REPORT OF AF AIRCRAFT ACCIDENT

Use this form in accordance with AFR 62-14 and AFM 62-5. Fill in all spaces applicable. If additional space is needed, use additional sheet(s) and identify by proper section letter and subsection number.

Section A—GENERAL INFORMATION

1. DATE OF ACCIDENT	2. HOUR AND TIME ZONE (Local)	3. DAY DAWN NIGHT DUSK	4. AIRFIELD OF LAST TAKEOFF
13 April 1960	1308C	Day	Forbes AFB, Kansas

5. PLACE OF ACCIDENT:
(a) Distance (Nautical Miles) and direction from nearest airport (If on an airport, identify) 70½ NM, 055° R. Forbes AFB Kans
(b) Distance (Nautical Miles) and direction from nearest town (Include state and county) 3 NM SW Perrin, Mo.

6. AIRPORT DATA. Fill in (a) or (b) as applicable (For seaplanes landing on seadrome, fill in length of landing lanes and other data as applicable. Discuss in Section K.)

(a) If accident occurred on airport:
Length of runway in use ____ Ft.
Heading of runway in use ____ Degrees.
Field Elevation ____ Ft. MSL
Type of runway surface: (Check)
Concrete ____ Asphalt ____
Other ____ (Specify) ____
Wet ____ Dry ____

(b) If accident occurred off airport: Elevation at scene of accident 1100 Ft. MSL
Was aircraft taking off, approaching or maneuvering to land? Yes ____ No X
If Yes, state airport involved ____
If No, state nearest airport suitable for landing this aircraft Richard-Gebaur AFB Mo 46 NM
For other airport mentioned in 6b above:
State airport type (i.e., AF, A, N, CG, FC, P) AF
Heading of runway in use NA Degrees. Airport elevation 1090 Ft. MSL

7. CLEARANCE: (Check all applicable) IFR X VFR ____ Local ____ DD Form 175 X Other ____ Cleared Direct X Cleared via airways ____
Cleared from Forbes AFB Kans Cleared to Forbes AFB Kans

8. Base submitting report	9. Duration of flight	10. Mission of flight
Forbes AFB Kans	2:00	Operational training

11. ALTITUDE DATA:
(a) Altitude of aircraft above terrain at which accident sequence began 33900 Ft.
(b) Altitude, MSL, at which accident sequence began, or at which failure occurred 35000 Ft. MSL.
(c) Highest altitude, MSL, aircraft flown on this flight 35000 Ft. MSL. Length of time at this highest altitude 10 mins

12. List Numbers of all Other Aircraft Involved (File separate Form 14 for each aircraft) None
(a) Was aircraft painted in accordance with standard Air Force conspicuity criteria? X Yes ____ No

13. VIOLATIONS: Yes X No ____ If Yes, Discuss in Section K.

14. BREACHES OF AIR DISCIPLINE: Yes X No ____ If Yes, discuss in Section K.

Section B—AIRCRAFT

15. AIRCRAFT NUMBER	16. TYPE, MODEL, SERIES AND BLOCK NUMBER	17. ASSIGNMENT AND STATUS CODE at time of accident (As specified in AFR 65-110)
X 52-716	RB-47E	SAC C/C

18. ORGANIZATION POSSESSING AND REPORTING AIRCRAFT ON AF-110 REPORTS AT TIME OF ACCIDENT

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Base
SAC	2AF	21AD	908SRW	N/A	320SRS	Forbes AFB Kans

19. IF AIRCRAFT WAS BEING FERRIED OR DELIVERED INDICATE: (Gaining and losing organizations, date of transfer, ultimate destination)
N/A

Section C—PILOT(S) INVOLVED (Flight Crew)

