2/12 HS

3/5 IBM

COMMANDER AIR FORCE
UNITED STATES PACIFIC FLEET
U. S. NAVAL AIR STATION, NORTH ISLAND
SAN DIEGO, CALIFORNIA

IN REPLY REFER TO
FF4-1 A25
SERIAL NO
80/ 6319
16 APR 1956

FIFTH
~~FOURTH~~ ENDORSEMENT on VF-211 AAR ser 3-56 concerning FJ-3 BuNo 135947 accident occurring 12 February 1956, pilot (b) (6) [redacted]

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

Subj: VF-211 aircraft accident occurring 12 February 1956

Ref: (c) CINCPACFLT Instruction 3750.1C

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

2. It is noted that the survival of this pilot may be attributable to progressive destruction of landing gear components. The question of whether jets should be crash-landed with or without wheels has been raised by the U. S. Air Force and their conclusions that gear should be lowered seem to be supported by this accident. It is hoped that U. S. Naval Aviation Safety Center will prepare a study similar to that conducted by the U. S. Air Force and arrive at conclusions which will serve as guides for both crash-landings on land and ditchings at sea.

3. COMNABS 11/12 will review the crash position designation system with relay methods to determine what improvements, if any, can be made.

4. The CO, VF-211 is advised that AAR's are not normally forwarded via CINCPACFLT as outlined in paragraph 4.c. and 5.c. of reference (c).

5. The following errors in AAR form are noted.

a. Block 9 - pilot's service group and reserve code symbol are not included.

b. Block 13 - time not indicated correctly. (b) (6) [redacted]

By direction

THIS ACTION ALREADY TAKEN!

Copy to:
BUAER (2)
CINCPACFLT
COMFAIRALAMEDA
CVG-21
CO, NAAS, EL CENTRO
CO, VF-211

11

FF7-2/A25-1
Ser 322/1372

30 MAR 1956

FOURTH ENDORSEMENT on VF-211 AAR Ser 3-56 concerning FJ-3, 135947, accident occurring 12 February 1956, pilot (b) (6) [redacted]

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

Subj: Fighter Squadron TWO ONE ONE AAR Serial 3-56; forwarding of

1. Readdressed and forwarded concurring in the conclusions and recommendations of the Aircraft Accident Board as modified by the third endorsement.

2. The preliminary report of inspection by NAS Alameda Overhaul and Repair Department determined the following:

a. The first stage turbine blades were burned and/or broken off at mid-length and had been subject to an overtemperature condition.

b. The steel blades of the first three compressor stages were slightly damaged indicating that a foreign object or objects of small size had entered the compressor prior to the crash.

c. One (1) fourth stage, seven (7) fifth stage and three (3) sixth stage compressor blades were broken off ranging from one eighth to one half inches from blade base.

d. The presence of aluminum metalization on the turbine rotors covered by a light layer of dirt is indicative of compressor blade failure during operations prior to the crash.

e. The presence of an abnormal amount of soot over all compressor blades indicates the possibility of compressor stall during operation as the result of marginal compressor effeciency due to the broken blades, and which may have been the cause for the turbine overtemperature condition.

f. It appears that the failure of the fifth and sixth stage blades were precipitated by the single blade failure in the fourth stage.

g. The cause of this failure was undetermined.

FF7-2/A25-1
Ser 322/1372

30 MAR 1956

h. Possible causes, are the rapid fatigue of the blade from foreign object damage or from a faulty blade.

i. The contractor is being contacted relative to metallurgical tests of the blades.

R. F. HICKEY

Copy to:
CINCPACFLT (Complete)
COMAIRPAC
BUAER (2)
NAVAVSAFCEN (2)
NAAS EL CENTRO
Navy Flight Safety Liaison Officer, Norton AFB
BAR COLUMBUS
CO, VF-211
COMCARAIRGRU-21

13

1459-325
A25/TJB:mg
Serial: 425 -95

MAR 20 1956

THIRD ENDORSEMENT on VF-211 AAR ser 3-56 concerning RU-3 accident occurring 12 February 1956

From: Commanding Officer, Naval Auxiliary Air Station, El Centro, California
To: Chief of Naval Operations (OP-57)

Via: (1) Commander Fleet Air, Alameda
(2) Commander Air Force, Pacific Fleet
(3) Commander-in-Chief, U. S. Pacific Fleet
(4) Director, Naval Aviation Safety Center

Subj: Aircraft Accident Report; forwarding of

Ref: (b) OPNAV Instr. 3750.6A

Encl: (2) Statement of Fire Captain, Naval Auxiliary Air Station, El Centro, Calif.
(3) Statement of Assistant Fire Chief, Naval Auxiliary Air Station, El Centro, Calif.

1. Forwarded.

2. The Commanding Officer takes exception to certain statements made in the accident report as they are in variance from the facts. Enclosures (2) and (3) forwarded herewith, support the following:

a. "The estimate in time of ten to fifteen minutes for the crash crew to reach the crash scene". The first crash vehicle reached the scene in about seven minutes. On a timed rerun, a crash vehicle following the same route reached the scene in six minutes.

b. "Delay in the arrival of competent Medical Aid". The medical officer of the station, 2100/2, DIF, reached the scene of the accident and was attending the pilot prior to arrival of the crash crews. In civilian clothes, the 12th being Sunday a non-working day, he was at the dispensary when the crash alarm sounded. The medical officer proceeded with the ambulance driver to the Southeast corner of the field, and there directed the ambulance driver to proceed to the scene via the road. The medical officer climbed the station boundary fence, waded the two ditches and was attending the pilot prior to the arrival of the crash vehicles. It is estimated that competent medical aid reached the pilot in about five or six minutes.

1159-325
A25/TJB:mg
Serial: 425 -95

MAR 20 1956

c. "Tower personnel could have given the crash crew more positive directions." Tower personnel could not determine by visual reference whether the aircraft was on the inboard side, the outboard side, or in the drainage and irrigation canals due to shrubbery outside the station boundary obstructing the view. Crash vehicles therefore, were vectored to the approach end of Runway 30, the scene of the crash.

3. A study has been undertaken by this command to survey field conditions and provide recommendations for the location of gates and bridges to provide best access points to areas immediately outside the station. A project will be initiated through the Shore Station Development Board to improve the now existing situation.

