

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

FLT ID: 20110723J	From: KYNZ	To: KYNZ
FLT #: 11-061	Blk In: 0101 Z	Lnd Time: 0056 Z
ETD: 1700 Z	Blk Out: 1653 Z	T/O Time: 1659 Z
ETE: 8+30	Total Blk: 8.1	Total Flt: 8.0
Sponsoring Org: NHC	Program: HFIP	Purpose: TS DORA

AOC Flight Crew

Aircraft Commander: HALVERSON	Data System: BOSKO
Co-Pilot: NELSON / KERNS	Avaps: RICHARD
Navigator: KIDDER /	System Engineer:
Flight Eng: KLIPPER / DARBY	AA:
Flt Director: SEARS / PATRICK	AA:
Avionics: OLNEY	Crew Chief:

Participating Scientists, Visitors, & Add'l Aircrew on back.

of people listed on back:

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure				

ATIS - Takeoff	
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ATIS - Land	
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Data Source	Number	Data Disposition / Date / Quality
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Flight Level Tapes	
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Radar Tapes	
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Dropsondes	Good: Bad: Sent:
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AXBT	
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List other data sources on back in Remarks section.

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

210 3 Passes
 330 1953 1001
 2112 1001
 2228 1001

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FLT ID: _____ T/O Time: _____ Z Lnd Time: _____ Z

Name (Last, First)	Activity on Aircraft	Affiliation

Remarks:

23 115
~~00 55~~

16 59

7.9



N43RF ERROR SUMMARY EPAC Tropical Storm DORA MISSION



Flight ID: 20110723I1

<u>Sensor or system</u>	<u>Number or Name</u>
INE (for wind derivation)	INE1
Accelerometer	ACCI1
Temperature Probe	TT1
Dew Point Probe	TDM2X
Static Pressure	PSF
Dynamic Pressure	PQF1
Vert. Wind	ALTI1
Constants File	/acdata/adc/43_11v3.adc
Project Directory	/acdata/2011/MET/20110723I1

Notes:

There were no data gaps.

Dewpoint sensor 2 (TDM2 [EdgeTech]) generated erroneous data between 185101Z – 185215Z, 223221Z – 223239Z, and 223333Z – 223353Z. The erroneous data were replaced with dewpoint sensor 1 (TDM1 [Buck]) output via direct substitution: TDM2 = TDM1.

During the flight there were instances where dewpoint temperature values exceeded derived ambient temperature values resulting in humidity values above 100%. These situations occurred during heavy precipitation events. All other instruments worked optimally during the flight.

There were twenty-three (23) GPS dropsondes deployed...22 good 1 bad.
There were twenty-one (21) AXBTs deployed... 20 good 1 bad.

Takeoff/Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

SPECIAL NOTE!!! The variable names dpj_wgs, dpj_was and dpj_wz in the netCDF file represent vertical ground speeds, vertical air speeds and vertical wind speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

Takeoff(1659Z) Landing(0056Z)

Aircraft Static Pressure 1012.9mb 1012.3 mb

Corrected Tower Pressure 1013.0mb 1012.3mb

Flight Director: Ian Sears (813) 828-3310 ext. 3039

N43RF AXBT DROP LOG

Flight ID :

Operators :

Landing :

Drop #	Drop Time	Channel	Tube	Lot	Comments	Good
1	1900	12	1A	029	Water Came Up	NO
2	1915		1B		21.7°C	✓
3	1930		Free		21.0°C	✓
4	1943		Free		24°C	✓
5	1949		1C		23°C	✓
6	1953		1D		23°C	✓
7	1958		Free		21°C	✓
8	2003		1E		23°C	✓
9	2021		1F		23.5°C	✓
10	2045		2A		22.0°C	✓
11	2102		2B		24°C	✓
12	2112		2C		24°C	✓
13	2118		2D		21°C	✓
14	2124		2E		22.5°C	✓
15	2141		3E		23°C	✓
16	2202		3D		24°C	✓
17	2213		3C		27°C	✓
18	2217		3B		24°C	✓
19	2243		3A		21°C	✓
20	2254		4A		22°C	✓
21	2307		4B		22°C	✓

N43RF AVAPS DROP LOG

Project: Hurricane
Goat Winds 2011Mission: EPAC Hvr DorgFlight ID: 20110723Z

Take Off: _____

Landing: _____

Flt Dir: Sears / Parrish

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	102125115	1	+4	1900	TMR	PRX		✓
2	102125103	2	+6	1915				✓
3	102125043	3	+3	1930				✓
4	102125102	4	-6	1943				✓
5	102125047	1	+4	1948				✓
6	102115257	2	+7	1953				✓
7	102145044	3	+5	1958				✓
8	102125021	4	0	2003				✓
9	102125814	1	+5	2021				✓
10	102125026	2	+3	2045				✓
11	102125020	3	+6	2102				✓
12	102125108	2	+5	2112	WLS			✓
13	102125008	3	+4	2118				✓
14	102125203	4	+8	2124				✓
15	102115263	1	+4	2141				✓
16	102515137	2	+3	2202				✓
17	102115261	3	+8	2213				✓
18	102115277	4	+5	2217				✓
19	102125117	1	+7	2228				✓
20	102125100	2	+4	2232				✓
21	103855037	3	+7	2243				✓
22	102125191	4	+5	2254				✓
23	102125189	1	+3	2307			MISSING WINDS	✗
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

