



NOAA P-3 N43RF

Hurricane Ophelia Flight Four



Flight ID: 050914I

<u>Sensor or system</u>	<u>Number or Name</u>
INE	1
Accelerometer	2
Temperature Probe	1
Dew Point Probe	2 (Edgetech)
Altitude (for vertical wind)	Radar Altimeter 232
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage 1281
Time Source	Micro 99
Constants File	CO3051.CON

Notes:

There were numerous time data/gaps during this flight which occurred from 132621Z-132630Z, 133021Z-133030Z, 143621Z-143630Z, 143651Z-143700Z, 143721Z-143730Z, 143801Z-143810Z, 143851Z-143900Z, 144921Z-144930Z, 150421Z-150430Z, 154651Z-154700Z, 172251Z-172300Z, 172351Z-172410Z, 181821Z-181830Z, 183051Z-183100Z, 183121Z-183130Z, 195721Z-195740Z, 195751Z-195800Z, 195821Z-195850Z, and 201451Z-201500Z.

The difference in values between the dynamic attack pressure from the radome and the fuselage is greater than 20 mb. No corrections were made to the data.

Data from radar altimeter 159 was substituted into radar altimeter 232 from 203715Z-211800Z. Also an erroneous spike was removed from radar altimeter 232 from 141415Z-141435Z.

There were numerous times during the flight where the dewpoint temperature exceeded ambient temperature resulting in RH>100%. This was likely due to 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. Edits to dewpoint sensor number two were made between 153445Z-153455Z to bring the relative humidity values below 120%.

Data from dewpoint sensor number one was substituted into dewpoint sensor number two from 140401Z-141530Z.

The King Liquid Water sensor was not operating during this 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	1015.8 mb	1011.6 mb
Corrected Tower Pressure	1015.2 mb	1014.2 mb

Flight Director: Martin Mayeaux (813) 828-3310 ext. 3086

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Flt ID: 056914I	From: 1Kmf	To: 1Kmf
Flt. No: 05-051	Blk In: 2211 Z	Time On: 2203 Z
ETD: 1300 Z	Blk Out: 1242 Z	Time Off: 1259 Z
ETE: 9+00	Blk Time: 9+29 (9.5) Hrs	Flt Time: 9+04 (9.1) Hrs
Sponsoring Org: NHC	Program: Reconnaissance	Purpose: Ophelia

AOC Flight Crew

Aircraft Commander: Tebest	Data System: Lyncei
Co-Pilot: Choy, Silah	AVAPS: Tong
Navigator: Siegel	System Eng:
Flight Eng: Floyd, Klippel	A A:
Flight Director: Mayeaux, Dansano	A A:
Avionics: Sans Souci	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
Ballard, L	media	Photographer
Darack, E	media	Weatherwise Magazine
Eddis, J	media	CH 4 Miami
Walsh, E	sci	NOAA/NASC

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

Storm Name: Ophelia

Mission ID: N0003 2516A Ophelia

Penetration number and time

TDZ leading very low.

Recco Times			Fix # Fix Time	
14/1456	14/1554	14/1715	3338	3344
7738 979ms	7735 980ms	7730 980ms	3349	3349
14/1437	14/2005		7724	7720
3357 979ms	3400 979			
7724 979ms	7720 ms			

3236 7604

(See reverse for additional remarks)

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Flight ID: 0509141		Time Off: 1259 Z		Time On: 2203 Z	
A/C: Takeoff		Wx Station: Takeoff		A/C: Land	
Pressure: 1015.8 mb		2998 mb		1011.8 mb	
A/C: Land		Wx Station: Land		2995 mb	
ATIS	Time	Observation			
Takeoff	1055Z	28005KT 7sm SCT100 26/22 2998			
Land	1957Z	31007KT 7sm FEW030 31/22 2995			
	Number	Data Disposition / Date / Quality			
Flight Level Tapes					
Radar Tapes					
Cloud Physics Tapes / CDs					
Video Tapes					
Dropsondes		16 Good: 16 Bad: 0			
AXBT					
AXCP					
AXCTD					

Remarks:

Plan: 15, 18, 21Z fixes (33.6 77.7 fix position)

Noaa 2516A Ophelia

Alpha patterns.

65 KTS surface 980 pressure

700mb - 77 KTS. No other plans

after 11Z. Plan the 00Z fix will

be from AL

fly 700mb -> 10,000 ft.