20. OPERATOR (Person at controls at time of accident)

a. LAST NAME (Jr., II, etc.) FIRST NAME MIDDLE NAME	GRADE	COMPONENT	SERVICE NUMBER	NATIONALITY	YR. OF BIRTH
Fisher, Phillip Ray	Capt	USAF	52327A	US	

b. POSITION IN AIRCRAFT AT TIME OF ACCIDENT: Front or Left Seat ____ Rear or Right Seat X
c. ASSIGNED DUTY ON FLIGHT ORDER: AC ____ IP X P ____ CP ____ Other (Specify)

d. ASSIGNED ORGANIZATION

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Base
SAC	2AF	21AD	908SRW	N/A	320SRS	Forbes AFB Kans

e. ATTACHED ORGANIZATION FOR FLYING

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Base
SAC	2AF	21AD	908SRW	N/A	320SRS	Forbes AFB Kans

f. ORIGINAL AERONAUTICAL RATING AND DATE RECEIVED	g. PRESENT AERONAUTICAL RATING AND DATE RECEIVED	h. INSTRUMENT CARD	i. AFSC
Pilot/3 Nov 43	Command Pilot/28 Oct 58	Type Green Date of expiration 11 Jan61	Primary 1235B Duty 1235B

21. OTHER PILOT

a. LAST NAME (Jr. II, etc.) FIRST NAME MIDDLE NAME	GRADE	COMPONENT	SERVICE NUMBER	NATIONALITY	YR. OF BIRTH
Harter Joseph Mahlon	Capt	USAF	47130A	US	

b. POSITION IN AIRCRAFT AT TIME OF ACCIDENT: Front or Left Seat XX Rear or Right Seat ____ Other ____
c. ASSIGNED DUTY ON FLIGHT ORDER: AC X IP ____ P ____ CP ____ Other (Specify)

d. ASSIGNED ORGANIZATION

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Base
SAC	15AF	12AD	22BW	N/A	408 B Sq	March AFB Calif

e. ATTACHED ORGANIZATION FOR FLYING

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Base
SAC	2AF	21 AD	908SRW	N/A	4044 Stu Sq	Forbes AFB Kans

f. ORIGINAL AERONAUTICAL RATING AND DATE RECEIVED	g. PRESENT AERONAUTICAL RATING AND DATE RECEIVED	h. INSTRUMENT CARD	i. AFSC
Pilot/31 Mar 54	Pilot/31 Mar 54	Type White Date of expiration 1 Aug 60	Primary 1231B Duty 1231B

NOTE: IF MORE THAN TWO PILOTS ARE INVOLVED (FLIGHT CREW) REPORT SAME INFORMATION REQUIRED IN SECTION C ON ADDITIONAL SHEET FOR EACH.

Section D—FLYING EXPERIENCE OF PILOT(S) INVOLVED

22. WAS OPERATOR ON INSTRUMENTS AT TIME OF ACCIDENT OR IMMEDIATELY BEFORE: Yes X No ____ Unknown ____ If "Yes," check one: Weather X Hood ____

ASSIGNED DUTY ON FLIGHT ORDER (NOTE: List all time to the nearest hour)	PILOT (Last Name)	CO-PILOT (Last Name)	INSTR. PILOT (Last Name)	AIRCRAFT CMDR. (Last Name)	STUDENT PILOT (Last Name)
	(Complete Items 23 through 39 for each crewmember pilot)				
			Fisher	Harter	
23. Total flying hours (including AF time, student time & other accredited time)			5275	1624	
24. Total jet time			1861	1271	
25. Total 1st pilot/IP hours, all aircraft			3836	646	
26. Total weather instrument hours			612	119	
27. Total 1st pilot and IP this model (F-100)			1498	613	
28. Total 1st pilot and IP this series (F-100C)			1279	613	
29. Total pilot hours last 90 days			137	80	
30. Total 1st pilot and IP hours last 90 days			132	40	
31. Total pilot hours weather and hood last 90 days			14	16	
32. Total pilot hours night last 90 days			22	18	
33. Total 1st pilot and IP last 90 days this model			137	40	
34. Total 1st pilot and IP last 30 days this model			51	24	
35. Total 1st pilot and IP last 90 days this series			137	40	
36. Total 1st pilot and IP last 30 days this series			51	24	
37. Date and duration, last previous flight this model			11 Apr/5:40	11 Apr/5:40	
38. Date and duration, last previous flight this series			11 Apr/5:40	11 Apr/5:40	
39. Date of last proficiency flight check			29 Feb 60	19 Jan 60	