J. B. VREDENBURGH

Copy to:
CO, VP-211 (1)
Commander, CAG 21 (1)
Navy Flight Safety
Liaison Officer
Norton AFB (1)
COMAIRPAC (1)
BUAER (2)
NAVAVSAFCEN (2)
BAR, Columbus (1)

15

11 March 1956

To: Investigating Officer
From: C. A. Ritter, Fire Captain

Subject: Statements in regard to aircraft crash & fire of an FJ-3 Bu. No. 135947, attached to VF 211.

Date of Crash - 12 February 1956
Time of Alarm - 1233

The fire department received an alarm over the crash fire phone of an emergency 2 position Xray followed by the report of an aircraft crashed at the approach of Runway 30.

I responded immediately with the FFN-1 and a crew of four (4) firefighters. I followed Assistant Fire Chief L. L. Murphy who responded with the fire chief's Jeep toward the approach of Runway 30.

At this point I saw the MB-1 and the MB-2 at the fence line of Runway 30. In line with me was the FFN-3 from crash shack one and the other FFN-3 from crash shack two. Chief Murphy ordered the MB-1 and 1-FFN3 to remain in position and for all other apparatus to follow him to the east gate.

Chief Murphy turned south at the canal from the east gate and ordered one truck to use the other ditch road.

Upon arrival to the crash, I saw Chief Murphy and the crew on the MB-2 approach the fire with CO2 fire extinguishers. I directed two (2) foam lines from 1-FFN-3 to the fire placing one line on each side of the aircraft. My immediate sizeup was to look for the pilot, I saw him lying in a lettuce field about 100' north of the aircraft. Several people were around the pilot and I noted that the station doctor, CDR [redacted] (b) (6) was in attendance to the pilot. The Commander was in civilian clothes. I then decided the pilot needed no assistance from me and confined myself to the extinguishment of the fire. I was directed by Chief Murphy to keep 1-FFN-3 and 1-FFN-1 at the fire. I used 400 gallons of foam to finish the fire and approximately 50 gallons of water from the FFN-1 to cool the hot metal.

Chief Murphy left me in charge of the crash. When I was definitely sure the fire was out I sent the FFN-1 to the station and kept an FFN-3 at the scene for a standby. An officer from the squadron (VF 211) remained with me. A crew of sailors cleaned the area. When I was informed that the aircraft was to remain in the field I double-checked the fire area and after informing the officer from VF 211, I returned to the station with the FFN-3. Good radio contact was used at all times.

I estimate that from receipt of the alarm the fire apparatus was at the scene approximately seven (7) minutes later. I estimate that the fire was approximately twenty (20) minutes from the time of the alarm.

Certified to be a true copy (b) (6) [redacted]

C. A. RITTER, FIRE CAPTAIN

Enclosure (2)

Commander, USN

16

11 March 1956

To: Investigating Officer
From: L. L. Murphy, Assistant Fire Chief

Subject: Statements in regard to aircraft crash & fire in F. J. -3 Bu. No. 135937, attached to VF 211 on 12 February 1956.

At 1233, the fire department received an alarm of emergency 2, position Xray of a plane that had crashed on approach to Runway Baker. I responded immediately in the fire chief's Jeep, nearing the approach to Runway Baker I could see that the disabled plane was across the canals and was burning. I directed crews of the MB-1 and 1-FFN-3 to stay on this side of the canal and assist in any way possible until I could open the east gate and get to the scene of the crash. No knowing the status of the pilot, I dispatched 1-FFN-1, 1-FFN-3 and 1-MB-2 to the scene of the crash.

Upon arrival, I saw the pilot laying approximately 100' north of the plane attended by CDR [redacted] (b) (6) (our station Doctor) and surrounded by possibly ten (10) people, (squadron personnel, civilians and Air Force people from around the hangar area.)

With the crew from the MB-2 the fire was held in check with four (4) 15 lb. CO2 fire extinguishers until the arrival of an FFN-3 a few seconds later.

After the foam lines were placed and firefighting was underway under the direction of my Fire Captain, C. A. Ritter, I offered my assistance to CDR [redacted] (b) (6) and was told everything was O.K., they were awaiting the arrival of the ambulance. I returned to my radio preparing to call the base for the ambulance and saw the ambulance approximately 200 yards away on the canal road coming toward the crash. I helped load the pilot aboard the ambulance and returned to the scene of the fire.

My estimated time of arrival was six (6) minutes, the MB-2 seven (7) minutes and the FFN-1 & FFN-3 arrived about eight (8) minutes from time of alarm.

We used 400 gallons of foam from the FFN-3 and approximately 50 gallons of water from the FFN-1 to extinguish the fire and cool hot metal in the fire area. The driver of the MB-2 stayed in contact with the tower and was available to respond to another emergency if needed. I secured the balance of the crew at 1445, Captain Ritter and his crew, and I secured at 1400.

Crash fire and rescue crews should be commended for their expediency in bringing the fire under control. Commander Moser should be commended for his prompt attention to the pilot.

L. L. MURPHY - Ass't Fire Chief

Enclosure (3)

Certified to be a true copy
[redacted] (b) (6)
Commander, USN

17

FF12/CAG-21
A25
Ser: 29

MAR 2 1956

SECOND ENDORSEMENT on VF-211 AAR ser 3-56 concerning FJ-3 accident occurring 12 February 1956

From: Commander Carrier Air Group TWENTY ONE
To: Chief of Naval Operations (OP-57)
Via: (1) Commanding Officer, NAAS, El Centro, California
(2) Commander Fleet Air, Alameda
(3) Commander Air Force, Pacific Fleet
(4) Commander-in-Chief, U. S. Pacific Fleet
(5) Director, Naval Aviation Safety Center

1. Forwarded, concurring with the statements of the Aircraft Accident Board.

E M Beauchamp
E. M. BEAUCHAMP

Copy to:
CO, VF-211

FF12/VF211
A25
Ser: 115
24 February 1956

FIRST ENDORSEMENT on VF-211 AAR of 23 FEB 1956

From: Commanding Officer, Fighter Squadron TWO HUNDRED ELEVEN
To: Chief of Naval Operations (Op-57)
Via: (1) Commander Carrier Air Group TWENTY-ONE
(2) Commanding Officer, Naval Auxiliary Air Station El Centro, California
(3) Commander Fleet Air, Alameda
(4) Commander Air Force, Pacific Fleet
(5) Commander-in-Chief, Pacific Fleet
(6) Director, Naval Aviation Safety Center

Subj: Aircraft Accident Report; forwarding of

Ref: (a) OPNAVINST 3750.6A

Encl: (1) Copies of AAR (6)

1. The statements made by the Accident Board under "Conclusions and Recommendations" are concurred with.

2. The cause of the accident was engine failure caused by a probable turbine failure. Ensign [redacted] (b) (6) did an excellent job in crash-landing the aircraft and undoubtedly saved his own life. The squadron, as noted by the Accident Board, immediately varied traffic pattern speeds so that the runway could be made from any position in the pattern in the event of further emergencies.

