AIRCRAFT ACCIDENT
IDENTIFICATION
NO.

707 06 102

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: REVIEWED: LOGGED: PUNCHED: VERIFIED: 16 JAN 1968

CLOSED 31 JAN 1969

CARD 1

Cal. Yr. (01-02)	Mo. (03-04)	Day (05-06)	Type Report (07)	Log Line Number (08-09)	Aircraft Number (10-11)	Source (12)	Don't Count (13)	Enemy Action (14)	Mission Modif. (15)	Basic Mission (16-17)	Design Number (18-19)	Series Symbol (20-21)	Model Code (22-23)	Aircraft Bureau Number (24-30)	Repotting Custodian (31-32)	Type Duty (33-34)	Major Command (35-36)	Condition (37)	Local Time (38-41)
67	27	06	1	02	01	2				F2	04	B1	13	1523	01	A0	35	01	3215

Acdt. Dmg. (42)	Acft. Dmg. (43)	Acdt. Inj. (44)	Acft. Inj. (45)	Hull Number (46-47)	Kind of Flight (48-50)	Clearance (51-52)	Name Code (53-59)	Bearing From (60-61)	Dist. From (62)	Distance (63-64)	Area (65-66)	Runway Heading (67-68)	Length (69-70)	WAS DUTY RWY USED? (71)	Ship Type (72-73)	Ship Course (74-75)	Ship Speed (76-77)	Initial Contact (78)	Final Rest (79)	Trans. Code (80)	Card Number
A	A	A	A		IAC	2A	6ELTR	01	1	J										A	1

CARD 2

Direction (12-13)	Velocity (14-15)	Density Altitude (16-18)	Above Terrain (19-21)	Pressure Altitude (22-24)	Acft. Gross Weight (25-28)	Fiscal Year (29-32)	Fleets and Haws. (33-34)	Trans. Code (39)	Card Number
09	12			031	0040	72	10		2

Gov't. (53-56)	Non Gov't. (57-60)	Total Occupants This Acft.	Total Injuries "A" "U" "L" Navy (61-62)	Total Injuries "A" "U" "L" Non Navy (63-64)	"A" Injuries Navy (65-66)	"A" Injuries Non Navy (67-68)	"U" Injuries Navy (69-70)	"U" Injuries Non Navy (71-72)	"L" Injuries Navy (73-74)	"L" Injuries Non Navy (75-76)	Trans. Code (77)	Card Number
00	00	00	F2	27	02	72	10					2

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NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: [illegible] REVIEWED ____ LOGGED: ____ PUNCHED: ____ VERIFIED: ____

CARD 3

RECORD IDENTIFICATION											Aircraft Injury Summary (cont'd)																												
Date						Type Report	Log Line Number		Aircraft Number		"B" Injuries				"C" Injuries				"D" Injuries				"E" Injuries				"F" Injuries				"G" Injuries				Total Injuries				No. Occupants All Acft. Involved		
Cal. Yr.		Mo.		Day							Navy		Non Navy		Navy		Non Navy		Navy		Non Navy		Navy		Non Navy		Navy		Non Navy		Navy		Non Navy		Navy		Non Navy				
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
6	7	0	7	0	6	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2

ESCAPE SYS. DATA																																											
Sys.	Component	Spec. Data																	Pri Acdt. Type		Pri Phase of Operation		1st Acdt. Type		1st Phase of Operation		2nd Acdt. Type		2nd Phase of Operation		Trans. Code	Card No.		
43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80				
B	9	9																	F	5	4	1	E	1	4	1	F	5	4	1				A	0	3	0				

CARD 4

		3rd Acdt. Type		3rd Phase of Operation		Type Operations			Contributing Causes						Pilot Error Causal Fac.								Other Personnel Causal Factor				Other Pers. Factor After Fact		Inv. Mat. Comp. 1st Causal Factor			
															First		Second		Third		Pilot Factor After Fact.		First		Second		Third				Cross Ref.	Component	Ass'y.	Sub Ass'y.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49				
		B	3	A	2		3		3																								U	9	9	9	9				

Involved Mat. Comp. (cont'd.)												Material Fact. After Fact						Acft. Design Comp. Causal Factor						DESIGN C.F.						
2nd Causal Factor				3rd Causal Factor																										
Cross Ref.	Component	Ass'y.	Sub Ass'y.	Cross Ref.	Component	Ass'y.	Sub Ass'y.	Cross Ref.	Component	Ass'y.	Sub Ass'y.	Cross Ref.	Component	Ass'y.	Sub Ass'y.	Cross Ref.	Component	Ass'y.	Sub Ass'y.	Special Equipment	Pilot Equipment	Trans. Code	Card No.			
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
																											A	0	4	0

LPK

WUC 4123900

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NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: REVIEWED LOGGED: PUNCHED: VERIFIED:

CARD 6

RECORD IDENTIFICATION											Weather Causal Factor						Facility Causal Factor	Facility Fact. After Fact	Environ. Factor								Cause + Factor Primary							Cause + Factor 1st Possible						
Date						Type Report	Log Line Number			Aircraft Number																	Misc							Misc.						
Cal. Yr.		Mo.		Day																							Wx					Fact		Wx					Fact	
																											Pers				Factor			Pers				Factor		
																											Mat	X Ref	COMP	Ass'y.	Sub Ass'y.			Mat	X Ref	COMP	Ass'y.	Sub Ass'y.		
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
6	7	0	7	0	6	1	0	2	0	1																		3		4	9	9	9	9	2					A	C

Cause + Factor 2nd Possible							Cause + Factor 3rd Possible							Cause + Factor 4th Possible								Special Data and Conditions																	
Misc							Misc							Misc																											
Wx					Fact	Wx					Fact	Wx					Fact																							
Pers				Factor	Pers					Factor	Pers					Factor	Pers				Special Attention														Trans. Code	Card Number		
Mat	X Ref	COMP	Ass'y.	Sub Ass'y.	Mat	X Ref	COMP	Ass'y.	Sub Ass'y.	Mat	X Ref	COMP	Ass'y.	Sub Ass'y.																											
43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80				
5	A	1	6	9	1	3	I	1	2	0	9											D	5											A	1	6	1				

CARD 8

3M — Material Special Data																																									
								First				Second				Third				Fourth				Fifth				Maneu. Prior To Occur.	OPERATOR INCAPACITATED C.P.											
								Cross Ref.	3M HowMal Code			Cross Ref.	3M HowMal Code			Cross Ref.	3M HowMal Code			Cross Ref.	3M HowMal Code			Cross Ref.	3M HowMal Code																
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49				
									A	1	6		F	1	6		T	3	2		A	A	A		A	2	8	I												

																																			Trans. Code	Card Number					
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80											
																											A	1	8	1											

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(COMMON TO BOTH CARDS) CODED: [illegible] REVIEWED ____ LOGGED: ____ PUNCHED: ____ VERIFIED: ____

CARD 9

Section	Field	Columns	Entry
Record Identification – Date	Cal. Yr.	01–02	67
Record Identification – Date	Mo.	03–04	Ø7
Record Identification – Date	Day	05–06	Ø6
Record Identification	Type Report	07	1
Record Identification	Log Line Number	08–09	Ø2
Record Identification	Aircraft Number	10–11	Ø1
Aircraft Data	1st Flight After Maint.	12	F
Aircraft Data	D.I.R.	13	1
Aircraft Data	Tour	14	2
Aircraft Data	Hours Since Acceptance	15–18	493
Aircraft Data – Since Last Insp.	Type	19	C
Aircraft Data – Since Last Insp.	Hours	20–22	56
Aircraft Data – Since Last Insp.	Days	23–24	56
Aircraft Data – Since Last Par/O'Haul	Activity	25	8
Aircraft Data – Since Last Par/O'Haul	Hours	26–29	266
Aircraft Data – Since Last Par/O'Haul	Months	30–31	Ø7
Power Plant Model Number		32–39	J79GE8
Power Plant Serial Number		40–46	421229
		47–49	
Primary Involved Material Component	Manufacturers Part Number	50–65	
Primary Involved Material Component	Total Hours	66–69	
Primary Involved Material Component – Since Last Par/O'Haul	Activity	70	
Primary Involved Material Component – Since Last Par/O'Haul	Number	71	
Primary Involved Material Component – Since Last Par/O'Haul	Hours	72–75	
		76	
Trans. Code		77	
Card Number		78–80	Ø9Ø

CARD 10

Section	Field	Columns	Entry
Pri. Inv. Mat. Comp. (cont'd) – Since Last Check Perf.	Type	12	
Pri. Inv. Mat. Comp. (cont'd) – Since Last Check Perf.	Hours	13–15	
Pri. Inv. Mat. Comp. (cont'd) – Since Last Check Perf.	Days	16–17	
Possible or Secondary Involved Material Component	Manufacturers Part Number	18–33	2502621-1
Possible or Secondary Involved Material Component	Total Hours	34–37	
Possible or Secondary Involved Material Component – Since Last Par/O'Haul	Activity	38	8
Possible or Secondary Involved Material Component – Since Last Par/O'Haul	Number	39	1
Possible or Secondary Involved Material Component – Since Last Par/O'Haul	Hours	40–43	266
Possible or Secondary Involved Material Component – Since Last Check Perf.	Type	44	C
Possible or Secondary Involved Material Component – Since Last Check Perf.	Hours	45–47	56
Possible or Secondary Involved Material Component – Since Last Check Perf.	Days	48–49	56
		50–76	
Trans. Code		77	A
Card Number		78–80	1ØØ

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NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: Sgn REVIEWED ___ LOGGED: ___ PUNCHED: ___ VERIFIED: ___

CARD 10a

RECORD IDENTIFICATION											2nd Possible or Third Involved Material Component																															
Date						Type Report	Log Line Number		Aircraft Number		Manufacturers Part Number																Total Hours				Since Last Par/O'Haul						Since Last Check Perf.					
Cal. Yr.		Mo.		Day																											Activity	Number	Hours				Type	Hours			Day	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
6	7	0	7	0	6	1	0	2	0	1							F	6	-	2	2	5	-	A	3						8	1		2	6	6	C		5	6	5	6

																																	Trans. Code	Card Number		
44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
																																	A	1	0	1

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(COMMON TO BOTH CARDS) CODED: *Sg* REVIEWED ____ LOGGED: ____ PUNCHED: ____ VERIFIED: ____

CARD 11

RECORD IDENTIFICATION										
Date						Type Report	Log Line Number		Aircraft Number	
Cal. Yr.		Mo.		Day						
01	02	03	04	05	06	07	08	09	10	11
6	7	Ø	7	Ø	6	1	Ø	2	Ø	1

Controlling LSO's Carrier Pass Description																											
Start							Middle							In-Close							Ramp						
Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position	Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position	Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position	Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39

CLCPD (cont'd) TOUCH-DOWN								Trans. Code	Card Number		
Alt.	Speed	Speed Modif.	Line-Up	Line-Up Modif.	Power	Nose Position					
40	41	42	43	44	45	46	47–76	77	78	79	80
									1	1	Ø

CARD 12

12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

												File or Serial Number (Pilot)							Rank/Rate	Br. of Service	Age	Yrs. D.N.A.	Status	Position	Inj. to Indiv.	Abandon A/C	Trans. Code	Card Number		
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
													Ø	9	2	3	1	8	4	6	7	2	A	1	A	1	A	1	2	Ø

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NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: Bgr REVIEWED LOGGED: ____ PUNCHED: ____ VERIFIED: ____

CARD 13

RECORD IDENTIFICATION: Date – Cal. Yr.		Mo.		Day		Type Report	Log Line Number		Aircraft Number	
01	02	03	04	05	06	07	08	09	10	11
6	7	∅	7	∅	6	1	∅	2	∅	1

Pilot Factor Inv.	Service Tour	Instrument Card	Emerg. Syst. Train. Last 6 Months		Emerg. Syst. Train. Last 12 Months		Instrument Trainer Last 6 Months		Instrument Trainer Last 12 Months	
12	13	14	15	16	17	18	19	20	21	22
2	1	2			1	∅				

Time All Models Total		Time All Models Last 3 Months		Time This Model Total		Time This Model Last 3 Months		Inst. Hours Last 3 Months		Nite Hours Last 3 Months		Total Jet or Helo Time		Number of → Total	Day	Nite	Total Day This Model	
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
∅	6	∅	5	2	9	∅	5	1	3	∅	5	6	4	1	1		∅	∅

Carrier Landings: Total Nite This Model	This Model Day Last 30 Days		This Model Nite Last 30 Days							
42	43	44	45	46	47	48	49	50	51	52
∅	∅	∅	∅	∅	∅					

File or Serial Number (Co-Pilot)											Rank/Rate	Br. of Service	Age	Yrs. D.N.A.	Status	Position	Inj. to Indiv.	Abandon A/C	Pilot Factor Involved	Service Tour	Instr. Card		Trans. Code	Card Number		
53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
																								A	1	3	∅

CARD 14

Emerg. Syst. Train. Last 6 Months		Last 12 Months		Instrument Trainer Last 6 Months		Last 12 Months		Time All Models Total		Last 3 Months		Time This Model Total		Last 3 Months		Inst. Hours Last 3 Months		Nite Hours Last 3 Months		Total Jet or Helo Time	
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33

Number of Carrier Landings: Total	Day	Nite	Total Day This Model		Total Nite This Model		This Model Day Last 30 Days		This Model Nite Last 30 Days						
34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49

File or Serial Number (Instr. Plt. in Other A/C)												Rank/Rate	Br. of Service	Age	Yrs. D.N.A.	Status	Position	Inj. to Indiv.	Abandon A/C	Pilot Factor Involved	Service Tour	Instr. Card					Trans. Code	Card Number		
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
																											A	1	4	∅

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HWP

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: REVIEWED: LOGGED: PUNCHED: VERIFIED:

CARD 15

RECORD IDENTIFICATION											Emerg. Syst. Train.				Instrument Trainer				Time All Models				Time This Model												Number of Carrier →						
Date						Type Report	Log Line Number		Aircraft Number		Last 6 Months		Last 12 Months		Last 6 Months		Last 12 Months		Total		Last 3 Months		Total		Last 3 Months		Inst. Hours Last 3 Months		Nite Hours Last 3 Months		Total Jet or Helo Time		Total	Day	Nite	Total Day This Model		Total Nite This Model	
Cal. Yr.		Mo.		Day																																					
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
6	7	0	7	0	6	1	0	2	7	1																															

Landings																																									
This Model Day Last 30 Days		This Model Nite Last 30 Days				This Individual In Acft.			Name (Instr. Plt. in Other Acft.)																				Number of Personnel Records							Trans. Code	Card Number		
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
																													0	2						A	1	5	1

CARD 16

P	File or Serial Number (All Persons)																																								
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
P									0	7	2	3	1	8	2	I	E	B		L		P			4	6	2	2	A	1	A	1	6	5			

Name																																									
Rank/Rate		Br. of Service		Age		Yrs. Exper.		Status		Position		Inj. to Indiv.		Abandon A/C		Card Code 65																									
37	38	39	40	41	42	43	44	45	46	47	48	49																													

Equip 1						Equip 2						Equip 3						Equip 4																							
Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data																			
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80											
F	0					J	1					B	2					A	1						0	1	A	1	6	1											

Person Sequence Number	Trans. Code	Card Number		
75	76	77	78	79	80
0	1	A	1	6	1

PERSONNEL 1 OF 2

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NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: REVIEWED: LOGGED: PUNCHED: VERIFIED:

CARD 17

RECORD IDENTIFICATION											Equip 5						Equip 6						Equip 7						Equip 8						Equip 9					
Date						Type Report	Log Line Number		Aircraft Number		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data	
Cal. Yr.		Mo.		Day																																				
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
6	7	0	7	0	6	1	0	2	0	1	E	2					H	2					D	A					L	5					E	A				

Equip 10								Equip 11						Equip 12						Equip 13						Equip 14									
Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data				Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Person Sequence Number		Trans. Code		Card Number	
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
S	6							S	A					K	2					H	H												0	1	A	1	7	1

CARD 18

Equip 15						Equip 16						Equip 17						Equip 18						Equip 19						Equip 20								
Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip	Problem or Condition		Phase Existed Special Data			
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	

Equip 21						Equip 22						Equip 23						Equip 24										
Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip.	Problem or Condition		Phase Existed Special Data		Basic Equip.	Spec. Equip	Problem or Condition		Phase Existed Special Data		Person Sequence Number		Trans. Code	Card Number	
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
																											1	8	1	

PERSONNEL 1 OF 2

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NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: REVIEWED: LOGGED: PUNCHED: VERIFIED:

CARD 21

RECORD IDENTIFICATION											Equip 45							Equip 46						Equip 47						Equip 48										
Date																																								
Cal. Yr.		Mo.		Day		Type Report	Log Line Number		Aircraft Number		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data			Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data			Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data			Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data			Card Code 66		ACFT DESCRIPT	MISHAP DESCRIPTOR	Topog. at Mishap
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
6	7	7	0	7	0	6	1	0	2	0	1																								6	6	A	E	I

Type of Egress	Eject. Info.								Egress Problems: Prior			During			Subsequent			Type/Mod. Eject. Seat		Firing Method Seq. Eject.	Seat Position	Attitude/Maneu. A/C at Exit	Altitude When Ejected		Airspeed			Weight		Alt. Chute Open	In Crash Area	Time In Water		Person Sequence Number	Trans. Code	Card Number		
									Prob	Prob	Prob	Prob	Prob	Prob	Prob	Prob	Prob																						
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Z	C																																	0	1	A	2	1	0

CARD 22

Time in Raft		Vertebral Fractures				Eject. Fatal Causes		Injury	Combat Zone									Card Code 67		Wind Velocity in Knots		Wave Height	Wave Interval in Seconds	Visibility	Air Temperature		Water Temperature		Alerting Factors: 1st Factor	2nd Factor	3rd Factor	Located Site	Survivor Left Site	Means of Locating			
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
								A										6	7	1	2			4	7	6			E			H		A	D		

Survival Factors		Fatals Time Lapse From:				Time Lapse Last Training			Training Factors																														
		Mishap to Site Locat.	Site Locate to Victim	Mishap to Death	Low Press. Chamber	Eject. Tower	Eject. Seat	Survival																															
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80								
		A		A	B	P	B	B																	0	1	A	2	2	0								

PERSONNEL 1 OF 2

AIRCRAFT 1 OF 1

CODE SHEET 10 OF 17

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: REVIEWED: LOGGED: PUNCHED: VERIFIED:

CARD 25

RECORD IDENTIFICATION											Survivor's Problems Condit.																												
Cal. Yr.	Date Mo.	Date Day	Type Report	Log Line Number	Aircraft Number		During	After	Time Lapse Reach to Rescue	Time Lapse Mishap to Rescue Completion	Rescue Recommend	CARD CODE 73		Weight		Height		Age	Sitting Height Nearest 1/4 Inch	Trunk Height Nearest 1/4 Inch	Functional Reach Nearest 1/4 Inch																	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
6	7	0	7	0	6	1	0	2	0	1													7	3	1	6	5	6	8	2	6	3	5	3						

Buttock Knee Nearest 1/4 Inch	Leg Length Nearest 1/4 Inch	Bideltoid Nearest 1/4 Inch	CARD CODE 74	Role of Indiv. in Cause	Supervisory Factors: Inadequate Briefing	ORD/LEFT ON FLT BEY CAP	Poor Crew Coordination	Other	Pre-Flight Factors: Faulty Flight Plan	Faulty A/C Pre-Flight	Faulty Prep. Pers. Equip.	Hurried Departure	Delayed Departure	Inadequate Wx. Analysis	Other	Experience Trng. Factors: Inadequate Transition	LIMITED TOTAL EXPERIENCE	LIMIT RECENT EXPERIENCE	FAIL TO USE ACCEPT PROC.	Other	Person Sequence Number	Trans. Codes	Card Number
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
			7	4																													0	1	A	2	5	1

CARD 27

Design Factors: Design of Inst/Controls	Location of Inst/Controls	Failure of Inst/Controls	COCKPIT LIGHTING	Runway Lighting	Lighting	Other A/C	PERSONAL EQU INTERFERENCE	WORK SPACE IN. COMPAT. W/MAN	Other	Communication Problems: MISINTERPRET COMM	DISRUPTED COMM	Language Barrier	Noise Interference	Other	Environmental Factors: ACCELERATION FOR IN FLIGHT	DECOMPRESS ION	Vibration	Glare	Smoke Fumes	Heat	Cold	Wind Blast	VISIBILITY RESTRICTIONS: Wx Haze	Dark	Icing Window Fog	DUSTWIND SMOKE	WX OTHER THAN VISIBILY	Other	CARD CODE 75	Psycho Physiological Factors: Food Poisoning	Motion Sickness	Other Acute Illness	OTH PRE EXISY DISEASE/DEFECT	Get "Hometitis"	Hangover	Sleep Deprivation	FATIGUE, OTHER	Missed Meals
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
																											2	5									

Psycho Physiological Factors (cont'd)

DRUGS PRESCR MEDICAL DR.	Drugs, Other	Alcohol	Visual Illusions	HALLUCINATIONS	UNCONSCIOUS NESS	DISORIENTAT ION VERTIGO	Hypoxia	Hyper-Ventilation	Dysbarism	CO Poisoning	Boredom	Inattention	Channelized Attention	Distraction	PREOCCUPATIN PERS. PROB.	EXCESSIVE MOT ATION TO SUC	Over Confidence	Lack of Self-Confidence	LACK OF CONFIDENCE IN EQUIP	Apprehension	Panic	Other	Person Sequence Number	Trans. Codes	Card Number
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
																												2	7	1

PERSONNEL 1 OF 2

AIRCRAFT 1 OF 1

CODE SHEET 11 OF 17

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: ____ REVIEWED ____ LOGGED: ____ PUNCHED: ____ VERIFIED ____

