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

AOCWF1

Flt ID: I031207	From: KMCF	To: KMCF
Flt No: 04 – 09	Blk In: 2317 Z	ATA: 2306 ~~Z~~ R
ETD: 1500Z	Blk Out: 1442 Z	ATD: 1455Z
ETE:	Blk Time: 8.35 (8.6)	Flt Time: 8:11 (8.2)
Sponsor Org: HRD	Program: EXTROPICAL	Purpose: TS ODETTE

AOC Personnel

AC: KENNEDY	Sys Eng: ~~[illegible]~~ TONG
CP: SILAH	Data Sys: LYNCH
Nav: BRAKOB	Radar:
FE: WADE	GPS/BT: ~~[illegible]~~ SMITH
FD: DAMIANO / MAYEAUX	Cld Phys:
Avionics: SANS SOUCI	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
ABERSON	PI	HRD
DUNION	HAPS	"
LEIGHTON	HAPS	"
FOGARTY, C	OBS	Canadian Hurr Center

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #)

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

AOCWF2

Flt ID: I 031207	Time Off: 1455 Z	Time On: 2306 Z

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	1020.4	30.16	1017.6	3012

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes	2	
Radar Tapes	1	
Cloud Physics Tapes		
Video Tapes	3	
AXBT		
AXCP		
AXCTD		
Dropsondes	17	

Video

	Forward	Left Side	Right Side	Down	Remarks
Time On					
Time Off					
Rate					

Remarks

1435 1912 - Data System has problems. Standing By.
Radar up 1501Z

NOAA P-3 N43RF
EXTRATROPICAL - T.S. ODETTE
MISSION 3

Flight ID: 031207I

Sensor or system	Number or Name
INE	1
Accelerometer	1
Temperature Probe	1
Dew Point Probe	2 (Edge Tech)
Altitude (for vertical wind)	Radar Altimeter 159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage 1281
Time Source	Micro 99
Constants File	CO3034.CON

Notes:
There were many time/data gaps during this flight. The following is a list of these gaps: 174218Z-174230Z, 180342Z-180420Z, 185152Z-185200Z, 185955Z-190010Z, 195201Z-195210Z.

From 145201Z-145503Z and from 230500Z-230900Z, Radar Altimeter 232 was used in place of Radar Altimeter 159.

There were numerous times during the flight where the dewpoint temperature exceeded ambient temperature resulting in an RH>100%. This was likely due to heavy rain, a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dewpoint sensor as it tried to burn off excess moisture. Since the relative humidity values during these times never exceed 110%, no corrections were made to the data.

During the decent into Macdill at 224500Z, erratic spikes occured in the slip pressure measurements from the fuselage. Corrections were made to these values from 224500Z-225000Z.

Otherwise, all instruments performed optimally during the flight.

The aircraft INE positions were renavigated with respect to GPS.

SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm.
It is recommended that these values be used for vertical wind analysis.

	Takeoff	**Landing**
Aircraft Static Pressure	1020.4 mb	1017.6 mb
Corrected Tower Pressure	1021.3 mb	1020.0 mb
Flight Director:	Martin Mayeaux	(813) 828-3310 ext. 3086

