8-11
HS

9-1
IBM

FF4-2
A25

14B/ 8704

3 NOV 1955

FOURTH ENDORSEMENT on VF-11 AAR ser 3-55, F2H-4, 127670, occurring 11 August 1955, pilot ALLISON

From: Commander Air Force, U. S. Atlantic Fleet
To: Chief of Naval Operations (OP-57)
Via: Director, U. S. Naval Aviation Safety Center

Subj: Aircraft Accident Report

1. The investigation and report of this accident are considered to be incomplete, however, in view of the supplementary information directed by the third endorsement, the report is readdressed and forwarded.

2. The following errors and omissions in this report are noted in addition to those mentioned in the third endorsement:

a. Section 23 of OPNAV Form 3750-1 not in concord with paragraph 33.1.
b. Statements of witnesses not appended.
c. Wreckage diagram not appended.
d. DD Form 175 filed by pilot or a certified copy is not appended.
e. Pilot's flight log data not appended.
f. Position of aircraft components such as canopy, inlet duct doors, elevator power control switches and etc. at time of impact not established.

3. Although the evidence available may not conclusively establish a cause factor for an accident but does indicate a probable cause, every effort should be expended to eliminate other possible cause factors. It does not appear that this practice was adhered to in this case.

4. Subject to the foregoing the conclusions of the Aircraft Accident Board and the comments of the endorsements thereto are concurred in.

HHCaldwell

H. H. CALDWELL
Chief of Staff

Copy to:
BUAER (2)
COMFAIRJAX
COMCVG-10
CO, VF-11

10

ORIGINAL

FF7-1/15:co
A25
Ser 1808
SEP 14 1955

THIRD ENDORSEMENT on VF-11 AAR Ser 3-55 of 26 August 1955 concerning F2H-4, BuNo 127670 occurring 11 August 1955

From: Commander Fleet Air, Jacksonville
To: Chief of Naval Operations (OP-57)
Via: (1) Commander Air Force, U. S. Atlantic Fleet
(2) Commander-in-Chief, U. S. Atlantic Fleet
(3) Director, U. S. Naval Aviation Safety Center

Subj: Aircraft Accident Report; forwarding of

Ref: (a) OPNAV INST 3750.6A

1. Forwarded, readdressed, concurring in general with the conclusions of the Aircraft Accident Board.

2. Although some of the evidence in this case strongly suggests the possibility of flat-hatting and of failure to recover from a run on trucks on the highway, it is impossible to rule out the possibility of physiological factors. In order to have conducted a complete study of all factors in this case, carbon monoxide saturation of the blood should have been determined, and blocks of organs should have been forwarded to the Armed Forces Institute of Pathology. For the above stated reasons, some doubt is cast upon the probability of pilot error in this case, as physiological factors may well have been responsible for the accident. The Flight Surgeon is considered to have been remiss in his failure to have a complete autopsy performed when the conditions surrounding the accident should have been regarded as worthy of the most thorough examination.

3. The omission of certain data which is required by reference (a) is noted. The Aircraft Accident Board, by copy of this endorsement, is directed to forward supplemental information regarding:

a. The Overhaul and Repair activity to which the engines, accessories and airframe have been transferred.

b. The effectiveness of personnel safety equipment used.

c. The supervision of flight planning and briefing of the pilot prior to the flight.

d. The aircraft oxygen system: whether an investigation for possible contamination or malfunction was made, and the results thereof.

4. Flat-hatting and irresponsible flying practices on the part of some individuals is a matter of gravest concern to this command. Deliberately

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FF7-1/15:co
A25
Ser 1808
SEP 14 1955

dangerous flying practices will positively not be condoned. Offenders may expect the severest consequences when apprehended. Commanding Officers have been directed to take all necessary steps to ensure positive compliance by pilots of their commands with existing directives concerning conduct of flight.

(b) (6)
[redacted]

Copy to: (3rd and only)
CO, VF-11
COMCVG-10
COMMLB-6
NAS CECIL FIELD
NAVAVSAFCEN (2)
BUAER (2)

3

ORIGINAL

10

ORIGINAL

CVG-10/A25/1
DAC:tn
Ser:277

31 AUG 1955

SECOND ENDORSEMENT on VF-11 AAR No. 3-55 dtd 26 August 1955 on F2H-4, BuNo. 127670, pilot LTJG R.C. ALLISON, USN

From: Commander, Carrier Air Group TEN
To: Chief of Naval Operations (Op-57)
Via: (1) Commander Fleet Air, Jacksonville
(2) Commander Air Force, U.S. Atlantic Fleet
(3) Officer-in-Charge, U.S. Naval Aviation Safety Center

Subj: VF-11 AAR No. 3-55; forwarding of

1. Forwarded, concurring in the conclusions of the aircraft accident board.

(b) (6) [redacted]

Copy to:
CNO Op-57
NavAvSafCen
BuAer
ComAirLant
ComFAirJax
ComNAB SIX
CO NAS Cecil Field
CO, VF-11

