RECORDS CODE SHEET
5ND 4535 (Rev. 1/65)

NAVAL AVIATION SAFETY CENTER

GENERAL (Card No. 1)

Bureau Number	1 4 9 3 1 4	16-21
Reporting Custodian	3 1 5	22-24
Type Duty	J	25
Major Command	2	26
Aircraft Damage	A	27
Aircraft Injury	A	28
Time of Day	4	29
Carrier Hull Number	—	30
First Accident type	F 1	31-32
First Accident phase	3 3 1	33-35
Second Accident type	G	36-37
Second Accident phase	3 3 1	38-40
Type of Operation	1	41-42
Contributing Cause Factors	B	43-47
Pilot Factor, First		48-49
Pilot Factor, Second		50-51
Pilot Factor, Third		52-53
First other Personnel Factor		54-55
Second other Personnel Factor		56-57
Primary Major Material Factor	X	58
Secondary Major Material Factor		59
Design		60
Facilities		61
Special Data & Cond.	8 A P	62-65
Special Data & Cond./~~Type of Incident~~		66
Primary Cause	H 3	67
1st Posit. of Pri. Causal Factor	X	68
1st Possible Cause & Causal Factor		69-71
2nd Possible Cause & Causal Factor		72-74
No Personnel Card ("R")		80

SUPPLEMENTARY (Card No. 2)

Weather		16-21
Kind of Flight	3 A 3	22-24
Relative Wind - Direction	Z	25
Relative Wind - Velocity		26
Special Attention	—	27
Clearance	2	28
Maneuver prior to Occurrence	1	29
Number of other Aircraft		30
Primary Causal Factor	X	31-32
Altitude of Occurrence or Emergency	0 0 3	33-35
Environmental Factors		38-40
Non-Navy Injury ("R")		42
Number of "A" or "U" Injury	0 1	43-44
Number of "B" Injury		46-47
Number of "C" Injury		48-49
Number of "D" Injury		50-51
Number of "E" Injury		52-53
Number of "F" Injury	0 1	54-55
Number of "G" Injury		56-57
Location	A 5 S W F R D	62-68

ACCIDENT DAMAGE A (9)

ACCIDENT INJURY A (10)

FISCAL YEAR 7 (75)

Don't Count		Enemy Action		Other Aircraft		
I. D. NO.	7 (1) YR	0 (2) MO	6 (3)	1 (4) DAY	4 (5)	1 (6) TYP	0 (7) SEQ	1 (8)
				R (11)	A (12)	5 (13)	C (14)	(15)
				Model				

Model Code 0 2 (76 77)

PERSONNEL STATISTICS (Card No. 3)

File Number → (b) (6) [redacted]

Name	16	17	18	19	20	21	Rank/Rate	Br Service	Age	Yrs Experience	Status	Position	Inj to Ind	Abandon A/C	Pilot Factor Involved	Trainer Utilization	Instr. Card	Total Time All Models	All Models 3 Months	All Series This Model	All Ser Mod 3 Months	CV Landings	Instrument Hours	Nite Hours	Total Time Jet or Helo
03 BUTLER C T							3	1	J	A	A	1	A	2	2	—	3	2 9	0 4	8 4	0 3	B	0 8	1 6	9 9
22 23 24 25	26	27	28	29	30	31	32	35	37	40	42	45	47	49	51	52-53	55	56-57	58-59	62-63	65-66	68	69-70	71-72	73-74
04 (b) (6) [redacted]							6	2	—		K	2	F	2											

Name 16 17 18 19 20 21

File Number → (b) (6) [redacted]

IBM: PERSONNEL CODED ON REVERSE SIDE ☐

CODED ..... REVIEWED ..... LOGGED ..... PUNCHED ..... VERIFIED 04 AUG 1967

CODE SHEET REVIEWED BY CLASS DESK ANALYST ..... (Initials) ..... (Date)

NAVAL AVIATION SAFETY CENTER
NAVAL AIR STATION
NORFOLK, VIRGINIA 23511

Code 60/we
26 July 1967

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6F

FOR OFFICIAL USE ONLY

NAVAVNSAFECEN INVESTIGATION 69-67

1. INTRODUCTION

a. The Accident. RA-5C, BUNO 149314, assigned to RECONNAISSANCE ATTACK SQUADRON THREE (RVAH-3) and piloted by LCDR C. T. BUTLER, USN, (b) (6) [redacted], crashed at 2326(Q) on 14 June 1967 during a night FMLP flight at NAS Sanford, Florida. The pilot and reconnaissance attack navigator (RAN) ejected; the pilot received fatal injuries following ejection, while the RAN received only minor injuries. The aircraft crashed on the field and was destroyed (ALFA). There was no damage to other government property.