PAUL E. PUCH

Copy to:
COMFAIRALAMEDA
Safety Council (1)
Navy Flight Safety
Liaison Officer
Norton AFB (1)
COMAIRPAC (1)
BUAER (2)
NAVAVSAFCEN (2)
BAR, Columbus (1)

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

ORIGINAL

OPNAV REPORT-

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. AMF SERIAL NO.
12 February 1956	12:30 U	FITRON TWO ONE ONE	3 - 56

4. MODEL A/C	SUFF.	CHECK DAMAGE TO A/C	5. REPORTING CUSTODIAN OF A/C
FJ-3	135947	[X] A [ ] B [ ] C [ ] D [ ] E	FITRON TWO ONE ONE

6. NAME OF UNIT OPERATING THE A/C	BASED AT	OPERATIONAL CHAIN OF COMMAND
FITRON TWO ONE ONE, NAS MOFFETT FIELD, CALIF., CVG-21		COMAIRPAC, CNO COMFAIRALAMEDA

7. LOCATION OF ACCIDENT	8. UNIT TO WHICH OPERATOR ATTACHED
200 yds from S.E. boundary of NAAS EL CENTRO	FITRON TWO ONE ONE

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 control first)	B AGE	C BILLET	D POSITION	E INJURY
[redacted] (b) (6), ENS, USNR, [redacted] (b) (6)		Pilot	Cockpit	C

2)

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	448.3	61.7	196.3	57.0	51.7
INSTRUMENT HOURS			34.0	5.6	5.6
NIGHT HOURS			8.2	1.6	1.6
CV LANDINGS DAY/NITE					

INSTRUMENT RATE: Standard/No/No
PILOT'S AGE: 23
DATE DESIGNATED: 2 May 1955

11. CHECK IF: [ ] INCIDENT TO FLIGHT [ ] NOT INCIDENT TO FLIGHT — STRIKE
12. PURPOSE OF FLIGHT: Gunnery Target Tow — CODE: 1A62
13. TIME IN FLIGHT: 1.2
14. TYPE OF ACCIDENT: Engine failure in traffic pattern & crash landing in muddy field. — CODE: B
15. MANEUVER INVOLVED: Forced Landing
16. WEATHER: [X] VFR [ ] IFR — CEILING: 250 ø — VISIBILITY: 15
17. DARKNESS: [ ] YES [X] NO
18. CLEARANCE ISSUED: Local VFR
19. WIND DIRECTION: 090° — FORCE: 5 kts
20. POINT OF IMPACT: Port wing slightly low — ANGLE OF IMPACT: Approx 10° — STOPPING DISTANCE: 500' — SPEED ON IMPACT: Approx 120kts
21. DID FIRE FOLLOW IMPACT? [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. DAYS SINCE CHECK
AIRCRAFT	1	3	none	NA	128.3	Major	20.5	17
	MODEL ENGINE	SERIAL NO. OF ENGINE						
ENGINE 1	J 65W-4	W 610734	none	NA	85.3	2nd Int.X	20.5	17
ENGINE 2								
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): NA — BUOR SERIAL NUMBER OF THIS ACCIDENT, IF SUBMITTED: NA

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

P	S	
[ ]	[ ]	PILOT (OR CREW) ERROR
[ ]	[ ]	ERROR OF OTHER PERSONNEL
[X]	[ ]	MATERIAL FAILURE OR MALFUNCTION
[ ]	[ ]	X Traffic pattern speed and altitude.
[ ]	[ ]	20

24. CHECK CONDITIONS INVOLVED IN THIS ACCIDENT (List other in Remarks): [ ] X-WIND, STACKWASH, SLIPSTREAM, TURBULENCE [ ] PITCHING OR ROLLING DECK [ ] COMMUNICATION DIFFICULTY [ ] AIRPORT HAZARD [ ] ROUGH SEAS [ ] TERRAIN CONDITIONS

25. EMERGENCY CONDITIONS: [X] 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. [ ] LIST OTHERS

MEDICAL OFFICER REPORT SERIAL NUMBER: 4 - 56

27. ENCLOSURES AND DISTRIBUTION CHECK OFF LIST.

CHECK	ENCLOSURES	CHECK	NO.	DISTRIBUTION BY COMMANDING OFFICER
1	STATEMENTS: PILOT	1	ORIG.	CNO (OP-53) VIA CHN. OF COMD.
	LSO	3	ICC	NAVAVSAFACT DIRECT (1 copy via)
2	ENG. OFF.	2	20C	BUAER DIRECT
	CAT. OFF.			CHECK AND LIST OTHERS AS REQUIRED
3-7	WITNESSES	1		CVG-21 (via)
	OTHERS	1		CO, NAAS El Centro (via)
8-17	PHOTOGRAPHS	1		COMFAIRALAMEDA (via)
	DRAWINGS	2		COMAIRPAC (1 direct)(1 via)
	WEATHER REPORT	1		COMFAIRALAMEDA SAFETY COUNCIL (direct)
	LOADING MANIFEST	1		Navy Flt. Safety Liaison Officer (direct)
		1		BAR Columbus (direct)
		1		CINPACFLEET (via)

28. SIGNATURES OF BOARD MEMBERS
[redacted] (b) (6) [redacted], USN
[redacted] (b) (6) [redacted] (b) (6) [redacted], USN
[redacted] (b) (6) [redacted], USN
[redacted] (b) (6) [redacted], CAPT., USAF
(Senior member)

DATE SUBMITTED TO C.O.: 23 February 1956

(29) The Accident.-

Ensign (b) (6) [redacted], in FJ-3 Bureau Number 135947, departed NAAS El Centro at 1120U, 12 February 1964, towing a target banner for a local Camera Gunnery Mission. Ensign (b) (6) was cleared locally VFR, and was accompanied by LTJG (b) (6) in the role of target escort. The flight was led by LT (b) (6) who departed NAAS El Centro a few minutes later with two wingmen. The entire flight consisted of five FJ-3 aircraft.

At approximately 1225U, ENS (b) (6) returned from the mission and was cleared by El Centro tower to approach the banner drop zone on a 260 degree heading at 400 feet altitude for a normal banner drop. Having accomplished the drop he and the escort were cleared to enter the downwind leg for landing on runway 26 right. LTJG (b) (6) had difficulty staying behind ENS (b) (6) on the downwind leg but managed to do so by slowing to 125 knots.