4

8

FF12/VF-11/ELF/jvm
A25
30 August 1955

FIRST ENDORSEMENT on VF-11 Aircraft Accident Report No. 3-55 dtd 26 August 1955

From: Commanding Officer, Fighter Squadron ELEVEN
To: Chief of Naval Operations (Attn: OP-57)
Via: (1) Commander, Carrier Air Group TEN
(2) Commander Fleet Air, Jacksonville
(3) Commander Air Force, U. S. Atlantic Fleet
(4) Officer-in-Charge, U. S. Naval Aviation Safety Center

Subj: Aircraft Accident Report; forwarding of

1. Forwarded concurring in the conclusions of the Aircraft Accident Board.

2. Much publicity has been given throughout Naval Aviation to the subject of "flat hatting" and pilot responsibility for conscientiously adhering to the letter and spirit of directives published concerning such illegal and dangerous flying.

3. This command will continue to thoroughly indoctrinate all pilots in the hazards, both physical and legal, associated with "flat hatting" and will continue to rigidly enforce all existing and future directives pertaining thereto.

(b) (6) [redacted]

5

AIRCRAFT ACCIDENT REPORT
OPNAV FORM-3750-1 (REV. 3-52)

ORIGINAL

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

1. DATE OF ACCIDENT: 11 August 1955 — HOUR: 1604R
2. ACTIVITY SUBMITTING REPORT: Fighter Squadron ELEVEN
3. AAR SERIAL NO.: 3-55
4. MODEL A/C: F2H-4 — BUNO: 127670 — CHECK DAMAGE TO A/C: [X] A [ ] B [ ] C [ ] D [ ] E
5. ADMINISTRATIVE JURISDICTION OF A/C: Fighter Squadron ELEVEN
6. NAME OF UNIT OPERATING THE A/C: VF-11, NAS Cecil Field, Jax., Fla. — BASED AT: CAG-10, COMFAIRJAX, COMAIRLANT. — OPERATIONAL CHAIN OF COMMAND
7. LOCATION OF ACCIDENT: 13.5 Miles SE Perry, Florida beside U.S. HIGHWAY 27
8. (A) TO WHOM INFORMATION ATTACHES: Fighter Squadron ELEVEN

9. PERSONNEL INVOLVED (Including name and injury code of those injured, not occupants of A/C)

A FULL NAME, RANK, SERVICE, FILE NO. (List pilot in command first)	B AGE	C BILLET	D POSITION	E INJURY
ALLISON, Robert Clem, LTJG, (b) (6) [redacted] USN	27	PILOT	COCKPIT	A

H)

10. PILOT EXPERIENCE

	TOTAL ALL MODELS	TOTAL THIS MODEL	LAST 12 MONTHS ALL MODELS	LAST 3 MONTHS ALL MODELS	LAST 3 MONTHS THIS MODEL
TOTAL HOURS	400.0	41.9	257.5	54.2	41.9
INSTRUMENT HOURS			62.9	1.3	1.3
NIGHT HOURS			40.5	17.8	6.2
CV LANDINGS DAY/NITE	6/0	0/0	6/0	0/0	0/0

INSTRUMENT RATE: STANDARD/YES/YES
AGE: 27
DATE DESIGNATED: 25 March 1955

11. CHECK IF: [ ] INCIDENT TO FLIGHT [ ] NOT INCIDENT TO FLIGHT — COST OF A/C: $500,000
12. PURPOSE OF FLIGHT: D.R. NAVIGATION — CODE: 1A0
13. TIME OF ACCIDENT: 01-36
14. TYPE OF ACCIDENT: Collision with ground — CODE: B
15. MANEUVER INVOLVED: Unknown
16. WEATHER: [X] VFR [ ] IFR — CEILING: None — VISIBILITY: 15 Miles
17. DARKNESS: [ ] YES [X] NO
18. CLEARANCE TYPE: VFR
19. WIND DIRECTION: — FORCE:
20. ATTITUDE ON IMPACT: Level — ANGLE OF IMPACT: Less than 10° — TOPPING DISTANCE: 500 Feet — SPEED IN DANGER: About 250 kt
21. DID CREW FOLLOW ORDERS? [X] YES [ ] 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 LAST PERFORMED	FLT HOURS SINCE CHECK	NO. CHECKS SINCE CHECK
AIRCRAFT	1	18	0		694.6	1st Inter	2.5	2
	MODEL ENGINE	SERIAL NO. OF ENGINE						
ENGINE 1	J34WB34	201928	0		604.4	600HR"B"	6.8	8
ENGINE 2	J34WB34	022809	1	190.0	430.4	180HR"B"	6.7	8
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)) — BUREAU SERIAL NUMBER OF THIS ACCIDENT TO BE WRITTEN

23. CONTRIBUTORY FACTORS (Check or fill in only one primary "P" factor, all others secondary "S")
[X] P [ ] S PILOT (OR CREW) ERROR
[ ] P [ ] S ERROR OF OTHER PERSONNEL
[ ] P [ ] S MATERIAL FAILURE OR MALFUNCTION
[ ] P [ ]

