

Flt ID: 030913I	From: TISX	To: TISX
Flt No: 03-	Blk In: 2136 z	ATA: 2129 z
ETD: 1500 z	Blk Out: 1448 z	ATD: 1455 z
ETE: 7+00	Blk Time: 6+48 6.8	Flt Time: 6+34 6.6
Sponsor Org: NESDIS HRD	Program: CBLAST OCEAN	Purpose: HURR ISABEL

AOC Personnel

AC: TEBEST, R	Sys Eng: TONG, R ✓
CP: TENNESEN, D ✓ STRONG, T ✓	Data Sys: LYNCH, T ✓
Nav: NEWMAN, C ✓	Radar:
FE: FLOYD, D ✓ MURPHY, J	GPS/BT: SMITH, J ✓
FD: FLAHERTY, P ✓ DAMIANO, A.R. ✓	Cld Phys:
Avionics: SANS SOUCL, D ✓	CURTIS, J

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
BLACK, M ✓	PI	HRD
ROGERS, R ✓	HRD RADAR	HRD
LAWE, J ✓	VIS SCI	SCRIPS
ULITORN, E ✓	HRD RADAR	HRD
FRENCH, J ✓	VIS SCI	NOAA/ARL
MONTGOMERY, M ✓	VIS. SCI	COLO STATE

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

IP 23.0 DELTA FREQ KING W MAYBE INOP
64.0 FOR SOWDES

BALANCED TD2 2029

TD2 READING TOO HIGH - TL NOTIFIED

NOSE 2032

17K

TAS 303 GS 300

IN 22.0 / 60.4 935mb

43 1709 2224 / 6157 934mb

AF 1853 2232 / 6219 932mb

43 1957 2236 / 6225

1709
2224 / 6157

787
289
2041

1957
2236 / 6225

(2)

Fit ID: 030913 I Time Off: 1455Z Time On: 2129

A/C (Take Off) Wx Station (Take Off) A/C (Land) Wx Station (Land)
Pressure 1012.5 29.93 1008.9 29.88

	Number	Data Disposition / Date / Quality
Fit Lvl Tapes	2	
Radar Tapes	1	
Cloud Physics Tapes		
Video Tapes	4	
AXBT		
AXCP		
AXCTD		
Dropsondes	12	
Sondebuoys	3	

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

Remarks

16
3
48



NOAA P-3 N43RF CBLAST- HURRICANE ISABEL INVESTIGATION FLIGHT 1



Flight ID: 030912I

Sensor or system

INE

Accelerometer

Temperature Probe

Dew Point Probe

Altitude (for vertical wind)

Static Pressure

Dynamic Pressure

Time Source

Constants File

Number or Name

1

1

1

2 (EdgeTech)

Radar Altimeter 159

Rosemount Fuselage

Rosemount Fuselage 1281

Micro 99

CO3033.CON

Notes:

There were several time/data gaps during this flight which occurred during the times 165241-165250, 212841-212850, 213151-213210, 213131-213140, 213031-213040, 213001-213010, and 213321-213340.

RA-232 was substituted for RA-159 from 150301-150641(take-off), 174853-180040, and 215709-221000 (landing) due to spiking. Roll2 was substituted for Roll1 from 220159-220327 due to spiking. Due to a large PQAF (Dynamic Attack Pressure) - PQF1 (Dynamic Pressure) separation caused by low-level flying, PQF1 was substituted into PQAF with an offset of 2.1 to minimize this difference from 180315-192244.

All other instruments worked optimally during the flight. However, several times during the flight, the dewpoint temperature exceeded the ambient temperature resulting in a RH >> 100%. This was likely due to heavy rain (as reflected in the J-W Liquid Water Sensor data), a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dewpoint sensor as it tried to remove excess moisture. For times where the RH% was consistently greater than 120%, corrections were made to the dewpoint data (164730-174040, 191930-205800).

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	1012.9 mb	1010.5 mb
Corrected Tower Pressure	1012.2 mb	1010.5 mb

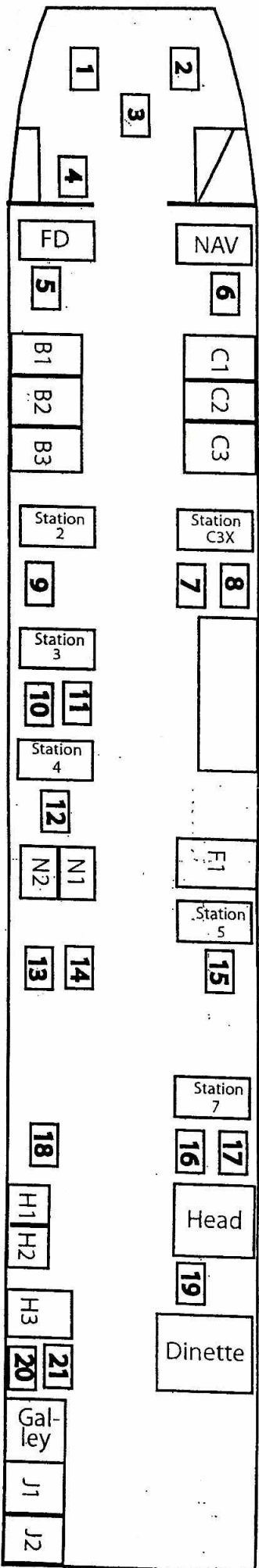
Flight Director:

