

U.S. Dept. of Commerce / NMAO / NOAA / Aircraft Operations Center

Fit ID: 040904I	From: KNEB	To: KNEW
Fit. No: 04-58	Blk In: 0129Z	Time On: 0119Z
ETD: 1630Z	Blk Out: 1628Z	Time Off: 1637Z
ETE: 9+00	Blk Time: 9+01 9.0 Hrs	Fit Time: 8+42 8.7 Hrs
Sponsoring Org: NOAA/NHC	Program: Hurr 2004	Purpose: H. FRANCES

AOC Flight Crew

Aircraft Commander: TEBEEST, R	Data System: LYNCH, T
Co-Pilot: STRONG, T ; CHOI, B	AVAPS: TONG, R
Navigator: GOLLAGHER, T ; ADLER, J	System Eng: SMITH, J
Flight Eng: FLOYD, D ; KLIPPEL, J	A A: SIEGEL, P
Flight Director: SHEPHERD	A A:
Avionics: 	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
BLACK, M	PI	HRD
DODGE, P	Sci	↓
WAUGH, E	 	↓
STAFFORD, R	MEDIA	NBC TODAY
DUNCAN, J	 	

Remarks (Storm Name, Mission ID, Recco Times, Fix Times) Recco Times Fix # Fix Time

Storm Name: FRANCES
 Mission ID: NOAA3 2906A FRANCES

1656-1
1725-2
1923

Penetration number and time

1-1901
2-2037
3-2252

(See reverse for additional remarks)

2479
1637
6.7

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Flight ID: 040904I Time Off: 1637Z Time On: 0119Z

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	<u>1016.5</u> mb	<u>30.04</u> mb	<u>1013.5</u> mb	<u>29.95</u> mb

ATIS	Time	Observation
Takeoff	Z	
Land	Z	

	Number	Data Disposition / Date / Quality
Flight Level Tapes	2	
Radar Tapes	1	
Cloud Physics Tapes / CDs		
Video Tapes	J	
Dropsondes	31	Good: Bad:
AXBT		
AXCP		
AXCTD		

Remarks:

IP 2812 8042 TEAL91 DEPARTING 18Z

EYG 2700 7848 TEAL39 T.O. 18Z 21-00-03

@ T.O. J(W) ↓ ; RA 159 ↓

- 1640 Radar ↑

- 1830 Q-SFMR → ASOL



**NOAA P-3 N43RF
CBLAST 2004
FLIGHT #6**

Flight ID: I040904

Sensor or system

Number or Name

INE.....	2
Accelerometer	2
Temperature Probe.....	1
Dew Point Probe	2
Altimeter (for vertical wind).....	RA-232
Static Pressure	Rosemount (fuselage)
Dynamic Pressure.....	Rosemount (fuselage)
Time Source	Micro 99
Constants File.....	CO3043.con

Local Met. Data: Not copied at takeoff

Take off: 1637Z

Land: 0119Z

The RA-232 had multiple spikes and dropouts during high altitude ferry to/from the storm. The RA-232 was replaced by the Collins GPS altitude in these regions (164055-181920; 232219-004930).

The Johnson-Williams liquid water sensor was inoperative during the flight.

There were times during heavy precipitation events (e.g. eye wall penetrations) when the dew point exceeded ambient temperature yielding a RH of greater than 100%. This is probably due to a wet bulb effect on the total temperature probe and/or the dew pointer over heating while trying to remove excess moisture. In these instances, no corrections were attempted.

There were numerous time glitches that were repaired.

The aircraft INE positions were re-navigated with respect to GPS.

SPECIAL NOTE: Locations 80, 81, and 82 of record 5 in the standard data contain vertical ground speed, vertical air speed, and vertical wind speed computed using Dr. Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	Take off	Land
Aircraft Static Pressure	1016.5 mb	1013.5 mb
Corrected Tower Pressure	1018.6 mb	1014.2 mb