24. CHECK CONDITIONS INVOLVED IN THIS ACCIDENT (Last order)
[ ] X-WIND, STACKWASH, SLIPSTREAM, TURBULENCE
[ ] PITCHING OR ROLLING DECK
[ ] COMMUNICATION DIFFICULTY
6
[ ] AIRPORT HAZARD
[ ] ROUGH SEAS
[ ] TERRAIN CONDITIONS

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

26. PERSONNEL SAFETY EQUIPMENT USED
[X] PARACHUTE
[ ] EJECTION SEAT
[X] SHOULDER HARNESS
[X] SAFETY BELT
[ ] EXPOSURE SUIT
[X] G-SUIT
[X] PROTECTIVE HELMET
[X] OXYGEN EQUIP.
[X] LIST OTHERS: MK -2 LIFE VEST

MEDICAL OFFICER'S REPORT SENT AS NAMED: NAS CECIL FIELD 10-55

(b) (6) (b) (6) [redacted]

27. ENCLOSURES AND DISTRIBUTION CHECK OFF LIST.

CHECK	ENCLOSURES	CHECK	NO.	DISTRIBUTION BY COMMANDING OFF.
	STATEMENTS: PILOT		ORIG.	CNO (OP-57) VIA CHN. OF COMD.
	LSO		2cc	NAVAVSAFACT DIRECT
	ENG. OFF.		2CC	BUAER DIRECT
	CAT. OFF.			CHECK AND LIST OTHERS AS REQUIRED
	WITNESSES		2cc	COMAIRLANT (1 Direct)
	OTHERS		2cc	COMFAIRJAX (1 Direct)
X	PHOTOGRAPHS		1cc	COMNAB SIX
X	DRAWINGS		1cc	COMCARAIRGRU ONE ZERO
	WEATHER REPORT		1cc	NAS Cecil Field
	LOADING MANIFEST		1cc	Safety Files
			1cc	Administration Files

ORIGINAL

DATE SUBMITTED TO C.O.: 26 AUGUST 1955

29. THE ACCIDENT. The pilot took off at 1420R on a scheduled navigation flight. He had filed a VFR flight plan with NAS Cecil Field Operations for a route which would take him to Pensacola via Crestview, Florida and return. His aircraft was observed at low altitude in the area Southwest of Perry, Florida and was observed by two witnesses to crash into the ground at about 1604R.

30. DAMAGE TO AIRCRAFT. Enclosures (1) and (2) are aerial photographs of the area of the crash. The aircraft broke up into six (6) major pieces as shown in Enclosure (2) and listed below.

1. Port wing
2. Starboard wing
3. Cockpit section from fuselage station 27.25 to 125.364.
4. Tail section from fuselage station 393.25 aft
5. Port engine
6. Starboard engine

Enclosures (3) through (7) are detail photographs of some of the parts of the aircraft. Enclosures (6) and (7) were taken after the parts had been returned to NAS Cecil Field.

Enclosures (12) through (14) are photographs of the wreckage as viewed from initial point of impact (Enclosure 12), from the midpoint looking both directions, (Enclosures 13 and 14), and from the end of the wreckage toward the initial point of impact (Enclosure 3).

31. THE INVESTIGATION. In this paragraph the facts and statements as they were gathered by the Board are reported without comment. Paragraph 32 contains the deductions which are based on this evidence.

31.1 Readiness of aircraft for flight

The aircraft was preflighted in accordance with squadron instructions and a preflight check sheet was completed. The aircraft was fueled with 1442 gallons of fuel (full tip tanks).

The aircraft had flown 6.7 hours since the last engine check (a 180 hour "B" check) and 2.5 hours since the last structural check (a 1st intermediate check). The most recent ten flights were made during the period 29 July to 10 August, and during these flights, two discrepancies were reported: "port brake is a little weak" and "seat loose" both on 1 August. These discrepancies were signed off by the maintenance crew. LTJG ALLISON flew the aircraft on the two flights just preceding this flight.

31.2 Fitness of pilot for flight

The pilot was not in a grounded status or under treatment at NAS Cecil Field dispensary for any reason on the day of the flight. He was present in the squadron area from 0730 until he manned his aircraft at about 1400. He was in the presence of most of the squadron pilots during this time, and no one noticed any unusual behavior.

31.3 The flight plan

.1 The flight plan form DD 175 which the pilot filed with NAS Cecil Field Operations indicates a planned route as follows: Red-30 to Crestview direct to Pensacola at 30,000 feet, returning direct to Crestview Red-30 to Marianna direct to Cecil Field at 1,000 feet.

.2 The Operations Duty Officer who signed the pilot's flight plan was LT (b) (6) [redacted], USN. This officer stated that the pilot filed two times. On the first plan submitted, the pilot had filed for a route which would take him through the Tyndall Danger Area (R-183). When his attention was drawn to this he went back to the flight planning room and later returned with a new flight route which is listed above.

