAVSAFCEN (2)
CINCPACFLT
CAG-9
CO, VP-91

R. F. HICKEY

02

FJ-3
13584 - Wolves
7-23-57
93d

VF12/CAG-9
LJB:ws
A25
Ser: 386
14 AUG 1957

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PART VII OPNAVINST 3750.6B

SECOND ENDORSEMENT on VF-91 Aircraft Accident Report 5-57

From: Commander, Carrier Air Group NINE
To: Chief of Naval Operations (OP-57)
Via: (1) Commander Fleet Air Alameda
(2) Commander Naval Air Force, Pacific Fleet
(3) Chief Bureau of Aeronautics (AER-512)
(4) Director, Naval Aviation Safety Center

Subj: VF-91 Aircraft Accident Report No. 5-57

1. Forwarded.

2. Concur with conclusions and recommendations of the Aircraft Accident Board except that part recommending the change of the "November Golf" designator. Paragraph three of the Commanding Officer's endorsement explains this clearly.

L.L. BANGS

Copy to:
Director, U.S. Naval Aviation Safety Center
ComNavAirPac
CinCPacFlt
BuAer (AER-512)
NAR Columbus
VF-91

03

7-23
NB

M

UNITED STATES PACIFIC FLEET
NAVAL AIR FORCE
FIGHTER SQUADRON NINETY-ONE
c/o Fleet Post Office
San Francisco, California

VF-91/HMH:ca
A25
Ser 434
2 AUGUST 1957

SPECIAL HANDLING REQUIRED
IN ACCORDANCE WITH PART VII
OPNAV INST 3750.6B

FIRST ENDORSEMENT on VF-91 Aircraft Accident Report 5-57

From: Commanding Officer
To: Chief of Naval Operations (Op-67)
Via: (1) Commander Carrier Air Group NINE
(2) Commander Fleet Air, Alameda
(3) Commander Naval Air Force, Pacific Fleet
(4) Chief Bureau of Aeronautics (AER-512)
(5) Director, Naval Aviation Safety Center

Subj: VF-91 Aircraft Accident Report No. 5-57

1. Forwarded concurring in the conclusions and recommendations of the Accident Board

(b) (6), (b) (5)

[redacted]

3. Squadron doctrine will be revised to include provision for pin pointing a crashed aircraft where possible. It is contemplated that the "November Golf" designator will cause no further difficulty after the deployment of this squadron aboard ship.

T.A. TURNER

Copy to: DIRECTOR, U.S. NAVAL AVIATION SAFETY CENTER
COMNAVAIRPAC
CINCPACFLT
BUAER (AER-512)
BAR COLUMBUS

04

end

AIRCRAFT ACCIDENT REPORT
OPNAV FORM 3750-1 (REV. 1-68)
PAGE 1

See Instructions for completion prior to filling out

OPNAV REPORT 375

PART 1 – GENERAL

SECTION A – IDENTIFICATION

1. AIRCRAFT ACCIDENT BOARD CONVENED BY: FIGHTER SQUADRON NINETY-ONE
2. DATE OF ACCIDENT: 23 JULY 1957 TIME: 1350T
3. AAR SERIAL NO.: 5-57
4. TO: CHIEF OF NAVAL OPERATIONS (Op-57)
5. ENCLOSURES: (1) PILOT'S STATEMENT
   (2) WITNESS STATEMENT
   (3) ENGINEERING OFFICER'S STATEMENT
   (4) MEDICAL OFFICER'S REPORT (orig only)
6. VIA: (1) COMMANDER CVG-9
   (2) COMFAIRALAMEDA
   (3) COMAIRPAC
   (4) BUAER (AER 512)
   (5)
   (6)
   (LAST) DIRECTOR, U. S. NAV. AV. SAFETY CENTER

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PART VII OPNAV INST 3750.6B

7. REPORTING CUSTODIAN (if different than item number 1)
8. ACTIVITY OPERATING AIRCRAFT (if different than item 1)
9. KIND OF FLT.: 1A6
10. TIME OF DAY: ☐ DAWN ☒ DAY ☐ DUSK ☐ NIGHT
11. LOCATION OF ACCIDENT: CHOCOLATE MTN. GUNNERY RANGE
12. ELEV. ABOVE SEA LEVEL: 25000 FT.
13. PLACE OF LAST TAKE-OFF: NAAS EL CENTRO
14. CLEARED FROM EL CENTRO TO LOCAL
15. TYPE CLEARANCE: ☐ IFR ☒ VFR ☒ LOCAL ☐ OPERATIONAL ☐ AIRWAYS ☐ DIRECT ☐ OTHER, Specify
16. TIME IN FLT.: 0 + 20
17. TYPE ACCIDENT: G-1 (~~NEP-OP-ON~~) EJECTION
18. PHASE OF FLIGHT: 5 (FLIGHT)