Flight ID: I031207

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

Form 4-13-50

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T_a	T_d	Press. Alt	Geo. Alt	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
154451	2749	8215	139	140	336	8.7	7.7	-20.4	1818	1871	1014.2	803.2	64.7	Clr
155423	2522	7822	114	116	292	21.4	-5.3	-45.2	5173	5390	1007.1	527.8	72.4	Sct clds
162147	2443	7557	104	106	279	20.4	-5.3	-45.1	5170	5392	1007.6	527.6	74.6	Sct clds
170026	2403	7222	103	108	251	39.4	-3.9	-44.2	5330	5574	1003.4	516.7	74.5	Bkn low clds
173246	2326	6925	130	136	246	24.9	-1.9	-27.7	5327	5574	1002.1	517.0	76.3	Drop 1
173350	2322	6919	130	136										Backup drop 1
173826	2308	6903	132	136	279	19.9	-3.6	-3.2	5326	5575	1000.6	517.0	68.4	Drop 8 m/s
174012	2303	6855	—											Backup
174650	2246	6827	48	51	219	23.5	-1.8	-7.0	5327	5581	998.4	517.0	75.6	Drop Pt 2
180100	2328	6727	145	151	216	29.0	-2.6	-0.7	5330	5582	999.1	517.4	73.4	Drop Pt 3 9.5 m/s
181620	2245	6627	50	51	225	42.8	-2.1	-3.4	5323	5574	998.3	517.1	70.0	Drop Pt 4 13.9 m/s
183025	2328	6526	129	134	218	18.7	-3.5	-5.2	5323	5575	1001.6	517.4	75.1	Drop Pt 5
184525	2242	6433	231	233	237	26.2	-5.3	-6.5	5662	5942	1000.9	494.2	72.8	Drop Pt 6
190134	2158	6532	235	239	251	35.7	-4.0	-4.9	5660	5934	997.4	494.1	71.8	Drop Pt 7
191900	2118	6634	310	307	279	33.5	-3.5	-6.6	5661	5934	997.7	494.2	72.6	Drop Pt 8
193432	2159	6733	230	233	257	18.2	-4.0	-8.3	5662	5944	997.5	453.1	72.6	Drop Pt 9
194423	2131	6812	231	236	289	17.3	-7.8	-25.9	6287	6609	997.5	453.4	74.4	Drop
195030	2118	6835	309	308	250	16.1	-6.5	-30.8	6288	6613	994.1	453.4	71.0	Drop Pt 10
195230	2124	6843	—											Drop Backup
200517	2203	6933	310	307	246	26.7	-8.7	-36.5	6289	6607	999.4	453.5	73.9	Drop Pt 11
200827	2201	6944	240	242	252	30.0	-8.3	-36.6	6286	6603	998.8	453.5	74.1	Backup
							End of Science							
205131	2246	7309	285	282	251	37.4	-9.4	-43.1	6141	6437	1003.2	462.8	80.4	Bkn clds
210818	2402	7555	306	304	265	26.0	-11.1	-45.8	6141	6414	1005.6	462.8	81.4	Bkn Clds
215417	2514	7746	301	299	269	27.5	-12.2	-46.9	6141	6405	1007.3	462.8	83.3	Bkn clds
222704	2631	8017	300	300	284	22.1	-13.1	-48.1	6142	6377	1006.9	462.7	83.3	Clr

0

HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: ODETTE/SYNOPTIC

NOAA/Hurricane Research Division Sunday, December 7, 2003 6:18:15 am
Aircraft: N43RF Proposed takeoff: 07/1500Z

DROP LOCATIONS

#	LAT (d m)	LON (d m)	RAD/AZM (nm/dg)	TIME (h:mm)
1	23 30	69 30		3:16
2	22 45	68 30		3:34
3	23 30	67 30		3:53
4	22 45	66 30		4:11
5	23 30	65 30		4:29
6	22 45	64 30		4:47
7	22 00	65 30		5:06
8	21 15	66 30		5:24
9	22 00	67 30		5:42
10	21 15	68 30		6:01
11	22 00	69 30		6:19

19k feet

0

0

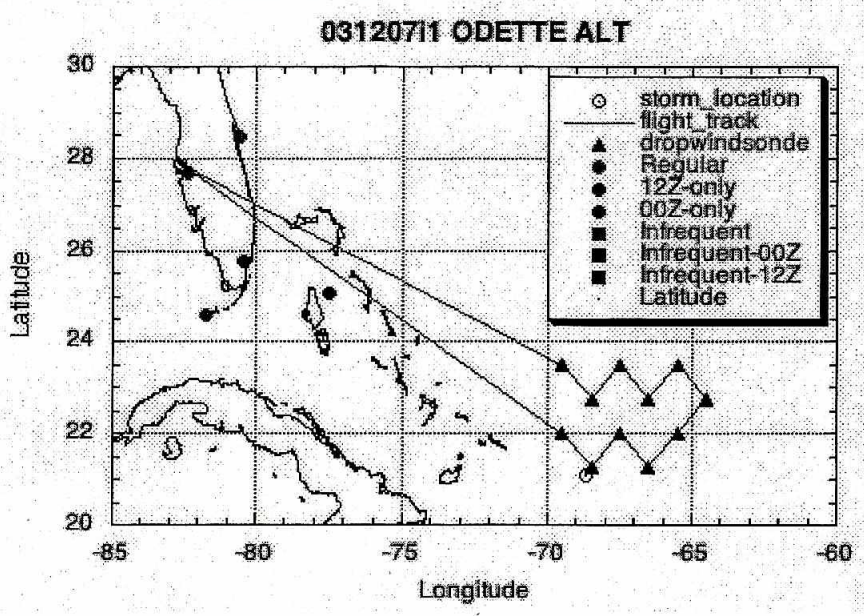
HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: ODETTE/SYNOPTIC