Shortly after turning base leg in landing configuration at 600 to 700 feet altitude, ENS (b) (6) declared a flame out, entered a steep left turning dive and pulled the nose up to a level attitude just prior to striking the ground.

The aircraft slid through the muddy alfalfa field for 480 feet and came to rest 20 feet short of a (3) three foot deep dry irrigation ditch and less than 150 feet from two 20 foot ditches full of water.

After the aircraft stopped sliding, ENS (b) (6) apparently ejected the canopy by use of the face curtain, and evacuated the aircraft. He was found conscious but in a state of shock less than 20 feet from the aircraft, by two aviators, standing wheel watch at the approach to 26 right, about one mile from the wreck. The two officers were detained by the field boundary fence and irrigation ditches, but got to ENS (b) (6) in approximately five minutes and moved him a safe distance from the burning aircraft.

The crash crew from NAAS El Centro reached the crash scene 10 to 15 minutes after it occurred and quickly put out the smoldering fire, which in itself had done only slight damage. The NAAS El Centro Medical Crash Team reached the scene of the accident 20 to 25 minutes after the occurrence and administered to ENS (b) (6) who was still conscious, but incoherent. He was bleeding slightly from cuts about the face and neck.

(30) Damage to the aircraft.

The aircraft is damaged beyond repair. Parts and pieces were strewn along the entire route of the sliding path (see accompanying enclosure #12). The stick grip was shattered and the instrument panel buckled apparently when struck by the pilots helmet enclosed head.

The engine is damaged beyond repair and shows indication of first stage turbine wheel failure.

(31) The Investigation.

Investigation has revealed that ENS (b) (6) was engaged in towing a target banner for a properly cleared VFR flight. LTJG (b) (6) flying the number four position in the flight, was assigned as target escort to accompany ENS (b) (6) to and from the firing range and consequently observed the accident from close proximity while in the landing pattern. Many personnel from VF-211 observed the target drop, traffic pattern and crash of G-113 from the squadron's hanger area. Many observers from various other functions on the base observed ENS (b) (6) throughout the pattern and subsequent crash, and all report the same observations.

ENS (b) (6) was cleared by El Centro tower to enter the pattern for a target drop to the right of runway 26 right. He, (Squadron Number G-113), approached the drop zone at 450 feet indicated altitude at 150 knots. LTJG (b) (6) was flying a position to the starboard and slightly high and to the rear of the banner trailing 1000 feet behind G-113.

ORIGINAL

On call from the tower, ENS (b) (6) released the tow cable, commenced a climb to 800 feet, the traffic pattern altitude, and was cleared by the tower for entry onto the downwind leg for landing on runway 26 right. As G-113 completed a 180 degree turn onto downwind, an experienced maintenance chief was attracted to the traffic above because of the unusual sound of the engine. He described the sound as that of repeated "BLOOPS" of a surging engine.

As G-113 continued on the downwind leg many observers from VF-211 hangar area noticed the unusually slow speed of the airplane. G-113 was in landing configuration, wheels and flaps were down. Speed brakes were closed downwind because of low speed. As ENS (b) (6) turned downwind, a complete power loss occurred. This was evidenced by a black puff of smoke and a flame shooting from the tail pipe which was observed by the escort pilot and many ground observers. ENS (b) (6) immediately dropped the nose in a steep dive to pick up speed and continued the turn in an attempt to land on runway 30. Prior to striking the ground, the aircraft was rotated into a level, slightly left wing low attitude. The pilot realized he would land short of the field, saw the ditches ahead and rolled out short of lining up with runway 30. Contact with the ground sheared both main landing gear and nose gear. The force of striking the ground and the soft field conditions tore up the entire under side of the aircraft, leaving parts scattered along the entire 480 foot path.

ENS (b) (6) head lurched forward, breaking the plastic stick grip and indenting the instrument panel. The crash helmet undoubtedly saved him from more serious injury. The shoulder harness lever was in an unlatched position following the crash and the adjustment of the straps would indicate that ENS (b) (6) had them adjusted snugly. The escort pilot observed that the canopy was still closed when the aircraft stopped sliding. The actual contact with the ground and subsequent slide were hidden to ground observers by trees and irrigation ditches. The canopy charge and the charge initiator, actuated by the face curtain were both exhausted. The canopy was found about 30 yards to the rear and slightly starboard of the aircraft.

The pilot has no memory of the incident from the period just prior to striking the ground until he was being carried to the ambulance on a stretcher.

ENS (b) (6) abandoned the cockpit and was able to move himself to just beyond the starboard wing where he was found sitting in a shallow dry ditch, by two naval aviators who rushed to the scene from the wheel watch on runway 26 right. ENS (b) (6) was removed to a safe distance from the aircraft which was burning and threatening imminent explosion.

The crash crew was hampered by the station boundary fence and the two irrigation ditches, but in 10 to 15 minutes after the crash, the fire truck had proceeded, via a gate close to the end of runway 26 left, and across a small bridge to the crash. Confusion in relaying the most expeditious route (i.e. the gate and bridge adjacent to runway 26 left) to the ambulance caused a delay of 20 minutes or more before the medics were able to attend to ENS (b) (6).

Preliminary investigation of the engine by the squadron engineering officer and the Wright factory representative indicates that the first stage turbine of the engine failed, causing the power failure. The engine has been transported to O and R Alameda for further disassembly and investigation into its failure.

(32) The Analysis.

First stage turbine failure caused gradual loss of thrust, over a period of possibly 30 seconds, with no unusual engine instrument indications. Until the complete loss of thrust, which was accompanied by a loud explosion audible in the cockpit and flame and smoke shooting from the tail pipe, the pilot was unaware of the cause of his predicament.

The pilot was aware of his low speed on the downwind leg and had taken corrective action in the form of closing the speed brakes and advancing throttle. He was aware of no engine roughness or surging while advancing throttle on the downwind leg.

ORIGINAL

When the untenable situation was realized, following loss of thrust, the pilot performed a remarkable job in salvaging what little airspeed and altitude was left and crash landed the aircraft without complete destruction and fatal injuries. It is the opinion of the board that the judgement and skill demonstrated by ENS (b) (6) is outstanding and most likely prevented a stall and spin. Reference is made to his instant decision to dive the aircraft steeply to pick up speed and then round out the dive at the last possible moment, to complete a successful crash landing.