b. Synopsis of Flight. LCDR BUTLER took off from NAS Sanford and remained in the night FMLP pattern. The pattern had been going well and LCDR BUTLER had made his sixth touch-and-go landing. The aircraft had turned about 60 degrees and reached 250-300 feet altitude when a loud "pop" was heard by witnesses. Sparks were coming from the rear of the aircraft and one engine seemed to be operating in afterburner. Aside from the afterburner exhaust, other fire could be seen coming from the tailpipe area. The tower and LSO informed the pilot that the aircraft was on fire. Witnesses observed one seat eject, the amount of fire increase, the aircraft continue to roll slowly to the right and the nose drop. The aircraft crashed 40 degrees nose low and almost inverted. One parachute was seen from the light of the post-impact fire. The parachute was that of the RAN. The pilot ejected following the RAN but landed near the aircraft and suffered fatal injuries from impact with the ground.

2. INVESTIGATION AND ANALYSIS

a. History

(1) The Pilot. LCDR BUTLER was designated a Naval Aviator on 18 February 1955 and had flown a total of 2911 hours, of which 2192 hours were in jet aircraft. He had 811 total hours in the RA-5C, 112 of these in the last 12 months.

(2) The Aircraft. BUNO 149314 had accumulated 937 hours since acceptance on 1 June 1964. It had operated 5.3 hours since the second PAR was completed at Naval Aircraft Rework Facility, Jacksonville on 12 June 1967.

(3) Port Engine. J79-GE8B, serial number 401347, had accumulated 811 hours since acceptance on 1 September 1961 and 516 hours since overhaul at NAS Quonset Point on 2 November 1963. A calendar major inspection had been completed on 12 June 1967 and the engine had since operated 5.3 hours.

(4) Starboard Engine. J79-GE8B, serial number 421027, had accumulated 388 hours since acceptance on 16 January 1963 and had not been overhauled. A calendar major inspection was completed on 15 March 1967 and had since operated 7.8 hours. It had flown 5.3 hours since being installed in BUNO 149314 on 1 June 1967.

(5) Weather. Weather was not a factor in this accident.

b. Field Investigation

(1) The RAN stated that following the touch-and-go-landing, he logged it on his kneeboard as the pilot began a slight climbing right turn. After about 60 degrees of turn at an altitude of 300 feet, the RAN heard a loud rushing air noise (almost like a muffled explosion) from the starboard side aft. At that instant the pilot said, "Oh, darn!" The RAN quickly asked, "What's wrong?" The pilot replied, "Starboard engine, standby--eject!" and the RAN ejected. He estimated that the time period involved for the air noise and conversation to be about five seconds. He did not see a fire warning light.

(2) The RAN had flown the previous flight with another pilot and remained in the aircraft during hot refueling while LCDR BUTLER strapped in.

(3) At impact, the aircraft exploded and burned. The fuselage section forward of the engines broke up badly. The remainder of the fuselage remained intact and came to rest inverted, heading about 135 degrees relative to the heading at the time of impact.

(4) The wreckage was examined at the scene; the starboard engine turbine blades had a coating of molten metal.

(5) The wing flaps were extended 30 degrees.

(6) The pilot's ejection seat functioned properly, but ejection was begun too late.

c. Other Investigation. The engines were taken to NAVAIREWORKFAC, Quonset Pt. for PDIR.

(1) The port engine was operating in afterburner at impact and showed no evidence of engine failure or malfunction. All damage was determined to have been caused by impact.

(2) The starboard engine was operating at idle RPM or below at the time of impact. There was some compressor FOD at impact. A "T" bolt from a Marman clamp was broken into three pieces and was found on the compressor rear frame, the combustion section and at the turbine inlet. Molten aluminum deposits were noted on the turbine nozzles and were heavily deposited on the first stage turbine blades. Also, metal particles were found imbedded between the strut fairings and liner of the turbine frame on the counterclockwise side, indicating a high velocity air flow at the time of ingestion.

d. Analysis of the evidence indicates the following:

(1) The pilot had some indication of a problem in the starboard engine, probably from a rapidly rising EGT. He told the RAN to eject, retarded the throttle on the starboard engine and selected afterburner on the port engine.