CARD 29

Column	Field	Value
01	Record Identification – Date – Cal. Yr.	6
02	Cal. Yr.	7
03	Mo.	0
04	Mo.	7
05	Day	0
06	Day	6
07	Type Report	1
08	Log Line Number	0
09	Log Line Number	2
10	Aircraft Number	0
11	Aircraft Number	1
12	Other Factors To Be Considered – HABIT INTERFE	
13	WRONG CONT. CONFUS OF CONTR. OTHER	
14	Misread Instruments	
15	MISINTERPRET INSTRUMENTS	
16	MISLED BY FAUL INSTRUM.	
17	VIS. REST. BY EQUIP. STRUCT.	
18	Task Over-Saturation	
19	Inadequate Good/Timing	
20	Misjudged Speed/Dist.	
21	WRONG COURS OF ACTION	
22	DELAY TAKING NEC ACTION	
23	VIOLATION OF FLT. DISCIP	
24	Navigational Error	
25	Inadvertant Operation	
26	Other	
27	CARD CODE 77	7
28	CARD CODE 77	7
29	Disposition	4
30	Body Position	1
31	Direction Facing	1
32	Physical Defects Post Crash Exam. – VISUAL ACUITY OR NONE	0
33	Hearing	
34	Cardio-Vascular	
35	NEUROMSCUL SKELETAL	
36	Gastro-Intestinal	
37	Respiratory	
38	Urogenital	
39	Other Abnormal	
40	REASON FOR GROUNDING	

Column	Field	Value
41	Estimated Duration of Grounding	
42	Estimated Duration of Grounding	
43	Pri. Cause of Death Diagnosis Number	8
44	Pri. Cause of Death Diagnosis Number	6
45	Pri. Cause of Death Diagnosis Number	5
46	Pri. Cause of Death Diagnosis Number	1
47	Autopsy – Preformed	1
48	Autopsy – Protocol	1
49	Autopsy – Conducted By	1
50	Blood or None	
51	Lab Toxicological Test On – Urine	
52	GI Contents	
53	CNS Contents	
54	Muscle Tissue	5
55	Visceral Tissue	
56	Other	
57	ULTRA-VIOL OR OTH SPECIAL INVESTIG	
58	CARD CODE 78	7
59	CARD CODE 78	8
60	Unconsciousness	
61	Head, Neck or None	
62	Internal Injury – Thorax	
63	Internal Injury – Abdomen	
64	Internal Injury – Other	
65	Cerebral Concussion	
66	Facial Injuries	
67	Intra Oral Injuries	
68	Eye Injuries	
69		
70		
71		
72		
73		
74		
75	Person Sequence Number	0
76	Person Sequence Number	1
77	Trans. Code	A
78	Card Number	2
79	Card Number	9
80	Card Number	0

CARD 30

Column	Field	Value
12	Fractures – Group A – Cranial or None	
13	Facial	
14	Cervical	
15	Thoracic	
16	Lumbar	
17	Sacral	
18	Coccygeal	
19	Shoulder Girdle	
20	Rib	
21	Fractures – Group B – Pelvis or None	
22	Upper Arm	
23	Lower Arm	
24	Hand Incl. Fingers	
25	Upper Leg	
26	Lower Leg	
27	Foot Incl. Toes	
28	Other Fractures	
29	Dis-Locations – Group A – Jaw or None	
30	Cervical Vertebral	
31	Thoracic Vertebral	
32	Lumbar Vertebral	
33	Saccral Vertebral	
34	Coccygeal Vertebral	
35	Shoulder Girdle	
36	Ribs	
37	Pelvis	
38	Dis-Locations – Group B – Shoulder or None	
39	Elbow	
40	Wrist	
41	Hand Fingers	
42	Hip	
43	Knee	
44	Ankle	
45	Foot Toes	
46	Other Dislocations	
47	CARD CODE 79	7
48	CARD CODE 79	9
49		

Column	Field	Value
50	Amputations/Avulsions – HEAD, NECK OR NONE	
51	Trunk	
52	Upper Extrem.	
53	Lower Extrem.	
54	Other	
55	Soft Tissue Injuries – Group A – LACERATIONS OR NONE	
56	C.S.S. Head	
57	Abrasions Head	
58	LACERAT NECK	
59	C.S.S. Neck	
60	Abrasions Neck	
61	LACERAT THORAX	
62	C.S.S. Thorax	
63	ABRASIONS THORAX	
64	Group B – LACERATIONS ABDOM/NONE	
65	C.S.S. Abdomen	
66	Abrasions Abdomen	
67	LACERAT UP EXTR	
68	C.S.S. UP EXTREME	
69	ABRASIONS UP EXTR	
70	LACERAT LOW EXTR	
71	C.S.S. LOW EXTREME	
72	ABRASIONS LOW EXTR	
73	Other S.T. Injuries	
74	Asphyxiation Suspected	
75	Person Sequence Number	
76	Person Sequence Number	
77	Trans. Code	
78	Card Number	3
79	Card Number	0
80	Card Number	0

PERSONNEL 1 OF 2

AIRCRAFT 1 OF 1

CODE SHEET 12 OF 17

NAVAVNSAFECEN MISHAP CODE SHEET

(COMPLETE TO BOTH CARDS) CODED: REVIEWED: LOGGED: PUNCHED: VERIFIED:

CARD 1b

RECORD IDENTIFICATION											Emerg. Syst. Train.				Instrument Trainer				Time All Models				Time This Model												Number of Carrier →					
		Date																																						
Cal. Yr.		Mo.		Day		Type Report	Log Line Number		Aircraft Number		Last 6 Months		Last 12 Months		Last 6 Months		Last 12 Months		Total		Last 3 Months		Total		Last 3 Months		Inst. Hours Last 3 Months		Nite Hours Last 3 Months		Total Jet or Helo Time		Total		Day		Nite		Total Day This Model		Total Nite This Model	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		37		38		39	
6	7	0	7	2	6	1	2	0	6	1																														

Landings																																													
This Model Day Last 30 Days		This Model Nite Last 30 Days				This Individual in Acft.					Name (Instr. Plt. in Other Acft.)																		Number of Personnel Records								Trans. Code		Card Number		
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77		78		79		80
																																						1		5		1

CARD 1b

P	File or Serial Number (All Persons)																																												
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49								
P									0	9	2	1	3	T	M	E	K		T		S				5	6	2	-	3	2	A	1		6	5								

CARD 1b

Equip 1							Equip 2							Equip 3							Equip 4																						
Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data				Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data				Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data				Basic Equip.	Spec. Equip	Problem or Condition	Phase Existed Special Data								Person Sequence Number		Trans. Code			Card Number			
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80															
F	D						J	1					8	2					A	1						0	2	A	1	6	1														

PERSONNEL 2 OF 2

AIRCRAFT 1 OF 1

CODE SHEET 13 OF 17

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: REVIEWED: LOGGED: PUNCHED: VERIFIED:

CARD 17

RECORD IDENTIFICATION										
Date						Type Report	Log Line Number		Aircraft Number	
Cal. Yr.		Mo.		Day						
01	02	03	04	05	06	07	08	09	10	11
6	7	0	7	0	6	1	0	2	0	1

Equip 5						Equip 6						Equip 7						Equip 8						Equip 9					
Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data	
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
E	2					N	2					D	A					L	5					E	A				

Equip 10						Equip 11						Equip 12						Equip 13						Equip 14									
Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Person Sequence Number	Trans. Code	Card Number	
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
S	6					S	A					K	2					H	H														0	2	A	1	7	1

CARD 18

Equip 15						Equip 16						Equip 17						Equip 18						Equip 19						Equip 20								
Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip	Problem or Condition	Phase Existed	Special Data				
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	

Equip 21						Equip 22						Equip 23						Equip 24											
Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed	Special Data		Basic Equip.	Spec. Equip	Problem or Condition	Phase Existed	Special Data		Person Sequence Number	Trans. Code	Card Number			
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
																												1	8	1

PERSONNEL 2 OF 2

AIRCRAFT 1 OF 1

CODE SHEET 14 OF 17

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: REVIEWED: LOGGED: PUNCHED: VERIFIED:

CARD 21

RECORD IDENTIFICATION											Equip 45						Equip 46						Equip 47						Equip 48										
Cal. Yr.		Date Mo.		Day		Type Report	Log Line Number		Aircraft Number		Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data			Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data			Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data			Basic Equip.	Spec. Equip.	Problem or Condition	Phase Existed Special Data			Card Code 66		ACFT DESCRIPT	MISHAP DESCRIPTOR	Topog. at Mishap
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
6	7	0	7	0	6	1	0	2	0	1																									6	6	A	E	I

Type of Egress	Eject. Info								Egress Problems: Prior			During			Subsequent			Type/Mod. Eject. Seat		Firing Method Seq. Eject.	Seat Position	Attitude/Maneu. A/C at Exit	Altitude When Ejected		Airspeed			Weight		Alt. Chute Open	In Crash Area	Time In Water		Person Sequence Number		Trans. Code	Card Number		
									Prob	Prob	Prob	Prob	Prob	Prob	Prob	Prob	Prob																						
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Z	C																																	0	2	A	2	1	1

CARD 22

Time in Raft		Vertebral Fractures				Eject. Fatal Causes: Pri.	Sec.	Injury	Combat Zone									Card Code 67		Wind Velocity in Knots		Wave Height	Wave Interval in Seconds	Visibility	Air Temperature		Water Temperature		Alerting Factors: 1st Factor	2nd Factor	3rd Factor	Located Site	Survivor Left Site	Means of Locating			
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
								A										6	7	1	2			4	7	6			E			H		A	D		

Survival Factors		Fatals Time Lapse From: Mishap to Site Locat.	Site Locate to Victim	Mishap to Death	Time Lapse Last Training: Low Press. Chamber	Eject. Tower	Eject. Seat	Survival	Training Factors																Person Sequence Number		Trans. Code	Card Number		
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
		A		A	A	P	A	A																	0	2	A	2	2	1

PERSONNEL 2 OF 2

AIRCRAFT 1 OF 1

CODE SHEET 15 OF 17

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: ____ REVIEWED ____ LOGGED: ____ PUNCHED: ____ VERIFIED: ____

CARD 25

RECORD IDENTIFICATION											Survivor's Problems				Condit.																											
		Date																																								
Cal. Yr.		Mo.		Day		Type Report		Log Line Number		Aircraft Number					During	After	Time Lapse Reach to Rescue		Time Lapse Mishap to Rescue Completion		Rescue Recommend		CARD CODE 73		Weight		Height		Age		Sitting Height Nearest 1/4 Inch		Trunk Height Nearest 1/4 Inch		Functional Reach Nearest 1/4 Inch					
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
6	7	0	7	0	6	1	5	2	0	1													7	3	1	4	4	6	7	2	4	3	6	1								

Buttock Knee Nearest 1/4 Inch			Leg Length Nearest 1/4 Inch					Bideltoid Nearest 1/4 Inch			CARD CODE 74		Role of Indiv. in Cause	Inadequate Briefing	Supervisory Factors: ORD/LEFT ON FLT BEY CAP	Poor Crew Coordination	Other	Pre-Flight Factors: Faulty Flight Plan	Faulty A/C Pre-Flight	Faulty Prep. Pers. Equip.	Hurried Departure	Delayed Departure	Inadequate Wx. Analysis	Other	Experience Trng. Factors: Inadequate Transition	LIMITED TOTAL EXPERIENCE	LIMIT RECENT EXPERIENCE	FAIL TO USE ACCEPT PROC.	Other				Person Sequence Number		Trans. Codes	Card Number		
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80				
			4	1	1						7	4																					0	2	A	2	5	1				

CARD 27

Design Factors: Design of Inst/Controls	Location of Inst/Controls	Failure of Inst/Controls	COCKPIT LIGHTING	Runway Lighting	Lighting Other A/C	PERSONAL EQU INTERFERENCE	WORK SPACE IN. COMPAT. W/MAN	Other	Communication Problems: MISINTERPRET COMM	DISRUPTED COMM	Language Barrier	Noise Interference	Other	Environmental Factors: ACCELERATION FOR IN FLIGHT	DECOMPRESS ION	Vibration	Glare	Smoke Fumes	Heat	Cold	Wind Blast	VISIBILITY RESTRICTIONS: Wx Haze Dark	Icing Window Fog	DUST/WIND/SMOKE	WX OTHER THAN VISIBILY	Other	CARD CODE 75		Psycho Physiological Factors: Food Poisoning	Motion Sickness	Other Acute Illness	OTH PRE EXIST DISEASE/DEFICT	Get "Homeitis"	Hangover	Sleep Deprivation	FATIGUE, OTHER	Missed Meals				
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49				
																											7	5														

Psycho Physiological Factors (cont'd): DRUGS PRESCR MEDICAL DR.	Drugs, Other	Alcohol	Visual Illusions	HALLUCATIONS	UNCONSCIOUS NESS	DISORIENTAT ION VERTIGO	Hypoxia	Hyper-Ventilation	Dysbarism	CO Poisoning	Boredom	Inattention	Channelized Attention	Distraction	PREOCCUPATIN PERS. PROB.	EXCESSIVE MOT ATION TO SUC	Over Confidence	Lack of Self-Confidence	LACK OF CONF ENCE IN EQUIP	Apprehension	Panic	Other			Person Sequence Number		Trans. Codes		Card Number		
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
																												2	7	1	

PERSONNEL 2 OF 2

AIRCRAFT 1 OF 1

CODE SHEET 16 OF 17

NAVAVNSAFECEN MISHAP CODE SHEET

(COMMON TO BOTH CARDS) CODED: REVIEWED LOGGED: PUNCHED: VERIFIED

CARD 29

Col	Group	Field	Entry
01	Record Identification – Date	Cal. Yr.	6
02	Record Identification – Date	Cal. Yr.	7
03	Record Identification – Date	Mo.	0
04	Record Identification – Date	Mo.	7
05	Record Identification – Date	Day	0
06	Record Identification – Date	Day	6
07	Record Identification	Type Report	1
08	Record Identification	Log Line Number	0
09	Record Identification	Log Line Number	2
10	Record Identification	Aircraft Number	0
11	Record Identification	Aircraft Number	1
12	Other Factors To Be Considered	Habit Interfe Wrong Cont.	
13	Other Factors To Be Considered	Confus of Contr. Other	
14	Other Factors To Be Considered	Misread Instruments	
15	Other Factors To Be Considered	Misinterpret Instruments	
16	Other Factors To Be Considered	Misled by Faul Instrum.	
17	Other Factors To Be Considered	Vis. Rest. by Equip. Struct.	
18	Other Factors To Be Considered	Task Over-Saturation	
19	Other Factors To Be Considered	Inadequate Good/Timing	
20	Other Factors To Be Considered	Misjudged Speed/Dist.	
21	Other Factors To Be Considered	Wrong Cours of Action	
22	Other Factors To Be Considered	Delay Taking Nec Action	
23	Other Factors To Be Considered	Violation of Flt. Discip	
24	Other Factors To Be Considered	Navigational Error	
25	Other Factors To Be Considered	Inadvertant Operation	
26	Other Factors To Be Considered	Other	
27		Card Code 77	7
28		Card Code 77	7
29		Disposition	4
30		Body Position	1
31		Direction Facing	1
32	Physical Defects Post Crash Exam.	Visual Acuity or None	0
33	Physical Defects Post Crash Exam.	Hearing	
34	Physical Defects Post Crash Exam.	Cardio-Vasculor	
35	Physical Defects Post Crash Exam.	Neuromscul Skeletal	
36	Physical Defects Post Crash Exam.	Gastro-Intestinal	
37	Physical Defects Post Crash Exam.	Respiratory	
38	Physical Defects Post Crash Exam.	Urogenital	
39	Physical Defects Post Crash Exam.	Other Abnormal	
40		Reason for Grounding	

Col	Group	Field	Entry
41		Estimated Duration of Grounding	
42		Estimated Duration of Grounding	
43		Pri. Cause of Death Diagnosis Number	8
44		Pri. Cause of Death Diagnosis Number	6
45		Pri. Cause of Death Diagnosis Number	5
46		Pri. Cause of Death Diagnosis Number	1
47	Autopsy	Preformed	1
48	Autopsy	Protocal	1
49	Autopsy	Conducted By	
50	Lab Toxicological Test On	Blood or None	
51	Lab Toxicological Test On	Urine	
52	Lab Toxicological Test On	GI Contents	
53	Lab Toxicological Test On	CNS Contents	
54	Lab Toxicological Test On	Muscle Tissue	5
55	Lab Toxicological Test On	Visceral Tissue	
56	Lab Toxicological Test On	Other	
57		Ultra-Viol or Oth Special Investig	
58		Card Code 78	7
59		Card Code 78	8
60		Unconsciousness	
61	Internal Injury	Head, Neck or None	
62	Internal Injury	Thorax	
63	Internal Injury	Abdomen	
64	Internal Injury	Other	
65		Cerebral Concussion	
66		Facial Injuries	
67		Intra Oral Injuries	
68		Eye Injuries	
69			
70			
71			
72			
73			
74			
75		Person Sequence Number	0
76		Person Sequence Number	2
77		Trans. Code	A
78		Card Number	2
79		Card Number	9
80		Card Number	0

CARD 30

Col	Group	Field	Entry
12	Fractures – Group A	Cranial or None	
13	Fractures – Group A	Facial	
14	Fractures – Group A	Cervical	
15	Fractures – Group A	Thoracic	
16	Fractures – Group A	Lumbar	
17	Fractures – Group A	Sacral	
18	Fractures – Group A	Coccygeal	
19	Fractures – Group A	Shoulder Girdle	
20	Fractures – Group A	Rib	
21	Fractures – Group A	Pelvis or None	
22	Fractures – Group B	Upper Arm	
23	Fractures – Group B	Lower Arm	
24	Fractures – Group B	Hand Incl. Fingers	
25	Fractures – Group B	Upper Leg	
26	Fractures – Group B	Lower Leg	
27	Fractures – Group B	Foot Incl. Toes	
28	Fractures – Group B	Other Fractures	
29	Dis-Locations – Group A	Jaw or None	
30	Dis-Locations – Group A	Cervical Vertebral	
31	Dis-Locations – Group A	Thoracic Vertebral	
32	Dis-Locations – Group A	Lumbar Vertebral	
33	Dis-Locations – Group A	Sacral Vertebral	
34	Dis-Locations – Group A	Coccygeal Vertebral	
35	Dis-Locations – Group A	Shoulder Girdle	
36	Dis-Locations – Group A	Ribs	
37	Dis-Locations – Group A	Pelvis	
38	Dis-Locations – Group B	Shoulder or None	
39	Dis-Locations – Group B	Elbow	
40	Dis-Locations – Group B	Wrist	
41	Dis-Locations – Group B	Hand Fingers	
42	Dis-Locations – Group B	Hip	
43	Dis-Locations – Group B	Knee	
44	Dis-Locations – Group B	Ankle	
45	Dis-Locations – Group B	Foot Toes	
46		Other Dislocations	
47		Card Code 79	7
48		Card Code 79	9
49			

Col	Group	Field	Entry
50	Amputations/Avulsions	Head, Neck or None	
51	Amputations/Avulsions	Trunk	
52	Amputations/Avulsions	Upper Extrem.	
53	Amputations/Avulsions	Lower Extrem.	
54	Amputations/Avulsions	Other	
55	Soft Tissue Injuries – Group A	Lacerations or None	
56	Soft Tissue Injuries – Group A	C.S.S. Head	
57	Soft Tissue Injuries – Group A	Abrasions Head	
58	Soft Tissue Injuries – Group A	Lacerat Neck	
59	Soft Tissue Injuries – Group A	C.S.S. Neck	
60	Soft Tissue Injuries – Group A	Abrasions Neck	
61	Soft Tissue Injuries – Group A	Lacerat Thorax	
62	Soft Tissue Injuries – Group A	C.S.S. Thorax	
63	Soft Tissue Injuries – Group A	Abrasions Thorax	
64	Soft Tissue Injuries – Group B	Lacerations Abdom/None	
65	Soft Tissue Injuries – Group B	C.S.S. Abdomen	
66	Soft Tissue Injuries – Group B	Abrasions Abdomen	
67	Soft Tissue Injuries – Group B	Lacerat Up Extr	
68	Soft Tissue Injuries – Group B	C.S.S. Up Extreme	
69	Soft Tissue Injuries – Group B	Abrasions Up Extr	
70	Soft Tissue Injuries – Group B	Lacerat Low Extr	
71	Soft Tissue Injuries – Group B	C.S.S. Low Extreme	
72	Soft Tissue Injuries – Group B	Abrasions Low Extr	
73	Soft Tissue Injuries – Group B	Other S.T. Injuries	
74		Asphyxiation Suspected	
75		Person Sequence Number	
76		Person Sequence Number	
77		Trans. Code	
78		Card Number	3
79		Card Number	0
80		Card Number	0

PERSONNEL 2 OF 2

AIRCRAFT 1 OF 1

CODE SHEET 17 OF 17

707 06 102

REQUEST FOR DELETION OF RECORD
OR CODING MODIFICATION FORM

FROM: M & M DEPT. DATE 1-23-61

TO: (1) CODING SECT. [illegible]
(2) REC. CONT. BRANCH [illegible]
(3) ADPE DIV. [illegible] 26 JAN [illegible]
(4) REC. CONT. BRANCH [illegible]

TRANSACTION CODES

D-Deletion of the entire MISHAP Master Record (use only cc 1-11 and code D in cc 77).

M-Modifying contents of any Master Record field. Use "ØØ" in Person Seq. No. field, if field to be modified is in the Gen. Data Sect. of the Master Record. Otherwise use Person Seq. No. for the individual for which the change is to be made. These changes must be in Person Seq. No. order. C 4B 150301 LIEB

IDENTIFICATION NO.									AIRCRAFT NUMBER	
YEAR		MONTH		DAY		TYPE REPT	LOG NUMBER			
01	02	03	04	05	06	07	08	09	10	11
6	1	0	7	Ø	3	1	Ø	2	0	1

	FIELD NAME	CARD NUMBER	CARD COL. OF FLD. START ADD.	FIELD'S STARTING ADDRESS				PERSON SEQ. NUMBER		FIELD LENGTH		DATA TO BE INSERTED (LEFT JUSTIFIED)										TAPE-REC DIV. NO.		TRANS. CODE
				12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29			
1	DIR	9	13	Ø	4	2	Ø	Ø	Ø	Ø	1	2												
				30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47			
2																								
				48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	77
3																						Ø	1	M

NOTE: (1) For deletions of codes in a given field, leave the "DATA TO BE INSERTED" field blank and use "TRANS CODE" M in cc 77.

(2) Only corrections applying to personnel in one TAPE RECORD DIV. may be shown on a single CHANGE REQUEST form.

