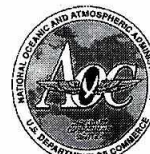




NOAA P-3 N42RF
Hurricane Ophelia RAINEX
KMCF - KMCF



Flight ID: H050911

Sensor or system

Number or Name

Inertial

2

Accelerometer Data

2

Temperature Probe

1

Dew Point Probe

1

Altitude (for vertical wind)

Radar Altitude

Radar Altitude

RA-159

Static and Dynamic Pressure

Rosemount Fuselage

Time Source

Micro 99

Constants File

CO2054.CON

Local meteorological data:

Take Off observation taken at 1555Z, by KMCF. Wind from NE at 9 knots, gusts to 15 knots. Visibility 7 miles. Temperature 30 C, Dewpoint 20 C. Surface pressure 1018.5 mb.

Landing observation taken at 2355Z, by KMCF. Wind N at 4 knots. Visibility 7 miles. Temperature 28 C, dewpoint 20 C. Surface pressure 1016.2 mb.

Notes:

File Start Time: 171101Z. End time: 010300Z.

Used RA-232 to patch RA-159 173218Z-173223Z, and 173233Z-173306Z.

RA-159 was inoperative before take off, after landing.

Parameter VSI2 inoperative after 185249Z.

There were several instances when the dew point temperature exceeded the ambient temperature resulting in a RH% above 100%. These times were during heavy precipitation events and were likely due to a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dew point sensor as it tried to burn off excess moisture. No corrections were made during these events unless noted above.

All other instruments worked optimally during the flight.

The aircraft INE1 positions were renavigated with respect to GPS.

Flight Director:

Contact Jack Parrish

Phone #:

(813) 828-3310 ext. 3077

U.S. Dep't. of Commerce / NMAO / NOAA / Aircraft Operations Center

FLT ID: 050911H	From: MCF	To: MCF
Flt No: 05 - 44	In: 0113 Z	On: 0103 Z
ETD: 1700 Z	Out: 1700Z	Off: 1711
ETE: 8 + 30	Blk Time: 8 + 13(8.2) Hrs	Flt Time: 7 + 52(7.9) Hrs
Sponsoring Org: NCSDis	Program: Ocean Winds	Purpose: EyeWall Intensive

AOC Flight Crew

Aircraft Commander: Kennedy ✓	Data System:
Co-Pilot: Strong ✓ Nelson	AVAPS: Olney ✓
Navigator: Siegel ✓	System Engineer: McMillan ✓
Flight Eng: Wade ✓ Bast ✓	AA: Kern ✓
Flight Director: Parrish ✓	AA:
Avionics:	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
Chang, P. ✓	P.I.	NCSDis
Esteban, D. ✓	1WRA	↓
Cabezas, R.	↓	↓
Chu, T.	↓	↓
Black, M. ✓	RAider BT	↓
Dodge, P. ✓	Radar	↓

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

Storm Name: ORUTELIA	Recco Times	Fix #	Fix Time
Mission ID: WX16A	TEAL 38 182 Z1Z		
50/8	TEAL 40 2315Z 2016Z WX16A ORUTELIA		
1018.55m 5K	Dropsondes 24 BTs 6	19 of 22	
1018.6 fm 1K	No eye penetrations	Sondes	
1019.1 fm 2.5K	Fixes on back ↓	2 AOC	
1019.4 fm 4.5K		2 Ocean Winds	
1016.5 fm 2.5K		19 Rainex	
1016.3 fm 1K		1 ONC	
315/6			
27/17			

(See reverse for additional remarks)

U.S. DEPT OF COMMERCE / NMAO / NOAA / AIRCRAFT OPERATIONS CENTER

FLT ID: 050911N

TIME OFF: 1711 Z

TIME ON: Z

A/C - Takeoff

WX Station - Takeoff

A/C - Land

WX Station - Land

Pressure

1018.5

1018.5

1016.2

ATIS - Takeoff

X-ray 1555Z 030/4 615 SK5 30/20 30.09 (1018.5)

ATIS - Land

Echo 2355Z 30/4 SK5 28/20 30.03 (1016.2)

Data Source

Number

Data Disposition / Date / Quality

Flight Level Tapes

Radar Tapes

Cloud Physics Tapes /
Cds

Video Tapes

Dropsondes

24

Good:

21

Bad:

3

Total:

24 19 INDEX
2 Ocean Wind 3 AOC

AXB T

6

AXCP

AXCTD

SONOBUOY

REMARKS:

Cross 2 buoys. Fig 4, Mostly cableless sondes.
4K FT 2 cableless, 1 UBLOR. 4 BTs & psbl.