NOAA/Hurricane Research Division Sunday, December 7, 2003 6:18:15 am
Aircraft: N43RF Proposed takeoff: 07/1500Z

TRACK DISTANCES

#	LAT (d m)	LON (d m)	RAD/AZM (nm/dg)	LEG (nm)	TOTAL (nm)	TIME (h:mm)
0	MACDILL			0.	0.	0:00
1	23 30	69 30		786.	786.	3:16
2	22 45	68 30		73.	859.	3:34
3	23 30	67 30		73.	932.	3:53
4	22 45	66 30		73.	1005.	4:11
5	23 30	65 30		73.	1078.	4:29
6	22 45	64 30		73.	1151.	4:47
7	22 00	65 30		73.	1225.	5:06
8	21 15	66 30		73.	1298.	5:24
9	22 00	67 30		73.	1371.	5:42
10	21 15	68 30		73.	1444.	6:01
11	22 00	69 30		73.	1518.	6:19
12	MACDILL			823.	2340.	9:45

0


03120711 ODETTE ALT
storm_location
flight_track
dropwindsonde
Regular
12Z-only
00Z-only
Infrequent
Infrequent-00Z
Infrequent-12Z
Latitude
30
28
26
24
22
20
Latitude
-85
-80
-75
-70
-65
-60
Longitude

NOAA • AOC • SED

N43RF AVAPS DROP LOG

Project : Hurr '03 / CBLAST Mission : ODETTE #3 Flight ID : 0312071

Take Off : _____ Landing : _____

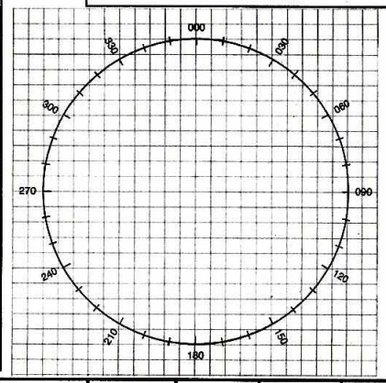
Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Comments	Good ?
1	~~003 815 046~~	~~1~~						
1	003 815 304	3	Ø	1732	✓	JAS	POOR TOLERANCE P-STATIC?	✓
2	003 815 047	4	Ø	1734	✓			✓
3	003 815 197	1	Ø	1738	—		NO L.D.	B
4	003 815 046	2	Ø	1740	✓			✓
5	003 815 308	3	Ø	1746	35			✓
6	003 815 044	1	Ø	1801	✓			✓
7	003 828 019	1	Ø	1816	14			✓
8	003 828 021	2	Ø	1830	18			✓
9	003 815 045	1	Ø	1844	14			✓
10	003 815 301	2	Ø	1901	39			✓
11	003 815 307	1	Ø	1919	17			✓
12	003 815 048	2	Ø	1934	56			✓
13	003 815 306	1	Ø	1944	27			✓
14	003 815 305	2	Ø	1950	110		000345655 ON LATE WINDS Tube	~
15	003 815 299	3	Ø	1952	80		LATE WINDS	✓
16	003 815 303	1	Ø	2005	—		NO WINDS	B
17	003 828 020	2	+.5	2008	38/60		WINDS IN & OUT	✓
	"VIEW SONDE GPS DATA"			INOP CH #1				
	CH #2 MNG VER -			LED LIT				

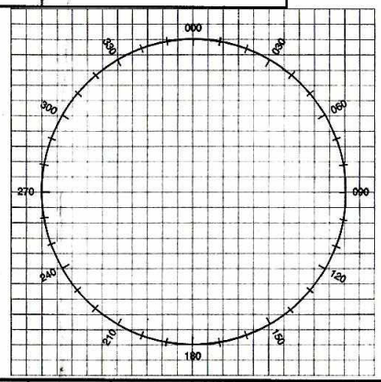
Tel Chassis Reset 1754 - CH 2 LED RESET ON 2ND TRY!