(b) (6) [redacted]

ORIGINATORS SIGNATURE

I.D. Number	Yr	Mo.	Day	Typ	Log	Typ Brief	Narr File I.D.	Cl.	Orig. Use	Tot-Cds	Trans. Code
	72	07	01	0	02	1	N N N	1		16	A

Common Fields to All Cards

CLASS CODE
1 - Non-Class
2 - Conf

TYPE BRIEFS CODES
1 - GEN. MISHAP
2 - BIO-MED
3 - SAF-SURV
4 - PSYCHO

CARD NO. CODED _____ REVIEWED _____ KEY PUNCHED _____ VERIFIED _____

CARD NO.	
01	AIRCRAFT, EXPERIENCED AN INTENSE INFLIGHT FIRE, LOST D
02	IRECTIONAL CONTROL & IMPACTED WATER IN A DIVING ATTIT
03	UDE DUE TO AN UNDETERMINED MATERIAL FAILURE/MALFUNCTI
04	ON. AIRCRAFT DISINTEGRATED ON IMPACT. INVESTIGATION R
05	EVEALED ENGINES HAD FLAMED OUT PRIOR TO IMPACT & EJEC
06	TION SYSTEMS HAD BEEN ACTUATED IMMEDIATELY PRIOR TO/O
07	R AT IMPACT. MOST PROBABLE CAUSE WAS BLEED AIR LEAKAG
08	E IMPINGING ON INTERNAL WING TANK FUEL QUANTITY PROBE
09	AT FS-249, MELTING SOLDER CONNECTIONS AND RESULTING
10	FUEL LEAKAGE RESULTED IN FIRE. POSSIBLE MAINTENANCE I
11	NDUCED BLEED AIR LEAKAGE DUE TO MISALIGNED/LOOSE CLAM
12	P (#32 AT FS-249) DURING INCORPORATION OF AFC-299 AT
13	AIRCRAFT REWORK PROGRAM PRIOR TO THIS FLIGHT. RECOMME
14	ND INVESTIGATE UTILIZING HYDROSTATIC TESTING PROCEDUR
15	E FOR BLEED AIR SYSTEM DURING PERIODIC INSPECTIONS AT
16	SQUADRON LEVEL. DIR OF EGRESS EQUIP CONCURS WITH BRI
17	EF.
18	
19	
20	

CARD NO.

Dispatch Code Sheets

Acft. Accidents Only

(Rev. 2-67)

Coded [illegible] Date [illegible]

Logged BSS Date 8/10

Punched [illegible] Date 11 AUG 1967

	Codes	Card Columns
Card No. ØIØ		
Record Ident. (common all cards)	6 7 Ø 7 Ø 6 1 Ø 2 Ø 1	01-11
Source	5	12
Don't Count		13
Enemy Action		14
Aircraft Model	F Ø Ø 4 B	15-21
Model Code	1 3	22-23
Aircraft BuNo.	1 5 2 3 Ø 1	24-29
Reporting Custodian	A Ø 3	30-32
Type Duty	5 Ø 1	33-35
Major Command	3	36
Time of Day	2 1 5 4 8	37-41
Accident Damage	A	42
Aircraft Damage	A	43
Accident Injury	A	44
Aircraft Injury	A	45
Hull No.		46-48
Kind of Flight	1 A 6	49-51
Location (Name Code)	A L T R O	53-59
Transaction Code	A	77
Card No.	Ø 1 Ø	78-80
Card No. Ø2Ø		
Total "A-U-L" Navy Injuries	1 Ø	32-34
Total "A-U-L" Non-Navy Injuries	Ø 2	61-62
Transaction Code		63-64
Card No.	A	77
	Ø 2 Ø	78-80
Card No. Ø3Ø		
Primary Accident Type	F 1	62-63
Primary Phase of Operations	4 1	64-66
Transaction Code	A	77
Card No.	Ø 3 Ø	78-80
Card No. Ø4Ø		
Type Operations	3	19-20
Contributing Causes	3	21-22
Transaction Code	A	77
Card No.	Ø 4 Ø	78-80
Card No. Ø6Ø		
Primary Cause	7	29
Special Data & Conditions		65-69
Transaction Code	A	77
Card No.	Ø 6 Ø	78-80

(change title)

See reverse side

Card No. 150

	Codes	Card Columns
No. of Personnel Records	Ø 1	70-71
Transaction Code	A	77
Card No.	1 5 Ø	78-80

Card No. 160

P	P	12
Pilot's Name	L I E B L P	27-36
Status	A	41
Transaction Code	A	77
Card No.	1 6 Ø	78-80

I.D. Number	67	07	06	1	02	01	N N N	1					A
	1-2 Yr.	3-4 Mo.	5-6 Day	7 Typ	8-9 Log	10-11 Typ Brief	13-15 Narr File I.D.	69 Cl.	70-73 Orig. Use			75-76 Tot Cds	77-78 Trans. Code

Common Fields to All Cards

CLASS CODE
1 - Non-Class
2 - Conf.

TYPE BRIEFS

CODES
1 - GEN. MISHAP
2 - BIO-MED
3 - SAF-SURV
4 - PSYCHO

CARD NO. CODED _____ REVIEWED _____ KEY PUNCHED _____ VERIFIED _____

11 12

01	SIX MINUTES AFTER T/O ACFT OBSR ON FIRE. ACFT COLL WA
02	TER UNCONT IN NOSE DOWN SPIRAL AT APPROX 3C KIAS. MAT
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

11 12
CARD NO.

R&DP-26(3/68)

AAR ADMINISTRATIVE CLOSE-OUT FORM

MEMORANDUM FOR THE RECORD

Subj: VFMA-122 (Activity) AAR 1-68A (Number) concerning F4B (ACFT Model)

BUNO 152301 occurring 6 Jul 1967 (Date) pilot LIEB, L.P.

Ref: (a) Code 50 MEMO of 20 Mar 1968

1. In accordance with reference (a), a close-out letter will not be prepared on subject AAR.

Respectfully,

(b) (6) [redacted]

Head, Records Division

DEPARTMENTAL COMMENTS FOR "CLOSE OUT" LETTER ON ORIGINAL REVIEW

NOTE:
1. Negative report is required.
2. Positive comments will be in a format suitable for inclusion in the "close out" letter.
3. Attach additional sheets if more space is required.

M&M DEPT: NO COMMENTS

2310
INITIAL/CODE

AERO-MED DEPT: No comments 420/32
8/33

INITIAL/CODE

COMPLETION SHEET

Action to Correction to		Action Required	Completed Code/Date
3750-1			/
DIR			/
Misc. Items for Action or Correction			
To Code	From Code/Date	31 JAN 1989	
	/		/
	/		/
	/		/
	/		/
	/		/
	/		/
	/		/
	/		/
	/		/

ements Reviewed and Acton Completed on All Phases of this Report.

UNIT VFMA-122

MODEL F4B

BUNO 153231

AAR REVIEW ROUTING SHEET

ADVANCE ROUTING

PRI	DEPT	DATE IN	DATE OUT	INIT	INTER DEPT ROUTING	CODE	INIT
	M&M		1-23-68	G	/	/	/
	AERO MED	1-26-68	2-21-68	(illegible)	/	/	/

DEPARTMENT REPRESENTATIVES INITIALS FOR RECEIPT OF REPORTS

REMARKS

ORIGINAL ROUTING

DEADLINE DATE OUT OF NASC _____ (10 working days)

EXTENSIONS

DEPT	DATE IN	DEPT	DEADLINE	DATE OUT	INIT	INTER DEPT. ROUTING	
A&R						/	/

NASC ENDORSEMENT ROUTING

PRI	DEPT	DATE IN	DATE OUT	INIT
1	R&S			
2	M&M			
3	ADMIN			

ROUTING AFTER CLOSE OUT

DEPT	DATE IN	DATE OUT	INIT	INTER DEPT ROUTING		
AERO MED				/	/	/

NOTES
1. No person other than those assigned to the Records Control Branch will remove any part of this document from the folder
2. Departments will be fully responsible and accountable for documents in their custody until checked back into Records Control Branch
3. Any Department desiring to retain this report longer than five (5) working days must notify Records Control Branch of their need for extension

AIR-09E2:JFD

13 JAN 1969

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

SIXTH ENDORSEMENT on VMFA-122 AAR ser 1-68A concerning F4B BuNo 152301 accident occurring 6 July 1967, pilot LIEB

From: Commander, Naval Air Systems Command
To: Commander, Naval Safety Center

Subj: Aircraft Accident Report

Encl: (26) NWL Dahlgren ltr TCE:EFY:mll 8190/2 of 20 Oct 1967 w/encl

1. Forwarded.

2. The recommendation to retrofit F-4 aircraft with non-soldered fuel quantity sensor connections was carefully reviewed within this Command but was not approved. The BLC protective features to be incorporated by Airframe Changes 439 (Bleed Air Leakage Warning System) and 440 (Master Bleed Air Shutoff Valve) were considered a better solution. A one time inspection was not initiated since present inspection procedures are considered adequate.

3. The feasibility and leak detection capabilities of BLC hydrostatic testers have been successfully demonstrated in tests with two prototype units. Procurement of BLC hydrostatic testers is in progress and initial delivery of production units is scheduled for August 1969.

4. As noted in the AAR, the U. S. Naval Weapons Laboratory, Dahlgren, conducted an investigation of the emergency egress components of F-4B, BUNO 152301. A copy of their final report is included as enclosure (26).

(b) (6)

[redacted]

By direction

Copy to:
COMNAVAIRPAC
CMC (CODE AAP)
CG FMFPAC
CG 3rd MAW
CO MAG 33
NAVPRO ST. LOUIS
CO VMFA-122
DIR AFIP

3750
80/

6151

29 SEP 1967

SPECIAL HANDLING REQUIRED IN ACCORDANCE
WITH OPNAVINST 3750.6 SERIES

FIFTH ENDORSEMENT on VMFA-122 AAR ser 1-68A concerning F4B BuNo 152301 accident occurring 6 July 1967, pilot LIEB

From: Commander Naval Air Force, U. S. Pacific Fleet
To: Commander, U. S. Naval Aviation Safety Center
Via: Commander, Naval Air Systems Command

Subj: VMFA-122 AAR ser 1-68A

1. Readdressed and forwarded for NAVAIRSYSCOMHQ comments concerning the recommendations contained in part IX of the AAR.

2. The conclusions and recommendations of the Aircraft Accident Board, as modified by the remarks contained in subsequent endorsements are concurred with.

(b) (6)
[redacted]

By direction

Copy to:
NAVAIRSYSCOMHQ
COMNAVAVNSAFECEN (2)
CMC (CODE AAP)
CG FMFPAC
CG 3rd MAW
CO MAG 33
NAVPLANTREPO ST LOUIS
CO VMFA-122
DAFIP

18/mlm

18 SEP 1967

FOURTH ENDORSEMENT on VMFA 122 AAR, serial 1-68A concerning F4B, BuNo 152301, dtd 6 July 1967, pilot LIEB

From: Commanding General, Fleet Marine Force, Pacific
To: Commander, Naval Aviation Safety Center
Via: Commander, Naval Air Forces, Pacific

Subj: VMFA 122 AAR 1-68A; forwarding of

1. Forwarded concurring with the conclusions and recommendations of the Aircraft Accident Board as modified by subsequent endorsements, with the following additional comments.

2. In regard to the hydrostatic testing of BLC System mentioned in recommendation 2. of the AAR Board and paragraph 6. of the second endorsement, it is recommended that, in view of the possible consequences of an undetected leak in the BLC System, the merits of hydrostatic testing be pursued on a priority basis and if found to be an acceptable technique, the procedures published to all concerned commands.

(b) (6) [redacted]

DISTRIBUTION
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COMNAVAIRPAC
MAG 33
DAFIP
VMFA 122
FILE

"SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES"

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

25:AlR:rab
3750

THIRD ENDORSEMENT on VMFA-122 Aircraft Accident Serial 1-68A concerning F4B, BuNo 152301, of 6 Jul 1967, Pilot LIEB

From: Commanding General, 3d Marine Aircraft Wing
To: Commander, U. S. Naval Aviation Safety Center
Via: (1) Commanding General, Fleet Marine Force, Pacific
(2) Commander Naval Air Force, Pacific

Subj: VMFA-122 AAR Serial 1-68A

1. Forwarded, concurring with the conclusions and recommendations of the board subject to the following:

a. The Group Commander's explanation of the probable cause of the BLC leak/failure appears more plausible than the board's. Regardless of the cause of BLC leak/failure the most successful preventive measure will be BLC duct testing following any maintenance work performed on or near the ducting system. This command is unable to objectively discuss the merits of pneumatic, hydrostatic, and acoustical testing; consequently, resolution of this matter is referred to higher authority.

(b) (6) [redacted]

Copy to:
COMNAVAVNSAFCEN (Direct Air Mail)
NAVAIRSYSCOM (Air Mail)
NAVAIRSYSCOMREP St. Louis
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COMNAVAIRPAC
MAG-33
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VMFA-122
FILE

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

40292

25:EHL:ghw
3750
23 Aug 1967

SECOND ENDORSEMENT on VMFA-122 Aircraft Accident Serial 1-68A concerning F4B, BuNo 152301, of 6 Jul 1967, Pilot LIEB

From: Commanding Officer MAG-33
To: Commander, U.S. Naval Aviation Safety Center
Via: (1) Commanding General 3d Marine Aircraft Wing
(2) Commanding General Fleet Marine Force, Pacific
(3) Commander Naval Air Force, Pacific

Subj: VMFA-122 AAR Serial 1-68A

1. Forwarded concurring with the conclusions and recommendations of the board.

2. The AAR report (enclosure 2) infers that the aircraft was flown for 210 hours after acceptance from PAR by VMFA-122, underwent a calendar check and subsequently flew an additional 56 hours, all with a BLC leak impinging on the fuel quantity sensing probe, finally resulting in failure of a soldered joint on a flight which followed a Shoehorn modification. The maintenance officer states (enclosure 2) that if there was an error in BLC alignment it was probably present when the aircraft was accepted by VMFA-122 on 21 December 1966. No discrepancy was noted on the last calendar inspection in May 1967. The investigation states the BLC leak was due to a loose, failed or misaligned clamp. (b) (5) [redacted]

(b) (5) [redacted]

(b) (5) [redacted]

(b) (5) [redacted]. During the period 15 June to 6 July, the aircraft underwent a Shoehorn modification, lightly touched on by the accident board, probably because the Shoehorn work was accomplished well aft of the subject area. However, AFC 299 and LAFC 349 both require work in the general area of the suspected leak and were not mentioned in the AAR. AFC 299 is an Aero 7A Launch or System Improvement, which, according to the local McDonnell Representative, does not require removal of the BLC clamp at FS 249; however it is verbally understood that in order to gain missile fin enclosure clearance, it has been found necessary on some aircraft to loosen the clamp and re-block it. Records indicate this change was probably completed while the aircraft was in check in May 1967 with a completion date in the airframe log book of 2 June 1967. This time frame is considered to predate the accident sufficiently to eliminate the AFC 299 installation as a probable

cause factor; successful flights subsequent to 2 June would support this assumption.

4. IAFC 349, promulgated by COMNAVAIRPAC 270013Z Apr 67, was completed by the squadron during the time the aircraft was undergoing the Shoehorn modification, and was entered in the aircraft log book as completed on 2 July 1967. IAFC 349 requires removal, inspection and re-installation of the Catapult Tow Hook. Intermediate steps in the removal of the Tow Hook require disassembly of the BLC ducting at clamp #36, figure 3-1 of Maintenance Instructions Manual NAVAIR 01-245 FDB-2-2.5 which is the next clamp down stream from the one just forward of FS 249 (clamp #32, figure 3-1). (b) (5)

(b) (5)

[redacted]

Amendment #2 to IAFC-349 requires a BLC leakage check of couplings that have been reassembled by making a feel check with hands at the reassembled couplings with the engines operating. There is no evidence that this check was or was not made at the completion of IAFC 349. The Aircraft Accident Report does not reflect any consideration by the board of a possible maintenance error contributing to this accident.

(b) (5)

[redacted]

6. Whether the recommendation by the board that hydrostatic testing of the BLC system be performed after overhaul and on each calendar check would have prevented this accident is pure conjecture since the Shoehorn modification does not fall within the criteria of the recommendation. However, the recommendation has considerable merit and was considered worthy of further investigation. Factory opinion was solicited on such testing; the comment received was most favorable and indicated such testing is feasible. From a safety standpoint, hydrostatic testing is highly preferable to pneumatic testing, due to the explosive characteristics of high pressure

air which are not encountered in water testing. Secondly, with hydrostatic testing, leaks are more readily apparent, in that large leaks appear merely by adding water to the BLC system before pressure is applied. After these are repaired, then only a few small leaks should appear after pressure is applied to the water. Preliminary information from McDonnell indicates this test is feasible, using plain fresh water, at the organizational maintenance level.

7. Information available to this organization indicates a field hydrostatic testing procedure was submitted by McDonnell to NAVAIRSYSCOM in August 19[illegible] [illegible] is therefore recommended that it or similar proceedure be adopted [illegible] use to verify BLC system integrity whenever the BLC system is affected by maintenance operations.

(b) (6)

[redacted]

Copy to:
COMNAVAVNSAFCEN (2)
NAVAIRSYSCOM
NAVAIRSYSCOMREP St. Louis
CMC (code AAP)
CG FMFPAC
COMNAVAIRPAC
CG 3d MAW
CAFIP
VMFA-122
FILE

FIRST INDORSEMENT OF [illegible] CONCERNING F-4B, BUNO 152301, OF 6 JULY 1967, [illegible]

[illegible]
Marine Aircraft Group 33
3d Marine Aircraft Wing, FMFPac
MCAS El Toro, Santa Ana, Calif. 92709

AUG 4 1967

[illegible] Officer
[illegible], United States Naval Aviation Safety Center
Via: (1) [illegible] MAG-33
(2) [illegible], 3d MAW
(3) [illegible], FMFPac
(4) [illegible]NAVAIRPAC

Subj: [illegible] AAR Ser. 1-684, Forwarding of

Encl: (1) VMFA-122 Flight Safety [illegible] Serial 0045

1. Forwarded.

2. The following comments pertain to conclusions and recommendations of the board.

[illegible] Part VIII, Conclusions:

(1) Concur. The evidence that both engines had flamed out due to fuel starvation prior to impact is conclusive. The Board's Reduction that CG shift accompanying loss of integrity of No. 1 fuel cell, coupled with loss of thrust from both engines, resulted in uncontrolled flight prior to impact is supported by photo coverage of the flight path.

(2) Concur. Unfortunately the point at which the aircrew became aware of the fire can not be established. A number of [redacted]

(b) (5) [redacted]

(b) (5) [redacted]

(b) (5) [redacted]

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(b) (5) [redacted]

(b) (5) [redacted]

(b) (5) [redacted]

[illegible] Information [illegible] and from [illegible] [illegible] indicates [illegible] [illegible] sensors have [illegible] [illegible] as a fire [illegible]

[illegible] Recommendations:

[illegible] [illegible] [illegible] is [illegible] [illegible] [illegible] to [illegible]

[illegible] [illegible] [illegible] [illegible] performed at idle [illegible] (low air flow and low temperature) [illegible] indicative of system [illegible] [illegible] (high air flow and high temperature).

[illegible] [illegible], especially involving loss of an aircrew, [illegible] commander to examine existing unit training, operating, and maintenance procedures to inquire whether or not such procedures may have in any way contributed either to the accident itself or to the related non-survival of the crew. The commander is further obliged to consider whether or not additional training, operating, and maintenance procedures may be required. The following pertinent considerations have been reviewed:

a. Section integrity: as a general rule, a two-plane section of

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fighter/attack aircraft is preferred to single aircraft for a variety of reasons, including [illegible] doctrine, system redundancy, weapons mix [illegible] other hand, [illegible] are many [illegible] which [illegible] performed by [illegible] itself [illegible] because of [illegible] had the affected [illegible] vocal warning of [illegible] understood, [illegible] have been [illegible] case [illegible] section [illegible] ahead of [illegible] so as to [illegible] usual [illegible] circumstance; [illegible] consequential [illegible] not considered [illegible] with many.

[illegible] checker [illegible] maint- [illegible] runway [illegible] etc.) [illegible] cases [illegible] becomes less [illegible] runway [illegible] random [illegible] employs [illegible] tion [illegible] opportunity to observe [illegible] such [illegible] this squadron is deployed to a base [illegible] at the end of the runway can be [illegible]

[illegible] be [illegible] and through examination [illegible] work, meticulous [illegible] of every [illegible] conversions and [illegible]

(b) (6) [redacted]

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
CMC CODE [illegible]
[illegible]

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OPNAV REPORT 3750-1

PART 1 GENERAL

SECTION A. IDENTIFICATION

1. AIRCRAFT ACCIDENT BOARD APPOINTED BY	2. SERIAL NO.	3. DTG (LOCAL) OF MISHAP	4. MODEL AIRCRAFT	5. BUREAU NUMBER
VMFA-122	1-68A	0615ATT JULY	F4B	152301

6. TO: Commander, Naval Aviation Safety Center

7. VIA	8.	9. LOCATION OF MISHAP	10. DAMAGE
CO, VMFA-122		33-[illegible]N. 117-50W	ALPHA

7. VIA	8. TIME OF DAY	12. TIME IN FLIGHT	13. FLIGHT CODE
CO, [illegible]	DA	0 + 03	1A6
CO, [illegible] NAW			
CO, [illegible]			
COMNAV [illegible]			

14. BRIEF DESCRIPTION OF MISHAP	15. ELEVATION AT TIME OF MISHAP
in flight fire. Uncontrolled collision with water following	[illegible] S. L. TERRAIN Water

20. LIST MODEL, BUREAU NUMBER, CONDITION AND DAMAGE [illegible] (Complete OPNAV Form 3750-1 for each A/C)

SECTION B. CONTRIBUTING FACTORS

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

SECTION C. PERSONNEL DATA

1. NAME (Last, first, & middle initial)	2. RANK/RATE	3. FILE SERVICE NO.	4. [illegible]	5. BRANCH OF SERVICE	6. AGE	7. YEARS EXP. DNA	8. BILLET	9. POSITION	10. INJURY CODE
PILOT (at controls at time of mishap) LIEB, LANCE P.	CAPT	092318	7523	USMCR	26	2	PILOT	F.C.	ALPHA
CO-PILOT (identify & submit separate page 1)									

PILOT EXPERIENCE IN HOURS

ITEM			ITEM		
11. ALL MODELS		684	17. CV LANDINGS DAY/NIGHT	ALL	11 / 0
				IN MODEL	0 / 0
12. ALL MODELS IN LAST 12 MONTHS		182	18. FOLP LANDINGS LAST 6 MONTHS DAY/NIGHT	ALL	27 / 0
				IN MODEL	27 / 0
13. ALL MODELS IN LAST 3 MONTHS		55	19. INSTRUMENT HOURS LAST 3 MONTHS ACTUAL/SIMULATED	ALL	10 / 3
				IN MODEL	10 / 3
14. ALL SERIES THIS MODEL	A/C	290	20. NIGHT HOURS LAST 3 MONTHS	ALL	5 /
	OFT/CPT	20 /		IN MODEL	5 /
15. ALL SERIES THIS MODEL LAST 12 MONTHS	A/C	255	21. TOTAL HOURS IN JETS (if jet mishap) HELOS (if helo mishap)		649
	OFT/CPT	10 /			
16. ALL SERIES THIS MODEL LAST 3 MONTHS	A/C	55	22. LAST PRIOR FLIGHT ALL SERIES THIS MODEL	DATE	5 July 1967
	OFT/CPT	0 /		DURATION	2.0
23. DATE/GRADE LAST NATOPS STANDARDIZATION CHECK		8 May 1967	24. TYPE INSTRUMENT CARD		Std

OTHER PERS.