40. INSTRUCTIONS: Attach a copy of AF Form 5 for pilot(s) involved as outlined in AFR 62-14.

Section E—PERSONNEL INVOLVED

(Including operator and all other persons, whether in plane or not)

Duty at time of accident 41.	Name (Last name first, Grade, Serial Number and Component or Service) 42.	Type Aero Rating 43.	ORGANIZATIONAL ASSIGNMENT Command, Subcommand, Group Number and Type, Base 44.	Injury Class. (or missing) 45.	Parachute Used Yes 46.	Parachute Used No 47.	Ejection Seat Used Yes 48.	Ejection Seat Used No 49.
IP 14	Fisher, Phillip R. Captain, USAF, 52327A	A	SAC, 2AF, 21AD, 90SRW Forbes AFB Kans	Fatal 4		X		X
P 01	Harter, Joseph M. Captain, USAF, 47130A	A	SAC, 2AF, 21AD, 90SRW, 4044 Stu Sq, Forbes AFB Kans	Minor 1	X		X	
CP 02	Wellman, Wayne F. 1/Lt., USAF, A03036090	B	P SAC, 2AF, 21AD, 90SRW, 4044 Stu Sq, Forbes AFB Kans	Fatal 4		X		X
CE 16	Sanders, James H. S/Sgt., USAF, AF14520011	A	- SAC, 2AF, 21AD, 90SRW, 90OMS Forbes AFB Kans	Minor 2	X		X	

NOTE: If additional space is required to list all personnel involved, attach additional sheet.

Section F—WEATHER

(At time and place of accident)

Sky Conditions	Visibility	Wind Direction and Velocity	Temperature	Dew Point	Alt. Setting	Other Weather Conditions
30B	4	SSW 12K	62	60	29.89	Lt. Thundershowers

If weather, including wind conditions, was a factor in the accident, attach statement of weather officer.

HISTORY OF FLIGHT

RB-47E 52-716 is assigned to the 90th Organizational Maintenance Squadron, 90th Strategic Reconnaissance Wing, 21st Air Division, Forbes Air Force Base, Kansas, Second Air Force, Strategic Air Command.

Crew mission briefing for mission number 6A was conducted in accordance with SAC Manual 50-12 on 12 April 1960 and mission planning completed on that date.

The flight crew reported to the aircraft at 0740 CST and the "before stations inspection" was completed. Captain Harter and his assigned co-pilot, 2/Lt Donald H. Howard, performed the interior preflight with Captain Fisher observing from the fourth man position. Lt Wellman, with the assigned crew chief, S/Sgt Otis McDonald reading the check list, performed the exterior preflight. The only discrepancy noted was Number 6 fuel selector knob loose. The flight crew and scheduled tanker crew met in base operations at 0930 and refueling procedures were reviewed. Weather briefing was received and clearance filed. The weather briefing indicated scattered, circumnavigable thunderstorms along route of flight.

The aircraft departed Forbes at 1112 CST hours on an approved instrument flight plan at an assigned altitude of VFR on top direct St. Joseph, Missouri, direct Lamoni, Iowa, direct Hutchinson, Kansas, direct to Forbes Air Force Base, Topeka, Kansas, with a local time of two hours at Lamoni and one hour, twenty-two minutes at Hutchinson. The purpose of the delay at Lamoni was to conduct air refueling training with tanker, Acrid 32. Fuel on board at start engines was 96,788 pounds. The departure weather at Forbes Air Force Base was 7,000 overcast, 10 miles, winds south southeast 10 gust 20, intermitten 2,500 overcast, 3 miles, in thunderstorms, south southwest 15 gusts 35 with a forecast of 8000 broken, high broken, 10 miles, winds northwest 15 gust to 25 for return. Departure from Forbes Air Force Base was normal with level off at 25,000 feet approximately thirty five miles southwest of St. Joseph, Missouri. A normal level off station check was performed at this time with no abnormal indications noted.