AIRCRAFT

19. MODEL: FJ-3
20. SERIAL NO.: 135814
21. DAMAGE TO AIRCRAFT: ☒ A. ☐ B. ☐ C. ☐ D.
22. FOB. COST: 384000
23. AIRSPEED (kts): 250
24. A/C WT.: 18000
25. LIST MODEL, SER. NOS, REPORTING CUSTODIAN AND DAMAGE CLASSIFICATION OF ANY OTHER A/C INVOLVED (complete separate OPNAV Form 3750-1 for each A/C): NONE

SECTION B – PERSONNEL INFORMATION

PILOT AND CO-PILOT

	1. PERSONNEL	2. NAME (last, first, and middle initial)	3. RANK RATE	4. FILE SERV. NO.	5. DESIGNATOR	6. DATE DESIGNATED	7. DATE OF BIRTH	AGE
PILOT	(PILOT FROM AV. UNIT RULS AT TIME OF ACCIDENT)	(b) (6) [redacted]	LT.	(b) (6) [redacted]	1315	12 MAY 1950	(b) (6) [redacted]	
CO-PILOT								

8. PERSONNEL	9. OPERATIONAL FLT. TRAINER: AVAILABLE?	USED?	10. UNIT TO WHICH ATTACHED	11. TYPE INSTRUMENT CARD
PILOT	☐ YES ☒ NO	☐ YES ☒ NO	FIGHTER SQUADRON 91	☒ STANDARD ☐ SPECIAL
CO-PILOT	☐ YES ☐ NO	☐ YES ☐ NO		☐ STANDARD ☐ SPECIAL

PILOT, CO-PILOT, STUDENT EXP. – TOTAL PILOT HOURS

ITEM	PILOT	CO-PILOT	STUDENT	ITEM	PILOT	CO-PILOT	STUDENT
ALL MODELS	3288.5			CV LANDINGS DAY/NIGHT	184/0		
ALL MODELS IN LAST 12 MOS.	221.7			FCLP LANDINGS DAY/NIGHT	382/0		
ALL MODELS IN LAST 3 MOS.	63.0			INSTRUMENT HOURS, LAST 3 MONTHS	1.1		
ALL SERIES THIS MODEL	194.6			NIGHT HOURS, LAST 3 MOS.	2.7		
ALL SERIES THIS MODEL, LAST 12 MONTHS	194.6			(jet accidents only) TOTAL JET PILOT HOURS	279.9		
ALL SERIES THIS MODEL, LAST 3 MONTHS	63.0			DATE LAST FLIGHT, ALL SERIES THIS MODEL	22 JULY		
				DURATION LAST FLIGHT, ALL SERIES THIS MODEL	1.1		

OTHER PERSONNEL

	NAME (last, first and middle initial)	RANK RATE	FILE SERVICE NO.	ORG. TO WHICH ATTACHED	INJURY CODE	BILLET	POSITION
1.	(b) (6) [redacted]	LT.	(b) (6) [redacted]	VF-91	D	PILOT	COCKPIT
2.							
3.							
4.							
5.							

(if additional space is necessary, attach additional sheet(s))

OPNAV FORM 3750-1 (REV. 11-55)
PAGE 2

AIRCRAFT ACCIDENT REPORT

OPNAV REPORT 3750-

SECTION C - WEATHER

1. CEILING	2. VISIBILITY	3. WIND DIRECTION AND VELOCITY	4. TEMPERATURE	OUTSIDE AIR	DEW POINT	6. ALTIMETER SETTINGS
NONE	UNLIMITED					