25. NAME (Last, first, & middle initial)	26. DNA	27. RANK/RATE	28. BRANCH OF SERVICE	29. FILE/SERVICE NO.	30. UNIT	31. INJURY	32. BILLET	33. POSITION
MINER, TIMOTHY G.		1/LT	USMCR	092139	VMFA-122	ALPHA	RIO	R C

OP-OSF

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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
17Sep65	493	1	7	266	NORIS	First Cal OD2	56	56

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)										
(2)										
(3)										
(4)										

C. COMPONENT HISTORY

	1. COMPONENT INVOLVED NOMENCLATURE	2. MANUFACTURERS PART NUMBER	3. TOTAL HRS. OF PART	4. NO. OF OVERHAULS	5. HOURS SINCE LAST OVERHAUL	6. OVERHAUL ACTIVITY	7. WAS DIR. REQUESTED?	8. SER. NO. FUR/AMPFUR
(1)	Internal Wing Tank Fuel Quantity Sensor	F6 225 A3	[illegible]	[illegible]	[illegible]	[illegible]	YES	0045
(2)								
(3)								
(4)								

D. INCIDENTS & GROUND ACCIDENTS

1. PARTS REPAIRED		3. DIRECT MANUFACTURE INVOLVED	PARTS REPLACED	
PART NUMBER	NOMENCLATURE		PART NUMBER	NOMENCLATURE

E. ENGINE FAILURES

JET ENGINE FLAMEOUT (Include intentional securing to prevent engine damage)

AT TIME OF FLAMEOUT	1. ALTITUDE	2. IAS	3. RPM	4. EGT	5. MANEUVER AT TIME OF FLAMEOUT	6. FUEL FLOW	7. ATTITUDE
8. G FORCES	9. RELIGHT ☐ ATTEMPTED ☒ ACCOMPLISHED	10. ALTITUDE	11. IAS	12. MAX EGT	13. FUEL CONTROL ☐ PRIMARY ☐ MANUAL		14. NO. RELIGHT ATTEMPTS
INTENTIONAL SECURE	15. ENGINE SYMPTOMS		16. CAUSE OF SYMPTOMS				

RECIPROCATING ENGINE FAILURE

17. ALTITUDE	18. IAS	19. ATTITUDE	20. RPM	21. MAP	22. TORQUE/BMEP	23. FUEL FLOW PRESSURE	24. OIL PRESSURE
INTENTIONAL SECURE	25. ENGINE SYMPTOMS		26. CAUSE OF SYMPTOMS				

F. OTHER REPORT

IDENTIFY OTHER REPORTS CONCERNING THIS MISHAP

1. AMPFUR SERIAL NUMBER Flight Safety UR Serial 0045
2. DIR MESSAGE REQUEST DATE-TIME-GROUP 172316 JULY and 211750JUL *Info NASC on DIR request. See para. 33 OPNAVINST P3750.6E*
3. OTHER
4.

OP-03F

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G. SHIPS DATA

1. EQUIPMENT INVOLVED: [ ] CATAPULT [ ] ARRESTING GEAR
2. PRESSURE SETTING
3. WIND OVER DECK
4. RELATIVE WIND
5. APPROACH/END SPEED
6. MARK NUMBER
7. [illegible] NUMBER
8. LOCATION OF [illegible]
9. LAUNCHING UNIT OR ARRESTER
10. CATAPULT/ARRESTING GEAR DEFECTS OR NONCONFORMANCE
11. This portion shall be completed whenever (1) an aircraft accident involves arresting gear, barrier and/or barricade equipment, or (2) an aircraft contact in other instances involving of arresting gear, barrier and/or barricade equipment. Incidents or routine damage to cables, sheaves and other expendable equipment need not be reported herein.

ENGAGED	17. [illegible] (FT)	18. [illegible] (FT)	CONTROL VALVE [illegible] CONSTANT PRESSURE DOME (P.S.I.)	RATIO	[illegible] (P.S.I.)	13. ACCUMULATOR FOR PRESSURE (P.S.I.)	14. 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 [illegible]
2. NO. DAYS OPERATING PERIOD
3. DAY HOURS/LANDINGS SINCE DEPLOYMENT
4. DAY HOURS/LANDINGS LAST 30 DAYS
5. INST. HOURS LOGGED SINCE DEPLOYMENT ACTUAL/SIMULATED
6. NIGHT HOURS/LANDINGS SINCE DEPLOYMENT
7. NIGHT HOURS/LANDINGS LAST 30 DAYS

I. WEATHER

1. CEILING: 70
2. VISIBILITY: 3
3. RELATIVE WIND DIRECTION AND VELOCITY: 90 3
4. [illegible] OUTS[illegible]
5. [illegible] COUNT
6. ALTIMETER SETTING: 29.94
7. OTHER WEATHER CONDITIONS (wind gusts, blowing snow, sea state, visibility [illegible], etc., as appropriate)

PART II. ADDITIONAL INFORMATION

PART	SECTION	ITEM	1. DESCRIPTION

2. COPY DISTRIBUTION

CC NAVAVNSAFECN DIRECT (AAR)
CO DIVREPS DIRECT (AAR)
COMNAVAIRPAC
CO MAG-33
CG 3d MAW
CG FMFPAC
NAVPLANTREPO ST LOUIS
CMC CODE AAP
DAFIP

COST DAMAGE TO:
3. GOVERNMENT PROPERTY
4. [illegible] PROPERTY: None
5. DATE SUBMITTED TO CO: 29 JULY 1967

PART IV SIGNATURES OF THE BOARD

1. (b) (6) [redacted] X. O. UNIT BILLET
2. (b) (6) [redacted] OPNS. O. UNIT BILLET
3. MEMBER (b) (6) [redacted] ASO UNIT BILLET
4. MEMBER (b) (6) [redacted]

* When preparing Incident and Ground Accident reports, items indicated by an asterisk in the upper right hand corner must be filled in. Other items considered appropriate should also be filled in.

V THE ACCIDENT

AT 1415T, 6 JULY 1967, FOUR AIRCREWMEN FROM VMFA-122 BEGAN BRIEFING FOR A SCHEDULED FLIGHT DUE FOR TAKE-OFF AT 1515. THE FLIGHT WAS SCHEDULED FOR A CLOSE AIR SUPPORT MISSION AT THE [illegible] IMPACT AREA, CAMP PENDLETON, CALIFORNIA. THE LINE UP WAS AS FOLLOWS:

	BUNO	TACTICAL CALL	MODEX
FLIGHT LEADER	152301	DC-25	DC-6
WINGMAN	151412	DC-27	DC-16

AIRCRAFT NUMBER 152301 WAS ALSO UP FOR AN OPERATIONAL TEST HOP IN ACCORDANCE WITH SQUADRON DOCTRINE BUT [illegible] REQUIRED BY BUEWPS INST. 4700.2, HAVING COMPLETED SHOWHORN MODIFICATIONS. THE AIRCRAFT HAD BEEN SCHEDULED FOR THE OPERATIONAL TEST FLIGHT ON AN [illegible] LAUNCH THAT DAY, BUT HAD NOT FLOWN TO DUE AN ICS/RADIO FAILURE IN THE RIO COCKPIT WHICH HAD BEEN CORRECTED. THE AIRCRAFT WAS ARMED WITH SIX (6) LAU-10'S.

THE WINGMAN WAS DELAYED BY ORDNANCE PROBLEMS, AND THE FLIGHT LEADER TAXIED OUT TO RUNWAY 34 FOR TAKE-OFF. AT 1643, DC-25 CALLED THE TOWER AT THE BEGINNING OF HIS TAKE-OFF ROLL. THE WINGMAN, DC-27 WAS CLEARED INTO POSITION ON RUNWAY 25. DC-25 MADE A LEFT TURN AFTER TAKE-OFF, CLIMBING TO AN ESTIMATED ALTITUDE OF 3,000 FEET MSL. IMMEDIATELY UPON CLEARING THE CONTROL ZONE AFTER TAKE-OFF, DC-25 CALLED THE SQUADRON SUPERVISOR OF FLYING TO REPORT AIRBORNE IN ACCORDANCE WITH SQUADRON SOP TO STATE THE ABILITY OF THE AIRCRAFT TO PERFORM THE SCHEDULED MISSION. NO ABNORMALITY WAS REPORTED BY THE AIRCREW AT THIS TIME.

AT 1646, EL TORO TOWER NOTED AN AIRCRAFT ON FIRE (DC-25) IN THE VICINITY, AND CALLED TN-17, AN RF4B IN THE TOUCH AND GO PATTERN, AND ASKED THE CREW IF THEY COULD SEE AN AIRCRAFT ON FIRE. TN-17, PILOTED BY (b) (6) [redacted] (ENCL (4)) REPLIED IN THE AFFIRMATIVE AND TOLD THE TOWER TO TRANSMIT ON GUARD. DC-25 CONTINUED OUTBOUND AT AN ESTIMATED ALTITUDE OF 3,000 FEET HEADING IN THE GENERAL DIRECTION OF ABALONE POINT. CALLS TO EJECT WERE MADE ON GUARD (ENCL (2)) WITH NO RESPONSE FROM DC-25.

THE FIRE APPEARED TO INCREASE IN INTENSITY RAPIDLY, AND SHORTLY AFTER PASSING OVER THE COAST HIGHWAY, THE AIRCRAFT NOSED DOWN, APPARENTLY OUT OF CONTROL, AND CRASHED INTO THE SEA OFF SHORE APPROXIMATELY 300 YARDS FROM ABALONE POINT. NO ATTEMPTED EJECTION WAS NOTED, NOR DID DC-25 MAKE ANY RADIO TRANSMISSION THAT WAS RECEIVED AFTER THE INITIAL CALL TO THE SQUADRON.

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PART VI - DAMAGE TO AIRCRAFT

THE AIRCRAFT IMPACTED THE WATER AT AN AIRSPEED OF ABOUT 200 KNTS IN A SIXTY (60) DEGREE NOSE DOWN AND NINTY (90) DEGREE LEFT BANK AS ESTIMATED FROM EYE WITNESS STATEMENTS, PHOTOGRAPHS AND ENGINE DAMAGE. THE AIRCRAFT HAD BEGUN TO SHED SMALL PIECES OF HONEYCOMB MATERIAL AND SKIN FROM THE FLAPS, AILERON SURFACES, AND STABILATOR AS IT PASSED OVER THE PACIFIC COAST HIGHWAY.

THE AIRCRAFT DISINTEGRATED UPON IMPACT. THE LARGEST PIECES OF WRECKAGE WERE THE ENGINES AND OUTBOARD WING SECTIONS. THE COCKPIT AREA AND INSTRUMENTS WERE ALMOST TOTALLY DESTROYED. THE MAJOR PORTION OF THE WRECKAGE WAS DISTRIBUTED AS SHOWN IN ENCL (14) OVER A DISTANCE OF FORTY (40) TO FIFTY (50) YARDS AS ESTIMATED BY THE DIVERS.

PART VII - INVESTIGATION AND ANALYSIS

DURING THE INVESTIGATION, THE ACCIDENT BOARD WAS ASSISTED BY CDR. (b) (6) [redacted], NAVAL AVIATION SAFETY CENTER, AND MESSRS R. L. JENSEN, R. F. DISINGER, AND N. CARTER OF THE MCDONNELL-DOUGLAS AIRCRAFT CORPORATION AS WELL AS MR. H. V. LACHAPELLE OF GENERAL ELECTRIC, AND B. DAW OF MARTIN-BAKER.

FLIGHT PATH SEARCH

A WALK-THROUGH INSPECTION WAS CONDUCTED ON FOOT ALONG THE ESTIMATED LINE OF FLIGHT (ENCL (15)) FROM ARMONE POINT TO ONE QUARTER MILE EAST OF THE COAST HIGHWAY. A NUMBER OF SMALL (FOUR SQUARE INCH OR LESS) PIECES OF HONEYCOMB AND FLAP SKIN MATERIAL WERE RECOVERED BETWEEN THE PACIFIC COAST HIGHWAY AND THE POINT OF IMPACT. THE SURVEY YIELDED VIRTUALLY NOTHING WEST OF THIS HIGHWAY. A SEARCH OF THE ENTIRE RECONSTRUCTED FLIGHT PATH WAS CONDUCTED BY HELICOPTER BY MAJ FOLEY WITH NEGATIVE RESULTS.

SALVAGE OPERATIONS

THE INITIAL SEARCH WAS CONDUCTED ON BOARD THE USS ACME UNDER THE DIRECTION OF THE 11th NAVAL DISTRICT SALVAGE OFFICER, LCDR (b) (6) ON 7 JULY 1967. THE SEARCH WAS PURSUED FROM 1500T TO 2100T UTILIZING SONAR AND DIVERS. THE SONAR FAILED TO YIELD ANY SIGNIFICANT CONTACTS IN THE SEARCH AREA, ALTHOUGH SEVERAL POSSIBLE CONTACTS WERE CHECKED BY DIVERS. A SECTOR OF SMALL PIECES OF HONEYCOMB AND SKIN WAS DISCOVERED IN A LINE APPROXIMATELY ONE HUNDRED (100) FEET LONG. THE SEARCH WAS TERMINATED UNTIL 10 JULY DUE TO A SHORTAGE OF DIVERS. ON 10 JULY THE SEARCH WAS CONTINUED BY THE USNS GEAR. THE MAIN WRECKAGE WAS DISCOVERED AT ABOUT 1600T ON 10 JULY. NO RECOVERY ATTEMPTS WERE INITIATED AT THIS TIME SINCE THE WRECKAGE WAS LOCATED IN ONE HUNDRED (100) FEET OF WATER, AND THE DIVERS HAD EXHAUSTED THEIR BOTTOM TIME FOR THE DAY. RECOVERY OPERATIONS BEGAN ON 11 JULY AND CONTINUED THROUGH 14 JULY. ALL WRECKAGE RECOVERED RECEIVED SEVERAL FRESH-WATER WASHDOWNS, AND ALL SIGNIFICANT PIECES WERE PHOTOGRAPHED IN BLACK AND WHITE AND COLOR. FURTHER SALVAGE DIVES WERE MADE ON 17 AND 18 JULY TO RAKE THE BOTTOM. WRECKAGE RECOVERY IS ESTIMATED AT NINETY (90) PERCENT.

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RECONSTRUCTION

AFTER RECOVERY THE WRECKAGE WAS LAID OUT WITH THE MAJOR SECTIONS PLACED IN THEIR PROPER POSITIONS. INSPECTION REVEALED THAT ALMOST ALL OF THE OUTER SURFACE AFT OF THE INTAKES HAD BEEN AFFECTED BY THE FIRE. THE PORTIONS OF THE AIRCRAFT THAT SHOWED INTENSE BURNING WERE THE AFT ENGINE DOORS, TRAILING EDGE FLAPS, AND STABILATOR HONEYCOMB SECTIONS.

THE ENTIRE DOOR 22 AREA (ENCL (18)) WAS RECONSTRUCTED ON A THREE DIMENSIONAL FRAMEWORK SINCE IT SHOWED EVIDENCE OF EXTENSIVE FIRE WITH A HIGH RATIO OF HYDROCARBON FUEL TO AIR. HEAT PENETRATION EXTENDED INTO THE LIQUID OXYGEN COMPARTMENT, MISSILE CAVITIES, AND THE SCREENED LOUVERS ABOVE AND BELOW THE INTAKE DUCTS. DESPITE THE FACT THAT THE HEAT PENETRATION EXTENDED INTO THE OXYGEN COMPARTMENT, NEITHER THE LOX BOTTLE NOR THE CANOPY EMERGENCY AIR BOTTLES SHOWED ANY SIGN OF INTENSE HEAT, ALTHOUGH ALL THREE WERE SLIGHTLY SOOT BLACKENED. THE LEFT ENGINE SHOWED INDICATIONS OF FIRE INGESTION.

IN THE DOOR 22 AREA, THE FLAP EMERGENCY EXTENSION BOTTLE AND THE AIR COMPRESSOR HAD BEEN SEVERELY DAMAGED BY THE FIRE. A DIP ON THE AIR COMPRESSOR WAS PERFORMED AT NORIS AND YIELDED NO INDICATION OF A COMPRESSOR FAILURE PRIOR TO IMPACT. THE WING TANK VENT LINES WERE CHARRED, GIVING EVIDENCE OF FIRE BETWEEN NUMBER ONE AND NUMBER TWO FUEL CELLS, BUT NONE OF THE FUEL BOOST PUMPS SHOWED FIRE DAMAGE.

SUFFICIENT HEAT HAD BEEN DIRECTED AT THE SPAR AT FS 249 (ENCL (19)) TO MELT THE ELECTRICAL FITTINGS. THE LEFT INBOARD INTERNAL WING TANK FUEL QUANTITY SENSOR WAS INSPECTED AT NORIS, AND LABORATORY INDICATIONS WERE THAT THE FITTINGS HAD MELTED PRIOR TO IMPACT AS DETERMINED BY THE ABSENCE OF ANY SOLDER FILLET. INFORMATION RECEIVED FROM THE MANUFACTURER STATED THAT 360°F IS REQUIRED TO MELT THE SOLDER.

TESTS CONDUCTED AT NORIS ON THE SPAR BY MEANS OF A MAGNET TEST CONDUCTIVITY METER SHOWED THREE DEFINITE AREAS OF VARYING DEGREES OF HEATING (ENCL (20)).

1) AREA AROUND FUEL PROBE - SHOWS HEATING IN THE TEMPERATURE RANGE OF 400-450°F FOR AN UNDETERMINED TIME.

2) AREA TESTED BY APPLYING HEAT FROM A PROPANE TORCH FOR ONE MINUTE SHOWS VERY LITTLE DETERIORATION.

3) CLEAR AREA AWAY FROM PROBE SHOWED NO SIGN OF HEAT OR AGE DETERIORATION.

THE HINGE LINES OF DOORS 74 L AND R AND 75 L AND R SHOW SMOKE AND SOOT. FIRE HAD ENTERED BOTH AUXILIARY AIR DOORS, AND ON THE LEFT SIDE ALONG THE OUTBOARD SIDE OF THE ENGINE BAY, THE PC-1 HYDRAULIC LINE CONNECTIONS WERE BADLY SCORCHED.

SINCE THE FLIGHT CONTROLS WERE NOT SUSPECT, THEY WERE EXAMINED ONLY TO THE EXTENT OF DETERMINING THE STABILATOR TRIM SETTING WHICH WAS 1 1/3 UNITS NOSE DOWN CORRESPONDING TO AN AIRSPEED OF ABOUT 200 KCAS. BOTH

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PC-1 AND PC-2 SYSTEM RESERVOIRS WERE RECOVERED AND SHOWED EVIDENCE OF HAVING BEEN FULL AT IMPACT.

THE ENTIRE BLEED AIR SYSTEM WAS RECOVERED AND REASSEMBLED FROM THE "Y" FITTING FORWARD TO THE LEADING EDGE BLEED LINES. ALTHOUGH SEVERELY DAMAGED, THE SYSTEM SHOWED NO EVIDENCE OF FRACTURE OR FATIGUE FAILURE EXCEPT FOR THE FITTING 290621-1 FORWARD FLANGE LOCATED JUST FORWARD OF FS 249 IN THE VICINITY OF THE INTERNAL WING TANK FUEL QUANTITY SENSOR. THE FORWARD FLANGE SHOWS DISCOLORATION THAT MAY HAVE BEEN CAUSED BY LEAKAGE AND HAS BEEN FORWARDED TO NORIS FOR FURTHER STUDY.

THE UTILITY HYDRAULIC RESERVOIR WAS CRUSHED AND BURNED. BY EXAMINING IMPACT MARKS ON THE PISTON, IT WAS DETERMINED THAT THE RESERVOIR WAS EMPTY AT IMPACT, INDICATING A UTILITY HYDRAULIC FAILURE. THE REST OF THE UTILITY SYSTEM RECOVERED WAS EXAMINED FOR SIGNS OF BURNTHROUGH OR RUPTURE PRIOR TO IMPACT, BUT NONE WERE FOUND.

THE ENTIRE ESCAPE SYSTEM WAS EXAMINED FOR EVIDENCE OF AN ATTEMPTED EJECTION. PORTIONS OF BOTH SEATS WERE RECOVERED AND EXAMINED BY MR. B. LAW OF THE MARTIN-BAKER AIRCRAFT CORPORATION. ONE FACE CURTAIN WAS IN PLACE AT IMPACT AS DETERMINED BY IMPACT MARKS; HOWEVER, IT COULD NOT BE ESTABLISHED ON WHICH SEAT IT HAD BEEN INSTALLED. RECOVERY OF THE SEATS WAS NOT SUFFICIENTLY COMPLETE TO MAKE ANY DETERMINATION AS TO WHETHER OR NOT THE SECONDARY HANDLES HAD BEEN ACTUATED. THE REAR COCKPIT SEAR MECHANISM WAS RECOVERED WITH AN INTACT CHARGE, AND THERE WAS NO EVIDENCE OF A FAILURE TO REMOVE THE SAFETY PIN. FROM ALL APPEARANCES, BOTH SEATS WERE IN PROPER WORKING CONDITION, AND THERE WAS NO EVIDENCE OF ANY COMPONENT FAILURE IN THE SEAT MECHANISMS.

