

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

FLT ID: 20110722I	From: KYNZ	To: KYNZ
FLT #: 11-060	Blk In: 0137 Z	Lnd Time: 0131 Z
ETD: Z	Blk Out: 1639 Z	T/O Time: 1652 Z
ETE:	Total Blk: 9 HRS	Total Flt: 8.7
Sponsoring Org: NHC	Program: HFIP	Purpose: DORA

AOC Flight Crew

Aircraft Commander: NEL HALVERSON	Data System: BOSKO
Co-Pilot: NELSON, KERNS	Avaps: RICHARDS
Navigator: KIDDER,	System Engineer:
Flight Eng: DABY, KLIPPEL	AA:
Flt Director: SEARS, PARRISH	AA:
Avionics: OLNEY	Crew Chief: KREGEZKA

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

ATIS - Land

Data Source	Number	Data Disposition / Date / Quality
-------------	--------	-----------------------------------

Flight Level Tapes

Radar Tapes

Dropsondes

Good: Bad: Sent:

AXBT

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: NOAA 3 0401A DORA

Mission ID:

2031 988
2201 989

~~THESE~~
MAY BE
TROPICAL STORMS

PARRISH PENNY #1500
1 PENNY

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

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

Name (Last, First)	Activity on Aircraft	Affiliation
GOELZER, DIANA	OBS	NHC
CORRAN, PETER	OBS	FEMA/NHC
BLACK, M		
LEIGHTON, P		

Remarks:

$$\begin{array}{r}
 81 \\
 24 \quad 91 \\
 25 \quad 31 \\
 16 \quad 52 \\
 \hline
 8 \quad 39 \\
 67
 \end{array}$$



N43RF ERROR SUMMARY EPAC HURRICANE DORA MISSION



Flight ID: 20110722I1

<u>Sensor or system</u>	<u>Number or Name</u>
INE (for wind derivation)	INE1
Accelerometer	ACCI1
Temperature Probe	TT1
Dew Point Probe	TDM2
Static Pressure	PSF
Dynamic Pressure	PQF1
Vert. Wind	ALTI1
Constants File	/acdata/adc/43_11v3.adc
Project Directory	/acdata/2011/MET/20110722I1

Notes:

There were two data gaps: 163741Z –163816Z and, 220851Z –220903Z.

From 220424Z – 220850Z, many measured parameters erroneously “flat-lined,” thus resulting in erroneous derived parameters where the erroneous measured parameters were used. The parameters that erroneously flat-lined follows.

AXBT1	AXBT2	AXBT3	KLWC
LICXXX*	PCAB	PDAF	PDAR
PDSF	PDSR	PQAF	PQF1
PQF2	PQR	PQSF	PQW
PRT5_DOWN	PRT5_SIDE	PSF	PSW
PTR	SC_TCG1	TDM1	TDM2
TDM3	TDMBAL	TT1	TT2

*All parameters that start with “LIC” are included in the table above.

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 nineteen (19) GPS dropsondes deployed...18 good 1 bad.
There were sixteen (16) AXBTs deployed... 14 good 2 bad.

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(1652Z) Landing(0131Z)

Aircraft Static Pressure	1011.4mb	1009.9 mb
Corrected Tower Pressure	1010.9mb	1009.5mb
Flight Director: Ian Sears	(813) 828-3310 ext. 3039	

N43RF AXBT DROP LOG

Landing :

Drop #	Drop Time	Channel	Tube	Lot	Comments	Good
1	1912	12	1A	029	24°C	✓
2	1936		1B		24°C + DROPS RAPIDLY	✓
3	2008		1C			NO
4	2020		FREE FALL		25.7°C	✓
5	2041		1D		25°C	✓
6	2047		1E		26°C	✓
7	2059		1F		26.4°C	✓
8	2116		2A		24°C	✓
9	2133		2B		25°C	✓
10	2143		2C		24°C	✓
11	2153		2D		24.5°C	✓
12	2207		2E		21°C	✓
13	2217		3A		24.9°C	✓
14	2227		3B		25°C	✓
15	2254		3C			NO
16	2307		3D			
17						
18						
19						

N43RF AVAPS DROP LOG

Project: Ocean Winds 2011

Mission: DOFA FLIGHT 1Flight ID: 20110722I

Take Off: _____

Landing: _____

Flt Dir: SEARS/PARRISH

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	103845222	1	0	1912	WRO	PRX		✓
2	102125176	2	+3	1936				✓
3	103825250	3	+4	2008				✓
4	102125074	4	+3	2020				✓
5	103825220	1	+7	2025				✓
6	103855017	2	+6	2031				✓
7	103845200	3	+5	2040				✓
8	103855008	4	+6	2047	↓			✓
9	103855200	1	+4	2059	↓			✓
10	102515063	1	0	2116	TMR		Fest Fall	—
11	103855047	2	+6	2133				✓
12	102125042	3	+8	2143				✓
13	094735142	4	-7	2153				✓
14	102115272	1	+6	2201				✓
15	102125016	2	+2	2206				✓
16	102125046	3	0	2217				✓
17	102115281	4	+5	2227				✓
18	102115258	1	+5	2254			Weak, Lots of Noise	✓
19	102125037	2	+9	2307				✓
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

10.10.16.68



Local forecast by
"City, St" or "ZIP"

Go

Alternate versions
Text-only | Mobile

Get Storm Info

Satellite | Radar
Aircraft Recon
Advisory Archive
Experimental
Mobile Products
E-mail Updates
Audio/Podcasts
GIS Data | RSS
Help with Advisories

