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21 SEP 1955

FOURTH ENDORSEMENT on NARTU NAS Anacostia AAR ser 1-55 concerning F4U-4, 97379, accident occurring 8 August 1955, pilot (b) (6)

From: Chief of Naval Air Training
To: Chief of Naval Operations (Op-57)
Via: Director, U.S. Naval Aviation Safety Center

Subj: Aircraft Accident Report; forwarding of

1. Forwarded, concurring with the conclusions and recommendations of the Board and the action and comments indicated in the forwarding endorsements.

(b) (6)

(b) (6) [redacted] By direction

Copy to:
BUAER (2)
CNARESTRA
CO NARTU NAS Anacostia
CO NAS Minneapolis

ORIGINAL

NE/3/N-3.7thr
A25-9
Ser AS- 9617

THIRD ENDORSEMENT on NARTU NAS Anacostia AAR ser 1-55 concerning F4U-4, 97379, accident occurring 8 AUG 1955, Pilot (b) (6)

From: Chief of Naval Air Reserve Training
To: Chief of Naval Operations
Via: (1) Chief of Naval Air Training
(2) Director, U. S. Naval Aviation Safety Center

Subj: Aircraft Accident Report; forwarding of

Ref: (a) OPNAV INSTRUCTION 3750.6A
(b) CNARESTRA INSTRUCTION 3750.6C

1. Forwarded, concurring with the conclusions and recommendations of the Aircraft Accident Board and comments of the forwarding endorsements.

2. The following discrepancies were noted in the AAR and the forwarding endorsements:

a. Item 28 of the AAR failed to include the billet that each member of the board occupied, as required by paragraph 6.d.(28) of enclosure (1) to reference (a).

b. The first and second endorsement failed to conform to the forwarding endorsement form set forth in enclosure (1) to reference (b).

c. The original of this Aircraft Accident Report indicated submission of several copies direct, yet these copies were sent to CNARESTRA. The direct copies were forwarded by this Command in accordance with reference (a) and (b).

3. By copy of this endorsement the Commanding Officer, NARTU NAS Anacostia and the Commanding Officer, NAS Minneapolis is requested to initiate necessary action to preclude recurrence of discrepancies listed in the second paragraph of this endorsement.

D. V. [illegible]
(b) (6)

(b) (6)
Asst. Chief of Staff
For Training & Operations

Copy to:
NA/AVSAFCEN (2)
BUAER (2)
CO NARTU NAS Anacostia (2)
CO NAS Minneapolis (2)

ORIGINAL
2

ORIGINAL

[illegible]
[illegible]
[illegible]
[illegible] SEP 1955

SECOND ENDORSEMENT on NARTU Anacostia AAR Ser 1-55 concerning FAU-AL 97377, accident occurring 8 AUG 1955, pilot (b) (6) [redacted]

From: Commanding Officer, NARTU, NAS, Anacostia, D. C.
To: Chief of Naval Operations (OP-57)
Via: (1) CUARESTRA
(2) CNATRA
(3) Officer in Charge, U. S. Naval Aviation Safety Activity

Subj: Aircraft Accident Report; forwarding of

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

2. The cause of the engine failure cannot be determined due to the impracticability of salvage.

3. It is agreed that improper use of the blower in the probable cause of engine failure. Subsequent interrogation of the pilot in command indicates the probability that high RPM together with low MP and blower while in a simulated gunnery run caused a high engine speed condition resulting in damage to the engine and propellor. The pilot stated that take-off power was normal, and that he remained within BMEP limits throughout the flight. The shift to low blower was initially made at approximately eight thousand feet and remained there until failure occurred.

4. Examination of maintenance records indicates the aircraft was flown out of Duluth, Minn., on 5 AUG 1955. While there, and enroute to Bemidji, Minn., three discrepancies concerning oil leaks were noted. The first two discrepancies were investigated by an experienced NARTU Anacostia mechanic at Duluth. On return to Bemidji, the three discrepancies were written up on a squadron work order and were checked. Flights on the following day indicated no discrepancies. A second intermediate check was conducted on 7 AUG 1955. The turn up after inspection was normal and did not reveal any oil leaks. The pilot of the aircraft at the time of the accident states that operation of the aircraft was normal and made no mention of oil loss prior to the emergency. From the above, it is believed that discrepancies were properly checked and corrected.

5. Continued instruction utilizing factory representatives and maintenance personnel will be conducted on power limitation and blower operation of unit aircraft.

6. Initially, the pilot attempted to leave the aircraft employing correct bail-out procedure, however, he experienced difficulty resulting in a bail-out at low altitude which was executed improperly and somewhat unintentionally. The decision to jump should have been carried out without hesitancy. Once in the water, the pilot erred in not taking full advantage of his survival equipment. This incident will be brought to the attention of all pilots of this activity.

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NA6(1)/A25

7. CNATRA Report 3750-3 (Inspection Questionnaire for Aircraft Accidents due to Power Plant Failure) has been completed by NARTU Anacostia personnel. No discrepancies or procedures were noted contributing to the cause of the accident.

L. R. McAloy
L. R. McALOY
Acting

Copy to:
BUAER (2) - direct
NavAvSafAct (1) - direct
CNATRA (1) - direct
NARTU Anacostia
Training Officer (1)
Safety Officer (1)
Maintenance Officer (1)
CO VF 665 (1)
File
NAS Anacostia

ORIGINAL

NA20/A25
CO:AGR;nnr
20 August 1955

FIRST ENDORSEMENT ON NARTU Anacostia AAR Serial 1-55 concerning F4U-4 BuNo 97379

From: Commanding Officer, U.S. Naval Air Station, Minneapolis, Minnesota
To: Chief of Naval Operations (Op-57)
Via: (1) NARTU Anacostia
(2) CNARESTRA
(3) CNATRA
(4) Officer in Charge, U.S. Naval Aviation Safety Activity

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

2. The NARTU Anacostia and CNARESTRA Investigating Officers have ascertained that after striking the water, the aircraft broke into several pieces which are located along a stretch of lake bottom for a distance of about 1/8 mile at a depth of 12 to 15 feet.