7. OTHER WEATHER CONDITIONS *(winds aloft, icing levels, state of sea, etc., if pertinent to accident)*

SECTION D - PRIMARY FACTOR (P) SECONDARY FACTOR (S) CAUSE FACTORS

ITEM	P	S	ITEM	P	S	ITEM	P	S
PILOT ERROR			LANDING SIGNAL OFFICER ERROR			MATERIAL FAILURE OR MALFUNCTION		
CREW ERROR			OTHER PERSONNEL ERROR, Specify			MATERIAL INADEQUACY		
SUPERVISORY PERSONNEL ERROR			ADMINISTRATIVE ERROR			ROLLING AND PITCHING DECK/ROUGH SEAS		
MAINTENANCE PERSONNEL ERROR			AIRPORT OR CARRIER FACILITIES			UNDETERMINED	X	
SERVICING PERSONNEL ERROR			WEATHER			OTHER, Specify		

SECTION E - DEPLOYMENT

FOR ACCIDENTS ABOARD DEPLOYED CARRIERS *(Complete following Section on Pilot)*

1. DATE DEPLOYED	2. DAY-HOURS/LANDINGS LOGGED SINCE DEPLOYED	3. DAY-HOURS/LANDINGS LOGGED LAST 30 DAYS
4. INSTRUMENT HRS. LOGGED SINCE DEPLOYMENT	5. NIGHT-HOURS/LANDINGS LOGGED SINCE DEPLOYED	6. NIGHT-HOURS/LANDINGS LOGGED LAST 30 DAYS

PART II - MAINTENANCE, MATERIAL AND FACILITIES DATA

SECTION A - AIRCRAFT AND ENGINE DATA

1. AIRCRAFT HISTORY

DATE OF MANUFACTURE	SERVICE TOUR	MONTHS IN THIS TOUR	TOTAL NO. OF OVERHAULS	FLIGHT HRS. SINCE LAST OVERHAUL	FLIGHT HRS. SINCE ACCEPTANCE	TYPE CHECK LAST PERFORMED	FLIGHT HRS. SINCE LAST CHECK	NO. OF DAYS SINCE LAST CHECK
24 SEPT 54	1	16	1	334.6	459.4	3rd inter.	8.8	3

2. ENGINE HISTORY

	ENGINE MODEL	SERIAL NO. OF ENGINE						
NO. 1: 12 NOV 56	J65W16A	W611464	1	101.2	106.1	3rd inter.	8.8	3
NO. 2								
NO. 3								
NO. 4								

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PART VII OPNAV INST 3750.6B

3. GENERAL

a. DID FIRE OCCUR: ☐ BEFORE ACCIDENT ☐ AFTER ACCIDENT ☒ DID NOT OCCUR

b. DID EXPLOSION OCCUR IN FLIGHT? ☒ YES ☐ NO

c. CHECK IF APPLICABLE: ☐ AMP FOR SERIAL

d. HAS DIR BEEN REQUESTED? ☐ YES ☒ NO

e. FAILED COMPONENTS INVOLVED

4. A/C MAINT. AND ENG. FACTORS

CHECK BELOW ITEMS PRESENT IN THIS ACCIDENT

a. ☐ AIRCRAFT DESIGN
b. ☐ AIRCRAFT EQUIPMENT
c. ☐ MAINTENANCE
d. ☒ UNDETERMINED
e. ☐ TECHNICAL INSTRUCTION
f. ☐ OTHER, Specify
g. ☐ SURFACE FACILITIES
h. ☐ HUMAN ENGINEERING (e.g. cockpit configurations)

5. MISCELLANEOUS DATA

A. ALTITUDE AT MALFUNCTION	B. AIR SPEED *(kts)*	C. OPERATING TEMPERATURE	D. WEIGHT OF AIRCRAFT	E. C.G. *(% MAC)*	F. KIND OF FUEL	G. FUEL PRESSURE
25000	350	NORMAL	18000	24.0	JP-4	

H. EVIDENCE OF FUEL CONTAMINATION

I. CAUSE OF ENGINE FAILURE OR FLAMEOUT

J. FUEL CONTROL REGULATOR/CARBURETOR *(List Stock and Ser. nos., give time since new or overhauled)*

K. EXTERNAL STORES ABOARD A/C: 2-TYPE 1 DROP TANKS

(if additional space is necessary, attach additional sheet(s))

AIRCRAFT ACCIDENT REPORT

PART II – MAINTENANCE, MATERIAL AND FACILITIES DATA (Cont'd)