His final conscious decision to avoid the irrigation ditches almost certainly avoided a crash of far more serious consequences.

(33) Conclusions and Recommendations.

The engine failure occurred without warning at a most inopportune position. ENS (b) (6) reacted to the emergency with the skill and judgement anticipated of an alert fighter pilot.

Although the crash crew was on the scene in a matter of 10 to 15 minutes there was further delay in the arrival of the ambulance and competent Medical Aid. The board feels that existing confusion in directing the ambulance to the crash scene caused unnecessary delay in Medical Aid reaching ENS (b) (6)

In this particular accident the tower personnel could have given the crash crew more positive directions. A delay occured in that the crash crew first proceeded to the S.E. corner of the field and only after deciding that they could not cross the fence and two ditches, did they proceed to the gate near the threshold of runway 26, across the bridge and then down the dirt road to the crash scene.

The board concurs with the traffic pattern policy since adopted by VF-211 , i.e., to maintain the 800 foot traffic pattern altitude until reaching the 90 degree position on base leg. Also to decrease speed gradually so as to arrive at the 180 degree position with a 200 knot minimum. The pattern entry power of 75% to 80% is maintained throughout the pattern until power is reduced in the final approach for touch-down.

ORIGINAL

STATEMENT OF INTERVIEW WITH ENS (b) (6) [redacted]

At 17:00U 19 February 1956 ENS (b) (6) [redacted] was interviewed by the undersigned members of the accident board at the Naval Hospital, San Diego, California.

ENS (b) (6) [redacted] stated that he was unaware of any engine difficulty before he approached the 180 degree position on the downwind leg. He observed his decreasing airspeed and attempted to correct by slowly moving the throttle forward which gave an indication of increasing RPM although the thrust was actually decreasing. At the 180 degree position when the RPM reached 100% he heard an explosion and felt complete loss of thrust. He immediately pushed his nose down to a steep gliding attitude to regain flying speed and turned toward the nearest runway.

He called the NAAS El Centro tower and informed them that he was flamed out. He then observed that he could not make runway 30 so he eased his turn to avoid the two deep irrigation ditches and flared to a level attitude. This was the last thing he could recall until he was being loaded into the ambulance.

(b) (6) [redacted]

CAPT., USAF

(b) (6) [redacted]

LT., USN

24

ORIGINAL

ENCLOSURE (1)

STATEMENT OF ENGINEERING OFFICER

FJ-3, BuNo. 135947, piloted by Ens. (b) (6) [redacted] crash landed short of the NAAS El Centro field boundary at 1230 U 12 February 1956. Engine failure on the down-wind leg of the landing pattern was the primary cause of the accident.

Preliminary investigation into the failure of the J-65W-4 engine No. W 610734 indicates that the turbine failed in flight.

The engine is currently being disassembled at O & R Alameda and the findings revealed by their complete investigation will be forthcoming through command channels.

(b) (6) [redacted]

LT., USN

25

ORIGINAL

ENCLOSURE (2)

STATEMENT OF (b) (6) [redacted], LTJG, USN

I was flying tow escort in G-120 (136132) for Ens. (b) (6) [redacted] who was towing the banner in G-113 (135947). The time was approximately 1230 local. After a successful tow drop from 450', the tower cleared us down-wind.

Ens. (b) (6) [redacted] turned down-wind at 800' and being slow was able to lower gear upon rolling out down-wind. He was also close aboard. I lowered my gear at this time at an airspeed of 200 knots. My position was outboard and aft of G-113. I immediately began overrunning.

Ens. (b) (6) [redacted] turned to the right slightly to clear the housing south of the field. I remained outboard of him and slowed to 125 knots. Ens. (b) (6) [redacted] began moving ahead and began his turn on base. At about the 135° position a burst of flame and smoke came out of his tailpipe and he immediately began dropping, left wing down. His altitude was between 600 and 700 feet.

Ens. (b) (6) [redacted] nosed over and rolled his wings nearly level in a very steep dive. He called the tower saying he had flamed out. I called and told him to pull up. As I was talking he did so about 50 feet above the ground.

His angle of descent was still nearly vertical but he pulled the nose up and landed flat on his belly. The aircraft appeared to bounce slightly and moved forward 20 or 30 feet.

Upon impact flames shot up from the fuselage on either side of the aircraft aft of the cockpit. The canopy remained closed and the cockpit looked intact. The flames remained aft of the cockpit.

Being at a low fuel state I continued my approach and landed.

(b) (6) [redacted]

LTJG, USN

26

ORIGINAL

ENCLOSURE (3)

16 February 1956

STATEMENT OF (b) (6) [redacted] ADC USN, CONCERNING CRASH OF FJ-3 AIRCRAFT.

TO WHOM IT MAY CONCERN:

At approximately 1230 on 12 February 1956 while engaged in Golf Practice on NAAS El Centro Ball Field, I observed several different groups of FJ Aircraft flying overhead. I had lost interest in the aircraft until I heard a flight overhead with one of the aircraft making a peculiar "flooping" or "Surging" sound, similar to the sound produced on ground check when the throttle is advanced or retarded rapidly as in acceleration or emergency check. This sound caused me to look up to see what type of Aircraft was in the flight. I saw two FJ-3 Aircraft on the down-wind leg (Proceeding East). One was of the old style paint job (Blue) and one new style (Grey). I thought to myself that one of the planes was in trouble. I only watched the planes for a very few seconds as their flight attitude seemed to be normal in every respect, and the sound which caused me to look up in the first place was no longer present. I continued with my Golf Practice until a very short time later I heard the sirens of the fire and crash vehicles going to the Operations building. I knew that there had been an Off-Station crash when the Crash Crews muster at the Operations building instead of proceeding directly to the scene of the crash or emergency. It wasnt until several minutes later that it finally dawned on me that the crash must have been one of the two aircraft that I had heard previously.

I did not observe any erratic maneuver, attitude, fire or any other unusual occurance other than the sound which I recognized as being unusual for FJ aircraft in normal flight.

(b) (6) [redacted]

(b) (6) [redacted] ADC USN

27

ENCLOSURE 4

ORIGINAL

STATEMENT OF LTJG. (b) (6) [redacted] USNR-R

I, (b) (6) [redacted], LTJG. USNR-R, VF 722 on 12 Feb 1956 at approximately 1220 had just conveyed LT. (b) (6) [redacted] to the end of Runway 26 to stand Runway Duty in a jeep. I was about to return to the squadron ready room when LT. (b) (6) [redacted] exclaimed about a plane at the 180 degree position. I looked up at that time and observed an FJ3 pushing his nose over to a 50 degree dive. He appeared to be at 800' at a low air speed. Before trees obscured the plane it appeared the pilot was attempting to bring his nose up. From my position it appeared impossible for him to break his dive.