.3 The chart and kneepad flight plan card carried by the pilot were recovered. This chart and card agree in the labelling of the legs (A, B,C, etc) and the distances. The line on the chart was drawn from NAS Cecil Field straight to Pensacola thence to Tyndall radio following the shoreline thence direct to NAS Cecil Field. (This is not the same as the route which was filed on the DD 175).

.4 The VF-11 flight schedule showed LTJG ALLISON scheduled for a high altitude DR Navigation flight.

31.4 The flight

The pilot took off from NAS Cecil Field at 1420. He reported to Pensacola radio at 1515R saying he was over Pensacola at 30,000 feet.

31.5 The flight path just prior to crash

(b) (5)

[redacted]

(b) (5)

[redacted]

31.6 The position of the switches and controls in the cockpit are shown in Enclosures (9) through (11) and are listed below.

.1 Throttles full forward
.2 Fuel shut-off valves - starboard open, port 3/4 open
.3 Flap switch up
.4 Speed brake switch aft (brakes out position)
.5 Wheel handle up
.6 Aileron power switch off
.7 Pre-ejection levers down
.8 A-C power normal
.9 ARC-27 - Channel 4
.10 Shoulder harness locked
.11 Oxygen - Normal and 1400 pounds
.12 Engine master switches - on

32. THE ANALYSIS. The following are the deductions based on the evidence gathered during the investigation. The possible causes are stated together with the arguments which tend to prove or disprove them.

32.1 The aircraft was serviceable prior to flight (see para 31.1)

32.2 LTJG ALLISON was fit for the flight. He had not been to Sick Call at Cecil Field, he was not grounded, and he appeared normal to his fellow pilots during the morning preceding the flight. He flew 1.7 hours on this same flight before the crash.

32.3 The pilot did not intend to fly the flight plan he filed with Operations. The chart and navigation card he carried did not agree with the Flight Plan filed. The crash occurred at a place virtually on the line drawn on his chart whereas the route he filed would not pass within 15 miles of the crash scene.

32.4 The pilot did not plan or file for the flight for which he was scheduled (see para 31.3)

32.5 The pilot flew single engine from Pensacola to Perry. This is based on his kneepad navigation card which shows he flew a ground speed of 250 knots after Pensacola. This is the speed at which minimum altitude, single engine flights are flown in the F2H-4.

The pilot probably circled the gravel trucks with both engines on.

(b) (5) [redacted]

out when he crashed which indicates either a malfunctioning dive brake switch or an attempt by the pilot to reduce speed during his last dive/glide. From the scattering of the wreckage it was estimated that the aircraft was travelling about 250 knots when it hit the ground; if this is true, then the speed before the speed brakes were put out was greater than 250. It seems most probable that two engines were used to attain this increased speed. This is also confirmed by the positions of the fuel valve controls. In addition, (b) (5) [redacted]

32.6 The aircraft was under control up to the time of impact. This deduction is based on the statements which indicate that the aircraft circled together with the examination of the wreckage which indicate that the aircraft contacted the ground in a wings level attitude. If there were control troubles, it seems unlikely that the aircraft would make a complete circle starting at low altitude and still hit the ground wings level and at a small angle of impact.

The F2H-4 is flyable with the Aileron Power ON or OFF, and the evidence indicates that the aircraft was under control up to the time of impact, therefore it is concluded that the position of the Aileron Power Switch does not relate to the accident, and the fact that it was found in the OFF position after the crash is disregarded.

32.7 The wheels were up. All three wheels were still locked up when the wreckage was examined.

32.8 The flaps were up. Both wings were intact when the wreckage was examined, and both flaps were up.

32.9 The dive brakes were out on both wings.

32.10 The pilot did not attempt to eject. Although the canopy was off of the aircraft when the wreckage was examined, it is concluded that it was taken off by the force of impact (probably with a tree). The leg braces were still locked in the normal down position. The ejection seat firing mechanism had been tripped and the primer on the cartridge had been dented by the firing pin, but since the cartridge did not go off and the firing pin release mechanism was bent, it was concluded that the firing pin was binding when it eased home and did not strike the primer with sufficient force to fire it.

32.11 The aircraft was not "ditched". The wreckage indicated a speed of about 250 knots. This is an "off the cuff" consensus opinion of several pilots who have seen other F2H crashes. It seems to this Board that an F2H-4 would stay together much more if it were ditched at a normal ditching speed of about 120 knots in this area which was soft boggy ground clear of obstructions.

Since the dive brakes were out and the flaps up, the only possibility for the "ditching" argument is that the pilot was intending to ditch, thought about using the road, saw the trucks, gave up the road, saw the clearing to the right and opened his brakes to put it in the clearing regardless of speed. If the estimate of the speed is correct, then it seems that he had plenty of speed to either carry on and ditch ahead of the leading truck (closing speed on him was probably about 200 knots) or pull up and bail out. To accept the "ditching" theory is to also accept that he was completely panicked and threw away his previous instruction in ditching procedures. If the pilot was having difficulties when he turned from heading East to heading West, it seems reasonable to assume that he would head for the Perry-Foley Airport which was about ten (10) miles away rather than turn back to a heading of East to land on the road. The pilot's nav card shows that he knew exactly where he was when he passed the Perry-Foley Airport because he logged his time and fuel state at Perry, one of his check points.