Over St. Joseph onmi, the aircraft received a clearance to fly two hundred nautical mile radius of Lamoni, Iowa until 1500 CST, VFR conditions on top. The flight proceeded enroute to Lamoni, Iowa VOR when at about 1155 CST the student aircraft commander noted both aileron "emergency pump operating lights" illuminated. The instructor pilot, in the rear seat, then reported hydraulic quantity zero, both main hydraulic systems pressure at zero and emergency systems pressure at 2700 PSI. The emergency hydraulic pump was turned off at this time. A cursory discussion and aircraft inspection noted no leaks. An unsuccessful attempt was made to contact the Command Post by both receiver and tanker. The instructor pilot decided to continue the air refueling portion of the mission.

Radio contact was established with the tanker at 1200 CST and rendezvous was effected at 12,500 at 1226 CST. Both aircraft were on a westerly heading in the Wonder Boy Refueling Area but ran into weather before a contact could be made. A turn to the east and climb to 13,500 feet was accomplished. The student aircraft commander then reported the right aileron red "no-pressure light" fluctuating on and off with both aileron amber lights steady. Refueling was continued with this condition for at least one five-minute contact when both right aileron PCU lights were noted on steady. The right aileron PCU was turned off, refueling discontinued and the aircraft proceeded back towards Forbes Air Force Base. All refueling contacts had been made by the student aircraft commander up to this point with control responses normal. No fuel was transferred from the tanker. After termination of air refueling the instructor pilot assumed positive control of the aircraft.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARAGRAPHS 49a AND 52, AFR 62-14

At 1255 CST clearance was received to continue back to Forbes Air Force Base via St. Joseph, Missouri VOR estimating St. Joseph at 1304 CST. At 1300 CST the instructor pilot contacted Olathe Approach Control climbing through 27,000 feet VFR condition on top, stating he "had complete hydraulic failure," requesting and receiving clearance to fly 200 nautical mile radius of Topeka, Kansas VOR, VFR conditions on top. Clearance was received to contact the Command Post at 1301 CST. Conversations with the Senior Controller indicate the aircraft was then at 35,000 feet having difficulty remaining VFR on top. The hydraulic system was described as previously noted with exception that all pressures were now zero except Emergency Brake System pressure which was at 2700 PSI. Cross winds precluded landing at Forbes Air Force Base and the Command Post was attempting to check Lincoln Air Force Base as a possible alternate. The instructor pilot stated he was returning to Olathe Approach Control to request further clearance. The Controller advised him to return to Command Post frequency as soon as possible.

1306:50 CST - Olathe approach control was again contacted stating "the aircraft was at 35,000 and unable to remain VFR on top and getting into really bad weather."

1307:14 CST - The aircraft was heading 220°.

1308:00 CST - The instructor pilot stated he was in a left turn, passing through a heading of 180° and "getting into some rough air."

1308:10 CST - Olathe Approach Control identified the aircraft position, via transponder, at 15 miles southeast of the St. Joseph, Missouri omni.

1308:17 CST - The instructor pilot stated he was getting into the top of a thunderstorm.

1308:30 CST - Olathe Approach Control stated they would "try to get an assigned altitude for you."

1309:03 CST - The instructor pilot informed Olathe Approach Control "we're in a spin." Radio and transponder contact were lost.

The aircraft entered into severe gyrations on instruments. Shortly after the initial gyrations the student aircraft commander turned off the left aileron PCU on orders from the instructor pilot. The instructor pilot then ordered bail out several times over interphone. The student aircraft commander depressurized the aircraft and ejected without undue difficulty. The crew chief, riding in the navigator's position, ejected after having some difficulty getting the leg guards in place and pulling the seat "D" ring. The aircraft continued in the spin, crashed and exploded in a relatively level, open field at approximately 1310 CST.

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FINDINGS

1. Primary Cause: The primary cause of this accident was that the instructor pilot lost control of the aircraft in severe turbulence under instrument conditions.

2. Contributing Causes: Contributing causes of this accident were:

   a. The instructor pilot elected to continue the mission after losing the main hydraulic system fluid and pressure, and

   b. The instructor pilot failed to follow flight manual procedures for penetration of turbulent air conditions.

   c. Materiel failure of a component of the hydraulic system to allow complete loss of hydraulic fluid in the main hydraulic system and the right aileron emergency power control system.

   d. Weather is considered a contributing factor in that the instructor pilot elected to enter an area of turbulence and thunderstorm activity when visual circumnavication was possible.