An explosion of flame and debris was observed above the obscuring trees where he landed outside the field boundries.

LCDR. (b) (6) [redacted] LT. (b) (6) [redacted] and myself drove immediatley to the nearest point of the fence to the plane. We proceeded to the scene on foot and when we saw the plane it was burning from the port side of the fuselage. No pilot was observed in the cockpit. We searched the area and in a ditch about 10 feet from the starboard wing we found the pilot. LT. (b) (6) [redacted] and myself carried the pilot to a safer position about 40 yards from the plane. We laid him down, loosened his flight gear, and made him comfortable. Approximately 10 to 15 minutes later the Station Doctor arrived to take care of the pilot.

(b) (6) [redacted] LTJG. USNR-R

28

ENCLOSURE 5

ORIGINAL

STATEMENT OF LT. (b) (6) [redacted] USNR-R

I (b) (6) [redacted] Lt. USNR-R VF 722, was standing the wheel watch at the end of runway 26 on 12 Feb 1956. At approximatly 12:20 a division of F J-3s were returning from an air to air gunnery flight. The flight broke off and landed, shortly followed by the tow plane and guard. The tow plane dropped the tow and entered the landing pattern. At the 180 degree position both planes appeared quite close together; one plane was observed to enter a shallow turn to the port, within seconds he was in a steep diving turn to the port heading for runway 30.

At this point a crash appeared inevitable, Lt. Cdr. (b) (6) [redacted] Lt. Jg. (b) (6) [redacted] and myself raced toward the scene in a jeep. I was not able to see the plane hit the ground due to trees.

Lt. Jg. (b) (6) [redacted] and myself were the first to reach the crash. The plane was burning with flames near the cockpit on the port side. The port wing was broken loose near the fusalage. The canopy was gone and the pilot was not in the cockpit. We found the pilot approximatly 10 feet off the starboard wing in a drainage ditch.

Due to the fear of the plane exploding Lt. Jg. (b) (6) [redacted] and myself picked up the pilot and carried him approximatly 30 yards away. Approximatly 10-15 minutes later the Corpmen and the Doctor arrived.

(b) (6) [redacted]

Lt. USNR-R

5

29

ORIGINAL

ENCLOSURE 6

STATEMENT OF (b) (6) [redacted] LTJG, USNR

I, (b) (6) [redacted], LTJG, USNR, naval aviator, did witness on the [redacted] of February 1956 the accident of an FJ-3 piloted by ENS. (b) (6) [redacted], USNR, at NAAS El Centro, California.

At approximately 1230 on that day ENS. (b) (6) [redacted] released his tow along side the duty runway and turned left to enter the pattern down-wind. He was on the down-wind leg approximately 40 seconds and during this time became noticeably slow with gear and flaps down. I estimate his speed to have been about 120 knots which is not in keeping with a good pattern in this airplane. His wingman, and former tow escort, was having obvious difficulty maintaining a proper interval behind Ens. (b) (6) [redacted] and was forced to go outside to prevent overrunning.

Just before reaching the 180° position Ens. (b) (6) [redacted] appeared to increase his speed slightly. This was immediately followed by a short puff of black smoke accompanied by a small spurt of orange flame. Almost simultaneously he began a left turn for the runway but at dive angle of about 40°. When he disappeared behind the trees at the end of runway 30 he was still in a diving left bank with gear and flaps extended.

My first impression at the time of the accident was that the pilot was experiencing engine difficulties on the down-wind leg, as evidenced by his excessively slow speed, and that complete loss of power occured at the 180° position.

(b) (6) [redacted]

LTJG, USNR

36

ORIGINAL

ENCLOSURE (7)