3. As requested by NARTU Anacostia, this Command has completed parts 4A and 4B of CNATRA Report 3750-3 (Inspection Questionaire for Aircraft Accidents due to Power Plant Failure), and is forwarding it under separate cover to that Command.

4. It is requested that NARTU Anacostia forward the completed questionaire according to the distribution list.

A.G. Rejebian
A.G. REJEBIAN

Copy to:
CNARESTRA
CNATRA (Direct)(2)
U.S. Naval Aviation Safety Activity (Direct)(2)
BUAER (Direct)(2)

AIRCRAFT ACCIDENT REPORT

OPNAV FORM 1750.1 (REV. 1-10) ORIGINAL

OPNAV REPORT 1750

THE AIRCRAFT ACCIDENT BOARD SHALL SUBMIT THIS REPORT TO THE C.O. OF THE ACTIVITY CONDUCTING THE INVESTIGATION. IT SHALL THEN BE FORWARDED BY THE C.O. IN ACCORDANCE WITH CURRENT AAR INSTRUCTIONS

1. DATE OF ACCIDENT	HOUR	2. ACTIVITY SUBMITTING REPORT	3. AAR SERIAL NO.
8 August 1955	1040 CST	NAS Minneapolis, Minnesota	1-55 (Anacostia)

4. MODEL A/C	BUNO	CHECK DAMAGE TO A/C	5. REPORTING CUSTODIAN OF A/C
F4U-4	97379	[X] A [ ] B [ ] C [ ] D [ ] E	NARTU ANACOSTIA

6. NAME OF UNIT OPERATING THE A/C	BASED AT	OPERATIONAL CHAIN OF COMMAND
NRA VF 665	Demidji Airport, Demidji, Minn.	CG NARTU ANACOSTIA CNATRA CNO

7. LOCATION OF ACCIDENT	8. UNIT TO WHICH OPERATOR ATTACHED
41 Miles 095° from Demidji Airport 46°16' N 94°28' W	NRA VF 665

9. PERSONNEL INVOLVED (Including some cost figures in case of loss)

FULL NAME, RANK, SERVICE, FILE No. (Use person in command line)	A	B AGE	C BILLET	D POSITION	E INJURY
LT (b) (6) [redacted] /1315 USNR-R (DN)		29	Pilot	Cockpit	None

PILOT EXPERIENCE	TOTAL ALL MODELS	TOTAL THIS MODEL	LAST 12 MONTHS ALL MODELS	LAST 6 MONTHS ALL MODELS	LAST 3 MONTHS THIS MODEL	INSTRUMENT RATE
TOTAL HOURS	1384.7	400.0	432.2	44.7	13.7	Standard/IR/
INSTRUMENT HOURS			13.9	4.8	0.0	PILOT'S AGE 29
NIGHT HOURS			2.0	0.0	0.0	DATE DESIGNATED
CV LANDINGS DAY/NITE	113/0	62/0				3/28/47

11. 097,593 | 12. PURPOSE OF FLIGHT: CGI | CODE: A6C | 13. TIME IN FLIGHT: 1 1/4

14. TYPE OF ACCIDENT: Abandoned Aircraft | CODE: 0 | 15. MANEUVER INVOLVED: Straight and level flight

16. WEATHER	CEILING	VISIBILITY	17. DARKNESS	18. CLEARANCE ISSUED
[X] VFR [ ] IPR	2000 Scat, 25000 Scat.	15	[ ] YES [X] NO	DVFR

19. WIND DIRECTION	FORCE	20. ATTITUDE ON IMPACT	ANGLE OF IMPACT	STOPPING DISTANCE	SPEED ON IMPACT	21. DID FIRE FOLLOW IMPACT?
SE	15Kts.	Nose Down	80°	20 Ft.	200 Kts.	[ ] YES [X] NO

22. AIRCRAFT AND ENGINE DATA (Fill in all data in every case of material failure or malfunction, actual or suspected)

HISTORY	SERVICE TOUR	MONTHS IN THIS TOUR	TOTAL NUMBER OF OVERHAULS	FLT HOURS SINCE OVERHAUL	FLT HOURS SINCE ACCEPTANCE	TYPE OF CHECK LIST PERFORMED	FLT HOURS SINCE CHECK	NO. DAYS SINCE CHECK
AIRCRAFT	4	14	3	240.9	1883.6	2nd Inter.	1.8	1
	MODEL ENGINE	SERIAL NO. OF ENGINE						
ENGINE 1	Pratt & Wh.	P25710	2	62.2	628.2	2nd Inter.	1.8	1
ENGINE 2	R2800-18-W							
ENGINE 3								
ENGINE 4								

HAS THIS A/C BEEN DAMAGED IN PREVIOUS ACCIDENT(S) DURING PRESENT SERVICE TOUR? [ ] YES [X] NO — IF YES, GIVE DATE (S) OF PREVIOUS ACCIDENT(S) — BUON SERIAL NUMBER ON THIS ACCIDENT, IF SUBMITTED: None

23. CONTRIBUTORY FACTORS (Check or fill in only one primary "P" factor, all others secondary "S")

P	S		P	S		P	S	
[ ]	[X]	PILOT (OR CREW) ERROR	[ ]	[ ]	MATERIAL FAILURE OR MALFUNCTION	[ ]	[ ]	
[ ]	[ ]	ERROR OF OTHER PERSONNEL	[X]	[ ]	Undetermined	[ ]	[ ]	