Drops Eyewall, then Center

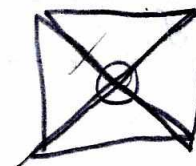
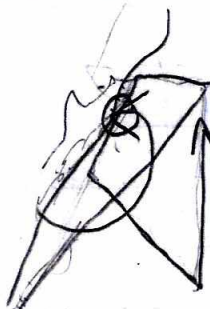
105 miles legs - shorten NW

legs to Coast. Fly E-W then

Parallel coast till 45° from

Center.

TDR
no acting
Speculation
Reading
Low



3233-7904IP

5043

1500 2300

[illegible]

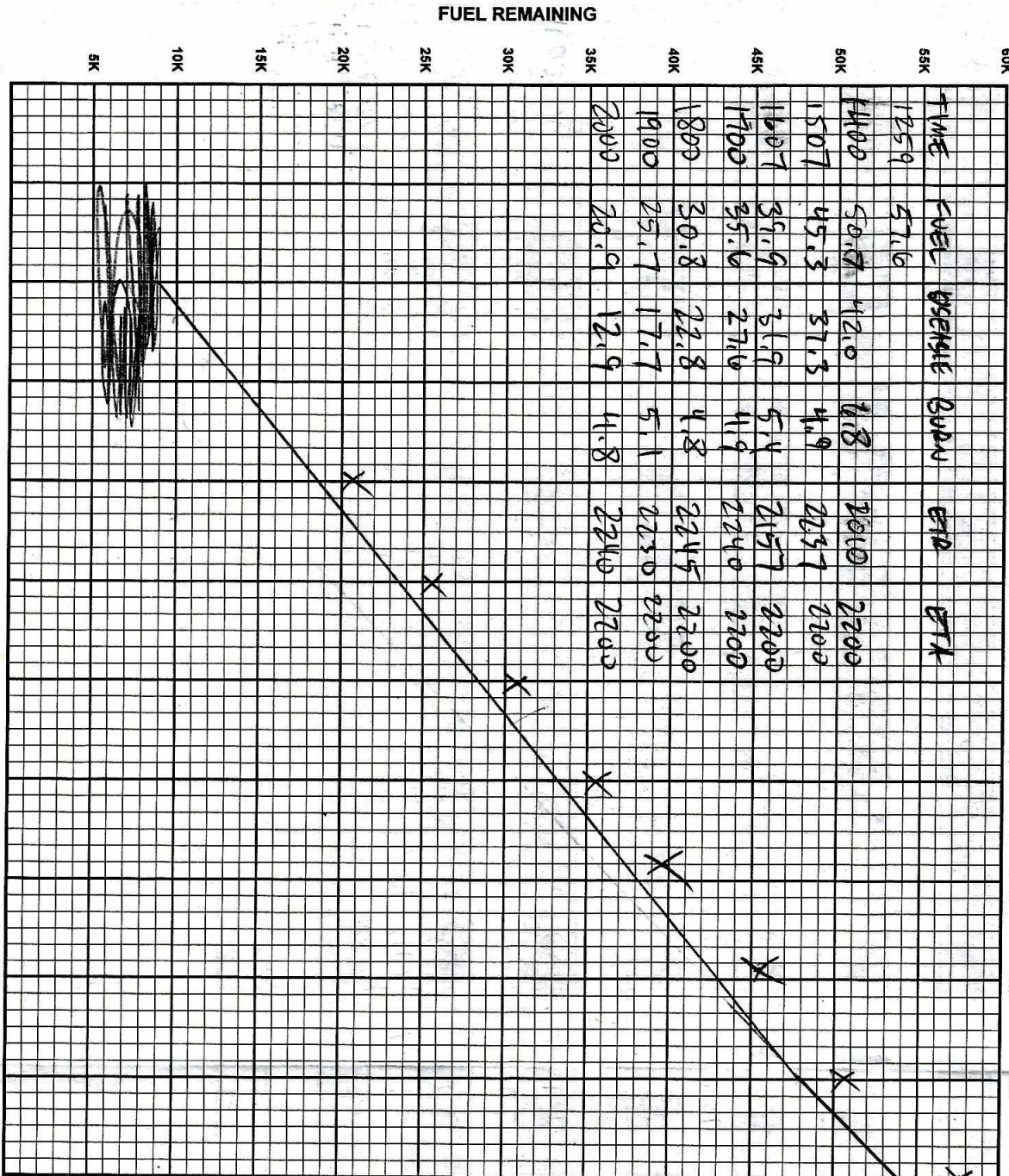
INS PERFORMANCE		INS 1		INS 2	
BEGIN ALIGN TIME		1110		1110	
ALIGN STATUS(0-6)		0		0	
END NAV TIME		2204		2204	
START NAV TIME		1234		1234	
DELTA T		9430		9430	