SECTION B – FACILITIES DATA

1. CHECK ONLY THOSE NOT WITH SCORE EFFECT ON ACCIDENT IN THE ANALYSIS SECTION

- a. ☐ CLEARANCE AUTHORITY
- b. ☐ FLIGHT PLANNING INFORMATION SOURCE
- c. ☐ LANDING AIDS (GCA, CCA, ILS, etc.)
- d. ☐ TRAFFIC CONTROL TOWER (Field or Ship)
- e. ☐ APPROACH AND ENROUTE AIDS TO NAVIGATION
- f. ☐ RUNWAY WATCH
- g. ☐ LANDING SIGNAL OFFICER
- w. ☐ OTHER, Specify .....
- h. ☐ RUNWAY
- i. ☐ WATER LANDING AREA
- j. ☐ APPROACH ZONE
- k. ☐ END ZONE
- l. ☐ SHOULDERS
- m. ☐ TAXIWAY
- n. ☐ PARKING AREA
- o. ☐ EMERGENCY ARRESTING GEAR (Runway)
- p. ☐ AIRCRAFT SERVICING, HANDLING & DIRECTING (Field or Ship)
- q. ☐ CRASH AND RESCUE
- r. ☐ SEARCH AND RESCUE
- s. ☐ CATAPULT
- t. ☐ ARRESTING GEAR (Carrier)
- u. ☐ BARRIER OR BARRICADE (Field or Ship)
- v. ☐ FLIGHT DECK

2. SHIPS DATA

a. EQUIPMENT INVOLVED: ☐ CATAPULT ☐ ARRESTING GEAR	B. PRESSURE SETTINGS	C. WIND OVER DECK	D. RELATIVE HEADWIND	E. APPROACH SPEED (SPN-1? READING)

F. MARK NUMBER	G. MODEL NO.	H. LOCATION ON SHIP	I. LAUNCHING BRIDLE AND CONFIGURATION USED

J. CATAPULT/ARRESTING GEAR BULLETINS OR NOMOGRAMS USED

K. THIS PORTION SHALL BE COMPLETED WHENEVER (1) A MAJOR 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. MINOR ACCIDENTS OR ROUTINE DAMAGE TO CABLES, WELDINGS AND OTHER EXPENDABLE COMPONENTS NEED NOT BE REPORTED.

ENGAGED	DECK RUNOUT (FT.)	RAM TRAVEL (IN.)	CONTROL VALVE SETTINGS: CONSTANT PRESSURE: DOME (P.S.I.)	CONSTANT PRESSURE: RATIO	CONSTANT RUNOUT (WT. LBS.)	ACCUMULATOR PRESSURE (PSI)	COMMENTS (for cable failure specify number of landings and months in service)
DECK PENDANT							
DECK PENDANT							
BARRIER							
BARRIER							
BARRICADE							

SPECIAL HANDLING REQUIRED
IN ACCORDANCE WITH PART VII
OPNAV INST 3750.6B

PART III – REMARKS (continue on separate pages if necessary)

PART	SECTION	ITEM	
II	A	3D	WRECKAGE OF THE AIRCRAFT HAD NOT BEEN LOCATED AT THE TIME OF THIS
II	A	4D	REPORT. WHEN WRECKAGE IS FOUND DIR WILL BE REQUESTED AS APPROPRIATE.

ALFA: NONE
BRAVO: NONE

cc: DIRECTOR, U.S.NAVAL AVIATION SAFETY CENTER (2)
AIR MAIL
COMAIRPAC (1)
CINCPACFLT (1)
BUAER (AER-512) (1)
BAR COLUMBUS (1)

07

PART IV – SIGNATURES (INDICATE DATE SUBMITTED TO C. O.)

LT. (b) (6) [redacted] USN SAFETY OFFICER UNIT BILLET
(senior member)

LTJG. (b) (6) [redacted] USN ASSISTANT MAINTENANCE OFFICER UNIT BILLET
(member)

LCDR. (b) (6) [redacted] USNR
(flight surgeon member)

LTJG. (b) (6) [redacted] USN WEAPONS TRNG. OFF UNIT BILLET
(member)

PART V THE ACCIDENT

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PART VII, OPNAV INSTRUCTION 3750.6B

FJ-3 BuNo 135814 Pilot LT. (b) (6) [redacted] USNR, was part of an air-to-air gunnery flight on the Chocolate Mountain gunnery range on 23 July 1957.

The flight took off at NAAS El Centro at 1328T. At 1347T, on his first firing run following two dummy runs, the pilot felt an explosion in the starboard forward part of the fuselage, immediately after squeezing the gun trigger. He saw smoke in the cockpit and oil on the windshield, and immediately jettisoned the canopy and ejected himself.