1905 31°22'N 75°55'W 978

2003 31°22'N 75°56'W 978

2037 31°22'N 75°57'W 979

2118 31°19'N 76°02'W

2217 31°17'N 76°05'W 979

2310 31°12'N 76°07'W 980

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION
KNC

MISSION
OPHELIA

NAVIGATOR
SIEGEL

AIRCRAFT COMMANDER
KENNEDY

FLIGHT DIRECTOR
PARRIS

SCHEDULED / ACTUAL TAKEOFF Z
1700, 1711

DATE OF TAKEOFF
11 SEP 05

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
KNC	27 51.0 82 29.6	1	077	4W	073													
LAL	27 59.2 82 00.8	2 / 12	084	9W	081													
ODEL	28 05.8 81 10.2	3 / 13	094	5W	089													
MLB	28 06.3 80 38.1	4 / 14	050	6W	044													
BOW	28 30.0 80 12.0	5 / 15	081	6W	075													
DOU	28 54.0 78 30.0	6 / 16	046	7W	039													
IP	30 25.5 77 04.1	7 / 17	053	8W	045													
EVE	31 34.0 75 42.0	8 / 8																
OMN	29 18.2 81 06.8	2 / 12																
KZOE	28 55.4 81 22.3	3 / 13																
JENSA	28 20.6 81 45.8	4 / 14																
KNEED	28 16.2 81 53.7	5 / 15																
PLUMY	28 10.1 82 07.7	6 / 16																
PIE	27 54.5 82 41.1																	

INS PERFORMANCE

BEGIN ALIGN
TIME

ALIGN
STATUS (0-5)