(2) Since the aircraft has marginal single engine capability at slow speed in the landing configuration, the pilot probably raised the flaps to 30 degrees.

(3) The pilot never leveled the wings, but apparently decided that he was not going to be able to fly the aircraft in that configuration and ejected.

3. CONCLUSION. The most probable cause of the accident was ingestion of a foreign object into the starboard engine during flight.

4. RECOMMENDATION. None.

Distribution:
List A
CNO (Op-05)

NAVY FORM 3750 (3-63) Page 1 — Para. 6a, OPNAV INSTRUCTION 3750.6, effective edition

PART 1 GENERAL

SECTION A. IDENTIFICATION

1. AIRCRAFT ACCIDENT BOARD APPOINTED	2. SERIAL NO.	3. DTG (LOCAL) OF MISHAP	4. TYPE AIRCRAFT	5. BUREAU NUMBER
Reconnaissance Attack Squadron THREE (RVAH-3)	1-67A	1423260 JUN 67	RA-5C	149314

6.	9. LOCATION OF MISHAP	10. DAMAGE
TO: Commander, Naval Aviation Safety Center	NAS Sanford, Florida	ALFA

7. VIA:	11. TIME OF DAY	12. TIME IN FLIGHT	13. FLIGHT CODE
C.O. RECONATKRON THREE COMRECONATKWING ONE COMFAIRJAX COMNAVAIRLANT	NIGHT	0+21	3A3

14. CLEARED FROM: NAS Sanford TO: NAS Sanford

15. TYPE CLEARANCE	16. AIRSPEED	17. A/C WEIGHT
local VFR	150E	47,000

18. BRIEF DESCRIPTION OF MISHAP: Dual ejection following engine failure in FNLP

19. ELEVATION AT TIME OF MISHAP: S.L. 57FT TERRAIN: flat

20. LIST MODEL, BUNO, REPORTING CUSTODIAN AND DAMAGE CLASSIFICATION OF ANY OTHER A/C INVOLVED (Complete OPNAV Form 3750-1 for each A/C)

SECTION B. CONTRIBUTING FACTORS

✓	FACTOR	✓	FACTOR	✓	FACTOR
	1. PILOT ERROR IN TECHNIQUE/JUDGMENT		9. SERVICING PERSONNEL		17. WEATHER
	2. PILOT DEVIATION FROM NATOPS PROCEDURES		10. LANDING SIGNAL OFFICER		18. DESIGN AIRCRAFT
	3. PILOT INCORRECT OPERATION OF A/C SYSTEM		11. OTHER PERSONNEL (Specify)		19. DESIGN CREW EQUIPMENT
	4. PILOT OTHER (Specify)		12. ADMINISTRATIVE		20. DESIGN OTHER (Specify)
	5. CREW		13. FACILITIES-RUNWAY, OVERRUN, TAXIWAY, FLIGHT DECK		21. ROLLING/PITCHING DECK ROUGH SEAS
	6. MAINTENANCE PERSONNEL		14. FACILITIES-NAV AIDS, LANDING AIDS (GCA, CCA, ILS, IFF/SIF)	X	22. MATERIAL FAILURE/MALFUNCTION
	7. MAINTENANCE SUPERVISORY PERSONNEL		15. FACILITIES-CATAPULT, ARRESTING GEAR (Specify)		23. UNDETERMINED
	8. SUPERVISORY OTHER (Specify)		16. FACILITIES OTHER (Specify)		24. OTHER (Specify)

1. NAME (Last, first, & middle initial)	2. RANK	3. REG. OFF. A.C. NO.	4. DATE	5. BRANCH OF SERVICE	6. AGE	7. YEARS EXPERIENCE	8. BILLET	9. POSITION	10. PILOT CODE
PILOT (at controls at time of mishap) BUTLER, C. T.	LCDR	(b) (6)	1310	USN	38	12	pilot	pilot	A
CO-PILOT (Identify & submit separate page 1)									