24. CHECK CONDITIONS INVOLVED IN THIS ACCIDENT (Use only one primary "P" factor, all others secondary "S")

[ ] WIND, STACKWASH, SLIPSTREAM, TURBULENCE [ ] PITCHING OR ROLLING DECK [ ] COMMUNICATION DIFFICULTY [ ] AIRPORT HAZARD [X] ROUGH SEAS [ ] TERRAIN CONDITIONS

25. EMERGENCY CONDITIONS: [X] IMMEDIATE FORCED LANDING [ ] PRECAUTIONARY LANDING [X] ENGINE FAILURE [ ] FUEL EXHAUSTION OR NEAR EXHAUSTION

26. PERSONNEL SAFETY EQUIPMENT USED: [X] PARACHUTE [ ] EJECTION SEAT [X] SHOULDER HARNESS [X] SAFETY BELT [ ] EXPOSURE SUIT [ ] G-SUIT [X] PROTECTIVE HELMET [X] OXYGEN EQUIP. [X] LIST OTHERS: Life Vest, Gloves, Parachute, Canopy Ejection

MEDICAL OFFICER REPORT SERIAL NUMBER: 1-55

27. ENCLOSURES AND DISTRIBUTION CHECK OFF LIST

CHECK	ENCLOSURES	CHECK	No.	DISTRIBUTION BY COMMANDING OFF.
1	PILOT		ORIG	CNO (OP07) VIA CHK. OF COMD.
	LSO		1cc	NAVAVSAFACT DIRECT
3	ENG. OFF.		1cc	BUAER DIRECT
	GAT. OFF.			CHECK AND LIST OTHERS AS REQUIRED
2	WITNESSES		2cc	CNATRA (Direct)
	OTHERS		1cc	CNAMESTRA
	PHOTOGRAPHS		1cc	Central File
	DRAWINGS		1cc	Safety Officer
	WEATHER REPORT		1cc	Operations
	LOADING MANIFEST		6cc	NARTU Anacostia.
4	Power Plant Failure Quest.			

6

28. SIGNATURES OF BOARD MEMBERS

(b) (6) [redacted] (b) (6) [redacted] USN, USN

(b) (6) [redacted] (b) [redacted] USN, USN

(b) (6) [redacted] (b) (6) [redacted] USN, USN

(b) (6) [redacted] (b) (6) [redacted] USN, USN

DATE SUBMITTED TO C.O.: 18 August 1955

29. The Accident.

At approximately 0840 on 8 August 1955, LT (b) (6) [redacted], who was in the second division in a flight of seven Corsairs, departed Bemidji Airport on a local DVFR clearance to practice intercepts with the Air Defense Command Network.

The flight split into two groups for the purpose; one division acting as the unknown, the other making the intercept. Exercises were conducted from seven to nine thousand feet, according to the pilot.

Approximately one hour and forty-five minutes after departing Bemidji, after having completed a run and while in the process of re-joining the formation, the pilot noticed that he could not regain his position and that his prop was overspeeding and the airspeed indicated 120 knots. He informed the division leader and was instructed to head for Bemidji. Reducing manifold pressure to 30", going into high pitch and neutral blower, he was able to reduce the RPM to 2600; by this time the oil temperature was rising, the cylinder head temperature was 210°, other engine readings were normal. Indicating 110-120 knots and losing altitude at 1000 feet per minute, he realized he could not reach the field. After checking with his division leader on what to do, they agreed it would be best to bail out. He turned toward the south shore of a lake where there was a small settlement.

Upon jettisoning the canopy, and at what he judged to be 2000 feet above the ground, he unplugged his lip mike and ear phones, opened the safety belt - throwing the shoulder harness over his shoulders and attempted to raise himself in the cockpit and dive over the side. Not being able to push himself up, he cut the ignition switch, as the nose dropped he floated from the cockpit aft along the starboard side of the fuselage. As he doubled over, he saw the elevator pass over his head. Falling free in a head down position, he pulled the "D" ring. As the chute opened, it flipped him over, and his hard hat, which was secured by means of the inner lining and a strap around his chin, was snapped off. As the risers untwisted, he circled around twice. Over his shoulder he saw the plane in a steep dive strike the water. The pilot estimated about five seconds from going over the side until the plane went in.

As he approached the water, he used the risers to decrease shoreward drift and attempted to loosen the chute harness and sit back in the seat. He was unable to do this, struck the water, went under and came up face down with the canopy inflated, dragging him through the waves. He had to struggle then to release the chest and leg straps so he could inflate the Mae West, which he was finally able to do.

As the canopy settled, he spread out his pararaft to inflate it and climb in. He was exhausted and elected to release the raft and swim to shore. Hearing shouts he saw a boat approaching, was pulled aboard, given a change of clothing and taken ashore. A small civilian seaplane returned him to Bemidji. Another boat picked up the raft, parachute and hard hat.

30. Damage to Aircraft.

The plane is considered to be a strike. It is submerged in about 14 feet of water on a muddy lake bottom about 500 yards off shore. There is no access road to the shore in the vicinity. The cost of floatation would be high. NAS Anacostia will make a survey concerning possible salvage.

31. The Investigation.

a. The pilot has over four hundred hours in this model, thirty-three of which had been flown in the past three months.

b. From the statements of the pilot and witnesses it is known that:

(1) The group was operating from seven to about ten thousand feet.

31. The Investigation (Cont'd)

(2) LT (b) (6) [redacted] was operating in low blower, at a power setting of 40" and 2600 RPM. The power plant chart for the R2800-18W engine in the pilot's handbook for the F4U-4 recommends as follows:

NORMAL RATED (Max. Cont.)				MAX. CRUISE		
RPM	ALT.	MAN. P.	SUPER CHG.	RPM	MAN. P.	SUPER CHG.
2600	8000	47"	N	2150	33"	N
2600	10000	F.T.	N	2150	33"	N
2600	12000	47"	L	2150	33"	L

(3) The first indication of erratic engine operation was a surge of RPM to 3100 at an airspeed of 120 knots.