END NAV
TIME

START NAV
TIME

DELTA T

INS 1

INS 2

1500

1500

0

0103

1637

8426

0103

1637

8426

TERMINAL ERRORS

DELTA LAT

DELTA LON

RGS

RADIAL
ERROR

INS 1

INS 2

-2.6

+2.2

4

3

7.0

-3.4

2

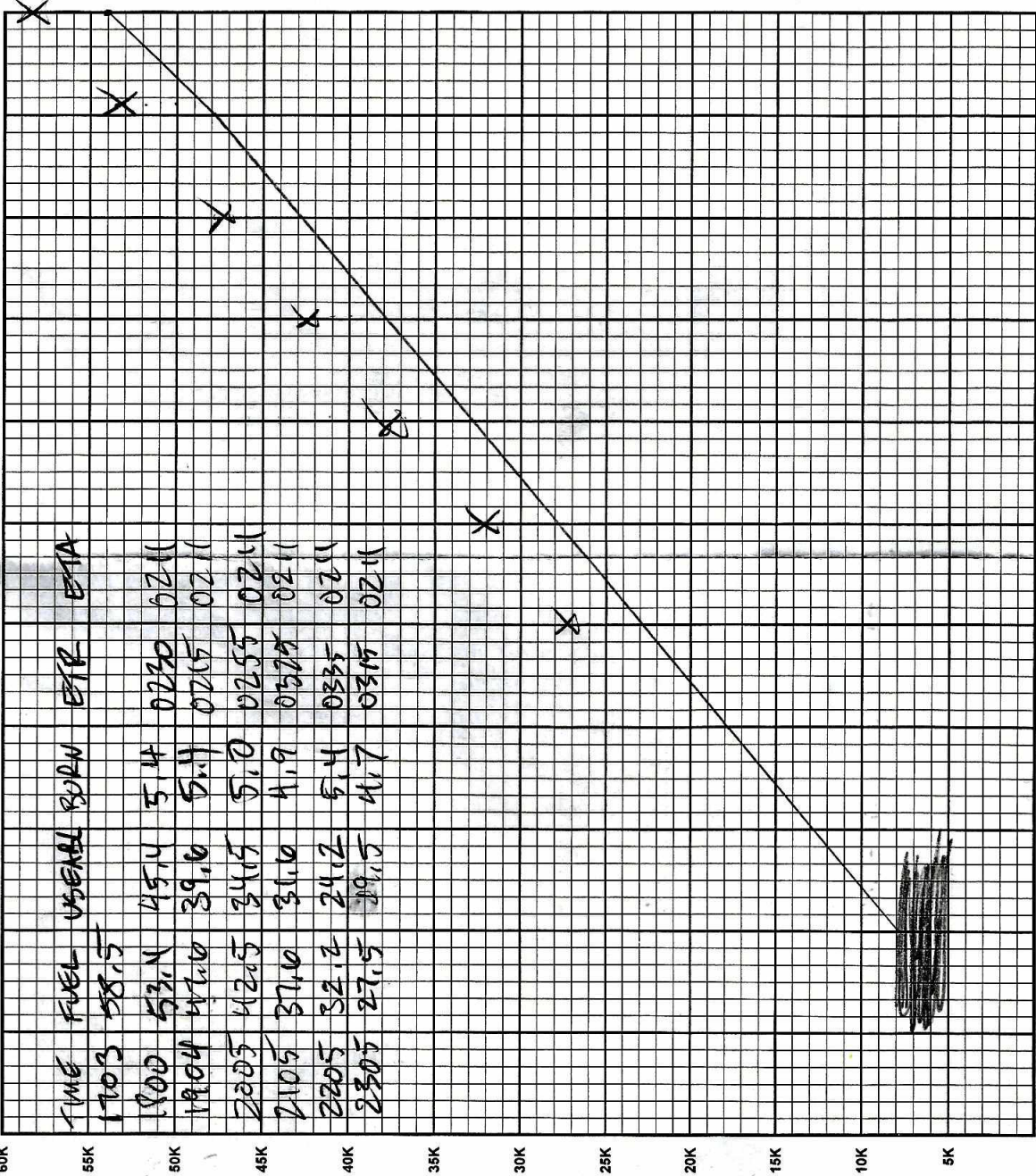
8

REMARKS

W447 Col L

W157/819 SE-5K

RANGE CONTROL GRAPH



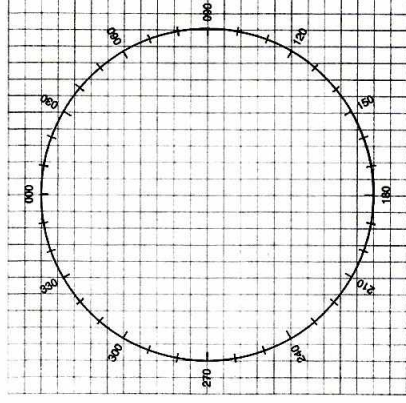
ENROUTE FUEL	
ENROUTE TIME	9400
ENROUTE FUEL (GK 5K45K RULE)	4400
RESERVE AT DESTINATION	800
REQUIRED RAMP	5400
ACTUAL RAMP FUEL	5805

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

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				



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

DISTANCE REMAINING

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

PRESS ALT		200	250	300	350
F. FACTOR	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
1753	208	040	208	115	+27	225	232

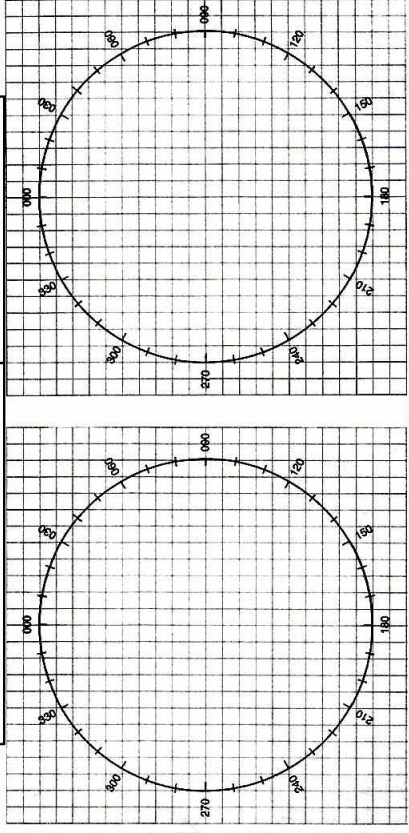
926 4107

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

MISSION LOG PAGE 2 OF 2

[illegible]