SECTION C. PERSONNEL DATA — PILOT EXPERIENCE IN HOURS

ITEM			ITEM		
11. ALL MODELS		2911.4	17. CV LANDINGS DAY/NIGHT	ALL	229 / 64
				IN MODEL	121 / 58
12. ALL MODELS IN LAST 12 MONTHS		215.7	18. CLP LANDINGS LAST 6 MONTHS DAY/NIGHT	ALL	33 / 49
				IN MODEL	33 / 49
13. ALL MODELS IN LAST 3 MONTHS		45.9	19. INSTRUMENT HOURS LAST 3 MONTHS ACTUAL/SIMULATED	ALL	4.0 / 3.5
				IN MODEL	0.2 / 0.5
14. ALL SERIES THIS MODEL	A/C	311.2	20. NIGHT HOURS LAST 3 MONTHS	ALL	15.6 /
	OFT/CPT	/ 29.5		IN MODEL	9.5 /
15. ALL SERIES THIS MODEL LAST 12 MONTHS	A/C	111.7	21. TOTAL HOURS IN JETS (if jet mishap) HELCS (if helo mishap)		2191.7
	OFT/CPT	/ 3.5			
16. ALL SERIES THIS MODEL LAST 3 MONTHS	A/C	34.7	22. LAST PRIOR FLIGHT ALL SERIES THIS MODEL	DATE	6-13-67
	OFT/CPT	/ 2.5		DURATION	0.7
23. DATE/GRADE LAST NATOPS STANDARDIZATION CHECK		AUG 1966/QUAL	24. TYPE INSTRUMENT CARD		SPECIAL

SECTION D. OTHER PERSONNEL

25. NAME (Last, first, & middle initial)	26. GRADE	27. RANK/DATE	28. BRANCH OF SERVICE	29. FILE/SERVICE NO.	30. UNIT	31. INJURY	32. BILLET	33. POSITION
(b) (6)	LT	ENS	USNR	(b) (6)	RVAH-3	G	RAN	RAN

AIRCRAFT ACCIDENT REPORT
OPNAV FORM 3750-1A (Rev. 3-63) [illegible]2

SPEC[illegible] HA[illegible]DLING REQUIR[illegible] in [illegible]ordance with
Para. 66, OPNAV INSTRUCTION 375[illegible] [illegible]ective edition

OPNAV REPO[illegible]

PART II MAINTENANCE, MATERIAL AND FACILITIES DATA

A. A/C HISTORY

1. DATE OF MANUFACTURE	2. FLIGHT HRS. SINCE ACCEPTANCE	3. NO. OF PAR/OVERHAUL	4. MONTHS SINCE LAST PAR/OVERHAUL	5. FLT. HRS. SINCE LAST PAR/OVERHAUL	6. LAST/PAR OVERHAUL ACTIVITY	7. TYPE OF LAST CHECK PERFORMED	8. FLIGHT HOURS SINCE LAST CHECK	9. DAYS SINCE LAST CHECK
1 JUN 64	936.8	2	0	5.3	NARF JAX	ACCEPTANCE	5.3	3

B. ENGINE HISTORY

1. ENGINE MODEL	2. ENGINE SERIAL NUMBER	3. FLIGHT HRS. SINCE ACCEPTANCE	4. NUMBER OF OVERHAULS	5. WAS DIR REQUESTED?	6. FLT. HRS. SINCE LAST OVERHAUL	7. LAST OVERHAUL ACTIVITY	8. TYPE OF LAST CHECK PERFORMED	9. FLIGHT HOURS SINCE LAST CHECK	10. DAYS SINCE LAST CHECK
(1) J79 GE8B	401347	810.8	1	YES	515.5	NAS QUONSET	CALENDAR EVEN	5.3	5
(2) J79 GE8B	421027	388.1	0	YES	NA	NA	CALENDAR MAJOR	7.8	94
(3)									
(4)									

C. COMPONENT HISTORY

1. COMPONENT INVOLVED NOMENCLATURE	2. MANUFACTURERS PART NUMBER	3. TOTAL HRS. ON PART	4. NO. OF OV-HAULS	5. HOURS SINCE LAST OVERHAUL	6. OVERHAUL ACTIVITY	7. WAS DIR. REQUESTED?	8. SER. NO. FUR/AMPEUR
(1)							
(2)							
(3)							
(4)							

D. INCIDENTS & GROUND ACCIDENTS

1. PARTS REPAIRED		3. DIRECT MANHOURS INVOLVED	2. PARTS REPLACED	
PART NUMBER	NOMENCLATURE		PART NUMBER	NOMENCLATURE

E. ENGINE FAILURES

[illegible] ENGINE FL[illegible]