"H": 135 050/6 v7 CLR 08/03 3076 BIRD LOW 7507

CLEARANCES			
FREQ	ALT	HDG	OTHER
119.9	1.6	OBD	CAF SQ ~~[illegible]~~ 3677
			2215Z
			650-283-
			5270

MISSION LOG PAGE 1 OF 2





POSITION REPORT

1. POSITION
2. TIME
3. ALTITUDE
4. NEXT POSITION
5. ETA
6. NEXT POSITION

EMERGENCY MESSAGE

TRANSMIT THE FOLLOWING MESSAGE TO ANY AGENCY ON THE AIR-GROUND FREQUENCY IN USE. IF UNABLE TO ESTABLISH COMMS, ATTEMPT CONTACT ON ANY OF THE FOLLOWING EMERGENCY FREQUENCIES:

UHF/VOICE	VHF/VOICE	MF/VOICE	HF/CW	MF/CW
243.0	121.5	2182 KHZ	8364 KHZ	500 KHZ

MAYDAY, MAYDAY, MAYDAY
THIS IS NOAA _____, NOAA _____, NOAA 43

- POSITION _____ N / S
_____ E / W AT _____ Z
- HEADING _____ TRUE/MAG
- AT _____ KTS TRUE/INDICATED
- FLIGHT LEVEL OR ALTITUDE _____
- WE ARE A P-3 AIRCRAFT WITH 15 SOULS ON BOARD
- NATURE OF EMERGENCY
- ASSISTANCE DESIRED
- PILOT INTENTIONS
- WE HAVE _____ ENDURANCE REMAINING

	TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
	1433	ENG	N	N		N																
	1437	TAXI	W	W		W																
	1437 1455	BLOCK 7/0																				
	1459	XV	27-51.9 82-17.7	27-51.9 82-17.7	0 0	27-51.8 82-17.7	+.1 0			140	0	140	223	140	2	5K	221					090/11 MCR ✓
	1545	△	25-40.4 79-08.2	25-40.9 79-07.7	-.5 +.5	25-40.0 79-08.6	+.4 -.4			133	4L	129	302	270	30	17K	274					
N4R	1630	△C	24-30.6 74-59.6	24-31.6 74-59.0	-1.0 +.6	24-30.0 75-00.0	+.6 -.4			105	3L	102	312	260	35	17.5K	278					
N4R	1730	△	23-31.2 69-40.1	23-32.8 69-39.5	-1.6 +.6	23-30.1 69-41.3	+1.1 -1.2			108	5L	103	305	245	35	17.5K	275					
N4R	1830	△	23-29.7 65-30.8	23-32.4 65-29.4	-2.7 +1.4	23-28.3 65-32.6	+1.4 -1.8			132	6L	126	285	230	28	17.5K	280					
N4R	1930	△	21-46.4 67-10.6	21-49.7 67-08.2	-3.3 +1.8	21-44.7 67-11.5	+1.7 -1.5			310	0	310	280	300	5	18K	287					
N4R	2045	△	22-34.2 72-22.4	22-38.2 72-20.2	-4.0 +2.2	22-32.3 72-24.5	+1.9 -2.1			282	3R	285	272	255	30	20K	296					
chop 2023	2145	△	24-48.6 77-04.1	24-53.2 77-02.0	-4.6 +2.1	24-46.4 77-07.6	+2.2 -3.5			304	1R	305	288	284	23	20K	305					
	2245	△	27-24.8 82-00.5	27-30.1 81-57.9	-5.3 +2.6	27-22.4 82-05.1	+2.4 -4.6			298	1L	297	250	295	15	12K	255					
	2306	LAND	27-50.7 82-30.9	27-56.3 82-28.3	-5.6 +2.6	27-48.9 82-35.7	+1.8 -4.8															