(4) Following the pilot's notification of this, the division leader noted what he judged to be oil coming from the plane; as he followed it down, prior to bail-out, white smoke was coming from the top left side of the engine.

(5) After noting the excessive RPM, the pilot shifted to neutral blower, reduced his power to 30" and selected high pitch. RPMs were 2600, the oil temperature was beyond normal and rising, cylinder head temperature was 210°. At this setting he was maintaining 110-120 knots with a rate of descent of 1000 feet per minute. The pilots handbook recommends 140 knots as the best gliding speed which gives a ratio of 13-1.

(6) Positioning of the oil cooler flaps, cowl flaps and mixture was normal. However, indications are from the pilot's statement, that the intercooler doors were on closed and no mention was made concerning the carburetor air temperature warning light prior to or after his reduction of power and shift to neutral blower.

(7) Previous maintenance history of the engine shows that it had been overhauled twice, had a total of 1833.6 hours since acceptance, 66.6 hours since overhaul, 1.8 hours since second intermediate check last performed. Maintenance discrepancies at Bahrain (see enclosure 3) included prop surge, oil leaks and smoke from the left side.

(8) The Power Plants Failure Questionnaire, required by CNATRA INST. 3740.14 will be forwarded to NARTU, Anacostia for completion as requested. From inspection of the information available there were no discrepancies.

(9) The pilot judged the altitude at time of bailout to be 2000 feet above the ground. It is probable that he was at about 1000 feet at that time since the area is 1000 feet above the ground.

(10) After releasing his chest straps he had difficulty in locating the cord and pull the CO2 bottle on the life vest as it had been turned back under the flap to prevent involuntary release while strapped in the chute harness. Difficulty was also experienced in locating the CO2 release controls on the life raft.

32. The Analysis.

A review of the Maintenance Officer's statement and the discrepancies listed indicates the existance of an oil leak in the oil system of the propeller, the rocker box covers, or a possible loose cylinder. The initial overspeeding of the prop to 3100 RPM noticed by the pilot indicates oil starvation in the prop system.

32. The Analysis (Cont'd.)

The white smoke seen by the division leader, LT (b) (6) would mean oil burning on the stacks or some heated part of the engine, black smoke would have indicated oil starvation. The pilot was exceeding operating limits prescribed by the power plant chart in the pilots handbook. He was operating at high power in a high blower ratio at too low an altitude. This would cause detonation and serious damage resulting in engine failure. This condition would have been critical with the intercooler in the closed position and high carburetor air temperature.

Judging from the pilot's statement concerning the difficulty he had in leaving the plane, the altitude at the time and the ensuing seconds that elapsed until the aircraft struck the water, the pilot was fortunate that he did not go in with the plane; and when he finally jumped that there was time for the chute to open.

33. Conclusions and Recommendations

a. Due to the impracticability of salvage and investigation, the Board was unable to determine the cause of the engine failure.

b. However, it is of the opinion that the engine failure was the result of excessive power settings and improper use of the blower.

c. It is further of the opinion that definite means to correct the discrepancies were not taken by the maintenance crew, although it does not believe that this was the cause of the engine failure.

d. It is recommended that the pilots of this Squadron be thoroughly instructed concerning the operation of the F4U-4; including the operating limitations and emergency procedures.

e. It is recommended that they be required to review bail-out procedures, proper adjustment of the parachute harness and use of survival equipment.

f. It is further recommended that maintenance crews take definite action to correct power plant discrepancies prior to releasing aircraft for flight.

STATEMENT OF PILOT: LT (b) (6) [redacted]

Position: 94°15' E Lake Winnibigoshish, Minnesota
47°26' N

Time: Approximately 1030, 8 August 1955

Type of Flight: GCI (Ground Control Intercepts)

Number of Planes in Flight: Seven (working two division, four in the flight that I was in)

Division Leader: LT (b) (6) [redacted]

Weather: Scattered clouds at 2500'; Winds, South to Southeast 15 to 25 knots; Visability 35 miles.

The flight of planes departed the Bemidji Municipal Airport at 0840 CST to fly Ground Control Intercept missions with LT (b) (6) [redacted] leading the first division. The flight was to be on the ground at 1115 CST. Statement as follows:

The group of seven planes had just completed an intercept and we were regrouping for another. I was flying in No. 4 position, on LT (b) (6) [redacted] wing, with our division acting as the interceptors.

I had set my power at 2600rpm and about 40 inches in the climb. I was aft of and below LT (b) (6) [redacted] and was aware that I was "losing ground". I quickly checked all settings and thought "I'm only carrying 2100rpm"; a second glance showed it to be 2100rpm. My airspeed at this time was 120 knots. I reduced manifold pressure to 30 inches and pulled the prop control to the full hi-pitch position and the rpm reduced to 2600.

I told LT (b) (6) [redacted] of my difficulty and he immediately had me take up a heading for base, Bemidji Municipal Airport. We settled on course and then my oil temperature started to rise rapidly. I had little doubt that I would get to Bemidji and land. Oil pressure was normal at 87psi; cylinder head temperature was normal at 210°C; intercoolers were closed; oil coolers were on automatic and were fully open; compressor was in low blower prior to trouble at which time I put it into neutral. The mixture was full, rich and my cowl flaps were fully closed. I did not open them in view of my normal cylinder head temperature and a strong desire not to increase drag in any manner.