Paul Flaherty (813) 828-3310 ext. 3094

03-078

NOAA AIRCRAFT OPERATIONS CENTER

Flight ID D30913 I



DATE 13 SEP 03	SCHEDULED RX TIME N/A	AIRCRAFT NUMBER N43RF	FLIGHT DIRECTOR FLAHERTY
WX MISSION IDENTIFIER NOAAS WX13A ISABEL			OB NUMBER N/A
VORTEX DATA MESSAGE			
A	13 / 1700 Z	DATE and TIME of FIX	
B	22 DEG 24 MIN (N) S	LATITUDE of FIX	
	61 DEG 57 MIN (W) E	LONGITUDE of FIX	
C	N/A MB N/A M	MINIMUM HEIGHT of STANDARD LEVEL	
D	N/A KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED	
E	N/A DEG N/A NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND	
F	22 DEG 130 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER	
G	292 DEG 25 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND	
H	N/A MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.	
I	7 C / 3618 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE	
J	12 C / 4039 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE	
K	12 C / N/A C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE	
L	CLOSED WALL	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.	
M	C40	EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190; 17 - 170 to 350. Transmit diameter in nautical miles. Examples: C8= Circular eye 8 miles in diameter. E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.	
N	12345 / N/A	FIX DETERMINED BY / FIX LEVEL. FIX DETERMINED BY: 1-Penetration; 2-Radar; 3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0-Surface; 1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other	
O	1 / 1 NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY	
P	REMARKS MAX FL WIND 130 KT NW QUAD 1703 Z		

INSTRUCTIONS: Items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled intermediate fixes.

DATE		SCHEDULED RX TIME		AIRCRAFT NUMBER		FLIGHT DIRECTOR	
WX MISSION IDENTIFIER						OB NUMBER	
VORTEX DATA MESSAGE							
A	13 / 1957 Z		DATE and TIME of FIX				
B	27 DEG 36 MIN N S		LATITUDE of FIX				
	62 DEG 25 MIN W E		LONGITUDE of FIX				
C	N/A MB N/A M		MINIMUM HEIGHT of STANDARD LEVEL				
D	N/A KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	N/A DEG N/A NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	167 DEG 147 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	DEG NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	N/A MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	8 C / M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	12 C / 4061 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	13 C / N/A C		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE				
L	Closed wall		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.				
M	C 45		EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190; 17 - 170 to 350. Transmit diameter in nautical miles. Examples: C8= Circular eye 8 miles in diameter. E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.				
N	12345 / N/A		FIX DETERMINED BY / FIX LEVEL. FIX DETERMINED BY: 1-Penetration; 2-Radar; 3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0-Surface; 1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other				
O	1 / NM		NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY				
P	REMARKS MAX FL WIND 147 KT NE QUAD 1950 Z						

INSTRUCTIONS: Items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled intermediate fixes.

[illegible]

MISSION LOG

PAGE ____ OF ____

POSITION REPORT

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

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 _____

- POSITION _____ N/S _____
E/W AT _____

- HEADING _____ TRUE/MAG _____

- AT _____ KTS TRUE/INDICATED

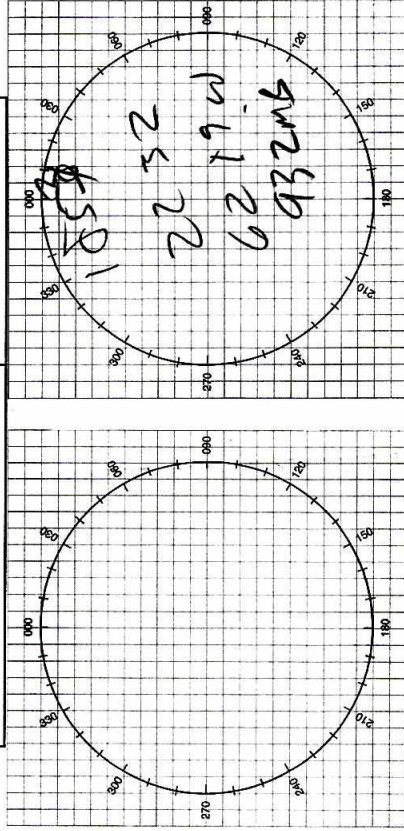
- FLIGHT LEVEL OR ALTITUDE -

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

- NATURE OF EMERGENCY

- ASSISTANCE DESIR

- PILOT INTENTIONS

[illegible]