31

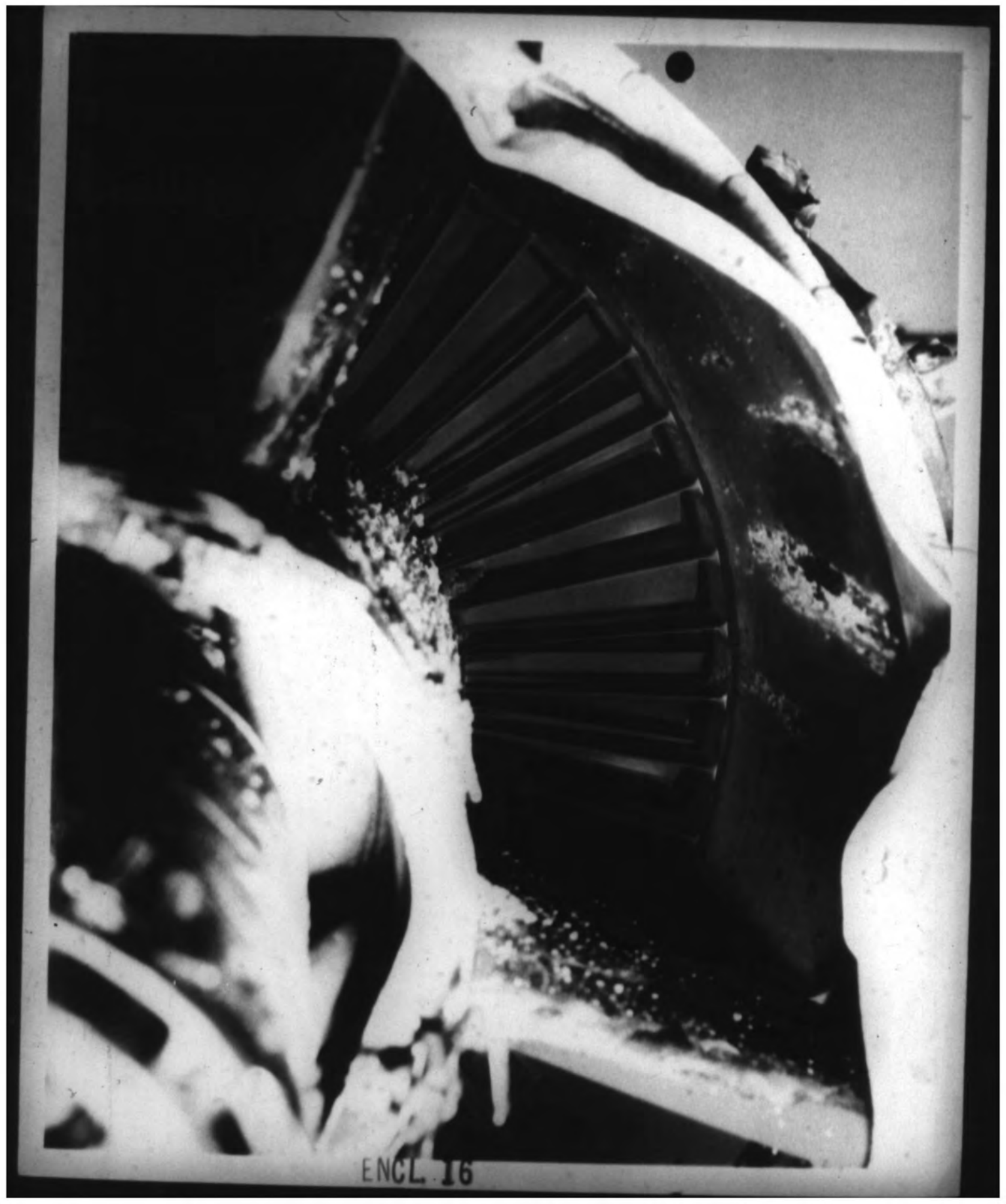
Encl. 8

ENCL 9

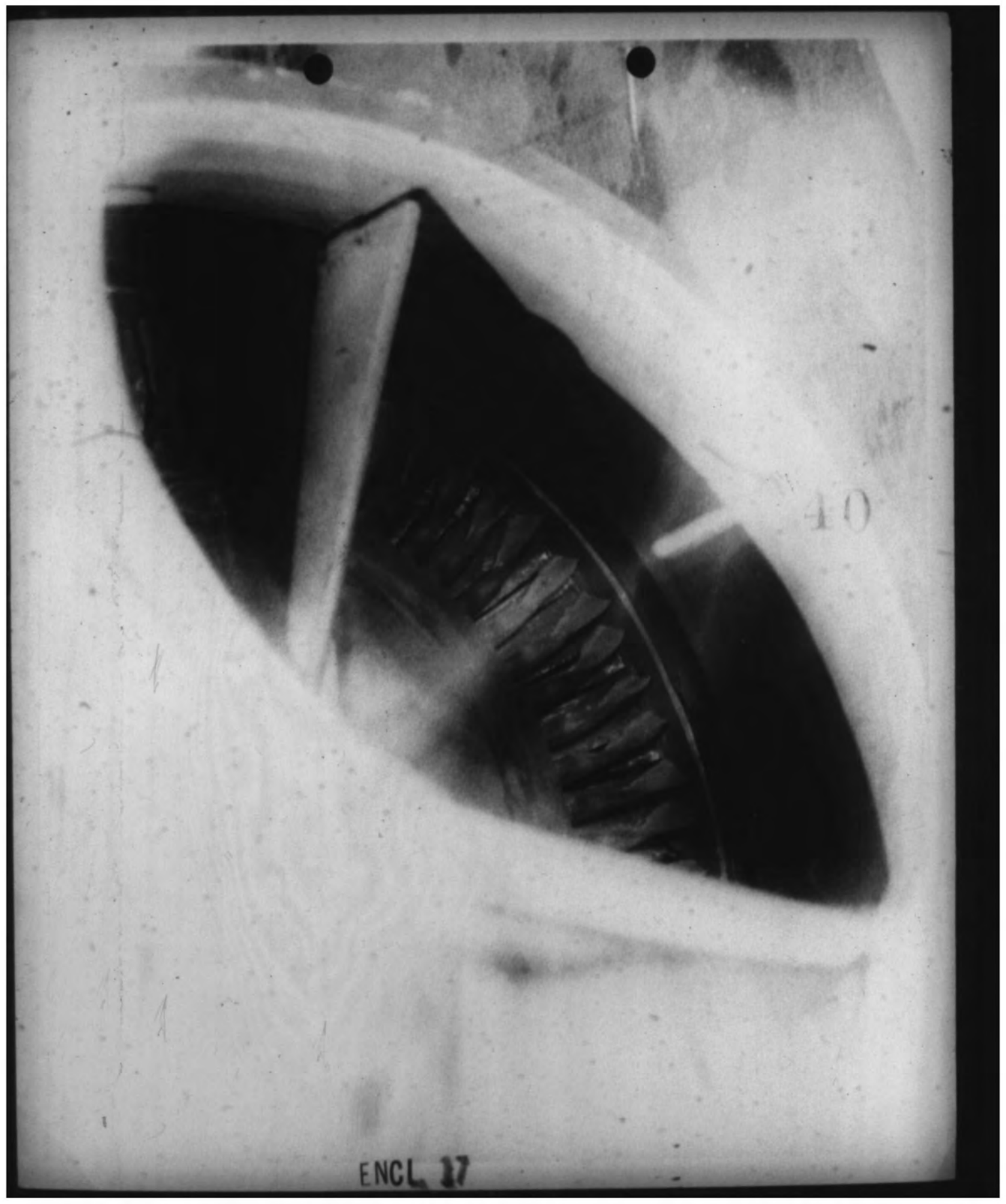
ENCL 10

ENCL 12

ENCL 1



ENCL. 16