FREQ	ALT	HDG	CLEARANCES
			550/30 OTHER
			MUB R080 81000 740
			119.9 1137
			31 58
			75 37
			NVR (631) 244 249Z



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 4Z

THIS IS NOAA _____, NOAA _____, NOAA _____

- 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 16 SOULS ON BOARD

- NATURE OF EMERGENCY _____

- ASSISTANCE DESIRED _____

- PILOT INTENTIONS _____

- WE HAVE _____ ENDURANCE REMAINING _____

POSITION REPORT

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

[illegible]

Flight Data Log

Flight ID:

050911N H. Shelia Ocean Winds

Page__ of

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

Form 413-50

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _s	T _a	Press. Alt	Geo. Alt	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
1700Z	2750.9	8204.6			118	3	37	17				1018.3		B.D.
1719	2758	8204	70	73	353	12.5	15	-10.5	2087	2195	1013.4	786	72.6	
174632	2830	8012	41	37	333	7.3	19.8	8.0	1204	1200	1018.5	887	75	Run 1
1804	2843	7856	83	80	304	16.6	19.8	12.0	1128	1217	1017.2	885	75.8	
181150	2857	7827	40	34	307	23	19.9	13.7	1127	1210	1016.1	885	77.7	Run 2 South to end
183130	2959	7735			318	16	19	17			1013.1			Drop Vest
185148	3047	7633												50 mi Drop
1905	3122	7555					21	16			978	976.8		9
191014	3136	7535												Drop DE Engine 1
191833	3158	7514	44	60	146	31	18.6	16.9	1221	-	1002.1			9
2003	3122	7556										978		9
201033	3103	7533	135	150	218	31	18.6	16.5	1224		999.5	864		Drop SE engine 1
201649	3047	7514												Drop 50 mi SE
2037	3122	7557									979			9
2047	3154	7537	28	45	122	64	18.7	16.9	1272	1221	1000.5	871	71	W of eye
2118	3119	7602												9
213845	3228	7605	1	21	86	70	18.1	14.1	1200	1215	1008.5	872.8		
2200	3157	7701	131	115	45	65	18.4	13.2	1223	1207	1004.8	871.8		NO fuel
2217	3117	7605									979	978		9
2225	3115	7531	90	104	184	56	18.3	16.1	1293	1209	999.7	867	73.5	
22505	3224	7605	2	2	89	69	20.8	11.1	1203	1213	1007.1	876	66	W of center
2310	3112	7607					21	16			980			9
232145	3111	7655	269	286	5	69.5	18.6	15.8	1287	1233	999.7	867.8	73.1	W of eye
2355	3028	7916	238	245	12	35	18.7	14.7	1134	1214	1016.1	884	73.0	

N42RF AVAPS DROP LOG

Flight ID : 050911h

Landing :

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Comments	Good ?
1	053170056	1	.3	1811	NO	OLWEY	CODELESS ^{NS}	
2	053116239	1	0	1837	06		UBLOX	✓
3	053116091	1	0	1851	06			✓
4	051946054	2	0	1900	03			✓
5	053116107	3	0	1905	04		BT	✓
6	053116102	4	0	1910	02			✓
7	053116160	1	.2	1918	04		BT	✓
8	053116022	2	.4	1931	04			✓
9	053116197	3	0	1950	06		BT	✓
10	051946048	1	0	2010	10		BT	✓
11	053116237	2	0	2016	10		BT	✓
12	053170064	1	.3	2053	X	Kerr	no winds codeless	NS
13	053116098	2	0	2100	50		UBLOX	✓
14	053170072	1	.4	2118	X		no winds codeless	NS
15	051946056	2	-.9	2135	06		UBLOX	✓
16	053116101	2	0	2144	05		UBLOX	✓
17	051946055	2	0	2204	03		UBLOX	✓
18	051946050	2	0	2217	18		UBLOX	✓
19	053116028	2	0	2234	03		UBLOX	✓
20	051946052	2	0	2256	06		UBLOX	✓
21	053116099	2	0	2324	02		BT UBLOX	✓
22	053116108	2	0	2349	03		BT UBLOX	✓
	053170003	1	0		30		old software codeless	✓
	0531160320	2	0		25		new software codeless	✓

ALFALFA 2

2

Data Analysis

vsiz → failed after 1852372.

dai2 → glitch 1710332

patched 159 w 232 173152-173318-

TD2 191550-191937

203400-203630

PSF

PAFI

INEL

ACC 2

TTI

TD 2 → use VD1

APD 159

MICRO 29

602054.CON