I was holding an airspeed of 110-120 knots and the aircraft started to settle, at about 1000 feet per minute. I was over the north portion of Lake Winnibigoshish. I realized that the plane was going in and asked LT (b) (6) [redacted] opinion of whether to land on the lake, in the trees, or to bail out. He recommended a bail out and I agreed with him. I was very hesitant to attempt a no-power water or tree landing. We turned port toward the south shore of the lake where there was a small settlement located.

I pulled the canopy safety pins and ejected the canopy. It went straight aft, cleanly and quickly. At an approximate altitude of 2000 feet above ground, I informed the group that was going over the side and unplugged my lip mike and ear phone plugs; opened my safety belt and threw my shoulder harness aft over

ENCLOSURE 1

my shoulders. I put a hand on either side of the cockpit and attempted to rise. I wanted to get sideways on the seat in a crouching position and dive over the side as I had been taught. I found that I couldn't move from the seat. I sat back and thought of the switches. I reached out and turned off the magneto switch and this caused the nose of the aircraft to drop. As it did, I floated up out of the seat and felt myself sliding aft on the starboard side of the fuselage. At this point my concern was the possibility of being struck by the rudder or elevator. I doubled over and saw the elevator go by, over my head. I realized that I was clear and then concentrated on the parachute. I was falling, on my back, head down at about a 30 degree angle to the horizon. I looked down at the "D" ring, grasped the retainer with my left hand and the "D" ring with my right and gave it a very vigorous pull. Immediately I saw the canopy streaming out between my legs and I heard a sharp "pop", as it opened and flipped me over. At this point, my hard hat left my head. The risers were twisted and as they straightened, I was swung around twice. Then, I immediately looked over my shoulder and watched the plane for about half a second before it hit the water. It was in approximately an 80 degree dive. From the time I cleared the elevator until the aircraft struck the water about four to five seconds elapsed, though it seemed much longer.

Next, I thought of the water landing. I was drifting shoreward toward the trees and pulled the seaward risers twice, preferring to land in the water. That seemed to be a certaintly, so I decided to prepare to land. I attempted to sit back in the seat of the harness, hoping to open all harness snaps before striking the water. Before leaving the plane, I had pulled all straps as tightly as possible, so when I attempted to move in the harness, I found it to be an impossibility. At this point, I struck the water and went under. I feared that the canopy would settle over me. When I came up the canopy was still inflated and was pulling me through the water, face down. I was certain then that I would be drowned, for I was under water more than above. All the while, I was trying to open my chest straps to inflate my Mae West. My one consolation was the fact that I was being pulled straight for shore which was about 150 yards away. I finally got my chest straps open and with some difficulty I pulled one bottle on the Mae West. I then worked on my leg straps and got them unfastened and the canopy settled into the water simultaneously, probably by coincedence. I pulled the other bottle on the Mae West and at last felt relieved and quite optimistic.

I pulled the para-raft from the parachute harness and opened the container. Next, I spread the raft out preparing to inflate it and get aboard. I felt a very strong desire to get out of the water for I was physically exhausted. Then, I looked shoreward and felt that it would be better to swim. I released the raft and parachute and removed my shoes.

Before I took any further action, I heard shouts behind me and looked to see a fishing boat approaching. The people in the boat pulled me aboard. I waved to LT (b) (6) who was circling me. I changed clothes aboard and was given coffee, a cigarette and a ride to shore.

Another boat picked up my raft, parachute and hard hat. The hard hat was floating in the debris of the crashed aircraft. Ashore, I was given another change of clothing and was shortly picked up by the small seaplane which returned me to Bemidji.

ENCLOSURE 11

I accepted the aircraft for flight. To the best of my knowledge, its history and recent maintenance were good.

On turn up everything was normal. I checked my propellor operation, idle mixture, magneto and blowers.

Takeoff rendezvous and operations in the air were normal. (b) (5) [redacted] (b) (5) [redacted] I took all possible steps to eleviate the situation. LT (b) (6) [redacted] who was with me, offered suggestions which I tried or had tried.

(b) (5) [redacted]

(b) (6) [redacted]

ENCLOSURE "I"

STATEMENT OF SECTION LEADER: LT (b) (6) [redacted]

Position: 94°15' E Lake Winnibigoshish, Minnesota
47°28' N

Time: Approximately 1030, 8 August 1955

Type of Flight: A6C (Ground Control Intercepts)

Number of Planes in Flight: Seven (working two divisions; four in the flight that LT (b) (6) [redacted] was in).

Division Leader: LT (b) (6) [redacted]

Weather: Scattered clouds at 2500'; Winds, South to Southeast 15 to 25 knots; Visability 35 miles.

The flight of planes departed the Bemidji Municipal Airport at 0840 CST to fly Ground Control Intercept missions with LT (b) (6) [redacted] leading the first division. The flight was to be on the ground at 1115 CST.

Statement as follows:

The first that I knew that there might be something wrong with LT (b) (6) [redacted] was when I looked over my shoulder and did not see him. I called him to ask if there was something wrong and the reply was "my prop was surging about 300rpm but I think that it will smooth out". I told him to take up a heading for home and I would join on him. (Bemidji field Heading 265 40 miles given by Defense Radar Station - Origin).

At the conclusion of my transmission LT (b) (6) [redacted] called and told me that his prop was over-speeding to 3100rpm and that his cylinder head temperature was 210°c and the oil temperature was climbing fast. The entire time that I was flying on LT (b) (6) [redacted] his plane was emitting what I believe to be oil. Shortly after I saw this I told him to take up a heading to the south and head for the small settlement that is at the south end of Lake Winnibigoshish.

Shortly after we turned on to the heading, LT (b) (6) [redacted] called and said that he was unable to maintain his altitude and asked whether to ditch or to bail out. At this time his engine had started to emit white smoke from the top left side of the engine. I told him to bail out before he got too low as I did not want him to try to put it in the water without using power, and with the white smoke coming from his engine, I did not know just how long the engine would continue to run.