32.12 Weather was not a factor. The weather around Perry was 5,000 feet scattered, 15,000 feet scattered and 15 miles visibility.

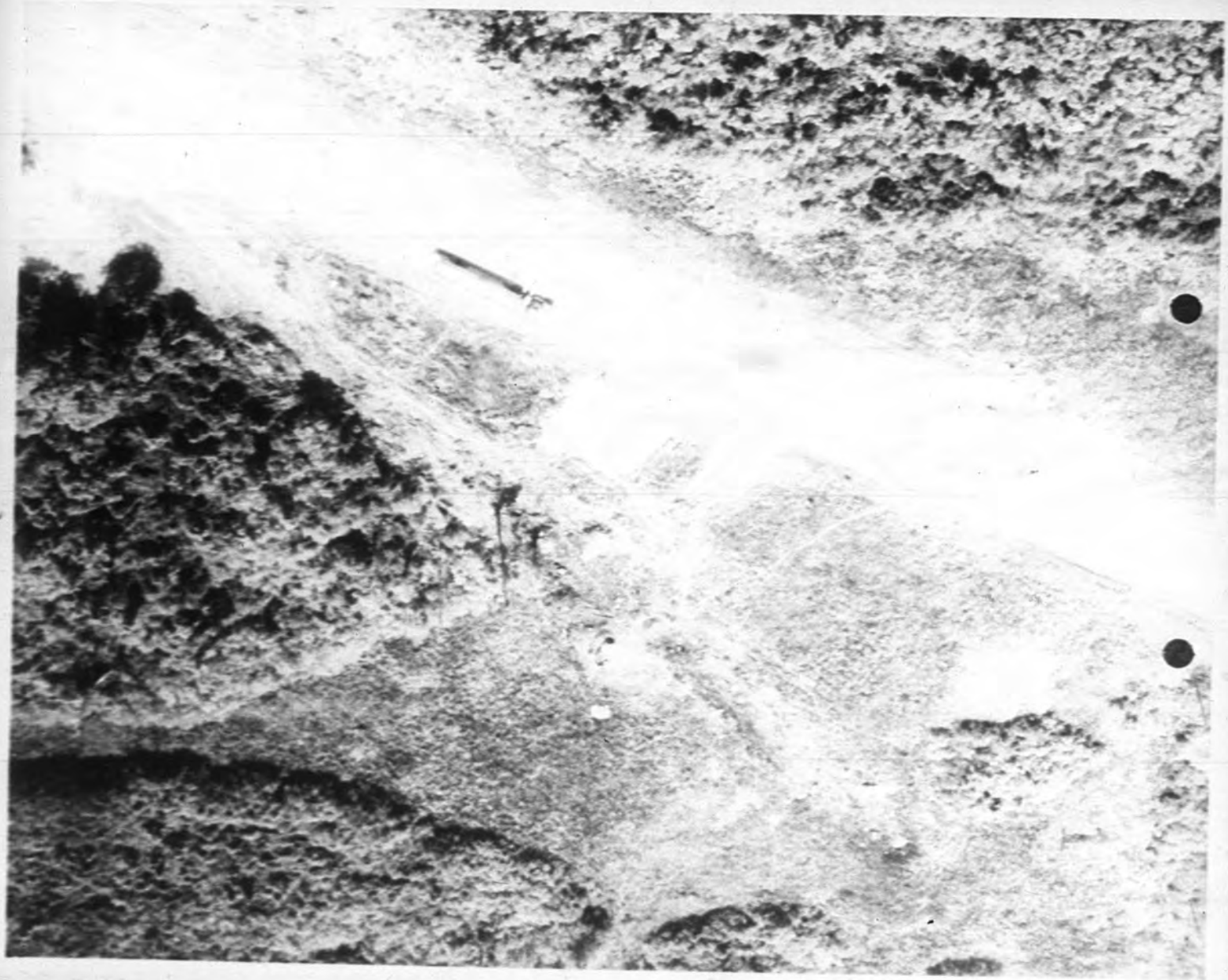
33. CONCLUSIONS. As a result of this investigation, the Board concludes that:

33.1 The primary cause of the accident is unknown.

33.2 The most likely primary cause of the accident was pilot error in that the pilot hit the ground at moderate to high speed.

33.3 The most reasonable explanation for the pilot's hitting the ground is that he was "flathatting", i.e., he was deliberately diving on the gravel truck and misjudged his pull-out.