TERMINAL ERRORS		
	INS 1	INS 2
DELTA LAT	-2.8	+16.3
DELTA LONG	+1.2	-13.8
RCS	3	3
RADIAL ERROR	3	21

[illegible]

RANGE CONTROL GRAPH

2200 TIME REMAINING 1300
35.4 39.4 45.3 50.7 1259
11:00 10:00 9:00 8:00 7:00 6:00 5:00 4:00 3:00 2:00 1:00



DISTANCE REMAINING

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/4K/RULE)	46.0
RESERVE AT DESTINATION	8.0
REQUIRED RAMP	54.0
ACTUAL RAMP FUEL	57.6

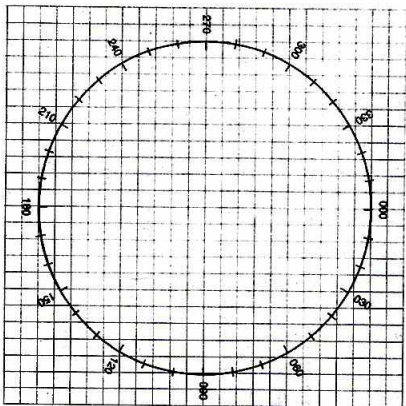
TACTICAL (OFFSTA TO DESTINATION)	
4 ENG 3 ENG	
DISTANCE (OFFSTA TO DEST)	
ENROUTE TIME (OFFSTA TO DEST)	
BURN RATE (LBS/HR)	4500 5500
ENROUTE FUEL	
RESERVE AT DESTINATION	
FUEL AT OFFSTA	

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 (OAL 000)			
+ ZN			
= MTH			
MCH (READING)			
CE			
- VAR			
= DEV			

CEX SIGHT	
GMT	
GHA	
CORR	
GHA	
LONG - W - E	
EXACT LHA	
LAT	
BODY	
DEC	
HG/D	
CORR	
HG	
Z	
ZN	



TRUE AIRSPEED CROSS-CHECK					
TIME	LAS	PRESS ALT	"F" FACTOR	EAS	OAT
1527	210	140		412	244
					258

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

[illegible]

POSITION REPORT

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:

UH/FNOICE VHF/FNOICE MF/FNOICE HF/FCW MF/FCW
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 _____

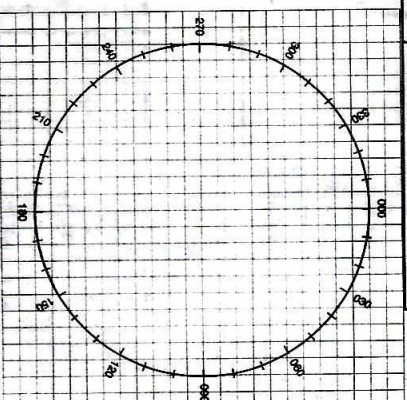
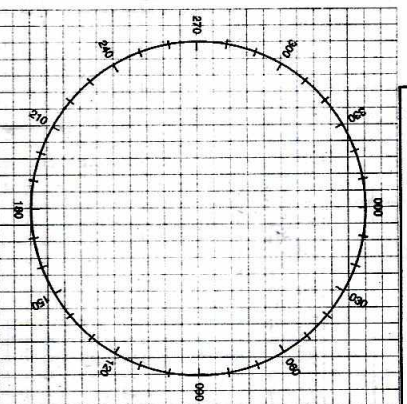
- WE ARE A P-3 AIRCRAFT WITH 15 SOULS ON BOARD

- NATURE OF EMERGENCY _____

- ASSISTANCE DESIRED _____

- PILOT INTENTIONS _____

- WE HAVE _____ ENDURANCE REMAINING



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

[illegible]



N43RF AVAPS DROP LOG

Flight ID : 653914;

Launcher S/N: 7415 0N5

Change all to NHC-per MM