Flight Director: Tom Shepherd
813-828-3310 x3053

Mission FRANCES-SFMR Land Fall Fit ID 0A0904I

SED Crew Lynch, Smith, Tong

Pre-Flight 15:15 Take-Off 16:37 Landing 01:18

		System		Pre-Flight	In-Flight	Post-Flight				
NAV	GPS	FM: 1		TL		LAT	LON	GS	RE	
	INE #1	Time On:	15:15	Aligned to:	1	-022	+12.1	5	25	
	INE #2	Time On:	15:15	Aligned to:	5	-9.7	+4.9	2	10	
	Diff GPS			TL						
RADAR	MARS Data	Start	Stop	Ready?	HRD?	# DATs ? 1 Given To: <u>Dette</u>				
	MARS	16:40	00:49	TL	Y/N					
	MARS Data / Tape Status					LFRec	TARec	EOF's		
	MARS LU8	Clear		TL						
	MARS LU9	Clear		TL						
	RADAR R/T SN Tail	202102LF	107	TL	Mod Switches	ON	Mod Switches <u>OFF</u>			
PMS	Nose					Power OFF				
	FSSP Ref VDC:	Covers	OFF	NY	Covers <u>ON</u>					
	Cloud Mono	Covers	OFF		Covers <u>ON</u>					
	CIP	Covers	OFF		Covers <u>ON</u>					
	SEA Data DAT	Start	Stop	Ready?	#DATS	Errors	Disk Write			
DAT	Clean?					Y / N				
TEMP		Cal High	Cal Low			Cal High	Cal Low			
	Temp #1	30.5	30.4	TL		-30.7	-30.2			
	Temp #2			Y		Power <u>OFF</u>				
	Temp #3			TL		Power <u>OFF</u>				
PRESS	Dewpoint	#1	#2	#3 (TDL)	TL	Power <u>OFF</u>				
	Attack / Slip Angle	AP	OAP	BP	OBP	TL	Power <u>OFF</u>			
	Differential	PO1	PO2	PO3	PO4	TL	Power <u>OFF</u>			
	Absolute	PS1	PS2	CBPS	TL	Power <u>OFF</u>				
FLTLVL	Apn-159 SN:	66-024		TL		Power <u>OFF</u>				
	Apn-232 SN:	1701		TL		Power <u>OFF</u>				
	Liquid Water	J&W	K	RT	28V WOW: ON ?	Power <u>OFF</u>				
	Radiometer	CO2	SST	JS	28V WOW: ON ?	Power <u>OFF</u>				
RAMS	RAMS Data	Start	Stop	Ready?	Errors 8:	Errors 9:	# DATs ? 2 Given To: <u>TS</u>			
	CPU: A	B	16:26	01:29	TL	1	0	Power OFF		
	RAMS Data / Tape Status					Slow Rec.	Fast Rec.	Disk Records:		
	RAMS LU8	Clear		TL						
	RAMS LU9	Clear		TL						
	Flight Director Laptop				JS	Power <u>OFF</u>				
	Network				NE					
	ASDL Mission #:	2906A	Name:	FRANCES	TL	Freq: 30	Block: 10	Power <u>OFF</u>		
	C.I. Printer	Start	Stop	Ready?	Paper Bin Stores			Given To:		
	PRATE:	10	10:25	01:29	TL	0%	25%	50%	75%	100%
MISC	Exterior Walk Around	Plugs	Covers	RT	Plugs Covers					
	SATCOM	WIS	Inmarsat	GlobalStar	JS	Power <u>OFF</u>				
	AXBT Internal	# Loaded:	0	NY	# Launched: 0					
	AXBT External	# Loaded:	0	NY	28V WOW # Launched: 0					
	AVAPS	95	# On Board:	(8 BUB)	JS	# Dropped: 34				
	Video Cameras	Start	Stop	Ready?	Cameras	Mode	# Tapes ? 0 Given To:			
VHS SVHS			NY	N L R D	2 / 12	Lens Cap ?:				
USER	FCU	-B-C-D-		RT	UPS OFF					
	SFMR	HRD	AOC	TL	Accelerometers					
	NASA SRA				EW	#1 (2 G): 8203				
	ARL BAT Probe, SST & IRGA				NY	#2 (2.5 G): 6687				
	UW PDA				NY	#3 (3 G): 5967				
Scripps MASS, Laser Alt, IR Cam & Sono				NY	#4 (3.5 G): 2892					
RSMAS Licor				TL						

19 left onboard
10 bad

DROP LOCATIONS ALONG COAST

	MLB		KMLB
1.	28° 51' 47"	80° 80' 2"	SPACE COAST REGIONAL
2.	28° 05'	80° 55'	TIU Wemito 2
3.	27° 8' 13"	80° 49' 8"	Sebastian Airport
4.	27° 6' 51"	80° 41' 7"	Vero Beach Muni (73)
5.	27° 29' 1"	80° 22' 2"	St. Lucie Intl
6.	27° 15'	80° 20'	T3
7.	26° 6' 1"	80° 03'	LKWF1