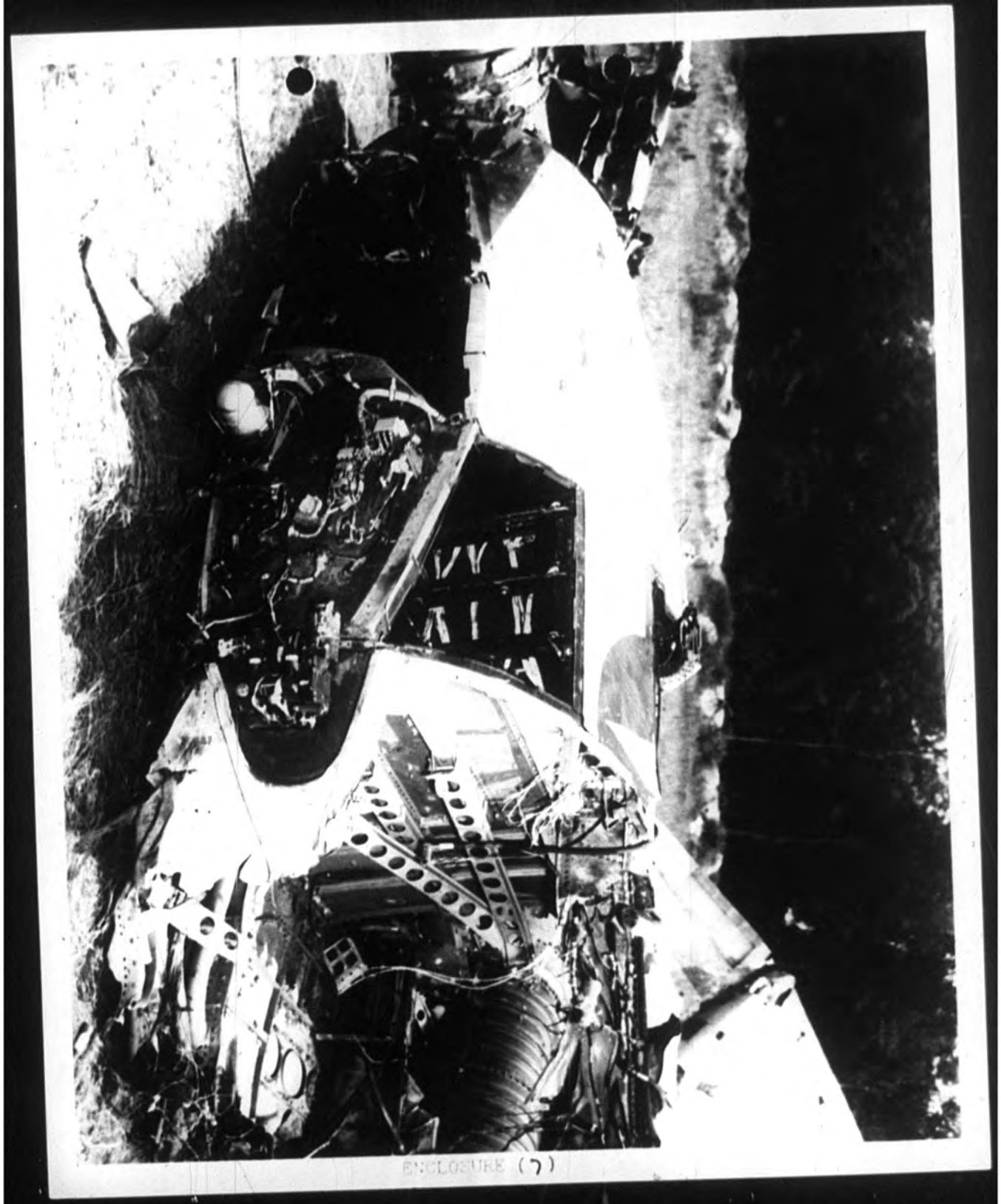
34. RECOMMENDATIONS. None. The Board submits that no regulation will stop a pilot who wants to flat hat. The Board feels that this pilot had decided before he took off to flathat. This is suggested by the fact that he did not plan the flight for which he was scheduled or fly the flight for which he filed.