The ejection seat and automatic lap belt release functioned normally. The pilot, feeling himself tumbling violently, pulled his ripcord and opened the parachute between 22000 and 24000 feet. He lost his APH-5 helmet and oxygen mask when the parachute opened, and suffered some bruises from the parachute harness. The descent was oscillatory followed by a landing in sand with no injury to the pilot. Upon landing, the pilot found his PK-2 package missing from the parachute harness.

The pilot was pinpointed by other members of the flight, who directed the NAAS El Centro helicopter to his position. Rescue was effected about 45 minutes after the pilot landed. In following the parachute down, other pilots in the flight lost track of the unmanned aircraft after it was seen to level itself on a heading of 330 with no fire or smoke trail visible. Wreckage of the aircraft has not been located.

PART VI DAMAGE TO THE AIRCRAFT

The wreckage of this aircraft has not been located at this writing. It is assumed that the aircraft was destroyed in the unmanned crash landing.

Should the wreckage be located it will be examined for evidence of the cause of this accident.

PART VII THE INVESTIGATION

LT. (b) (6) [redacted] is considered fully qualified in the FJ-3, and had flown the day previous to that of the accident. The aircraft was equipped with a phase IV J-65 engine, and was in all respects fit to perform the assigned mission, so far as could be determined from accepted maintenance and pre-flight inspection procedures. The aircraft had previously completed three similar missions on the day of the accident, in the course of which all four of the guns had fired satisfactorily.

Upon being questioned about his experience, the pilot was unsure whether the smoke he saw was outside or inside the canopy. He described the smoke condition as similiar to that when flying on instruments "in the soup". He stated that the oil he saw appeared colorless. He was using 100% oxygen and reported no unusual odor or oxygen system malfunction. There was no reported engine vibration or power failure. Flight control was normal up to the time of ejection.

Other members of the flight reported no evidence of fire, smoke, or streaming fluid.

In the radio confusion following the ejection the aircraft modex number, "November Golf 106," was picked up by several CAA radio facilities and interpreted to mean "National Guard". This produced more confusion as Air National Guard aircraft in the area transmitted questions and offers of assistance.

There was no evidence of oil stains on LT. (b) (6) [redacted] summer flying suit after his return to base.

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SPECIAL HANDLING REQUIRED IN
ACCORDANCE WITH PART VII, OPNAV
INSTRUCTION 3750.6B

Analysis of the material malfunction which caused this accident can be at best but a hypothesis, based upon the information available. It is assumed that the pilot's perceptions were reasonably accurate and that the explosion reported did occur somewhere in the forward part of the fuselage, and not in the engine. It is not certain, however, whether the oil was engine oil or hydraulic fluid, since the latter might also appear colorless in a thin film.

Possible sources of an explosion in the forward part of the fuselage are the air bottles adjacent to the gun charging air compressor, the compressor (if the blow-out plugs were to malfunction) the utility hydraulic system accumulator, any of several hydraulic lines, or the guns themselves. The liquid oxygen system is discounted because no abnormal operation was noted by the pilot, who was using 100% oxygen. If a gun explosion had occurred, only an explosion in the barrel could send debris through the engine inlet duct and into the compressor. This would require an obstruction of some sort in a gun barrel, which is felt to be a very unlikely situation in view of squadron ordnance check procedures carried out between gunnery flights. If a blast tube were loose, and struck by a bullet, the results might well be what Lt. (b) (6) experienced.

The smoke and oil which appeared are believed to have been brought into the cockpit via the cockpit pressurization system. Windshield anti-icing was not in use, and any oil outside the canopy would have streamed aft along the fuselage or canopy. The possibility of an engine main bearing oil seal failure is remote. Engine bearing failure would necessarily have been indicated by engine vibration and/or seizure.

In view of the above, it seems more reasonable to believe that the oil was hydraulic fluid and the smoke was vaporized or burned hydraulic fluid, resulting from the ingestion of this fluid by the engine compressor after the fluid was introduced into the engine inlet duct by the explosion.

The possibility of the reported explosion being actually the impact of a projectile from another firing aircraft has been ruled out after questioning other members of the flight regarding the pattern interval.