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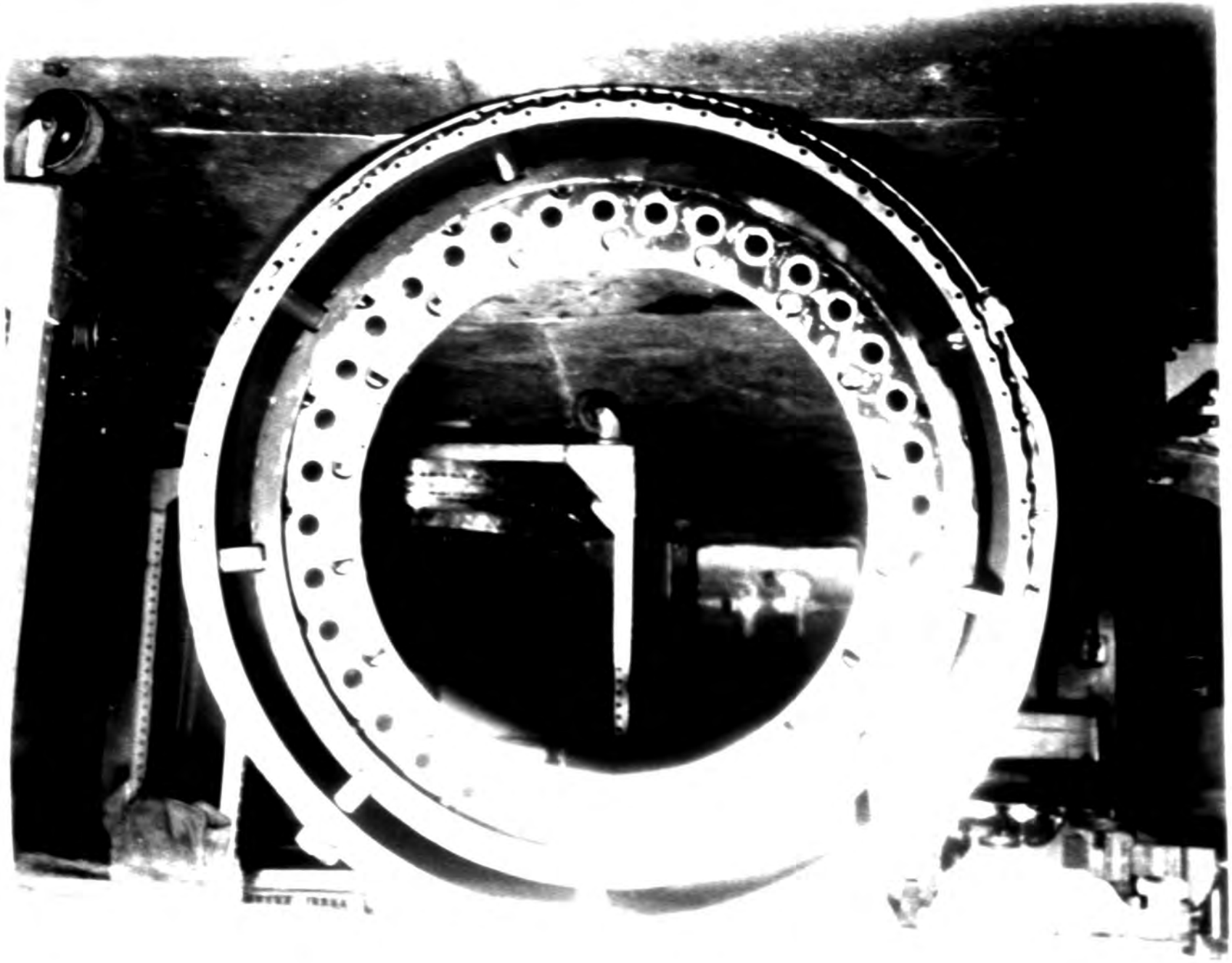
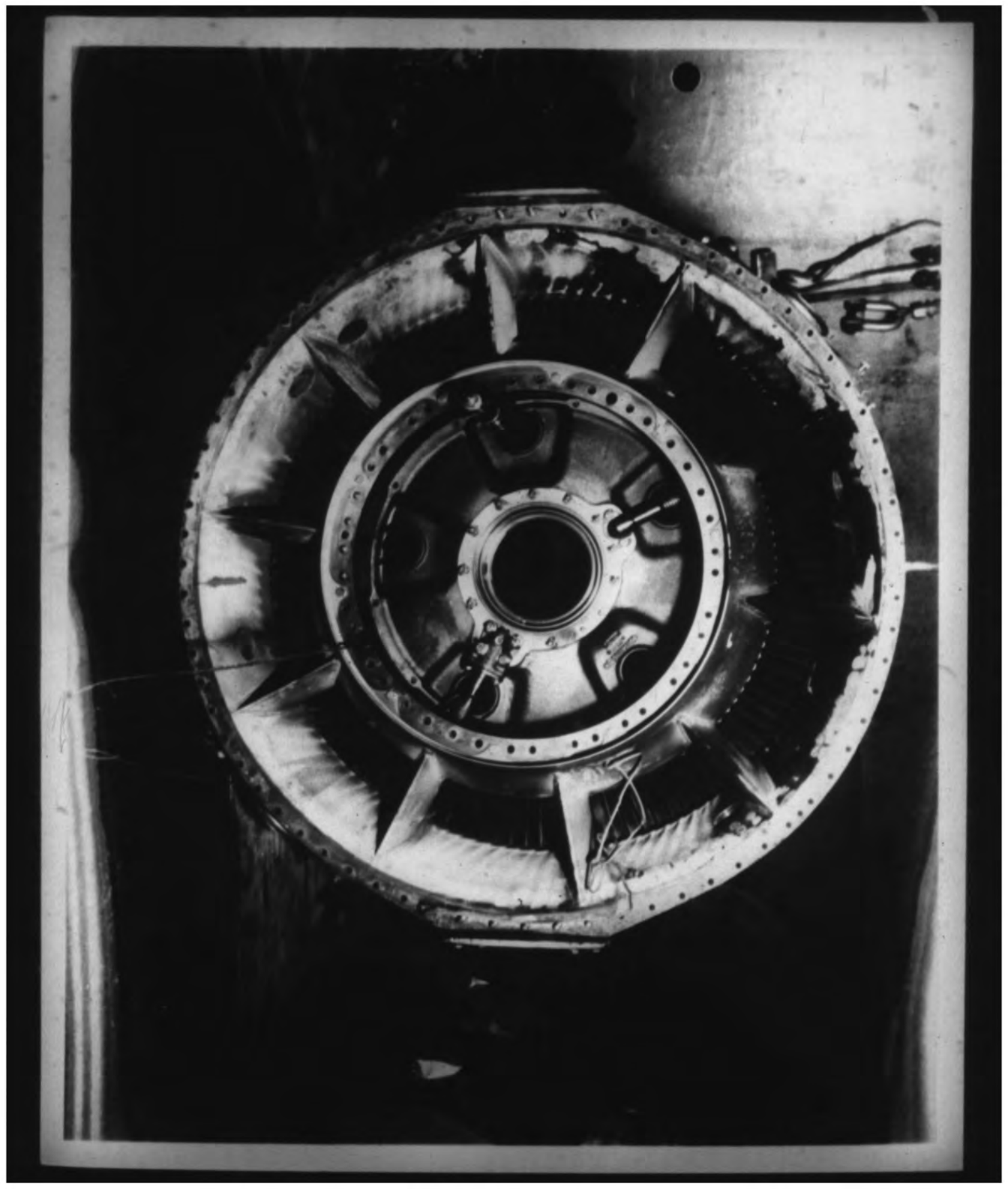
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