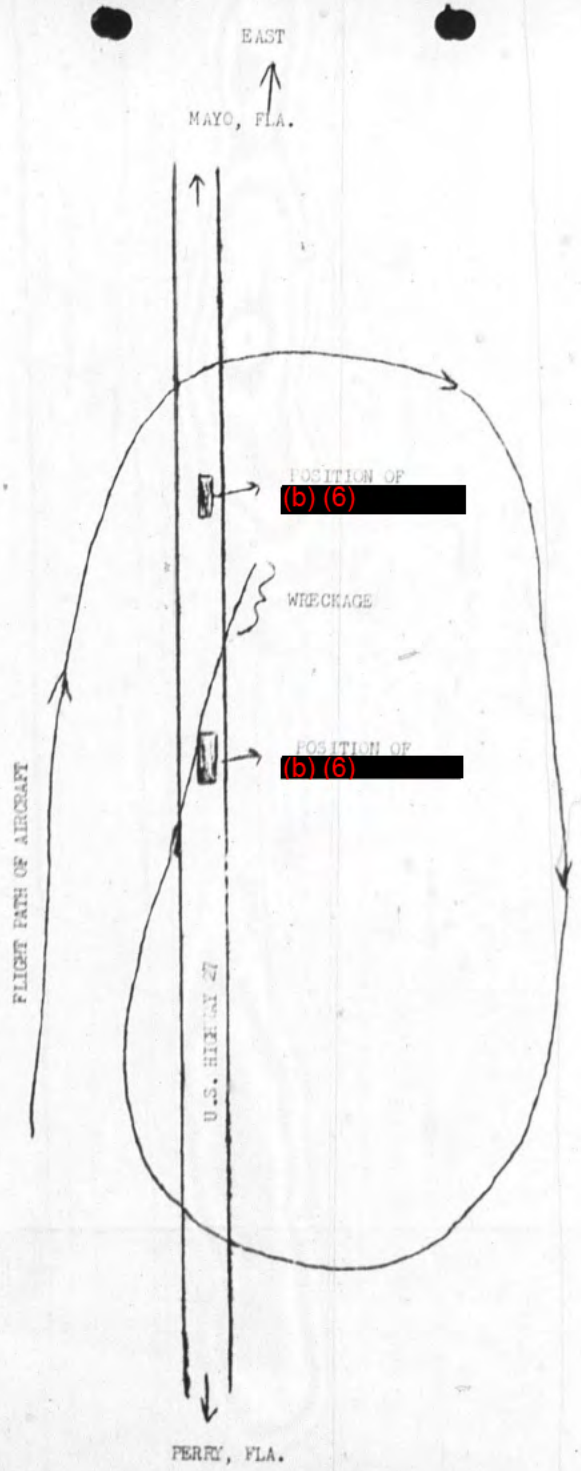
3

(4)

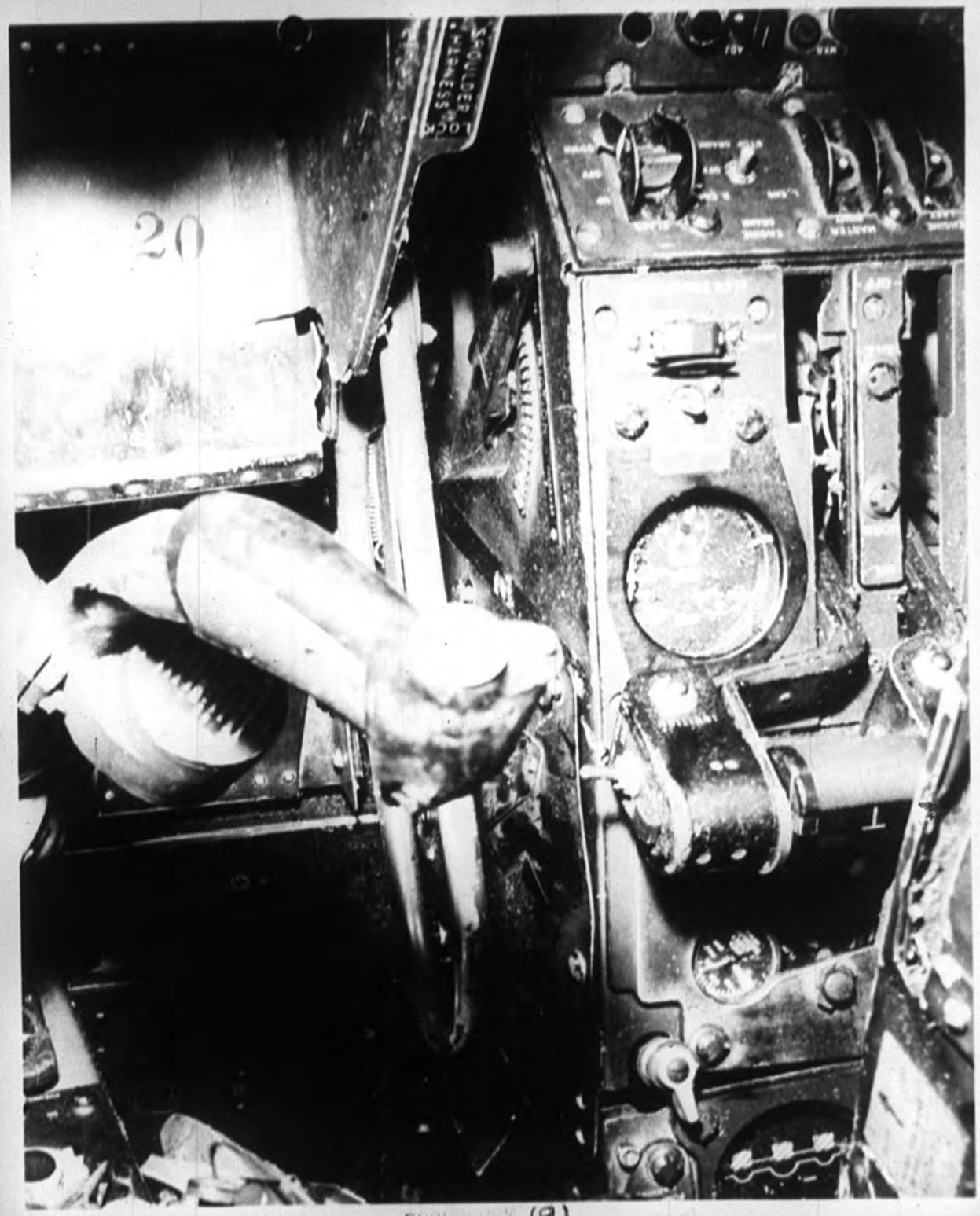
ENCLOSURE (6)