1711 26.8 79.0W
 962
 93 SE
 85 NW

MISSION PREFLIGHT LOG

NAVIGATOR

AIRCRAFT COMMANDER

FLIGHT DIRECTOR

SCHEDULED / ACTUAL TAKEOFF DATE OF TAKEOFF

27.8 29

31.1

22052654 679 18

ML

DESTINATION
KLENS

MISSION
FRAMES # 6

ENS GALBREATH

CAPT J. BESS

SHEPPARD

16 30 Z 16 32

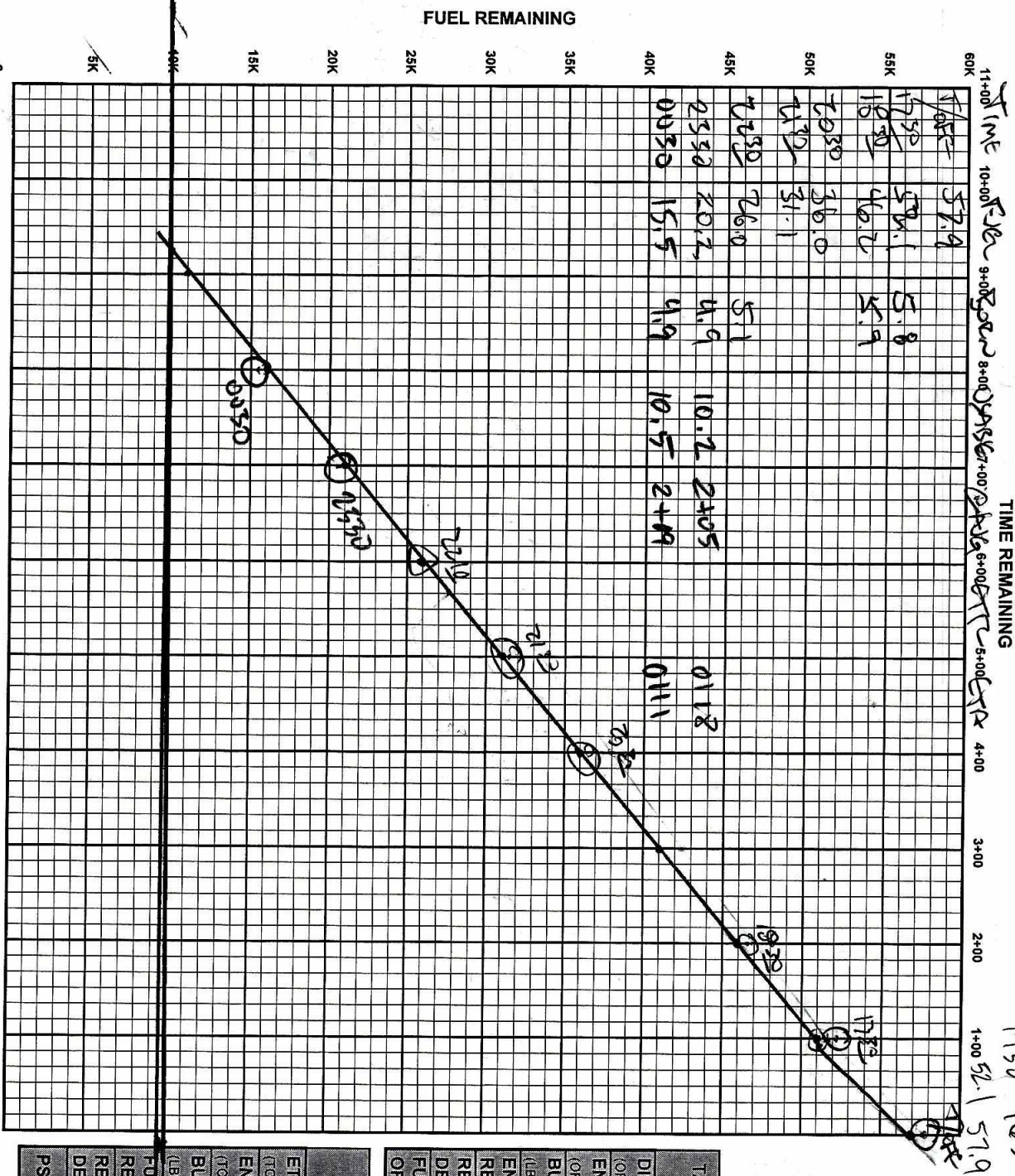
4 SEP 84

WP	N	LAT / LON	RTE	MH	VAR	TH	DR	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ETA	ATA	REMARKS	
1	N 29	19.5																		
	W 90	02.1																		
PTN		30-13.0																		
		085-40.9																		
CTY		30-35.8																		
		085-02.9																		
ORL		30-32.8																		
		081-20.1																		
MVB		30-06.3																		
		080-39.0																		
Eye		28-22.4																		
		080-20.1																		
Deak		27-5.3																		
		080-05.2																		
RLS		26-40.8																		
		080-05.2																		
RAMS		27-53.0																		
		085-15.5																		
Coak		28-18.9																		
		086-02.3																		
REAFD		28-53.2																		
		088-42.1																		
Hrd		29-51.0																		
		090-00.2																		
LRG		30-02.6																		
		090-01.7																		

INS PERFORMANCE		
INS 1	INS 2	
BEGIN ALIGN TIME	1815	1515
ALIGN STATUS (0-5)	0	0
END NAV TIME		
START NAV TIME	1105	1015
DELTA T		

TERMINAL ERRORS	