Having decided to leave the aircraft, Lt. (b) did not jettison the canopy separately before actuating the face curtain. The ejection seat, automatic lap belt release, and all personnel safety equipment functioned properly, except the APH-5 helmet, which was lost with the oxygen mask when the parachute opened, and the pararaft kit, which was also lost. Since no life jacket was worn on this flight, the pararaft lanyard was not attached to the pilot.

The remaining members of the flight wisely concentrated on keeping the parachute in sight. It is felt that two aircraft should be able to do this effectively, however, and the third might well have been assigned to follow the stricken aircraft to pinpoint its crash.

The radio confusion resulting from the aircraft's nodex number is the second instance in the past seven months in which Civil and Air National Guard activities have been misled by the "November Golf" designator assigned this carrier air group. Even though Air Guard aircraft are in fact marked "Alfa November Golf", the possibility of confusion seems inherent in the use of the "November Golf" designator in areas where Air National Guard activities operate.

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SPECIAL HANDLING REQUIRED IN
ACCORDANCE WITH PART VII, OPNAV
INSTRUCTION 3750.6B

PART IX CONCLUSIONS AND RECOMMENDATIONS

It is the conclusion of the board that there was no engine or engine oil system failure involved in this accident. An explosion of undetermined origin is believed to have introduced hydraulic fluid into the engine inlet duct, and the cockpit pressurization system then carried it to the cockpit in the form of fluid and mist or smoke.

No censure should attach to the pilot's decision to leave the aircraft under the circumstances. Had he remained with it a little longer, however, accurate determination of the plane's airworthiness and perhaps even a return to base would have been possible.

Lt. (b) [redacted] exercised excellent judgment in commencing to rig a sun shelter from his parachute immediately after landing. It is contemplated that the new nape strap to be added to the APH-5 helmet will prevent loss of the helmet in future bailouts.

It is recommended that the squadron downed plane doctrine be enlarged to provide for a case such as this in which both the pilot and plane must be kept in sight if practicable.

It is also recommended that consideration be given to discontinuance of the "November Golf" designator because of possible confusion with Air National Guard aircraft.

SPECIAL HANDLING REQUIRED IN
ACCORDANCE WITH PART VII, OPNAV
INSTRUCTION 3750.6B

VF-91 AAR 5-57, Enclosure (1)
PILOT'S STATEMENT

I took- off on a routine 25,000 foot gunnery hop at 1328. I checked onto the Chocolate Mountain gunnery range at 1342 with Chocolate Control. On my first run shortly after I pulled the trigger an explosion occurred apparently in the starboard nose section. There was quite a bit of smoke or oil vapor around the cockpit and I felt like I was in instrument conditions. Clear oil appeared on the windshield and I thought it was engine oil. The combination of not being able to see outside, the cockpit & having oil on the windshield convinced me I should leave the aircraft; I retarded, the throttle, pulled my knees up to get my heels in the stirrups and actuated the face curtain.

When I regained my senses I was holding to the face curtain with my right hand with seat over my head. I released the seat and located the parachute release handle but realizing I was still at 25000 feet, I let go and pulled the bailout bottle. I felt the pressure of the emergency oxygen against my face as the bottle released its supply. I was tumbling quite a bit so I decided to open the parachute before I lost my senses. I relocated the release without any difficulty and pulled; within a second or so the chute opened with quite a shock. A short while later I discovered that my helmet and mask were gone. It's a long ride down and I decided to time it, I glanced at my watch and noted the time as 1347. On the way down the parachute and I oscillated through over 90°. I landed on a smooth sandy plot in a rough desert area. The parachute caught on the brush and I wasn't dragged, even though there was about ten knots of wind. I collapsed the chute, stood up and unbuckled. I gave the circling aircraft a roger with my arms and started to spread the chute out. At this time I glanced at my watch and realized it was stopped, at 1347. I was making the chute into a shelter when I saw the helicopter. After we were airborne in the helo, the doctor told me it was 1430.

(b) (6) [redacted]
LT. USNR

SPECIAL HANDLING REQUIRED IN ACCORDANCE
WITH PART VII, OPNAV INSTRUCTION 3750.6B

At 1322 I took off as the tow plane on a scheduled gunnery flight from NAAS El Centro. I climbed to 25,000 feet and entered the chocolate mountain gunnery range after being cleared by the flight leader to do so. The firing group lost sight of the tow just after I entered the range and I proceeded up the Western side of the range on a course of 300°, 165 knots at 25,000 feet. Approximately one quarter the distance up the range, the firing group caught sight of the tow and commenced their runs.