AT TIME OF PLANEOUT	1. ALTITU[illegible]	2. [illegible]	4. [illegible]	[illegible] MANEUVER AT TIME OF PLANEOUT	[illegible]	[illegible] ATTI[illegible]
8. G FORCES	9. RELIGH[illegible] ☐ ATTE[illegible] ☐ ACCOMPLISHED	[illegible]	11. [illegible]	[illegible] MAX EST	[illegible] ☐ [illegible] ☐ [illegible]	[illegible] NO [illegible] ATTEMPTS
INTENTIONAL SECURE	15. ENGIN[illegible] [illegible]TOMS		16. [illegible] SYMPTOMS			

[illegible]

17. ALTITUDE	[illegible]	19. ATTITUD[illegible]	[illegible]	21. [illegible]	[illegible]	[illegible] PRESSURE
INTENTIONAL SECURE	25. ENGIN[illegible] [illegible]MPTOMS		[illegible]			

F. OTHER REPORT

IDENTIFY OTHER REPORTS C[illegible]NCERNING THIS MISHAP

1. AMPFUR SERIAL NUMBER _____
2. DIR MESSAGE REQUEST DATE-TIME-GROUP RV[illegible]-[illegible] 162052Z JU[illegible]
3. OTHER PRELIMINARY MSG. RV[illegible]-3 150755Z J[illegible]
4. SUPPLEMENTARY MSG. R[illegible]H-3 160241Z [illegible]

OP-OSF

1. EQUIPMENT INVOLVED ☐ CATAPULT ☐ ARRESTING GEAR	2. PRESSURE SETTING	3. WIND OVER DECK	4. RELATIVE WIND	5. APPROACH/END SPEED

6. MARK NUMBER	7. MODEL NUMBER	8. LOCATION OF SHIP	9. LAUNCHING BRIDLE AND BRIDLE ARRESTER

10. CATAPULT/ARRESTING GEAR BULLETINS OR NOMOGRAMS USED

G. SHIPS DATA

11. This portion shall be completed whenever (1) an aircraft accident involves arresting gear barrier and/or barricade equipment, or (2) an aircraft accident involves malfunctioning of arresting gear, barrier and/or barricade equipment. Incidents or routine damage to cables, weldings and other expendable equipment need not be reported herein.

ENGAGED	12. DECK RUNOUT (FEET)	13. RAM TRAVEL (INCHES)	14. CONTROL VALVE SETTINGS: CONSTANT PRESSURE DOME (P.S.I.)	CONSTANT PRESSURE RATIO	CONSTANT RUNOUT (WT. LBS.)	15. ACCUMULATOR PRESSURE (PSI)	16. COMMENTS (for cable failures specify no. landings and months in service)
DECK PENDANT							
DECK PENDANT							
BARRIER/ BARRICADE							

H. DEPLOYMENT

FOR ACCIDENTS ABOARD CARRIERS (complete on pilot)

1. DATE DEPLOYED CONUS	3. DAY HOURS/LANDINGS SINCE DEPLOYMENT	4. DAY HOURS/LANDINGS LAST 30 DAYS
2. NO. DAYS OPERATING PERIOD		
5. INST. HOURS LOGGED SINCE DEPLOYMENT ACTUAL/SIMULATED	6. NIGHT HOURS/LANDINGS SINCE DEPLOYMENT	7. NIGHT HOURS/LANDINGS LAST 30 DAYS

I. WEATHER

WEATHER AT SCENE OF MISHAP

1. CEILING	2. VISIBILITY	3. RELATIVE WIND DIRECTION AND VELOCITY	4. TEMPERATURE	5. DEW POINT	6. BAROMETRIC SETTING
HI SCTD	10	CALM	RUNWAY 22.5C OUTSIDE AIR 72.1	60F	29.91

7. OTHER WEATHER CONDITIONS (winds aloft, icing level, sea state, density altitude, as appropriate)

PART III ADDITIONAL INFORMATION

PART	SECTION	ITEM	1. REMARKS

COPY DISTRIBUTION
NO NAVAL INTERDICTION REPORT (NAR)
NO CAUTIONARY REMARKS
5 NAVAIRSYSCOMHQ DIRECT
1 COMNAVAIRLANT
1 COMNAVAIRPAC
1 COMFAIRJAX
1 COMRECONATTKWTG ONE
1 NAVPLANTREPO COL
1 NATC PAX RIVER
1 NAVAFROREGPAC EL CENTRO

COST DAMAGE TO:	3. GOVERNMENT PROPERTY	4. PRIVATE PROPERTY	5. DATE SUBMITTED TO CO
	NONE	NONE	12 JULY 1967

PART IV SIGNATURES OF THE BOARD

(b) (6)

[redacted]