A DETAILED EXAMINATION WAS MADE OF THE CANOPY SYSTEMS. BOTH CANOPIES APPEAR TO HAVE BEEN LOCKED AT IMPACT. A CHEMICAL ANALYSIS IS BEING CONDUCTED ON THE LINES AND VALVES FROM THE CANOPY SYSTEM IN AN ATTEMPT TO DETERMINE WHETHER OR NOT AN ATTEMPT WAS MADE TO EJECT OR JETTISON THE CANOPIES BY MEANS OF THE EMERGENCY SYSTEM PRIOR TO IMPACT BY DETERMINING THE EXTENT OF GAS TRAVEL. THIS STUDY IS BEING CONDUCTED BY THE NAVAL WEAPONS LABORATORY, DAHLGREN, VA. PRELIMINARY RESULTS RECEIVED FROM LCDR (b) (6) FROM NWL ON THE CANOPY SYSTEM BY TELEPHONE INDICATE THAT THE REAR AND POSSIBLY THE FRONT ESCAPE SYSTEMS HAD BEEN ACTUATED PRIOR TO IMPACT.

RADIO EQUIPMENT

AN ATTEMPT WAS MADE TO DETERMINE IF THE AIRCREW WERE MONITORING GUARD CHANNEL AT THE TIME OF THE ACCIDENT, BUT WITHOUT SUCCESS. THE UHF CONTROL BOXES ARE IDENTICAL IN BOTH COCKPITS. ONE BOX WAS ALMOST TOTALLY DESTROYED WHILE THE OTHER BOX WAS FAIRLY INTACT. THE FREQUENCY SETTING ON THE INTACT CONTROL BOX DID NOT CORRESPOND TO EITHER THE SQUADRON COMMON, CONTROLLING AGENCY, OR ANY OTHER COMMONLY USED SQUADRON FREQUENCY. SINCE UNDER NORMAL OPERATING CONDITIONS THE RIO RETAINS COMMAND OF THE UHF RADIO, IT IS PROBABLE THAT THE INTACT CONTROL BOX WAS FROM THE FRONT COCKPIT. FURTHER WEIGHT IS GIVEN TO THIS ASSUMPTION BY THE EXTENT OF THE DESTRUCTION SUSTAINED BY THE LEFT SIDE OF THE RIO COCKPIT WHERE THE UHF CONTROL BOX IS LOCATED, INDICATING THAT THE BADLY DAMAGED BOX WAS THE RIO'S CONTROL AND THAT CONTROL OF THE UHF WAS IN THE REAR COCKPIT.

THEREFORE, A DETERMINATION COULD NOT BE MADE AS TO WHETHER OR NOT THE GUARD CHANNEL RECEIVER WAS ON.

A STATEMENT FROM ANOTHER AIRCREWMAN AIRBORNE AT THE SAME TIME (ENCL (19)) INDICATED THAT THERE WAS A GREAT DEAL OF INTERFERENCE AND BACKGROUND NOISE ON GUARD, POSSIBLY CAUSED BY A KEYED TRANSMITTER, AND IT IS CONCEIVABLE THAT THE AIRCREW HAD SECURED THE GUARD RECEIVER.

A STUDY OF THE EL TORO TOWER TAPES (ENCLS (21) AND (22)) MONITORING GUARD INDICATES THAT THE TRANSMISSIONS WERE VAGUE AND GARBLED. EVEN HAD THE AIRCREW BEEN MONITORING GUARD, IT IS DOUBTFUL IF ANY INFORMATION COULD HAVE BEEN RECEIVED AND ASSIMILATED BY THE AIRCREW PRIOR TO THEIR OWN DISCOVERY OF THE FIRE. THE CALL FOR THE NUMBER TWO F4 DEPARTING EL TORO WOULD NOT HAVE BEEN INSTANTLY RECOGNIZED AS A CALL TO THE AIRCREW OF BUNO 152301 SINCE THEY WERE THE NUMBER ONE AIRCRAFT IN THIS FLIGHT.

ESCAPE SYSTEM

ONE CRITICAL PORTION OF THE INVESTIGATION WAS CONCERNED WITH THE FAILURE OF EITHER CREW MEMBER TO UTILIZE THE ESCAPE SYSTEM. A STUDY OF THE STILL PHOTOGRAPHS SHOWS A FIRE OF VERY LARGE MAGNITUDE. SINCE THE TOP SURFACES OF THE WING WERE BURNED, THE AIRCREW MUST HAVE BEEN AWARE OF THE FIRE PRIOR TO IMPACT. SOOT DAMAGE AND THE FIRE INGESTION BY THE LEFT ENGINE INDICATE THAT IN ALL PROBABILITY THE FIRE COULD NOT HAVE GONE UNNOTICED BY THE AIRCREW.

THE POSSIBILITY OF AIRCREW INCAPACITATION WAS INVESTIGATED FROM SEVERAL POINTS OF VIEW. A GREAT DEAL OF MATERIAL SUCH AS CHARTS, KNEE BOARD CARDS, FLIGHT CLOTHING, ETC. WAS EXAMINED CLOSELY FOR ANY INDICATION OF FIRE IN THE COCKPIT AREA. THERE WAS NO EVIDENCE OF ANY COCKPIT FIRE, OR EVEN EXESSIVE HEAT, SINCE A NUMBER OF PLASTIC KNEE BOARD CHECK LIST PAGES WERE UNDAMAGED. PORTIONS OF THE OXYGEN SYSTEM WERE RECOVERED TO INCLUDE THE FOLLOWING PARTS:

(1) LOX BOTTLE
(2) BOTH UPPER BLOCK ASSEMBLIES
(3) BOTH AIRCREW OXYGEN HOSES
(4) A NUMBER OF PIECES OF THE OXYGEN LINES
(5) BOTH MINI-REGULATORS.

THE LOX BOTTLE SHOWED SOME SOOT PRODUCED BY A LOW ORDER FIRE; HOWEVER, ALTHOUGH THE BOTTLE HAD RUPTURED DURING IMPACT, THERE WAS NO TRACE OF A FIRE OR EXPLOSION OF THE INTENSITY THAT WOULD HAVE BEEN PRODUCED BY AN OXYGEN FED FIRE. NONE OF THE OXYGEN EQUIPMENT SHOWED ANY INDICATION OF FIRE OR SMOKE IN THE SYSTEM. THIS STUDY, IN CONJUNCTION WITH THE MOR, INDICATES THAT THE AIRCREWMEN WERE PROBABLY NOT INCAPACITATED BY FUMES OR FIRE IN THE COCKPIT. THE TOXICOLOGICAL TESTS CONDUCTED UNDER THE DIRECTION OF THE FLIGHT SURGON (MOR) WERE NEGATIVE.

THE F4B AT THE ESTIMATED GROSS WEIGHT OF 48,500 LBS AND AN AIRSPEED OF 350 KCAS HAS LESS THAN FIVE (5) G'S AVAILABLE INSTANTANEOUSLY. DUE TO THE AERODYNAMIC LIMITATIONS OF THE AIRCRAFT, THE AIRCRAFT COULD NOT

HAVE ENTERED A FLIGHT REGIME THAT WOULD HAVE PRODUCED FORCES HIGH ENOUGH TO INCAPACITATE THE CREW UNLESS IT WAS TUMBLING, AND THIS WAS NOT THE CASE AS ESTABLISHED BY THE WITNESSES AND THE PICTURES.

IN AN ACCIDENT OF THIS NATURE, A PSYCHOLOGICAL FACTOR MUST BE CONSIDERED. IT IS CONCEIVABLE THAT THERE MIGHT BE A HESITANCY ON THE PART OF THE AIRCREWMEN TO UTILIZE THE ESCAPE SYSTEM. IN THIS ACCIDENT, A DELAY IN EJECTION WOULD HAVE BEEN FATAL. THE PILOT HAD EJECTED FROM AN F4 IN NOVEMBER, 1963 FOLLOWING A MIDAIR COLLISION WITHOUT INJURY. SINCE THEN, HE HAD REPEATEDLY EXPRESSED CONFIDENCE IN THE SYSTEM. HOWEVER, HE WAS A CALM DELIBERATE PILOT WHO TENDED TO MAKE A COMPLETE ANALYSIS OF ANY SITUATION PRIOR TO TAKING ACTION. IT IS POSSIBLE THAT HE MIGHT HAVE DELAYED EJECTION FOR SEVERAL REASONS: HE MAY HAVE WANTED TO STAY WITH THE AIRCRAFT TO AVOID THE HOUSES IN FRONT OF HIM, OR HE MAY HAVE BEEN TOO DELIBERATE IN ANALYZING THE SITUATION; OR HE MAY HAVE DELAYED EJECTION OR POSSIBLY EVEN ATTEMPTED TO PITCH THE AIRCRAFT DUE TO RIO INABILITY OR FAILURE TO EJECT. HOWEVER, ONCE HE LOST CONTROL OF THE AIRCRAFT, THERE WOULD BE NO REASON FOR HIM TO STAY WITH THE AIRPLANE.

THE RIO WAS RELATIVELY INEXPERIENCED BUT WAS CONSIDERED TO BE HIGHLY COMPETENT. HE HAD ON NUMEROUS OCCASIONS MADE STATEMENTS TO THE EFFECT THAT HE WOULD NOT HESITATE TO EJECT.

MOVIES TAKEN OF THE FLIGHT (EXHIBIT [illegible]) INDICATE THAT BASED ON A SIXTEEN FRAME PER SECOND CAMERA SPEED, FROM THE TIME THE AIRCRAFT APPEARED TO BE IN CONTROLLED FLIGHT TO THE TIME OF IMPACT COVERED A PERIOD OF SIX SECONDS. MORE THAN ADEQUATE FOR A NORMAL EJECTION. THE POSSIBILITY DOES REMAIN THAT THE CANOPY OR CANOPIES MIGHT HAVE SEPARATED FROM THE AIRCRAFT.

AN ESTIMATED 1500 PERSONS WITNESSED THE ACCIDENT. TEN KNOWN MOVIES WERE TAKEN ALONG WITH FIVE (5) KNOWN STILL PHOTOGRAPHS. MOST OF THE WITNESSES WERE UNDER THE IMPRESSION THAT THE AIRCRAFT SEEMED TO EXPLODE, OR EXPERIENCE A RAPID INCREASE IN FIRE INTENSITY. THIS IS BELIEVED TO HAVE BEEN CAUSED BY BURN-THROUGH AND CATASTROPHIC FAILURE OF THE NUMBER ONE FUEL CELL. THE ENGINES WOULD HAVE FLAMED OUT AT ABOUT THE SAME TIME. THE AIRCRAFT AS LOADED FOR TAKE-OFF HAD A MAXIMUM PERMISSIBLE C. G. LOADING OF 34.1 PERCENT MAC. THE SLOSHING OF SOME 2,000 LBS OF FUEL FROM THE NUMBER ONE FUEL CELL WHEN IT RUPTURED WOULD HAVE MOVED THE C.G. TO ABOUT 36.1 PERCENT MAC, AFT OF PERMISSIBLE LIMITS. SINCE THE AIRCRAFT AT IMPACT WAS TRIMMED FOR AN AIRSPEED OF ABOUT 200 KCAS, FAR BELOW ANY NORMAL DEPARTURE AIRSPEED, IT IS PROBABLE THAT THE PILOT HAD THE AIRCRAFT UNDER CONTROL UNTIL SOME SIX (6) SECONDS BEFORE IMPACT. IT IS ALSO POSSIBLE THAT THE FIRE MAY NOT HAVE BEEN DISCOVERED BY THE AIRCREW UNTIL THE AIRCRAFT ENTERED UNCONTROLLABLE FLIGHT.

ENGINES

THE ENGINES WERE EXAMINED BY MR. L. V. LACHAPELLE OF GENERAL ELECTRIC. NO EVIDENCE OF MALFUNCTION WAS NOTED. THE ENGINES FLAMED OUT PRIOR TO IMPACT DUE TO FUEL STARVATION ALTHOUGH BOTH ENGINES HAD POWER SETTINGS OF MILITARY OR HIGHER.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

FUEL SYSTEM

THE MOST PROBABLE ORIGIN OF FIRE IN THE FUEL SYSTEM WAS JUST FORWARD OF FS 949 (ENCLOSURE (16) THROUGH (18)) LEAKAGE OF BLEED AIR AT THE JUNCTION OF JOINTS 250262-1 AND 11309-15 IN THE LEFT AFT PORTION OF THE BAY DUE TO A LOOSE, FAILED, OR MISALIGNED O-RING WOULD HAVE PERMITTED HOT AIR IN THE TEMPERATURE RANGE OF 600-700°F TO IMPINGE ON THE FUEL QUANTITY TANK UNIT, P/N DS 22543, MFG CODE [illegible] (MCDONNELL STD 32-58025-17). SOLDER USED TO JOIN THE PLUG ASSEMBLY [illegible] TO THE FLANGE HAS A MELTING POINT OF 360°F ACCORDING TO THE [illegible]. PRESSURE (15 PSIA) IN THE TANK AS A RESULT OF FUEL TRANSFER WOULD HAVE TENDED TO FORCE THE PLUG OUT ONCE THE SOLDERED JOINT WAS LOOSENED BY HEAT. ONCE THE FUEL LEAKAGE WAS ESTABLISHED, IGNITION COULD HAVE RESULTED FROM THE SAME HIGH TEMPERATURE BLEED AIR THAT INDUCED THE LEAKAGE. AN UNKNOWN AMOUNT OF AIR-FLOW EXISTS INSIDE THIS AREA TO PREVENT; HOWEVER, IT IS BELIEVED THAT IT IS SUFFICIENT TO VAPORIZE THE FUEL.

THE [illegible] LABORATORY AT THE NAVAL AIRWORK FACILITY, NORTH ISLAND WAS QUERIED ABOUT THE AUTO-IGNITION TEMPERATURE OF [illegible]. THEY REPORTED THAT JP-5 HAS A FLASH POINT OF 140°F, AND AN AUTO-IGNITION TEMPERATURE IN THE RANGE OF 450-500°F. SINCE THE BLEED AIR HAS A SEA LEVEL STATIC TEMPERATURE OF 737°F, AN ADEQUATE IGNITION SOURCE WOULD EXIST IN THE FORM OF BLEED AIR LEAKAGE. THIS WOULD ALSO APPLY TO MIL-H 5606B HYDRAULIC FLUID WHICH HAS AN AUTO-IGNITION TEMPERATURE OF 648°F.

THE POSSIBILITY OF A FIRE INITIATED BY THE IMPINGEMENT OF HYDRAULIC FLUID ON A HIGH TEMPERATURE SOURCE PRODUCED BY BLEED AIR LEAKAGE CANNOT BE DISCARDED. IN EVIDENCE OTHER THAN THE UTILITY SYSTEM FAILURE OF UNKNOWN ORIGIN EXISTS TO SUBSTANTIATE THIS HYPOTHESIS PENDING FURTHER LABORATORY ANALYSIS.

THE SALVAGE OPERATIONS UNDER THE DIRECTION OF LCDR (b) ON BOARD THE USS ACME AND THE USNS GEAR WAS AN OUTSTANDING EFFORT. THE DIVING CREWS WERE THOROUGH AND CO-OPERATIVE THROUGHOUT THE ENTIRE SALVAGE PROCESS. THE USNS GEAR IS WELL EQUIPPED FOR AN OPERATION OF THIS NATURE.

NATOPS

NATOPS WAS NOT A FACTOR IN THIS ACCIDENT, OTHER THAN THE FACT THAT IT SHOULD BE EMPHASIZED THAT THE SEQUENCE OF STEPS TO FOLLOW IN REMOVING THE CANOPY IF IT FAILS TO JETTISON IS IMPORTANT. SHOULD THE CANOPY PNEUMATIC SYSTEM BE PRESSURIZED, AND THE CANOPY ACTUATOR INTACT, THE CANOPY CANNOT BE RELEASED BY USING THE MANUAL RELEASE. WHILE MOST AIRCREWMEN INTERVIEWED FOLLOWING THIS ACCIDENT WERE VAGUELY AWARE OF THIS FACT DUE TO THE PROCEDURES TO BE FOLLOWED IN THE EVENT OF A CANOPY UNLOCKED INDICATION, THEY DID NOT SEEM AWARE OF ITS IMPORTANCE IN THE EJECTION SEQUENCE TO FOLLOW SHOULD THE CANOPY FAIL TO JETTISON. A RECOMMENDED CHANGE TO NATOPS HAS NOT BEEN SUBMITTED.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

PART VIII - CONCLUSIONS

THE MEMBERS OF THE BOARD HAVE REACHED THE FOLLOWING CONCLUSIONS:

(1) THAT THE ACCIDENT RESULTED FROM LOSS OF CONTROL AND POWER FOLLOWING AN IN-FLIGHT FIRE.

(2) THAT THE AIRCREW WAS PROBABLY AWARE OF THE FIRE PRIOR TO IMPACT.

(3) THAT THE REASON OR REASONS FOR THE FAILURE OF EITHER AIRCREWMAN TO EJECT IS UNKNOWN. THE MOST PROBABLE CAUSE IS FAILURE OF THE AIRCREW TO INITIATE THE EJECTION SEQUENCE IN SUFFICIENT TIME TO ESCAPE.

(4) THE MOST PROBABLE CAUSE OF THE FIRE WAS THE FAILURE OF THE INTERNAL WING TANK QUANTITY SENSOR CONNECTIONS INDUCED BY BLEED AIR IMPINGEMENT FROM A LEAK IN THE JOINT FORWARD OF F 249.

PART IX - RECOMMENDATIONS

(1) THAT ALL F4 AIRCRAFT MANUFACTURED PRIOR TO BUNO 152900 BE REFITTED WITH THE NEW TYPE NON-SOLDERED FUEL QUANTITY SENSOR CONNECTION, AND THAT AN INSPECTION OF THIS AREA BE PERFORMED ON THOSE AIRCRAFT WITH THE OLD TYPE FITTINGS.

(2) THAT HYDROSTATIC TESTING OF THE FUEL SYSTEM BE PERFORMED AFTER OVERHAUL AND ON EACH CALENDAR CHECK.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES.

ENCLOSURE REFERENCE SHEET TO VMFA-122 AIRCRAFT ACCIDENT 1-68A, F-4B BUNO 152301

(1) MOR

(2) STATEMENT OF AIRCRAFT MAINTENANCE OFFICER

(3) STATEMENT OF MAJ (b) (6) [redacted]

(4) STATEMENT OF CAPT. (b) (6) [redacted]

(5) STATEMENT OF 1/LT (b) (6) [redacted]

(6) STATEMENT OF 1/LT (b) (6) [redacted]

(7) STATEMENT OF SSGT (b) (6) [redacted]

(8) STATEMENT OF SGT (b) (6) [redacted]

(9) STATEMENT OF CPL (b) (6) [redacted]

(10) STATEMENT OF OFFICER (b) (6) [redacted]

(11) STATEMENT OF SGT (b) (6) [redacted]

(12) 8MM MOVIES OF CRASH (ORIGINAL ONLY) (Tech Lib.)

(13) CRASH SEQUENCE PHOTOGRAPHS

(14) WRECKAGE DISTRIBUTION DIAGRAM

(15) FLIGHT PATH DIAGRAM

(16) DOOR 22 AREA RECONSTRUCTION

(17) BLEED AIR DUCTING SHOWING SUSPECTED POINT OF LEAKAGE

(18) BLEED AIR DUCTING JOINT BETWEEN [illegible]-15 AND 2502621-1

(19) INTERNAL WING FUEL QUANTITY SENSOR SHOWING SUSPECTED AREA OF FAILURE

(20) VIEW OF WING SPAR AT FS 249 SHOWING TEST AREAS

(21) TRANSCRIPT OF EL TORO TOWER ON TOWER PRIMARY

(22) TRANSCRIPT OF EL TORO TOWER ON GUARD

(23) RESCUE REPORT

(24) STATEMENT OF THE AIRCREW SURVIVAL EQUIPMENT OFFICER

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

MEDICAL OFFICER'S REPORT OF A/C A[redacted]DENT, INCIDENT, OR GROUND ACCIDENT - PA[redacted]

OPNAV FORM 3750 B (REV. 3-63) SPECIAL HANDLING REQUIRED See OPNAVINST 3750.6E for instructions. OPNAV REPORT 3750-7

SECTION A - IDENTIFICATION

1. FROM (Name and mailing address of activity): VMFA-122, MAG-33, 3rd MAW, MCAS El Toro (Santa Ana) California

2. MOR NUMBER: 1-68

3. LEAVE BLANK

4. TYPE OF MISHAP: [x] ACCIDENT [ ] GROUND ACCIDENT [ ] INCIDENT

5. TIME & ZONE: 1548T

6. DATE: 6 July 67

7. GEOGRAPHICAL LOCATION: 33°-34'N, 117°-50'W

8. MODEL A/C: F-4B

9. BUNO: 152301

10. NO. OF OCCUPANTS: Two

11. DAMAGE CODE: Alpha

12. UNIT OPERATING A/C: VMFA-122

13. INDIVIDUALS INVOLVED (USE ADDITIONAL SHEETS IF REQUIRED) NAME (Last, first and middle initial)	14. UNIT TO WHICH ATTACHED	15. RANK RATE	16. FILE SERV. NO. DESIGNATOR	17. DUTY ASSIGNMENT ABOARD A/C	17. DUTY ASSIGNMENT AT MISHAP	18. DATE OF LAST PHYSICAL	19. PHYSICALLY QUALIFIED FOR FLIGHT	20. BRANCH OF SERVICE	21. INJURY CODE	22. DISPOSITION
A LIEB, Lance P.	VMFA-122	Capt	092318	Pilot		8/3/66	Yes	USMC	Alpha	A
B MINER, Timothy G.	VMFA-122	1/Lt	092139	RIO		1/31/67	Yes	USMC	Alpha	A
C										
D										

23. CLARIFICATION OF ITEMS 13-22 WHEN NECESSARY

24. MODEL OTHER A/C IF INVOLVED	25. BUNO	26. NO. OF OCCUPANTS	27. UNIT OPERATING A/C	28. DAMAGE CODE	29. MOR NO.
N/A	--	--	--	--	--

30. NARRATIVE ACCOUNT OF MISHAP (Use additional 8 x 10½ sheets if required)

On 6 July 1967 at 1415T, Captain Lance P. Lieb and 1/Lt Timothy G. Miner and another air crew briefed for a scheduled close air support mission on Zulu impact area at Camp Pendleton. Capt Lieb, as the flight leader of the two-plane section, was designated a Naval Aviator in June 1965. He had 684 hours total flight time with 290 hours in the F-4B. He joined VMFA-122 in July 1965. (b) (5) [redacted]

(b) (5) [redacted]

(b) (5) [redacted]. 1/Lt Miner, his RIO, was designated in August 1966, had 219 hours total flight time with 145 hours in the F-4B. He joined VMFA-122 in September 1966 and was (b) (5) [redacted]

(b) (5) [redacted]

Following a thorough NATOPS briefing by Capt Lieb the aircrews left the Ready Room and accepted and thoroughly pre-flighted their aircraft. The wingman experienced a short delay because of an ordnance problem, so Capt Lieb, flying DC-6 (MODEX) BUNO 152301, commenced his normal take off roll about 1643T. Very shortly after take off his plane was noted by the El Toro Control Tower to be on fire and other military aircraft in the area were asked to investigate. Calls from two other aircraft as well as from the tower to the burning F4-B for the crew to eject were made on Guard frequency. There was no response and no radio transmissions were received. The plane appeared to continue on a straight and level course toward the beach as the fire rapidly expanded to finally engulf the plane in a large fireball. It was then observed to enter uncontrolled flight,

31. PRIMARY CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

Uncontrolled collision with water following in-flight fire

32. CONTRIBUTING CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

33. POSSIBLE CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

34. HAVE ALL FINDINGS, CONCLUSIONS & RECOMMENDATIONS BEEN MADE AVAILABLE TO THE A/C ACCIDENT BOARD? IF NO, EXPLAIN. YES [x] NO [ ]

35. REPORT PREPARATION CHECK LIST

[x] ALL PARTS OF FORM COMPLETED [redacted] DRAWINGS SKETCHES PHOTOS [ ] SURVIVORS NARRATIVES [ ] WITNESS STATEMENTS [x] CONCLUSIONS & RECOMMENDATIONS [x] REQUIRED COPIES FURNISHED

(b) (6) [redacted]

DATE: 31 July '67

☆ U. S. GOVERNMENT PRINTING OFFICE: 1963—695-438

nose over, and crash into the sea. Impact area was about 200-300 yards off Abalone Point on a 190 degree radial, 15 NM from El Toro TACAN.