The firing group had made approximately two runs apiece and I was looking for the northern end of the range. I estimated two more sets of runs would place us at the northern boundary. I heard 5-1, the flight leader call "in" but did not follow him through his run. I think I heard him call "off" as I glanced over my starboard wing and saw him fly by approximate 200 feet abeam. I saw the nose of the plane lower and I thought he was trying to pick up a little airspeed before returning to the perch, as it appeared that he was a little slower than 350 knots, I would estimate around 320 knots. Almost immediately after the nose lowered I saw the canopy fly off and my first thought was that the canopy had malfunctioned. It was immediately followed by a grey object and I again thought something must have blown off the canopy deck. I then could distinguish that it was the pilot who had ejected and saw him falling clear of the seat. No transmission was made by the pilot prior to the ejection and I saw nothing about the plane as it flew past that would have made me suspect trouble. I did not see any smoke from the ejection cartridge.

I immediately dropped the tow and started to circle the pilot. The plane following 5-1 in the run said he had the plane in sight and requested permission to follow it. He said I told him negative. At the time the only thought I had was to keep the pilot in sight and I'm sure that I probably did tell him not to follow the plane although I don't remember the communication now. I estimate he opened the parachute around 22,000 feet, as he ejected level with me at 25,000 feet. One plane, NG 111, immediately called NAAS El Centro on channel one to report the accident and went to emergency IFF. The other plane NG 109 followed me down to around 18,000 feet, circling the pilot also with emergency IFF on. NG 109 then climbed to 25,000 feet to relay transmissions to the base. After El Centro acknowledged receipt of the transmission and had started the helicopter on the way, I directed the other two planes to turn off their IFF as the air was starting to get cluttered with offers of assistance. NG 109 began to have radio trouble and returned to the base.

NG 111 followed the pilot all the way down to the ground and flew back and forth over the pilot at around 200 feet over the ground. I remained at 5000 feet and had the helicopter give me several short counts on channel one and gave him vectors to the pilot. When the helicopter caught sight of the pilot and landed to pick him up, NG 111 and myself then left the area and returned to NAAS El Centro.

(b) (6) [redacted]
LT. USN

SPECIAL HANDLING REQUIRED IN
ACCORDANCE WITH PART VII, OPNAV
INSTRUCTION 3750.6B

VF-91 AAR 5-57 Enclosure (3)
ENGINEERING OFFICERS STATEMENT

The FJ-3 BuNo 135814 from which Lt. (b) [redacted] ejected on 23 July 1957 was equipped with a phase IV engine J-65 ser #611464, a liquid oxygen system, large capacity oil tank, and was considered to be properly configured with the applicable engine and aircraft changes incorporated.

Due to the fact that there is insufficient information available from the pilot or witnesses, and the aircraft has not been recovered to date, the cause of this aircraft accident is undetermined from a maintenance standpoint.

The possibility of hydraulic fluid or other hydrocarbons uniting with the liquid oxygen, thus causing the explosion, has been thoroughly discussed and ruled out as very improbable. A failure of an engine bearing, attributing the explosion to a seizure, seems rather unlikely as there was no previous vibration noted and any oil would be present in an amount small enough to be burned by the engine and would not appear on the windshield.

The following are possible causes, however there is little basis for their accuracy. In the event a forward access door blew open, a high pressure hydraulic line to the brake pedals could have ruptured causing a large amount of fluid to enter the intake duct, all of which could not be vaporized by the engine. Some of this fluid goes through the 13th stage as liquid, appearing on the windshield through the cabin pressurization-refrigeration system. The windshield defrost was believed to be on. Some of this fluid would be burned, causing an excessive amount of smoke which would also enter the cockpit.

The other possibility is that a gun explosion, which would very likely rupture a hydraulic line, occurred, where the debris didn't cause enough damage to the engine to cause it to seize. However, in either case it would appear there would be a great deal of smoke trailing from the tail pipe, none of which was noted by the witnessing pilots.

Past part "B" sections of the yellow sheets indicate no discrepancies that would possibly provide any clue as to the failure.

The discussed possibilities are again emphasized to be that only. It is certainly the desire of every member of this department to investigate the crash, however, because of the remote area towards which the aircraft was headed this appears very unlikely.

(b) (6) [redacted]
LTJG USN