Just after this transmission LT (b) (6) [redacted] said that he was going over the side. I saw the canopy clear the plane but did not see LT (b) (6) [redacted] leave the plane. A few seconds later the plane hit the water in a nose-down attitude and to the rear of the crash I saw the chute open and hit the water just a few hundred yards behind the plane.

I stayed in the area of the downed pilot until I saw that he was picked up. This was done by a fishing boat in just a matter of minutes. I made a low pass and saw the pilot wave that he was all right.

13

(b) (6) [redacted]

(b) (6) [redacted], LT, USNR-R

ENCLOSURE 3

Crash of F4U-4 BuNo 97379 on 8 August 1955
Report of Squadron Maintenance Officer

F4U-4 BuNo 97379 was abandoned at 1030 CST on 8 August 1955 over Lake Winnibigoshish, Minnesota. The pilot, LT (b) (6) [redacted] was unable to maintain altitude because of a power loss. The outward signs of trouble were as follows:

The pilot reported a surge in engine revolutions of 300 RPM. The pilot started immediately for home base (Bemidji) with escort. At this time the engine speed went to 3200 RPM's and would reduce to 2600 with a full high pitch setting and 30" of manifold pressure. With these readings the pilot reported an airspeed of 110 knots and losing altitude. The airplane began smoking badly and the escort reported oil streaming from the airplane. At this time the pilot reported the cylinder head temperature was 210°c, oil temperature was reading full scale, oil pressure was normal at 90° and fuel pressure was normal.

The airplane and engine logs for this airplane are not available at this time. The discrepancies listed on the white sheets for this airplane since the start of the training cruise, 31 July 1955, are as follows:

8-1-55 - Prop surge - Ground checked OK
8-2-55 - Blown plug - New plug and lead installed in #2 cylinder.
8-5-55 - Oil leak top left side. Smokes in flight - Checked and found no leaks.
8-4-55 - Oil leak top left cowl - Checked and found no leaks.
8-5-55 - Oil leak top left side. Oil on wind shield and smoke - Checked and found no leaks.
8-6-55 - Excessive smoke from left upper stacks at run up power. Throwing oil on windshield. Cylinder head temperature gage completely unoperative - OK'ed by line crew and gage replaced.
8-7-55 - This was the first flight since the airplane came out of check. This airplane had 900 rounds of 50 caliber ammunition aboard when abandoned. This ammunition was in the boxes but was not fed into the chutes.

(b) (6) [redacted]

(b) (6) [redacted] LT, USNR-R

ENCLOSURE

MEDICAL OFFICERS REPORT OF AIRCRAFT ACCIDENT

OPNAV-53-1900 REV. 12-50

REPORT SYMBOL [illegible]

GENERAL INSTRUCTIONS

1. This report shall be filed in the event an aircraft accident involves one or more of the following:
   - Death
   - Injury, treated or not
   - Bailout
   - Ejection
   - Ditching
   - Crash into water

2. Completion of the form shall be the responsibility of the flight surgeon serving as a member of the Aircraft Accident Board. He shall be assisted by the medical officer first reporting to the scene of the accident, or in the event no such officer reports to the scene, by the officer supervising treatment of the injured.

3. This form shall be prepared in triplicate. One copy shall be turned over to the Aircraft Accident Board, and the original shall be mailed direct to Chief of Naval Operations (FLIGHT SAFETY), Navy Department, Washington 25, D.C., within 96 hours following the accident. The remaining copy shall be mailed direct to Safety Equipment Branch, BUAER, Navy Department, Washington 25, D.C. Where more than one aircraft is involved, separate forms must be completed for each craft wherein one or more of the requirements in paragraph 1 above are applicable. (Additional copies may be prepared for use of squadron flight surgeons and other interested individuals).

4. Include photographs illustrating impact(s), damage to cockpit, structures causing injury, etc.

5. For type of accident, and damage, use code as on OPNAV-53-339.

6. Addenda are encouraged.

PART I. ACCIDENT IDENTIFICATION

1. REPORT FROM (Title of Station Address): U. S. Naval Air Station, Minneapolis, Minnesota
   CONAC-TO SER (Serial Number): 1-55
2. ACCIDENT OCCURRED (Geographic Location): 30 Miles SE - Bemidji, Minnesota (O.L.F.)
   TIME: 1020 CST
   DATE: 8-8-55
3. PLANE INVOLVED BY THIS REPORT (Bureau No.): 97379
   TYPE: F4U-4
   UNIT OPERATING AIRCRAFT: VF-665
   TYPE OF ACCIDENT: Bailout
   GRADE: A
4. OTHER PLANE (Bureau No.): None
   TYPE:
   UNIT OPERATING AIRCRAFT:
5. TYPE OF OPERATION
   - [X] INCIDENT TO FLIGHT
   - [ ] NOT INCIDENT TO FLIGHT
   - [ ] LAND BASED OPERATIONS, CONTINENTAL
   - [ ] FOREIGN
   - [X] RESERVE PROGRAM
   - [ ] TRAINING COMMAND (Including refresher)
   - [ ] CARRIER OPERATIONS
6. [redacted] (b) (6) [redacted] (b) (6) PRINT NAME: LBJG GRADE: MC USNR DATE: 8-11-55
7. FORWARDED (Signature): [redacted] (b) (6) PRINT NAME: USN Commanding DATE:

PART II. PILOT AND GENERAL SAFETY FACTORS

1. LIST ANY PHYSIOLOGICAL OR PSYCHOLOGICAL FACTORS THAT MAY HAVE CONTRIBUTED TO THIS ACCIDENT:

None

2. COCKPIT ENVIRONMENT	CHECK ONE: ADEQUATE	INADEQUATE
VENTILATION	X	
REFRIGERATION	X	
HEATING	X	
PRESSURIZATION	Not Employed	