In summary, an F-4B (b) (5) [redacted] took off on a routine training hop and in a matter of about three minutes was engulfed in flames from an inflight fire, entered uncontrolled flight and crashed into the sea despite calls from the tower and from other aircraft for the crew to eject.

The question of why neither crew member ejected prior to impact remains a mystery both to the Flight Surgeon and aircraft accident board members. Considerable speculation and discussion has been prompted by this unresolved riddle. (b) (5) [redacted]

There was no physical evidence of fire or smoke in the cockpit and both gross and toxicological examination of the human remains bears no evidence of fire, smoke or other toxic fume inhalation. (b) (5) [redacted]

In essence, the answer to this very important question remains unknown and perhaps will never be known for certain.

25 July 1967

ADDENDUM TO NARRATIVE SUMMARY:

(b) (5), (b) (6)

[redacted]

(b) (6)

(b) (6)

(b) (6)

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(b) (6)

STATEMENT OF VMFA-122 AIRCRAFT MAINTENANCE OFFICER CONCERNING VMFA-122 SER 1-66A, F4B BUNO 152301 OCCURING 6 JULY 1967

AIRFRAME DATA

DATE OF NAVY ACCEPTANCE 17 SEPT 1966
DATE OF ACCEPTANCE BY VMFA-122 21 DEC 1966
F4B BUNO 152301 WAS RECEIVED BY VMFA-122 FROM NASC FS NORTH ISLAND, CALIFORNIA ON 21 DECEMBER 1966.

F4B BUNO 152301 WAS LAST INDUCTED INTO PAR ON 17 JUNE 1966 AND WAS COMPLETED BY O&R, NAS NORTH ISLAND, CALIFORNIA ON 12 DECEMBER 1966

THE LAST ORGANIZATIONAL LEVEL INSPECTION PERFORMED ON THE AIRCRAFT WAS AN ODD CALENDAR INSPECTION FROM THE PERIOD 6 MAY 1967 TO 11 MAY 1967. THE CUMULATIVE AIRFRAME TIMES ARE AS FOLLOWS: TOTAL - 492.1; SINCE PAR - 266.2; SINCE CHECK - 56.[illegible]

ENGINE DATA

1. ENGINE NUMBER 421289 WAS INSTALLED IN THE PORT SIDE OF F4B BUNO 152301 ON 8 MAY 1967 BY VMFA-122 DURING AN ODD CALENDAR AIRFRAME INSPECTION.. PERTINENT DATA TO THE ENGINE IS AS FOLLOWS:

DATE OF NAVY ACCEPTANCE 5 JULY 1963
DATE OF ACCEPTANCE BY VMFA-122 FROM H&MS-33, MAG-33, MCAS EL TORO - 8 MAY 1967
DATE OF LAST OVERHAUL - 15 NOVEMBER 1966 - 10 JANUARY 1967 BY O&R NAS NORTH ISLAND.
ENGINE TIME AS FOLLOWS:
TOTAL - 434.4
SINCE OVERHAUL - 58.7

2. ENGINE NUMBER 421671 WAS INSTALLED IN THE STARBOARD SIDE OF F4B BUNO 152301 ON 8 MAY 1967 BY VMFA-122 DURING ODD CALENDAR AIRFRAME INSPECTION. PERTINENT DATA TO THE ENGINE IS AS FOLLOWS:

DATA OF NAVY ACCEPTANCE - 12 NOVEMBER 1964
DATA OF ACCEPTANCE BY VMFA-122 FROM H&MS-33, MAG-33, MCAS EL TORO- 8 MAY 1967.
DATE OF LAST OVERHAUL - NONE PERFORMED
CALENDAR INSPECTION DATES ARE AS FOLLOWS:
MAJOR INSPECTION - 8 JUNE-22 JUNE 1966
CALENDAR ODD - 6 APRIL-28 APRIL 1967
ENGINE TIME AS FOLLOWS:
TOTAL - 401.9
SINCE CHECK - 58.7

DISCUSSION

BUNO 152301 (MODEX DC-6) HAD JUST RECENTLY COMPLETED A FIELD MODIFICATION FOR SHOEHORN. THE FLIGHT ON WHICH THE ACCIDENT OCCURED WAS THE FIRST ONE OUT OF THE MODIFICATION PROGRAM AND WAS CLASSIFIED AS AN OPERATIONAL TEST FLIGHT.

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(b) (5)

[redacted]

(b) (6)

[redacted]

MAJOR USMC
AIRCRAFT MAINTENANCE OFFICER

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Enclosure (12)

(b) (5), (b) (6)

[redacted]

Enclosure (3)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

(b) (5), (b) (6)

[redacted]

Enclosure (4)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES.

(b) (5), (b) (6)

[redacted]

Enclosure (5)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES.

(b) (5), (b) (6)

[redacted]

Enclosure (6)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES.

(b) (5), (b) (6)

[redacted]

Enclosure (7)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

(b) (5), (b) (6)

[redacted]

Enclosure (8)

SPECIAL HANDLING IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

(b) (5), (b) (6)

[redacted]

Enclosure (9)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

(b) (5), (b) (6)

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

(b) (5), (b) (6)

[redacted]

Enclosure (11)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES.

R&DF-23 (2/68)

FILM/PLAT COVERAGE

Reporting Custodian VFMA-122

Type Report PAR Pilot-Lieb BuNo 152301

Date of Occurrence 7-6-67

Type of Film Coverage 8mm Movie film

Serial Number 1-68A

Aircraft Model F4B

Number of Reels 1

Safety Center Identification Number NSC 240

Notes:

1. This film coverage may be obtained from the Safety Center Tech Library for viewing.

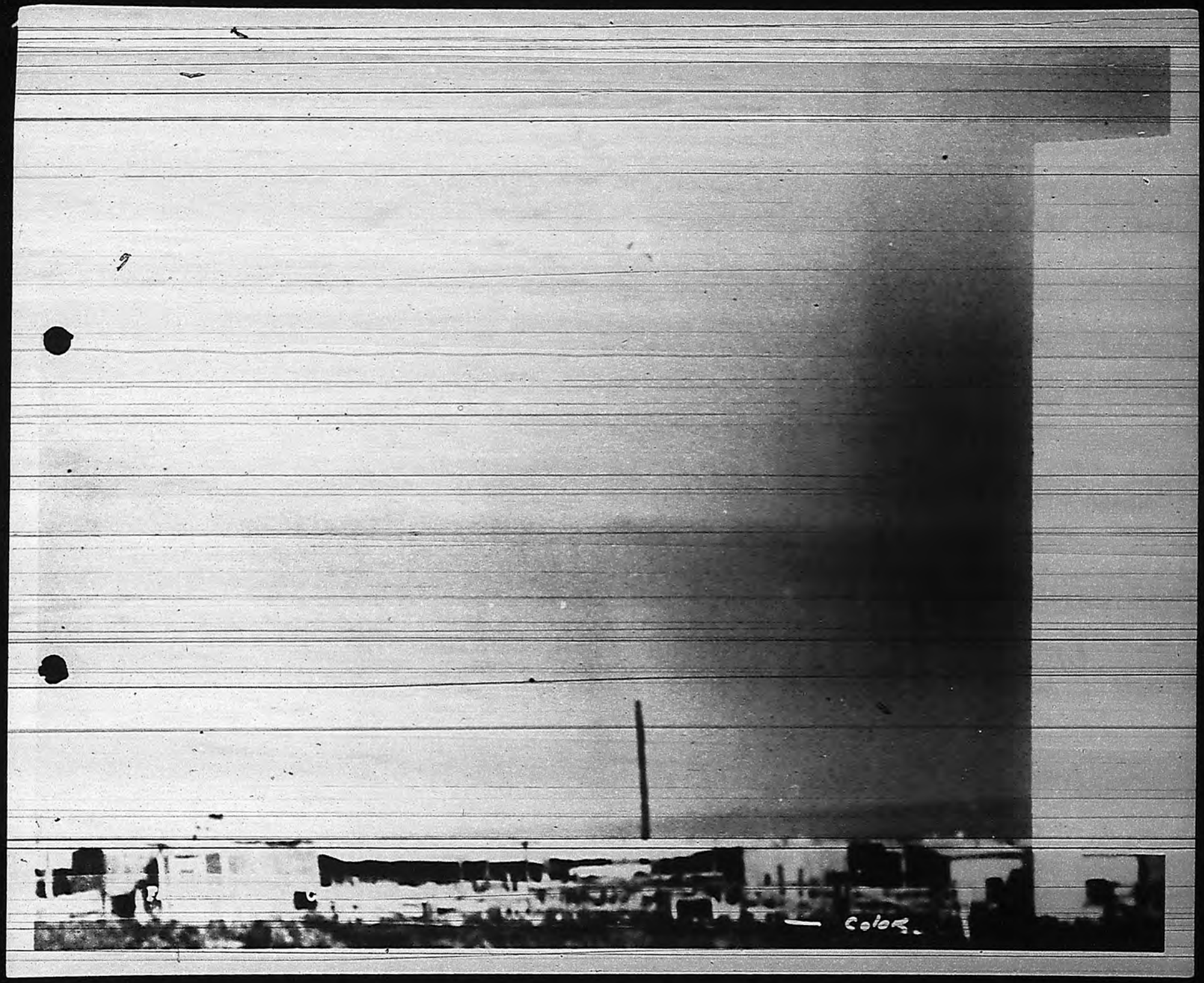
2. When microfilming this report, film this page immediately after the code sheet.

102

[illegible]

SPEC[illegible] [illegible]IRE [illegible] [illegible] 6 SERIES

[illegible]


Color.

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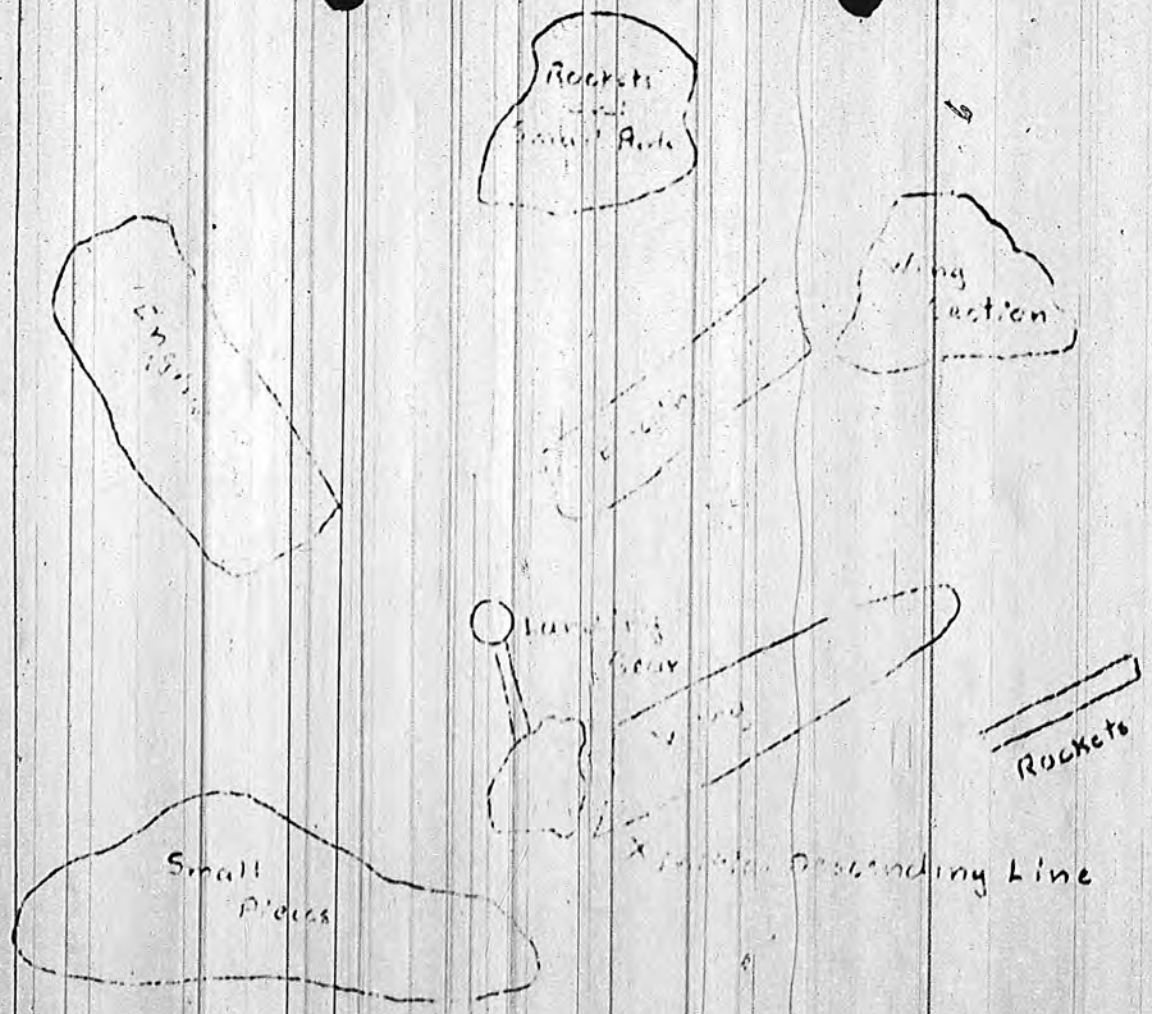
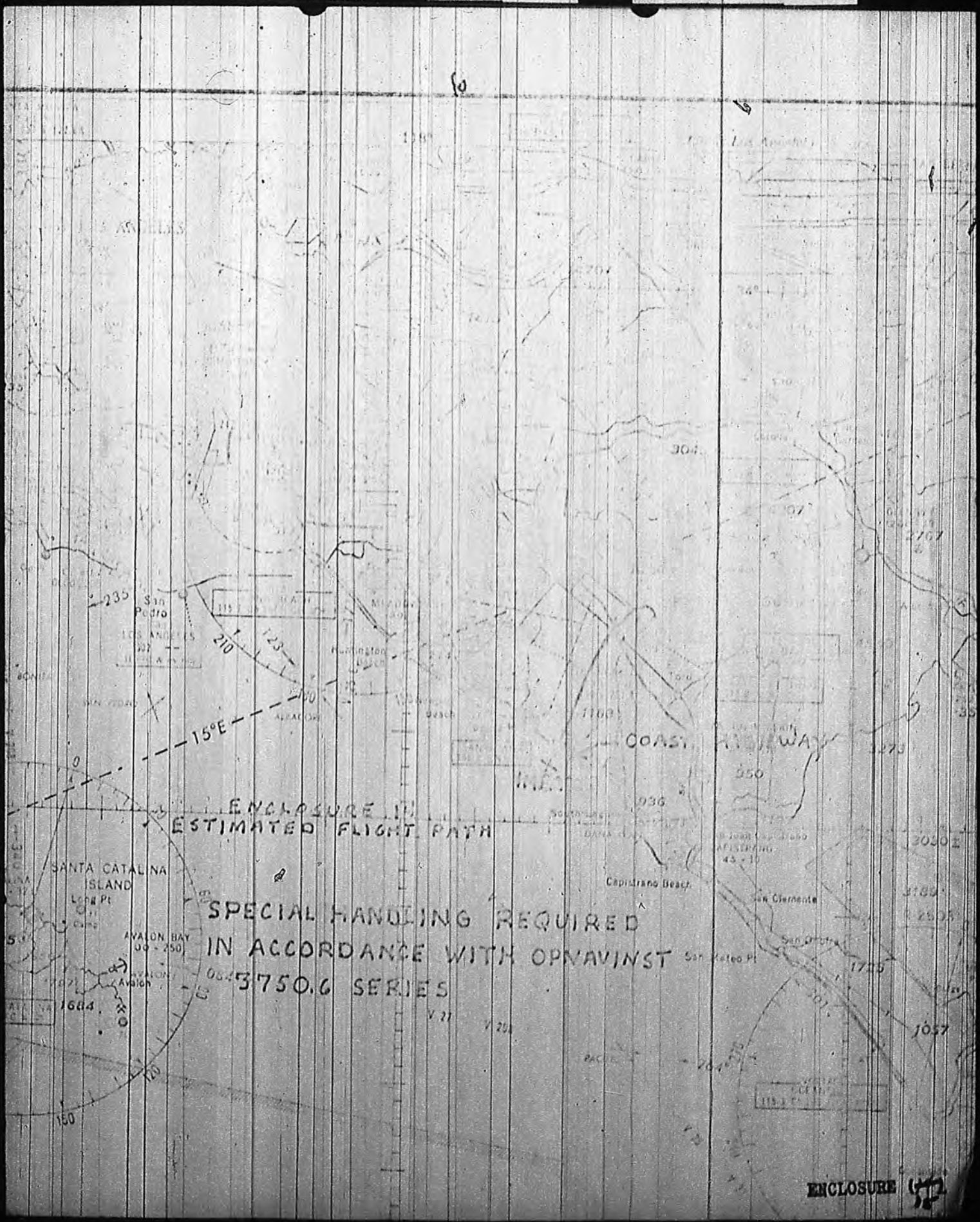


WRECKAGE DISTRIBUTION DIAGRAM
40-50 YARDS DISPERSION

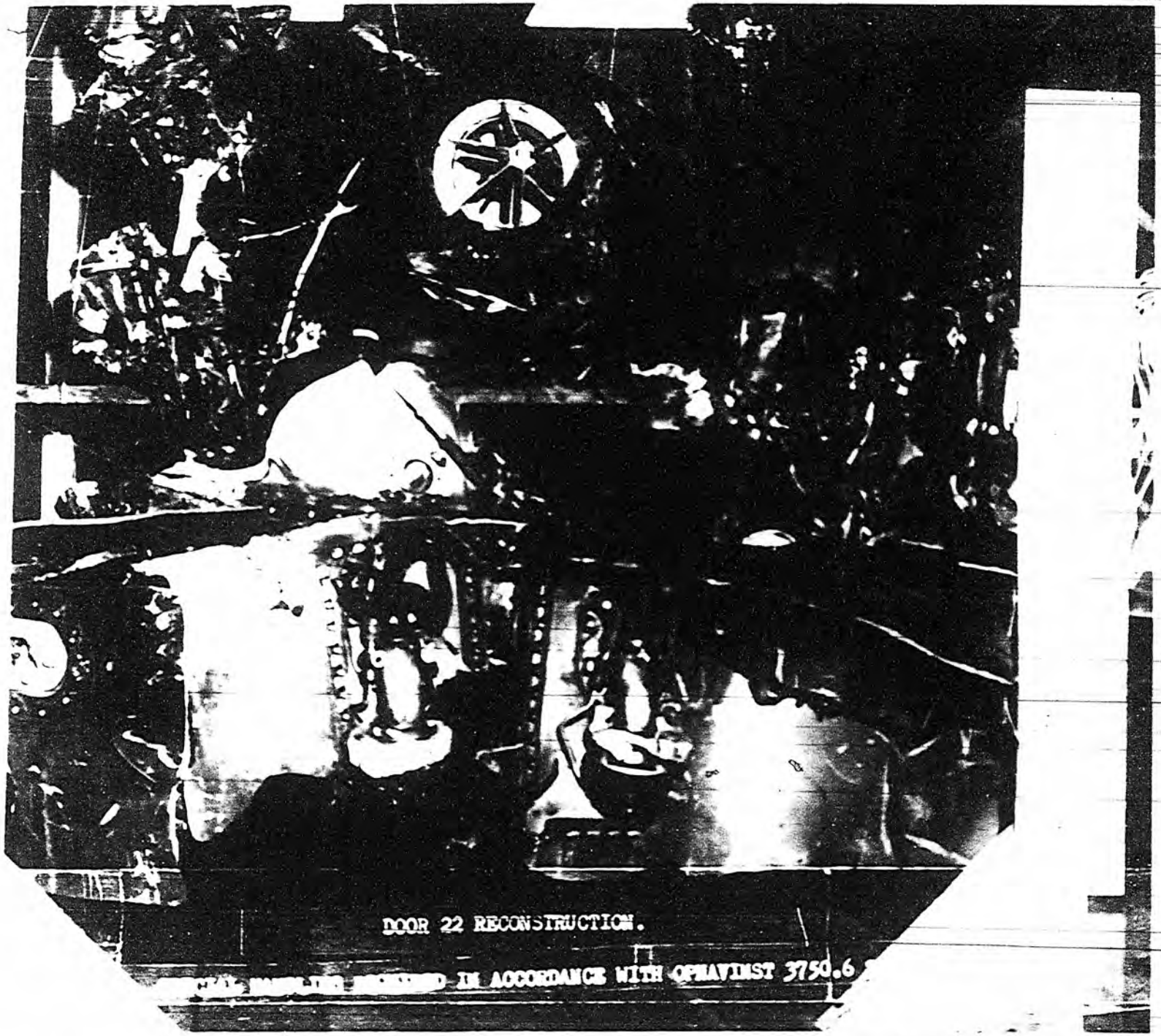
SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Enclosure (14)