8846

RANGE CONTROL GRAPH

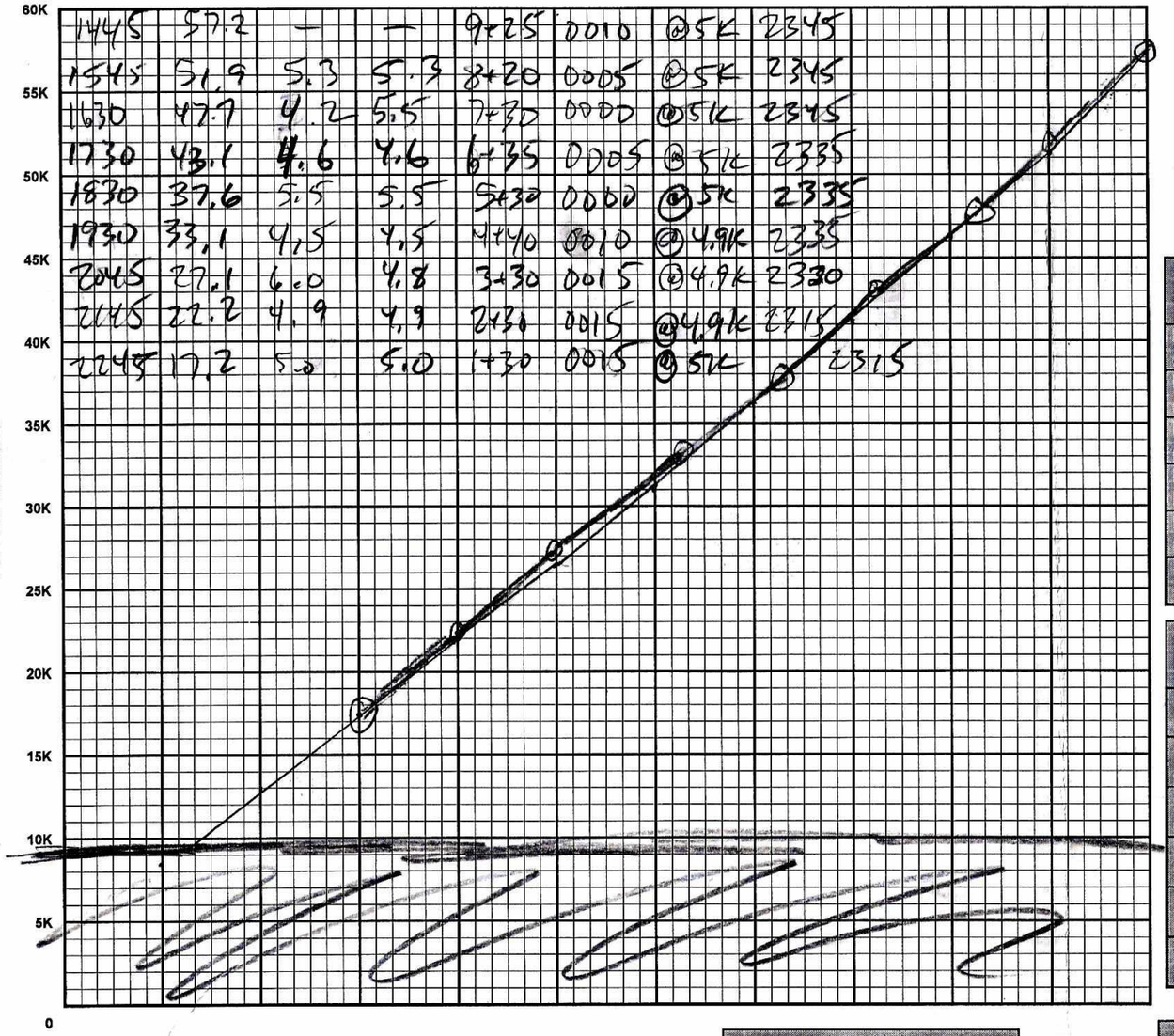
TIME REMAINING

2345 2245 2145 2045 1945 1845 1745 1645 1545 1445

11+00 10+00 9+00 8+00 7+00 6+00 5+00 4+00 3+00 2+00 1+00

FUEL REMAINING

60K 55K 50K 45K 40K 35K 30K 25K 20K 15K 10K 5K 0



1445	57.2	—	—	9+25	0010	@5K	2345
1545	51.9	5.3	5.3	8+20	0005	@5K	2345
1630	47.7	4.2	5.5	7+30	0000	@5K	2345
1730	43.1	4.6	4.6	6+35	0005	@5K	2335
1830	37.6	5.5	5.5	5+30	0000	@5K	2335
1930	33.1	4.5	4.5	4+40	0010	@4.9K	2335
2045	27.1	6.0	4.8	3+30	0015	@4.9K	2330
2145	22.2	4.9	4.9	2+30	0015	@4.9K	2315
2245	17.2	5.0	5.0	1+30	0015	@5K	2315