GENERAL COMMENTS:

3. SAFETY EQUIPMENT	CHECK ONE: USED	NOT USED
SHOULDER HARNESS	X	
INERTIA REEL	X	
PROTECTIVE HELMET, TYPE	X	
OXYGEN MASK, TYPE		X
G-SUIT, TYPE		X
JETTISONED CANOPY	X	
OPENED CANOPY BY OTHER EMERGENCY MEANS		X
OTHER		
OTHER		
OTHER		

COMMENT ON EFFECTIVENESS:

Helmet was lost upon opening shock of parachute as this man had knowingly left the standard chin strap unbuckled and used instead a "leather chin cup", which was held in place by "snaps". This was the only article of equipment which was lost. Canopy - was jettisoned easily and freely without undue effort.

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PART III. PERSONNEL

DIRECTIONS

1. Under NAMES AND DESIGNATION NOs. OF PERSONNEL, list surname followed by initials. IN ALL INSTANCES LIST PILOT IN NUMBER 1 POSITION.

2. At all other points on this form, each of the personnel shall be designated merely by the number to the left of his name in the listing below.

3. Use additional sheets as necessary, filing separate form for each aircraft.

4. Under RANK OR RATES, if Reserve, also give reserve status using following code: Active Duty - "A"; Organized - "O"; Associated Volunteer - "AV"; Associated Volunteer Unit - "AVU"; Volunteer Aviation Unit - "VAU"; Other Volunteer - "OV". If on training cruise add "T" to other code; i.e. "AT", "OT", etc.

5. Under INJURY CLASS, use following key:
   Class "A" - Injuries resulting in death within 30 days.
   Class "B" - Serious injuries, including unconsciousness, fractures except simple of fingers and toes, lacerations involving muscle or causing severe hemorrhage, injury to internal organs, or any injury which will probably incapacitate for 5 or more days.
   Class "C" - All minor injuries.
   Class "L" - Missing and presumed drowned.
   Class "M" - Missing.
   NOTE: Later necessary changes from "B", to "A" in the thirty day period should be forwarded if known.

6. Under DISPOSITION, use following key:
   "D" - Uninjured.
   "W" - Treated and returned to duty without hospitalization.
   "X" - Hospitalization.
   "Y" - Autopsy performed.
   "Z" - Remains to morgue without autopsy.

NAMES AND DESIGNATION NOS. OF PERSONNEL	FILE OR SERVICE NO.	RANK OR RATE	DUTY ABOARD PLANE (Or on ground or on deck)	AGE	POSITION OCCUPIED IN PLANE AT TIME OF ACCIDENT	INJURY CLASS	DISPOSITION
1. 1315 (b) (6) [redacted]	(b) (6) [redacted]	LTCT	PILOT IN CONTROL	29	Cockpit	C	D
2.							
3.							
4.							
5.							
6.							
7.							
8.							

PART IV. SUMMARIES OF INJURIES AND CAUSES

DIRECTIONS

1. Summarize all personnel injuries by placing designation numbers assigned in PART III in appropriate squares (e.g., if the pilot suffered severe shock, cerebral concussion and severe lacerations of head, a small figure "1" should be placed in all pertinent squares.)

2. If injuries are multiple extreme, list all major injuries.

3. Where injuries were fatal, indicate probable cause of death by placing an "X" after number in the pertinent square (e.g., if NO. 2 were killed having suffered a cranial fracture and mild contusions of the trunk, an "X" should be placed after the "2" under CRANIAL FRACTURE.)

4. Remarks and suggestions are encouraged.

(b) (6) [redacted]

P[illegible] IV. SUMMARIES OF INJURIES AND CAUSES [illegible]

FRACTURES

(b) (6)

[redacted]

AMPUTATIONS

TYPE	ARM		FOREARM		HAND		FINGERS		LEG		LOW. LEG		FOOT		TOES		HEAD
	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	ONE	MORE	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	ONE	MORE	
TRAUMATIC																	
SURGICAL																	

INTERNAL INJURIES (SUMMARIZE IF AUTOPSY WAS PERFORMED)

None

CAUSES OF INJURIES

WHAT SPECIFIC PARTS OF THE AIRCRAFT CAUSED THE INJURY? LIST AND DESCRIBE. (Entries of "NO", "NONE", "DISTAINED ON IMPACT", "UNDETERMINED", with no amplifying remarks and opinions will not be accepted.)

Not caused by contact with aircraft part. Was sustained while climbing into rescue boat. (b) (6) [redacted]

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PART V. BAILOUT AND EJECTION DATA

(Use separate form for each person)

1. [X] BAILOUT [ ] ATTEMPTED BAILOUT [ ] EJECTION SEAT USED [ ] SHOULD HAVE BAILED OUT BUT DIDN'T

2. REASON PILOT DIDN'T BAIL OUT: --

3. ALTITUDE OF PLANE AT TIME OF EXIT: ABOVE SEA LEVEL 2200 FT. ABOVE TERRAIN 800 FT.

4. ATTITUDE OF PLANE AT TIME OF EXIT (IF LEVEL, GIVE ONE DESCRIPTION): Shallow dive - straight ahead

5. INDICATED AIR SPEED OF PLANE AT TIME OF EXIT: 100 KNOTS

6. APPROXIMATE ALTITUDE ABOVE TERRAIN PILOT LEFT EJECTION SEAT: -- FT.

7. APPROXIMATE ALTITUDE ABOVE TERRAIN WHEN CHUTE WAS PULLED: 700 FT.

8. APPROXIMATE ALTITUDE ABOVE TERRAIN CHUTE OPENED: [illegible]

9. WAS FREE FALL DELIBERATE? [ ] YES [X] NO

10. WAS OXYGEN USED DURING DESCENT? IF SO, WHAT TYPE EQUIPMENT: No

11. PILOT EQUIPMENT [illegible] [illegible] [illegible] [illegible]

[ ] YES TYPE: --

12. SIDE OF EXIT (Except in ejection seat): [X] RIGHT [ ] LEFT

13. DID PILOT BAIL OUT TOO LOW FOR CHUTE TO OPEN? [ ] YES [X] NO

14. IN CASE OF BAILOUT OR EJECTION, SUBMIT PILOT'S NARRATIVE OF ENTIRE EVENT. GIVE SEQUENCE OF OPERATION OF EJECTION SEAT AND COMMENT ON FUNCTIONAL OPERATION OF SEAT.