707 06 102



ENCLOSURE (12)

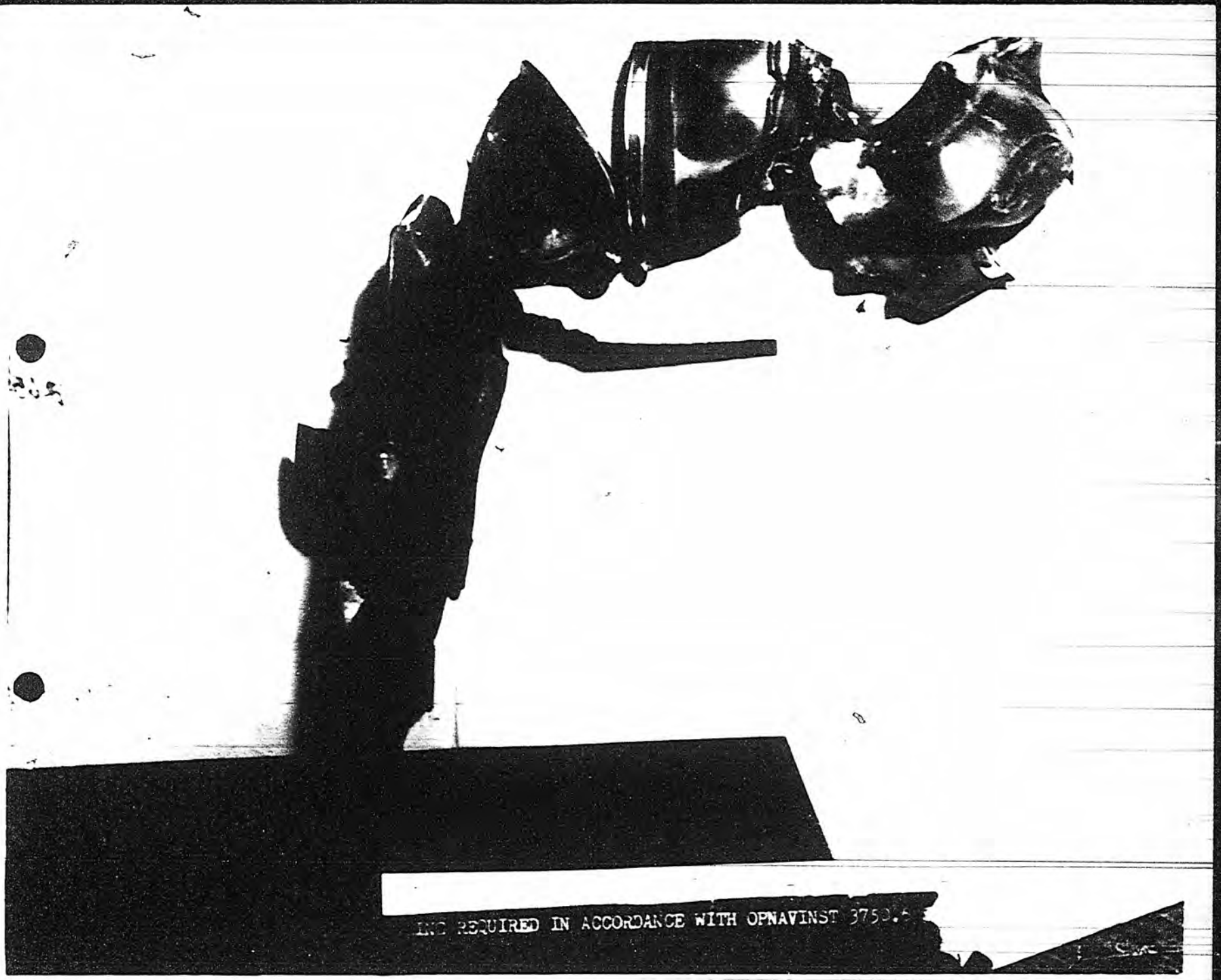


DOOR 22 RECONSTRUCTION.

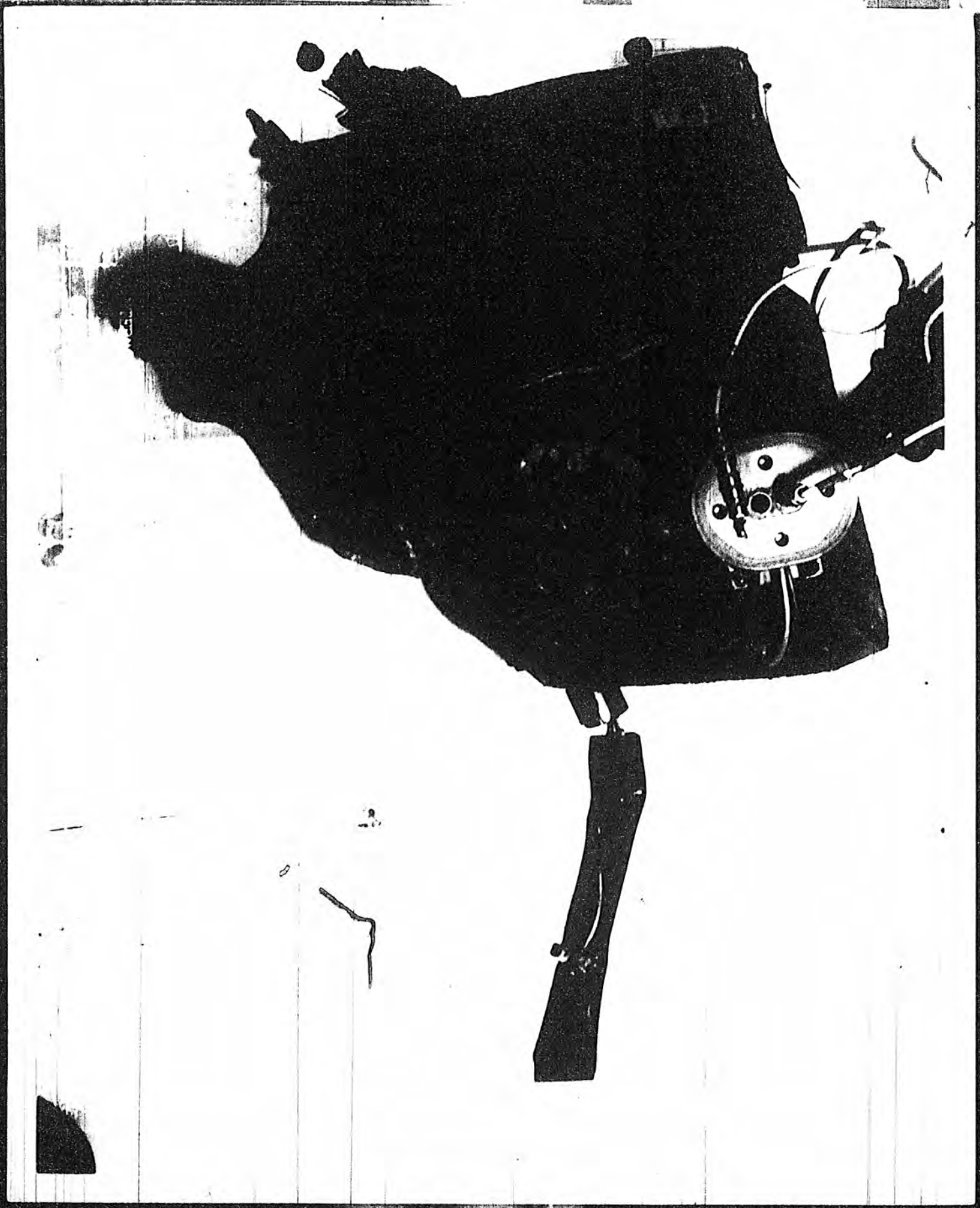
[illegible] IN ACCORDANCE WITH OPNAVINST 3750.6

707 06 102

SPECIAL ... REPRINTED ... SERIES
... PICTURE



70710611021



OUTBOARD

707 06 102

U. S. MARINE CORPS AIR STATION, EL TORO (SANTA ANA), CALIFORNIA

6 JULY 1967, 2240Z - 2249Z

LC : LOCAL CONTROL

TN-17: TANGO NOVEMBER ONE SEVEN

DC-25: DELTA CHARLIE TWO FIVE

I HEREBY CERTIFY THAT THE FOLLOWING IS A TRUE TRANSCRIPTION OF THE RECORDED CONVERSATIONS PERTAINING TO THE SUBJECT INCIDENT.

/S/
(b) (6) [redacted]
1/LT USMC

2240 - LC : TN-17, UNDERSTAND TOWER-AND-GO.

TN-17: 17, SAY AGAIN (GARBLED).

LC : TN-17, SAY AGAIN.

TN-17: ARE WE CLEARED A TOWER-AND-GO?

LC : AH, ROGER CLIMB AND MAINTAIN 1300 GO AROUND

TN-17: 17.

DC-25: TOWER, DC-25, TAKE OFF ONE F-4.

LC : CHARLIE 25, CONTINUE HOLDING SHORT, LANDING TRAFFIC.

DC-25: 25.

LC : FOXTROT 42, LEFT OFF JUST PAST 2000 FOOT MARKER, HOLD SHORT 341.

FT-42: ROGER, 42.

LC : 047, LEFT TURN OFF JUST PAST 1000 FOOT MARKER, FOLLOW ME WAITING FOR YOU.

047 : ROGER, 47, THANK-YOU.

LC : 047, CONTACT GROUND 380.8. TN-17, LEFT DOWNWIND APPROVED NOW.

TN-17: 17, TURNING DOWNWIND.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Enclosure (21)

2241 - LC : T-17, UNDERSTAND YOU'LL BE MAKING TOUCH-AND-GO'S?

TN-17: 17, AFFIRMATIVE.

LC : AH, ROGER, TAXI YOU APPROACH FOR THE LEFT RUNWAY.

TN-17: 17, WILCO

LC : FT-42, CLEARED TO CROSS THE LEFT, CONTACT GROUND CONTROL.

2242 - LC : DC-25, TAXI INTO POSITION 34R AND HOLD, ACKNOWLEDGE HOLD, CONFIRM YOUR RUNUP ADVISE TOWER WHEN READY TO ROLL.

DC-25: 25, WILCO

TN-10: TN-10, X-RAY, ONE FULL STOP.

LC : TN-10, REPORT THE HUB FOR 34, ALTIMETER 29.94, TN-17, EXTEND YOUR DOWNWIND, REPORTING F-4 OFF 34.

TN-17: 17, ROGER, EXTEND YOUR DOWNWIND, ADDITIONAL TRAFFIC, AN F-4 WILL BE MAINTAINING 900 STRAIGHT ACROSS THE FIELD, HE'S 2 MILES SOUTH, RADAR CONTROL.

NT-31: EL TORO TOWER, NT-31 AH, ON THE TAKE-OFF REQUEST DEPARTURE FROM YOUR PATTERN.

LC : TOWER 31, NORTH FIELD BOUNDARY LEFT TURN OUT APPROVED. MAINTAIN VFR ALTIMETER 29.94, REPORT CLEAR, TN-10 IN SIGHT OVER THE HUB, LEFT BREAK APPROVED.

TN-17: THIS IS TN-17, ARE WE CLEARED TO MAKE A TOUCH-AND-GO ON THE LEFT TOWER?

LC : AH, 17, THE WINDS 270 DEGREES AT 10 CLEARED FOR TOUCH-AND-GO 34L.

2243 - TN-17: AH, ROGER (2243) ON THE LEFT.

LC : DC-25, YOU READY TO ROLL?

DC-25: 25'S ROLLING

LC : DC-25, THE WINDS 260 DEGREES AT 10, CLEARED FOR TAKE-OFF 34R, YOUR TRAFFIC AN F-4 APPROACHING THE INTERSECTION MAINTAINING 900 RADAR CONTROL.

DC-25: 25.

LC : TN-10, THIS BE A FULL STOP OR TOUCH-AND-GO?

TN-10: 10, FULL STOP.

Enclosure (21)

TN-10: 10, FULL STOP.

LC : ROGER, YOUR TRAFFIC A T-33 4 MILES FOUTH. PLAN YOUR APPROACH NUMBER TWO FOLLOWING THE T-33.

TN-10: ROGER.

DC-27: EL TORO TOWER, TAKE-OFF ONE FOX-4, DC-27.

2244 - LC : DELTA CHARLIE 27, TAXI INTO POSITION RUNWAY 25L AND HOLD ACKNOWLEDGE HOLD, [illegible] TRAFFIC.

DC-27: ROGER, TAXIING 25L AND HOLDING

TN-10: TN-10, BASE, GEAR DOWN, FULL STOP.

LC : TN-10, THE WINDS 270 DEGREES AT 6 CLEARED TO LAND 34R, NUMBER TWO FOLLOWING A T-33 SHORT FINAL, APPEARS HE'S WAVING OFF.

TN-10: ROGER.

LC : TN-17, NORTH FIELD BOUNDARY DOWNWIND APPROVED.

LC : TN-17, ADVISE THE TOWER ARE YOU GOING TO MAKE A FULL STOP OR TOUCH-AND-GO'S ON LEFT.

TN-17: AH, ROGER, 17, WILL MAKE ONE MORE TOUCH-AND-GO ON THE LEFT.

LC : ROGER.

2245 - LC : DC-25, YOU READY.

DC-27: THIS IS CHARLIE 27, GO.

LC : DC-27, ARE YOU READY FOR DEPARTURE?

DC-27: 27, AFFIRMATIVE.

QF-64: EL TORO TOWER, FT-64, ON GCA WAVE-OFF LEFT, TURN INTO VFR TRAFFIC PATTERN.

LC : FT-64, LEFT DOWNWIND APPROVED.

QF-64: AH, ROGER, SAY MY TRAFFIC

LC : TRAFFIC AN F-4 AT THE 180, CORRECTION, MID-DOWNWIND.

QF-64: 64, TALLY-HO, OUT.

DC-27: TOWER, THIS IS DC-27 HOLDING SHORT, ARE WE CLEARED?

Enclosure (21)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

LC : DC-27, NEGATIVE, CONTINUE HOLDING IN POSITION, RADAR TRAFFIC 2½ MILES SOUTH.

DC-27: 27, ROGER, HOLD

2246 - LC : TN-17, DO YOU SEE THE AIRCRAFT ON FIRE?

TN-17: WHAT?

LC : YOUR 12 O'CLOCK HIGH.

TN-17: THAT'S AFFIRMATIVE, WE G[illegible] OUT AND CIRCLE. HE'S ON FIRE.

LC : AH, ROGER, PILOT'S DISCRETION.

TN-17: TRANSMIT IT ON GUARD TOWER.

LC : AIRCRAFT SOUTHWEST OF EL TORO WITH FIRE, AIRCRAFT SOUTHWEST OF EL TORO WITH FIRE.

WE-25: EL TORO TOWER, THIS IS WE-25 FOR TOUCH-AND-GO.

QF-64: EL TORO TOWER THIS IS QF-64. ESTIMATE ON THE, AH, 200 DEGREE RADIAL 15 NM EL TORO FOR THE AIRCRAFT ON FIRE APPROXIMATELY 6000 FEET.

LC : ROGER.

2247 - QF-64: THIS IS QF-64. THE AIRCRAFT HAS GO IN AND I DON'T NOTICE ANY CHUTES AT THIS TIME, OVER.

LC : ROGER, 64, UNDERSTAND YOU'RE INVESTIGATING ALSO.

QF-64: THIS IS 64, AFFIRMATIVE.

LC : ROGER.

WE-25: AH, THIS IS WE-25, AH, R/H, JUST TOUCH-AND-GO, CAN I BE OF ASSISTANCE?

LC : AH, 25, NEGATIVE, GOT AN F-4 AND A T-1 OVER THERE NOW.

WE-25: ROGER.

CALLER UNKNOWN: TOWER IS THAT THE DC BIRD?

LC : ANGEL 156, AH, CLEARED TO LIFT THE, AH, APPROXIMATE DISTANCE OUT THE 200 RADIA AT 15 MILES.

DC-27: TOWER, 27, HOLDING SHORT, AM I CLEARED TO TAKE-OFF OR IS THE FIELD CLOSED NOW?

Enclosure (2)

LC : DC-27, THE WINDS [illegible] DEGREES AT 12. CLEARED FOR THE CITY RUNWAY 25L.

DC-27: 27, WE'RE ROLLING.

2248 - CF-64: THIS IS CF, THE DATA ON THE OIL SLICK IN THE WATER IS 16 MILES ON THE [illegible] RADIAL, HE'S JUST ABOUT A HALF A MILE SAY [illegible] YARDS OFF THE WATER.

LC : AH, ROGER, [illegible] RADIAL.

CF-64: AH, MAKE IT 200 [illegible]

LC : ANGEL 156, DO YOU [illegible]?

ANGEL 156: THIS IS 156 [illegible]

LC : AH, ROGER, THE OIL SLICK IN THE WATER THE AIRCRAFT DID GO DOWN IS 200 RADIAL [illegible] MILES, APPROXIMATELY 200 YARDS OFF THE COAST.

SP-15: EL TORO TOWER, [illegible]

LC : SP-15, EL TORO TOWER.

SP-15: AH, ROGER, I'M AH, 4 MILES EAST WILL PROCEED IMMEDIATELY IF YOU NEED MY ASSISTANCE.

LC : SP-15, S/Y AGAIN

SP-15: AH, ROGER, 3 MILES EAST, I'LL BE OF ASSISTANCE IF I MAY.

LC : AH, ROGER, 200 RADIAL, AH, 16 MILES, WE HAVE OUR ANGEL BIRD ENROUTE AT THIS TIME.

2249 - SP-15: AH, ROGER, 15, I'LL JUST STAND BY YOUR FREQUENCY.

NT-31: TOWER, NT-31, APPROACHING THE SCENE, CAN I BE OF ASSISTANCE?

LC : TANGO, AH, NT-31, CONTACT ANGEL 156 ON THIS FREQUENCY.

NT-31: ROGER, ANGEL 156, NT-31 YOU HAVE 2 BLUE BOATS ON ROUTE TO THE SLICK, AH, IT IS VERY PERCEPTABLE. DO YOU HAVE IT IN SIGHT?

ANGEL 156: THIS IS 156, I'M JUST COMING OVER THE HILLS IN BACK OF LAGUNA NOW.

(b) (6) [redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

707 06 102

U. S. MARINE CORPS AIR STATION. EL TORO (SANTA ANA). CALIFORNIA

6 JULY 1967, 2246Z - 2261Z

GD : GUARD FREQUENCY : 243.0

DC-25: DELTA CHARLIE TWO FIVE

TN-17: TANGO NOVEMBER ONE SEVEN

APP CONT: APPROACH CONTROL

I HEREBY CERTIFY THAT THE FOLLOWING IS A TRUE TRANSCRIPTION OF THE RECORDED CONVERSATIONS PERTAINING TO THE SUBJECT INCIDENT.

(b) (6) [redacted]
LT/LT USMC

2246 - TWR : AIRCRAFT SOUTHWEST OF EL TORO WITH FIRE. AIRCRAFT SOUTHWEST OF EL TORO WITH FIRE.

TN-17 or QF-64 : NUMBER TWO AIRCRAFT JUST DEPARTING EL TORO

YF-13 : YANKEE FOXTROT SEVEN, YANKEE FOXTROT ONE THREE ON GUARD, IF YOU HEAR, COME UP THREE FOUR FOUR POINT TWO, ANY SANTA ANA AIRCRAFT IN THE AREA COME UP THREE FOUR FOUR POINT TWO

TN-17 or QF-64 : NUMBER TWO AIRCRAFT JUST DEPARTED EL TORO YOU'RE ON FIRE, YOU'RE ON FIRE.... EJECT, EJECT, EJECT, EJECT(2247)

2247 - APP CONT : WINGMAN OF THE AIRCRAFT THAT'S EJECTING, THIS IS EL TORO APPROACH CONTROL, SQUAWK MAYDAY.

NT-34 : EL TORO, EL TORO THIS IS NOVEMBER TANGO THREE FOUR ON GUARD...AH. MY PLAYMATE FOUR ZERO ON THE SCENE, A SIERRA TWO-AH-MARKING THE CRASH.

NT-34 : EL TORO PRINCE JOY THREE FOUR DO YOU READ....

UNKNOWN: GO AHEAD AND TAKE IT.

APP CONT : THREE FOUR ROGER, SAY THE CALL SIGN OF THE ONE THAT CRASHED.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

707 08 102

NT-34 : EL TORO SIGN, HOWEVER...WE OBSERVED THE CRASH, MY PLAY-MATE, A SIERRA TWO NOVEMBER TANGO FOUR ZERO IS ON THE DECK...STAND BY FOR A REPORT.

2248 - APP CONT : NOVEMBER TANGO FOUR ZERO WHAT TYPE AIRCRAFT

NT-34 : FOUR ZERO IS A SIERRA TWO, HE IS - AH - ASSUMING ON SCENE COMMAND AND THIS IS THREE FOUR. I'LL RELAY FOR HIM.

APP CONT : ROGER, AND YOU'RE MAYDAY RIGHT NOW ORBITING THE CRASH IS THAT CORRECT?

NT-34 : THIS IS THREE FOUR, THAT IS AFFIRMATIVE

APP CONT : ROGER AND SAY YOUR [illegible]. IS IT NOVEMBER TANGO THREE FOUR?

NT-34 : NOVEMBER TANGO, NOVEMBER TANGO, SIERRA TWO TYPE.

NT-34 : AH THIS IS THREE FOUR, THAT'S A NEGATIVE... WE HAVE THE FACILITIES TO MARK HIM...WE JUST NEED A HELO TO MAKE A PICK UP... IF HE'S [illegible]

APP CONT : NOVEMBER TANGO THREE FOUR, WHAT TYPE AIRCRAFT WAS IT THAT CRASHED?