PASS 1

DATE		SCHEDULED RX TIME		AIRCRAFT NUMBER		FLIGHT DIRECTOR	
WX MISSION IDENTIFIER						OB NUMBER	
VORTEX DATA MESSAGE							
A	23 / 1953 Z		DATE and TIME of FIX				
B	21 DEG 34 MIN N S		LATITUDE of FIX				
	112 DEG 32 MIN W E		LONGITUDE of FIX				
C	850 MB / 438 M		MINIMUM HEIGHT of STANDARD LEVEL				
D	31 44 KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	269 090 DEG 86 ³⁰ NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	14 DEG 32 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	272 DEG 39 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	1001 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	18 C / 1463 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	18 C / 1462 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	18 C / C		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE				
L	NA		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.				
M	NA		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	1345		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 34 KT W QUAD 19450 Z

MAX ^{OUTBOUND} FL WIND 51 2003 Z

210
~~280~~
 120

24 BT PASS 2

DATE		SCHEDULED RX TIME	AIRCRAFT NUMBER	FLIGHT DIRECTOR
WX MISSION IDENTIFIER				OB NUMBER
VORTEX DATA MESSAGE				
A	23 / 2112 Z	DATE and TIME of FIX		
B	21 DEG 46 MIN N S	LATITUDE of FIX		
	112 DEG 43 MIN W E	LONGITUDE of FIX		
C	850 MB 1439 M	MINIMUM HEIGHT of STANDARD LEVEL		
D	42 KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED		
E	33 DEG 35 NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND		
F	130 DEG 52 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER		
G	33 DEG 38 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND		
H	1061 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.		
I	17 C / 1438 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE		
J	19 C / 1507 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE		
K	18 C / 24 C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE		
L	NA	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.		
M	NA	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. <i>Examples:</i> 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	1345	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 53 KT NE QUAD 2102 Z			

PASS 3

DATE		SCHEDULED RX TIME		AIRCRAFT NUMBER		FLIGHT DIRECTOR	
WX MISSION IDENTIFIER						OB NUMBER	
VORTEX DATA MESSAGE							
A	23 / 2228 Z		DATE and TIME of FIX				
B	21 11 DEG 54 MIN N S		LATITUDE of FIX				
	112 DEG 53 MIN W E		LONGITUDE of FIX				
C	850 MB 1438 M		MINIMUM HEIGHT of STANDARD LEVEL				
D	28 KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	160 DEG 46 NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	244 DEG 32 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	169 DEG 31 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	1801 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	20 C / 1425 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	20 C / 1497 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	18 C / NAC		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE				
L	NA		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.				
M	NA		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	1 3408		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 53 KT NE QUAD 2102 Z

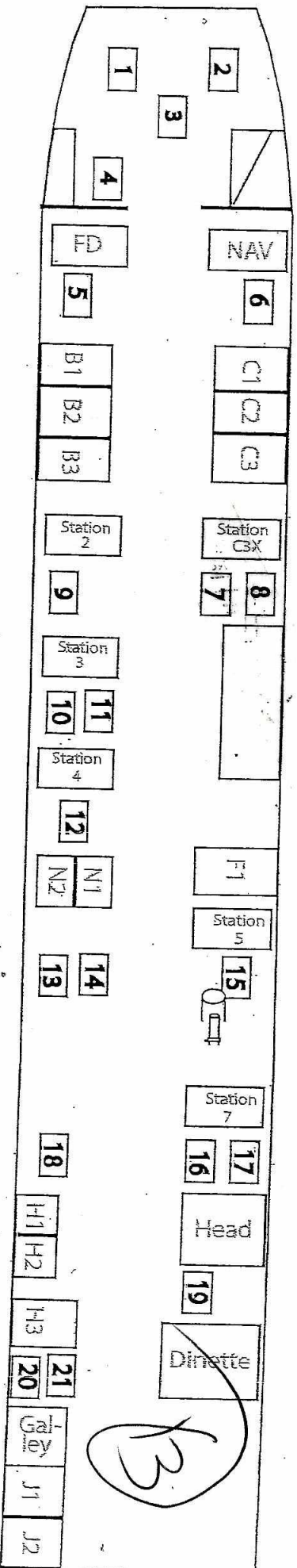
MAX OUTBOUND FL WIND NW QUAD 22 308 Z

308 9 KT

NOAA AIRCRAFT OPERATIONS CENTER

Flight ID 20110723J

IS DORA



1. Haverson PILOT
2. KERNS COPILOT
3. KLIPPEL FLIGHT ENGINEER
4. BLACK STATION 1
5. SEARS FLIGHT DIRECTOR
6. KLODZ NAVIGATOR
7. NEELSON STATION C3X
8. BLACK STATION C3X
9. PARRISH STATION 2
10. LEIGHTON STATION 3
11. BLACK STATION 3
12. BLACK STATION 4
13. DARBY PROJECT SEAT
14. PROJECT SEAT
15. OLNEY STATION 5
16. STATION 7
17. STATION 7
18. RICHARDS STATION 8
19. DINETTE
20. GALLEY
21. GALLEY

-116.0 -114.0 -112.0 -110.0