15. LIST ANY DIFFICULTIES EXPERIENCED ON BAILOUTS OR EJECTIONS ON ADDITIONAL SHEET. See Addendum

16. TYPE PARACHUTE AND HARNESS: Seat Type Assembly

17. DAMAGE TO PARACHUTE AND/OR HARNESS: None

18. POSITION OF BODY AT TIME OF LANDING: Feet first in a semi-sitting position, in chute sling.

19. WEATHER: Clear

20. WIND: 10 KNOTS

PART VI. DITCHING DATA (Include crashes into water)

(Use separate form for each person)

1. [ ] DITCHED AIRCRAFT [X] CRASHED INTO WATER Bailout

2. METHOD OF EXIT:

3. SURVIVAL EQUIPMENT USED:

[ ] EXPOSURE SUIT, (Type)

[X] LIFE VEST, (Type) MK II Exact type not known with certainty

[ ] RAFT, (Type)

[ ] OTHER, (Type)

4. TIME IN WATER: HOURS MINUTES 5

5. TEMPERATURE OF: WATER 60 °F AIR 70 °F

6. RECOMMENDATIONS ON EQUIPMENT INCLUDED IN ADDENDUM: [X] YES [ ] NO

7. SURVIVORS NARRATIVE INCLUDED. (To be included if possible.) [X] YES [ ] NO

8. METHOD OF RESCUE: Private Boat

PART VII. REMARKS

New accident report forms are not available. All codes symbols apply to instructions with this form.

The survivors narrative includes a good many discrepancies in proper employment of safety and survival equipment.

A TOTAL OF 2 ADDITIONAL SHEETS RELATING TO THIS ACCIDENT ARE ATTACHED

ADDENDA TO MEDICAL OFFICERS REPORT OF AIRCRAFT ACCIDENT

ACCIDENT DESCRIPTION:

At the time of the accident, the pilot was engaged in interception maneuvers at altitudes of approximately 7,000 feet - approximately 35 to 40 miles southeast of Bemidji, Minnesota (O.L.F.). The section leader called by radio to inform (b) (6) [redacted] that he was trailing smoke and loosing oil. The pilot noted no flames or noxious fumes at any time. He immediately headed for the field and attempted corrective action to control his surging propellor. When it became apparent he could not reach the field the aviator elected to bail out over a large lake because of the densely wooded terrain. He lined his plane up with the longitudinal axis of the lake and prepared to bail out, after disconnecting radio leads and seat straps. The canopy was released by the normal release mechanism, which worked freely and easily. His first attempt to leave the plane was unsuccessful as he stated he "couldn't lift myself out" - although he denies experiencing any undue (+) G forces. After cutting the magneto switches he "felt as if I floated out of the plane", when the nose dropped. He made his exit head first over the right side and stated he pulled his D ring as soon as he saw the elevator pass over his head. His low altitude at time of bailout resulted from his attempts to return to the field in a plane almost without power and his own admission of some degree of fear preventing an earlier exit. His hard hat was lost due to the opening shock - because he had neglected to employ the standard chin buckle, which was on his helmet but open. The chute opened immediately and was followed by some degree of oscillation. He twice worked the shroud lines when he noted himself being carried toward shore by the wind even with the knowledge of the danger from the oscillation.

Contact was made with the water before he had gotten his chest chute strap buckle open although he estimated he was descending by chute at least 20 to 30 seconds. The canopy landed downwind and remained inflated - dragging the pilot "face down" for at least 150' to 200' before collapsing. Only then, was he able to open his chest strap - but by this time his feet had become entangled in the shroud lines. At this point, he experienced considerable difficulty pulling the toggle lanyards on the CO2 cartridges - as he had secured the lanyards up under the flaps to prevent an accidental inflation while on the ground. After some 30 seconds, he succeeded in getting ½ of his Mae West inflated and then freed himself of his chute leg straps and shroud lines and then easily inflated the second half of his Mae West. He was able to remove his chute raft easily but before inflating it decided to swim the 100 yards to shore. Before he had gone too far - he saw a fishing boat approaching him and awaited his pickup.

SUMMARY: The narrative is lengthy and detailed as there are many apparent discrepancies illustrated by this accident which showed poor judgement and/or lack of familiarity with standard technique for use of safety equipment. Part of this is explained by an admitted " intense fear and

desire for self preservation". This man is extremely fortunate to have survived this accident - much of which can be credited to the mild surface winds and the proximity of a rescue boat.

Positive factors in this case are his selection of bailing out in preference to crash landing or ditching; and his choice of a water landing. The fact that he wore a Mae West even when operating in areas where land predominates over water has contributed to his survival.

It is felt that this accident presents a good source of material for study by safety officers - as an illustration of how an experienced aviator can forget all he should know by both 1. neglecting to use and handle his safety and survival equipment properly and (2) by permitting himself to be overcome by extreme fear.

(b) (6)
[redacted]

(b)
(6) LTJG(MC)USNR-R
FLIGHT SURGEON