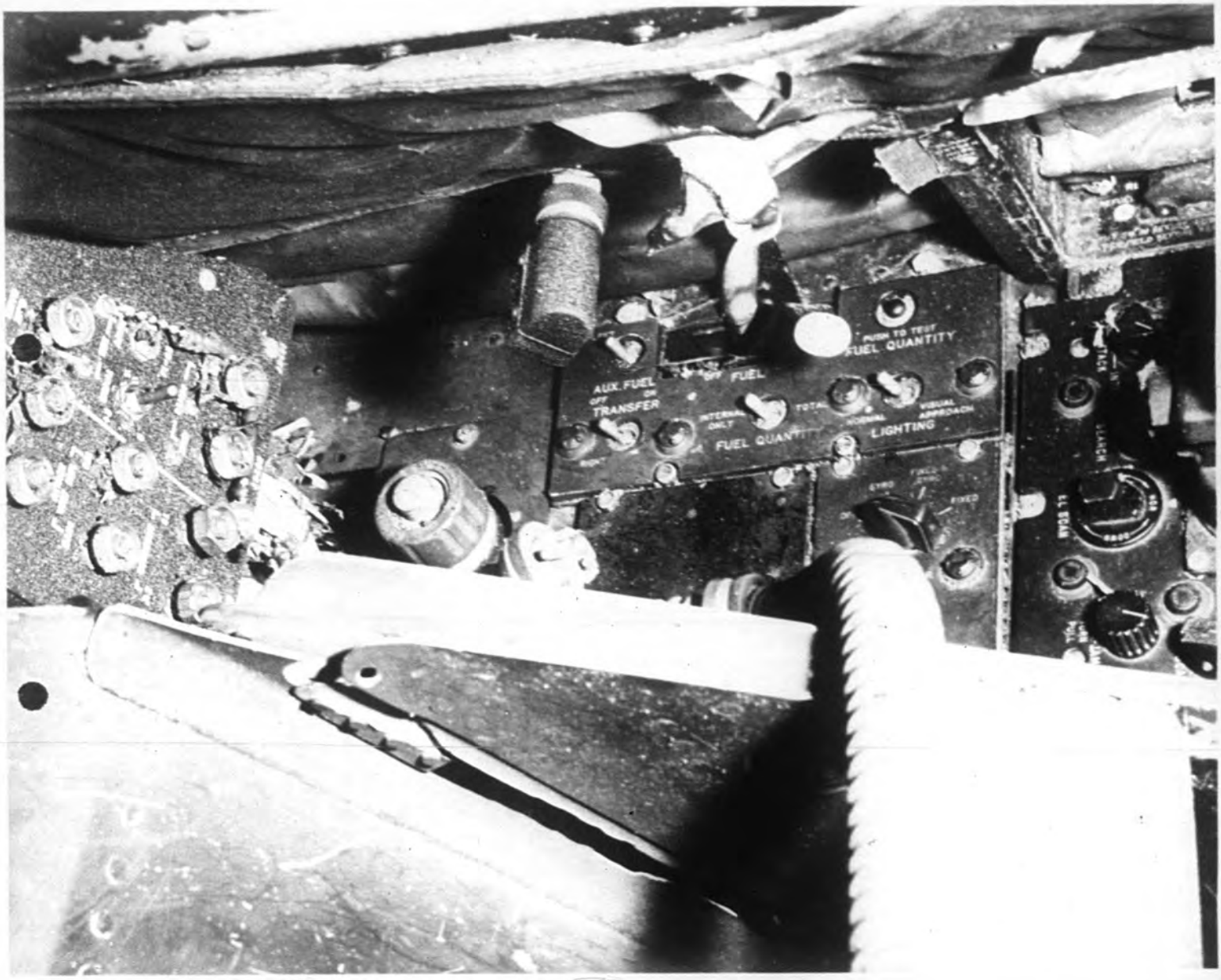
ENCLOSURE (7)


EAST
MAYO, FLA.
POSITION OF
(b) (6)
WRECKAGE
POSITION OF
(b) (6)
FLIGHT PATH OF AIRCRAFT
U.S. HIGHWAY 27
PERRY, FLA.

ENCLOSURE (8)



ENCLOSURE (9)


PUSH TO TEST
FUEL QUANTITY
AUX. FUEL
OFF ON
TRANSFER
OFF FUEL
INTERNAL ONLY
TOTAL
NORMAL
VISUAL APPROACH
LIGHTING
FIXED

23

ENCLOSURE (12)

ENCLOSURE (19)