INS 1	INS 2
DELTA LAT	
DELTA LON	
RGS	
RADIAL ERROR	
REMARKS	

RANGE CONTROL GRAPH



TIME REMAINING

DISTANCE REMAINING

ETP = .5(TOTAL DISTANCE x OUTBOUND WIND FACTOR)

WINDSPEED	HEADWIND	TAILWIND
10	1.03	.97
20	1.06	.94
30	1.10	.92
40	1.14	.89
50	1.18	.87
60	1.22	.85

ENROUTE FUEL	
ENROUTE TIME	9HS
ENROUTE FUEL (6K 5K 4.5K RULE)	47.0
RESERVE AT DESTINATION	10.0
REQUIRED RAMP	57.0
ACTUAL RAMP FUEL	57.9

TACTICAL (OFFSTA TO DESTINATION)	
DISTANCE (OFFSTA TO DEST)	
ENROUTE TIME (OFFSTA TO DEST)	
BURN RATE (LBS/HR)	4500
ENROUTE FUEL REQUIRED	5500
RESERVE AT DESTINATION	
FUEL AT OFFSTA	

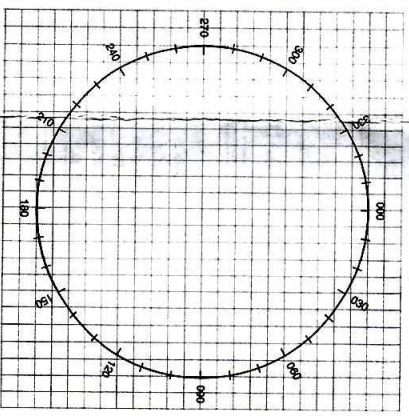
POINT OF SAFE RETURN	
ETP DISTANCE (TO DEPARTURE)	4 ENG
ENROUTE TIME (TO DEPARTURE)	3 ENG
BURN RATE (LBS/HR)	4500
FUEL REQUIRED RESERVE AT DEPARTURE	5500
PSR FUEL	

WIND FACTOR	
ALT	200
10,000	1.0
20,000	.98
30,000	.97
40,000	.96
50,000	.95
60,000	.94
70,000	.93
80,000	.92
90,000	.91
100,000	.90

CEX - TRUE BEARING METHOD			
COMPASS TYPE	INS1	INS2	WET
MCH (READING)			
-MTH (SEXTANT)			
CE			
-VAR			
DEV			

CEX - ERB METHOD			
COMPASS TYPE	INS1	INS2	WET
MERB (DIAL 000)			
+ZN			
=MTH			
MCH (READING)			
CE			
-VAR			
=DEV			

CEX SIGHT			
GMT			
GHA			
CORR			
GHA			
LONG HW			
EXACT LHA			
LAT			
BODY			
DEC			
HC/D			
CORR			
HC			
Z			
ZN			



TRUE AIRSPEED CROSS-CHECK				
TIME	IAS	PRESS ALT	EAS	OAT
		FACTOR		TAS
				ITAS