DISTANCE REMAINING

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

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	9+00
ENROUTE FUEL (6K 5K 4.5K RULE)	43K
RESERVE AT DESTINATION	10K
REQUIRED RAMP	53K
ACTUAL RAMP FUEL	57.2

11
33
43

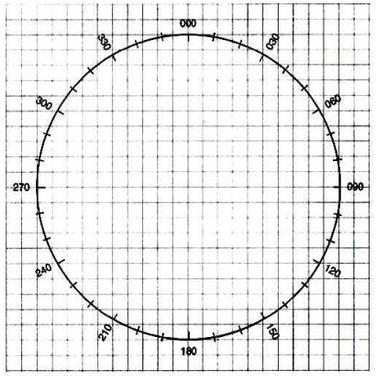
TACTICAL (OFFSTA TO DESTINATION)	4 ENG	3 ENG
DISTANCE (OFFSTA TO DEST)		
ENROUTE TIME (OFFSTA TO DEST)		
BURN RATE (LBS/HR)	4500	5500
ENROUTE FUEL REQUIRED		
RESERVE AT DESTINATION		
FUEL AT OFFSTA		

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

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 +W -E	
EXACT LHA	
LAT	
BODY	
DEC	
HC / D	
CORR	
HC	
Z	
ZN	



"F" FACTOR				
PRESS ALT	200	250	300	350
10,000	1.0	1.0	.99	.99
20,000	.99	.98	.97	.97
30,000	.97	.96	.95	.94
40,000	.96	.94	.92	.90

TRUE AIRSPEED CROSS-CHECK							
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	TAS	ITAS
1521	213	17K	X	X	+4	282	275

✓ 281

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION	MISSION	NAVIGATOR	AIRCRAFT COMMANDER	FLIGHT DIRECTOR	SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
KMLF	ODETTE #3	LT BRAKOB	CDR KENNEDY	DAMIANO	1500	7 DEC 03

	WP	LAT / LON	RTE	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ETA	ATA	REMARKS
KMLF	1	N 27-51 W 82-31						130						165 165	+35 +35				→ FLL
FLL	2	26-04.5 80-09.2						115						50 215	+10 +45				→ 2BV
2BV	3	25-42.3 79-17.7						112						105 320	+25 1+10				→ 2QA
2QA	5	25-02.4 77-28.2						105						440 760	1+30 2+40				→ Tooms
Tooms	8	23-00 69-44.6						090						390 1150	1+25 4+05				→ 6
6	5	22-45 64-30						270						450 1600	1+40 5+45				→ GTK
GTK	2	21-26.4 71-08.1						300						260 1860	1+00 6+45				→ 2LS
2LS	7	23-34.8 75-15.8						306						150 2010	+35 7+20				→ 2QA
2QA	1	25-01.5 77-26.8						292						110 2120	+25 7+45				→ 2BV
2BV	2	25-42.3 79-17.7						301						130 2250	+30 8+15				→ LBV
LBV	3	26-49.7 81-23.5						313						85 2335	+25 8+40				→ KMLF
KMLF	5	27-51 82-31																	

INS PERFORMANCE	INS 1	INS 2
BEGIN ALIGN TIME	1320	1320
ALIGN STATUS (0-5)	0	0
END NAV TIME	2310	2310
START NAV TIME	1430	1430
DELTA T	8+40	8+40

TERMINAL ERRORS	INS 1	INS 2
DELTA LAT	-5.6	+1.8
DELTA LON	+2.6	-4.8
RGS	2	1
RADIAL ERROR	7	6

REMARKS

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AIRCRAFT OPERATIONS CENTER

MISSION LOG	PAGE 2 OF 2

FIX TYPES
(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
1732	#1	SONDE																			