NT-34 : THREE FOUR NO INDICATION, NO INDICATION, STAND BY...WHILE I ENDEAVOR TO GET....FURTHER.

2249 - APP CONT : NOVEMBER TANGO THREE FOUR ROGER. DID THE PILOT GET OUT, DO YOU KNOW?

NT-34 : STANDBY, FOUR ZERO, THREE FOUR, DO YOU SEE ANYTHING?

NT-40 : FOUR ZERO NEGATIVE.

NT-34 : THIS IS THREE FOUR, I HAVE A SMALL BOAT CLOSING, FOUR ZERO IS ON THE DECK.... THERE ARE A NUMBER OF SMALL BOATS CLOSING AT THIS TIME.

NT-34 : EL TORO THIS IS THREE FOUR, INTERROGATIVE, DO YOU HAVE A SAR HELO ON THE WAY?

APP CONT : AFFIRMATIVE, ANGEL ONE FIVE SIX WILL BE THE HELO, HE'S ON HIS WAY.

2250 - APP CONT : NOVEMBER TANGO THREE FOUR YOU STILL SQUAWKING SEVEN - GARBLE SEVEN - SEVEN.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES.

707 06 102

NT-[illegible] : THIS IS THREE FOUR I AM SQUAWKING EMERGENCY ON TOP, ON TOP. ALL AIRCRAFT IN THE AREA, REQUEST YOU CLEAR THE AREA. ON SCENE COMMANDER NOVEMBER TANGO ZERO, THREE FOUR ASSISTING AND ANGELS TWO. ALL AIRCRAFT CLEAR THE AREA... GARBLE.... THE ABOVE TWO POINT ZERO OUT.

APP CONT : ANGEL ONE FIVE SIX EL TORO APPROACH CONTROL

APP CONT : ANGEL ONE FIVE [illegible] APPROACH CONTROL

71304 : EL TORO APPROACH [illegible] - OH - FOUR

2251

CERTIFIED BY THE AAB BOARD

(b) (6)

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES.

Enclosure (22)

RESCUE REPORT
OPNAV FORM 3750-13 (3-63)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6E
INSTRUCTIONS: SEE REVERSE

OPNAV REPORT SYMBOL 3750-13

1. FROM: CO, MCAS, El Toro (Santa Ana) Calif.

2. DATE OF MISHAP: 6 July 1967

2A. DATE OF RESCUE: N/A

3. LOCATION AND DUTIES OF RESCUE VEHICLE: SAR, MCAS, El Toro (Santa Ana) Calif.

4. RESCUE VEHICLE (Type/model): UH-34D

5. NUMBER OF PERSONNEL: 5A. IN RESCUE VEHICLE OR ON RESCUE TEAM: 3 | 5B. TO BE RESCUED: | 5C. RESCUED: -

6. RESCUE BACK UP MEANS: -

7. TIME SEQUENCE OF EVENTS (Local Date Time Group)

7A. Alert Received	Method: Visual Sighting
1548	
7B. Vehicle Departed	Distance to Scene: 9 Miles (192°)
1550	
7C. Arrived on Scene	Search Required: Negative
1555	
7D. Located Survivor	Method of Locating
-	-
7E. Began Retrieval	What Was Sighted First
-	Dye Marker
7F. Ended Retrieval	Subsequently
7G. Survivor(s) Disembarked	Location (If different from Item 3)

8. WEATHER CONDITIONS AT RESCUE SITE

8A. WATER TEMPERATURE	AIR TEMPERATURE	WIND VELOCITY
°F	°F	

8B. SEA STATE/WAVE HEIGHT/FREQUENCY, TERRAIN DESCRIPTION

9. EQUIPMENTS ACTUALLY USED DURING RESCUE

10. DIFFICULTIES ENCOUNTERED (List all difficulties and effect on final outcome of rescue attempt, i.e., ALERTING PERIOD, SEARCH/LOCATING, RETRIEVING, POST-RETRIEVAL)

None

11. PERSONNEL REQUIRING RESCUE

NAME LAST	FIRST	INITIAL	GIVE REASON FOR RESCUE	FACTORS COMPLICATING RESCUE ATTEMPT (Physical condition, ignorance of equipment, sea state, etc.)
None				

12. REMARKS: (Training of rescue team or crew, communication equipment/techniques, retrieval equipment/techniques, rescue vehicle)

Observed burning A/C on high (2000-2500) down wind Runway 34 launched SAR helo followed smoke to crash scene. Observed large Dye Marker in water. Orbited area saw only small parts of A/C on surface no survivors. Returned NZJ 1630.

13. ATTACH ENCLOSURES: Narratives of search, location and retrieving—Survivor's statements

(b) (6)
[redacted]

(b) (5), (b) (6)

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES.

Enclosure (24)

MESSAGE FORM
IIND-NCASEL-2110/2 (9-63)

[illegible]

RUECAPA/CG SECOND MAW [illegible]

BT

UNCLAS

[illegible]

ASO

Enclosure (25)

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	G-1	G-2	G-3	G-4	[illegible]	AD/ARND	ASO	COMPO	COMPT/FISCAL	DENTO	DISB	ELECTO	H & HS	IHO	ISO	MASS-3	MEDO	NAMTRADET	NAVPERSO	ORDO	PROMAR	PUB WORKS	RPO/SEC	SEP	SMS	SUBS	SUPO	VMT-2	[illegible]

SPECIAL HANDLING REQUIR[illegible]
IN ACCORDANCE WITH
OPNAVINST
3710.6 SERIES

SPECIAL HANDLING REQUIRED
IN ACCORDANCE WITH
OPNAVINST
3710.6 SERIES

U. S. NAVAL WEAPONS LABORATORY
DAHLGREN, VA. 22448

In reply refer to

TCE:EFY:mll
8190/2

OCT 20 1967

From: Commander, U. S. Naval Weapons Laboratory
Dahlgren, Virginia 22448
To: Commander, Naval Air Systems Command (AIR-53222)
Washington, D. C. 20360

Subj: Examination of Emergency Egress Components, F-4B, BUNO 152301, VMF-122 AAR 1-68A; report of

Ref: (a) VMAF-122 msg 211750Z Jul 67
(b) NAVAIRSYSCOMREPAC msg 072234Z Aug 67
(c) NWL Dahlgren msg 091745Z Aug 67

Encl: (1) Suggested Information for Dissemination

1. References (a) and (b) requested that the Naval Weapons Laboratory assist in the evaluation of components recovered from the crash site of F-4B aircraft, BUNO 152301. Reference (b) further requested that NAVAIR control No. 2027-68 be cited for correspondence identification. Reference (c) presented a preliminary report of the NWL, Dahlgren investigation.

2. Examination of four M3A1C initiators indicated that the primers in each initiator had been struck by its respective firing pin and normal setback had occurred. The heads of the forward bulkhead and after catapult mounted initiators had definite deformations due to side loads on the withdrawal pin during actuation. The after catapult and forward catapult mounted initiators had indications of gas impingement on their outer housing from loose "B" nut connections at the outlet ports. The outlet port of the forward bulkhead mounted initiator was broken off. The M5 initiator appeared to have had normal operation.

3. The forward seat system propellant gases were traced through the canopy double check valve to the pressure operated valve. Propellant gas erosion occurring within the 45° elbow hose fitting attached to

Enclosure (26)

the outlet of the check valve indicated that a normal amount of propellant gases probably passed through it. The limited travel of the pressure operated valve piston indicated connecting hose failure prior to full actuation. The canopy shuttle valve was not available for examination. There was no positive evidence that the emergency dump valve operated. The canopy actuating cylinder was fractured in the closed position. This was established by imprints of the cylinder on the piston.

4. The rear seat system propellant gases were traced to the pressure operated valve which had operated to its full travel. The canopy shuttle valve was in the emergency actuated position. The emergency dump-valve vent screens had indications of high-pressure air passage. The M5 initiator had operated the equipment stowage system. The canopy actuating cylinder piston had traveled approximately four inches under severe side loads. The flooding doors shuttle valve was not available for study. The forward flooding door actuating cylinder piston was fully extended and bent so that it could not be retracted. The position of the piston "O" ring suggests that pressure had been applied. The after flooding door actuating cylinder piston was fully retracted and was operable.

5. It is concluded that the initiation and actuation of the two canopy systems probably occurred during break-up of the aircraft with a slight possibility of rear seat initiation and actuation immediately prior to impact.

6. Various components received at NWL from the crash site were sectioned, mislabled, or not applicable to the emergency egress system. This caused confusion, distrust of appearances, and loss of time in the investigation. It is suggested that all disassembly be performed by representatives of the final investigating activity and tagging limited to positively identified items.

TCE:EFY:mll
8190/2

7. It is recommended that the information contained in enclosure (1) be included in OPNAV Instruction 3750.6F "Navy Aircraft Accident, Incident, and Ground Accident Reporting Procedures" and NAVAER 00-80T-67 "Handbook for Aircraft Accident Investigators." Similiar information is being included in NAVAIR 11-100-1 (superseding OP 2606) by 1 Jan 1968.

(b) (6)
[redacted]

By direction

Copy to (w/encl):
NAVAIR AIR-53P2A
AIR-5102
NAVAVNSAFCEN Norfolk, Virginia
NAVAIRSYSCOMREPAC
NAVAIRTECHSERVFAC
COMNAVAIRPAC
CG Third MAW
MAG 33
VMF-122

DOCUMENTS RECEIVED

SUGGESTED MATERIAL FOR DISSEMINATION

Material forwarded for FDIR should be shipped in an "as is" condition. Local personnel shall perform only those tasks necessary to protect the material while it is being forwarded. When submitting material:

(1) Special care shall be taken to cap/package material, immediately upon removal from the system, in such a manner as to prevent corrosion, contamination, or other physical disturbances which could contribute to confusion or loss of possible material clues.

(2) Do not attempt any degree of disassembly of material where safety is involved and a FDIR may be requested.

(3) Do not make adjustments.

(4) Do not perform any type of cleaning, externally or otherwise.

(5) If contamination is suspected, forward samples of the fluid, or other material, in an immaculately clean, sealed container. Avoid contaminating lid seals. (Suggest: obtain sampling bottles from your dispensary).

(6) Forward all failed fragments.

(7) When feasible, forward associated units or materials that are suspected of contributing to the malfunction.

(8) Carefully mark all material. The package must be prominently marked "For FDIR."

NOTE: In the event items 2, 3, or 4 have not been complied with during a local investigation, a list of particulars to describe the depth of disassembly, adjustment, inadvertant damage, or other actions must accompany the material to the investigating activity. If this is not accomplished, an investigation may not be possible or erroneous conclusions reached.

It would be helpful if the material were accompanied by a description of the circumstances of the mishap, photographs of the part as found in the wreckage (if practical), a statement of the suspected failure cause and pilots' statement as applicable.

Enclosure (1)

LIEB
7/6
F4B

NNNNZCZCNASC690LB927
RTTUZYUW RUWJMUA1990 2091818-UUUU--RUCILSA.
ZNR UUUUU
R 281818Z JUL 67
FM COMNAVAIRPAC
TO RUWJBRA/MARFITATKRON ONE TWO TWO
INFO RUHHFMA/CG FMFPAC
RUWJBRB/CG THIRD MAW
RUWJBRB/MARAIRGRU THREE THREE
RUCILSA/NAVAVNSAFECEN
BT
UNCLAS
A. MARFITATKRON ONE TWO TWO ACFT ACCIDENT 1-68A.
B. YOUR 260530Z JUL 67. (NOTAL)
1. REF A REPORT EXTENDED 6 DAYS AS REQUESTED BY REF B.
BT

690/67

Cob Records

Jul
281818Z

PTTU JAW RUWJBRA0868 2022220-UUUU--RUCILSA.
ZNR UUUUU
P 212220Z JUL 67
FM MARFITATKRON ONE TWO TWO
TO RUEDBHA/NAVAIRSYSCOMHQ
INFO RUWJMUA/NAVAIRSYSCOMREPAC
RUCIHHA/NAVPLANTREPO STL
RUAUDA/COMFAIRWESPAC
RUWJMUA/COMNAVAIR PAC
RUCILMA/COMNAVAIRLANT
RUCILSA/NAVAVNSAFCEN
RUWJABA/DIRFLTSAFRESEARCH NORTON AFB
RUHHFMA/CG FMFPAC
RUCINVA/CG FMFLANT
RUMHAW/CG FIRST MAW
RUEOAWA/CG SECOND MAW
ZEN/CG THIRD MAW
RUWJMUA/NAS NORIS
ZEN/MARAIRGRU THREE THREE
BT
UNCLAS
VMFA-122 FLIGHT SAFETY UR SERIAL # 0045

#935/67

MS

COS
Supp
Mishap

PAGE TWO RUWJBRA0868 UNCLAS
A. BUWEPS INST 4700.2A
B. OPNAVINST 3750.6F
C. MARFITATKRON ONE TWO TWO 072245Z JUL 67
1. FAB 152301
2. NA
3. NA
4. A. INTERNAL WING FUEL QUANTITY TANK UNITS, P/N FG 225A 3.
   B. CONNECTOR, ELECTRICAL RECEPTACLE P/N 5290-1.
   C. PLUG ASSEMBLY P/N A5 955A
5. A. MCDONNELL SPEV 32-58025-17
   B. MINNEAPOLIS - HONEYWELL SPEC MK 459622-1
   C. 40931
6. 266 SINCE PAR
7. INVESTIGATION OF MARFITATKRON ONE TWO TWO AIRCRAFT ACCIDENT

1-68A INDICATES THAT THE PROBABLE CAUSE WAS BLC AIR LEAKAGE IN THE VICINITY OF THE INTERNAL WING FUEL QUANTITY TANK UNIT AT FS 249 WHICH MELTED THE SOLDERED CONNECTION ON THE PLUG ASSEMBLY ALLOWING THE CONNECTERS TO BE FORCED OUT WHEN THE TANKS WERE PRESSURIZED, RESULTING IN FUEL LEAKAGE WHICH PRODUCEDN AN IN- FLIGHT FIRE.

PAGE THREE RUWJBRA0868 UNCLAS
8. RECOMMEND INSPECTING THE INTERNAL WING FUEL QUANTITY TANK UNITS AND ADJOINING BLEED AIR DUCTING FOR DISCOLORATION DUE TO HEATING AND EVIDENCE OF FUEL OR BLC LEAKAGE. NO LATER THAN THE NEXT SEVEN DAY INSPECTION. THE INSPECTION CAN BE ACCOMPLISHED BY REMOVING THE FORWARD FUSELAGE MISSILE FIN CAVITIES. ALSO RECOMMEND REPLACING THESE UNITS WITH THE NEW NON-SOLDERED TYPE CONNECTIONS, P/N FG 226 A9 AS THEY BECOME AVAILABLE.
BT

JUL
212220Z

NNNNNZCNASC906CZCSLA611
RTTU JAW RUWJBRA0821 2021750-UUUU--RUCILSA.
ZNR UUUUU
R 211750Z JUL 67
FM MARFITATKRON ONE TWO TWO
TO RUWJMUA/NAVAIRSUSCOMREPACO
INFO RUCIUNA/NWL DAHLGREN
ZEN/MARAIRGRU THREE THREE
ZEN/CG THIRD MAW
RUCILSA/NAVAVNSARCEN
BT
UNCLAS
A. MARFIRATKRON ONE TW TWO AIRCRAFT ACCIDENT 1-68A
1. REQUEST PRIORITY CHEMICAL ANALYSIS ON EMERGENCY CANOPY REMOVAL SYSEIM FROM F4B BUNO 152301 TO DETERMINE IF CANOPY INITIATORS WERE FIRED PRIOR TO IMPACT. DETERMINATION IS BASED ON EXAMINATION OF THE COMPONENTS FO THE SYSTEM TO DETERMINE THE EXTENT OF GAS TRAVEL. IF ADDITIONAL INFORMATION IS REQUIRED CONTACT ASO MARFITATKRON ONE TWO TWO VIA SCAN LINE 874-5571. PARTS WILL BE SHIPPED VIA AIR FREIGHT ON 21 JULY FROM MCAS EL TORO.
BT

JUL
211754Z

NNNNZCZCNASC394CZCSLB698
PTTU JAW RUWJBRA0498 1982316-UUUU--RUCILSA.
ZNR UUUUU
P 172316Z JUL 67
FM MARFITATKRON ONE TWO TWO
TO RUWJMUA/COMNAVAIRPAC
RUWJMUA/NAVAIRSYSCOMREP
INFO ZEN/MAG THREE THREE
ZEN/CG THIRD MAW
RUWJMUA/NARFAC NORIS
RUCILSA/NAVAVNSAFCEN
BT
UNCLAS
REF: MARFITATKRON ONE TWO TWO AIRCRAFT ACCIDENT 1-68A
1. REQUEST CHEMICAL ANALYSIS AND DIR ON PARTS FROM F4B BUNO 152301
DOOR 22 AREA. PARTS WILL BE DELIVERED BY CDR: (b) (6) [redacted]
NAVAVNSAFCEN, ON 18 JULY 1967.
BT

394/67

Orig M+M Records

JUL
172316Z

707 06 102

MESSAGE DRAFT
NAVAL 4402 (New 2/58)

CLASSIFICATION
UNCLASSIFIED

DATE: 7 JULY 1967

FROM	DRAFTED BY	DEPT.	RELEASED
NAVAL AVIATION SAFETY CENTER	MAJ (b) (6) [redacted], USMC	A.I.	CAPT. (b) (6) [redacted]

ACTION

MARFITATKRON ONE TWO TWO

V	PRECEDENCE	V
	Mail	
	Night Message	
	Routine	X
X	Priority	
	Op Immed.	
	Emer.	
	Flash	

INFO
CNO
NAVAIRSYSCOMHQ
MAG THREE THREE
CG THIRD MAW
CMC
COMNAVAIRPAC
COMELEVEN
NAVAIRSYSCOMREPAC
MCAS EL TORO

TEXT

U N C L A S E F T O

F-4B BUNO 152301 ACCIDENT

1. CDR (b) (6) [redacted] USN, PRESENTLY NORIS WILL ARRIVE MCAS EL TORO VIA AUTO ~~PRIVATE CONVEYANCE~~ TO CONDUCT NAVAVNSAFECEN INVESTIGATION OF SUBJECT ACCIDENT. RESERVATIONS NOT REQUIRED.

2. INSTRUCTIONS CONTAINED IN OPNAVINST P-3750.6F, PAGE 14, PARA 24B, AND PAGE 20, PARA 32B (REMOVAL OF WRECKAGE UNDERWATER) APPLY.

REFERENCE MESSAGE

TRANSMIT BY RADIO —	CLASS OF REF.	CWO	TOR COMM. OFFICE	DATE/TIME GROUP
				071332Z

NNNNPSWVRPAGRFGWCZCSLA897
PTTU JAV RUWJBRA0026 1922100-UUUU--RUCILSA.
ZNR UUUUU
P 112100Z JUL 67
FM MARFITATKRON ONE TWO TWO
TO ZEN/CG THIRD MAW
INFO ZEN/MARAIRGRU THREE THREE
RUWPSL/NAVPLANTEPO ST. LOUIS
RUEDFIR/AFPRO GENERAL ELECTRIC CO.
RUCILSA/NAVAVNSAFCEN
RUEDBHA/NAVAIRSYSCOMHQ
RUWJMUA/COMNAVAIRPAC
RUWJMUA/NAVAIRSYSCOMREPAC
BT
UNCLAS
1. REQUEST MAC AND GE FACTORY TEAMS TO ASSIST IN THE ACCIDENT
INVESTIGATION OF F4B BUNO 152301.
BT

648/67

Cog AFI

JUL
112100Z

NNNNZCZCNASC180CSLP003
PTTU JAW RUWJBRA0728 1880225-UUUU--RUCILSA.
ZNR UUUUU
P 070225Z JUL 67
FM MARFITATKRON ONE TWO TWO
TO RUENAAA/CNO
RUCILSA/NAVAVNSAFCEN
INFO RUEDBHA/NAVAIRSYSCOM
RUWJHEA/COMELEVEN
RUHHFMA/CG FMFPAC
RUCINVA/CG FMFLANT
RUMHAW/CG FIRST MAW
RUEOAWA/CG SECOND MAW
ZEN/CG THIRD MAW
RUHHAIA/FIRST MARBRIG
RUHHAIA/HEDRON FMFPAC
ZEN/MARAIRGRU THREE THREE
RUCIHOA/CMC
RUCIHHA/NAVPLANTREPO ST. LOUIS
RUEDFIR/NAVPLANTREPO CINN
RUEDBHB/CHNAVMAT
RUWJAPA/RCVW FOUR
RUCLAKA/RCVW ONE TWO
RUEODDA/DIR AFIP
RUHHBRA/CINCPACFLT
RUWJABA/DAS NORTON
BT
UNCLAS FOR OFFICIAL USE
CMC CODE AAP
PRELIMINARY MESSAGE REPORT OF AIRCRAFT ACCIDENT
A. OPNAV INST 3650.6F
1. 061548T DAY
2. F4B, 152301, MARFITATKRON ONE TWO TWO, 1-68A
3. 33-34N, 117-50W
4. LANCE P. LIEB, CAPT, 092318, USMCR, 7520, ACTIVE, ALPHA
5. TIMOTHY G. MINER, 1/LT, 092139, USMCR, 7581, ACTIVE, ALPHA
6. ALPHA

PAGE TWO RUWJBRA0728 UNCLAS
7. 1A6, 0.1HR
8. UNCONTROLLED COLLISION WITH WATER
9. AIRCRAFT DEPARTED MCAS EL TORO ON AN ORDNANCE TRAINING MISSION. AIRCRAFT WAS OBSERVED TO BE ON FIRE. ON PASSING THE COAST LINE, THE FIRE APPEARED TO INCREASE IN INTENSITY, AND THE AIRCRAFT ENTERED THE WATER IN A NOSE DOWN SPIRAL AT AN ESTIMATED AIRSPEED OF 200 KTS.
10. CLOUD COVER-HIGH THIN SCATTERED VIS 12 WIND 270/7 TEMP 79 DEWPOINT 61
11. UNKNOWN
12. UNKNOWN PENDING SALVAGE
13. UNKNOWN
14. NONE
BT

180/65

AAR

F4B 152301 VFMA-122 1-68A 7-6-67 8702252