Marine Forecasts

Atlantic and E Pacific
Analysis Tools
Gridded Marine
Help with Marine

Hurricane Awareness

Be Prepared | Learn
Storm Surge
Frequent Questions
Research
Hurricane Hunters
Saffir-Simpson Scale
Forecasting Models
Glossary/Acronyms
Storm Names
Breakpoints

Hurricane History

Seasons Archive
Forecast Accuracy
Climatology
Most Extreme

About the NHC

Mission and Vision
Personnel | Visitors
NHC Virtual Tour
Library
Joint Hurr Testbed
NCEP | Newsletter

Contact Us - Help



National Weather Service National Hurricane Center

Home

News

Organization

Search

Go

Hurricane DORA Forecast Discussion

[Home](#) [Public Adv](#) [Fcst/Adv](#) [Discussion](#) [Wind Probs](#) [Maps/Charts](#) [Archive](#)

000

WTPZ44 KNHC 221431

TCDEP4

HURRICANE DORA DISCUSSION NUMBER 17

NWS NATIONAL HURRICANE CENTER MIAMI FL

EP042011

800 AM PDT FRI JUL 22 2011

DORA CONTINUES TO WEAKEN. WHILE CONVECTION HAS REDEVELOPED NEAR THE CENTER...THE SATELLITE SIGNATURE IS NOT VERY IMPRESSIVE WITH ALMOST OF THE CONVECTION IN THE SOUTHEASTERN PORTION OF THE CYCLONE. SATELLITE INTENSITY ESTIMATES ARE 77-82 KT FROM SUBJECTIVE AND OBJECTIVE DVORAK TECHNIQUES...THOUGH THE DATA T-NUMBERS ARE QUITE A BIT LOWER. THE WIND SPEED IS REDUCED TO 75 KT FOR THIS ADVISORY. A NOAA RESEARCH AIRCRAFT IS SCHEDULED TO CONDUCT A RESEARCH MISSION INTO DORA LATER TODAY TO OBTAIN A BETTER WIND ESTIMATE.

WATER VAPOR IMAGES SHOW THAT UPPER-LEVEL NORTHEASTERLY WINDS ARE CONTINUING TO CAUSE SHEAR ON DORA. ALTHOUGH GLOBAL MODELS DO WEAKEN THIS FLOW SOMEWHAT DURING THE NEXT DAY OR TWO...DORA WILL BE MOVING OVER COOLER SSTs AND PROBABLY WILL NOT GET A CHANCE TO TAKE ADVANTAGE OF THE DECREASED SHEAR. THE NHC INTENSITY FORECAST WILL SPLIT THE DIFFERENCE BETWEEN THE STATISTICAL AND DYNAMICAL MODELS...CALLING FOR STEADY WEAKENING...SIMILAR TO THE PREVIOUS ADVISORY. DORA WILL BE OVER SSTs NEAR 21C IN ABOUT 48 HOURS...LIKELY CAUSING ANY ORGANIZED CONVECTION TO DISAPPEAR AND FOR THE SYSTEM TO TRANSITION INTO A REMNANT LOW BY THAT TIME.

THE CYCLONE CONTINUES MOVING NORTHWESTWARD AT 8 KT ALONG THE SOUTHWESTERN FLANK OF A DEEP-LAYERED RIDGE. WHILE THERE IS AN OCCASIONAL MODEL OUTLIER TAKING DORA CLOSER TO BAJA...THE MAJORITY OF THE GUIDANCE SHOW A NORTHWESTWARD TRACK FOR THE NEXT SEVERAL SEVERALS. THE LATEST NHC FORECAST IS BASICALLY AN UPDATE OF THE PREVIOUS ADVISORY AND IS JUST TO THE LEFT OF THE MODEL CONSENSUS.

ALTHOUGH THE PROBABILITY OF TROPICAL STORM FORCE WINDS FOR SOUTHERN BAJA CALIFORNIA IS DECREASING...IT IS PRUDENT TO LEAVE THE TROPICAL STORM WARNING UP FOR NOW UNTIL WE ARE MORE CONFIDENT OF THESE WINDS STAYING OFFSHORE.

FORECAST POSITIONS AND MAX WINDS

INIT	22/1500Z	19.3N	109.4W	75 KT	85 MPH	
12H	23/0000Z	20.0N	110.2W	60 KT	70 MPH	
24H	23/1200Z	21.0N	111.3W	45 KT	50 MPH	
36H	24/0000Z	22.0N	112.5W	35 KT	40 MPH	
48H	24/1200Z	23.1N	113.9W	30 KT	35 MPH	...POST-TROP/REMNT LOW
72H	25/1200Z	25.0N	116.5W	25 KT	30 MPH	...POST-TROP/REMNT LOW
96H	26/1200Z	26.5N	118.0W	20 KT	25 MPH	...POST-TROP/REMNT LOW
120H	27/1200Z	...DISSIPATED				

\$\$

FORECASTER BLAKE

1740
19.5
109.5

Quick Navigation Links:

298 9.5

DATE		SCHEDULED RX TIME		AIRCRAFT NUMBER		FLIGHT DIRECTOR	
WX MISSION IDENTIFIER						OB NUMBER	
VORTEX DATA MESSAGE							
A	22 / 2031 Z		DATE and TIME of FIX				
B	19 DEG 49 MIN N S		LATITUDE of FIX				
	109 DEG 48 MIN W E		LONGITUDE of FIX				
C	850 MB 1335 M		MINIMUM HEIGHT of STANDARD LEVEL				
D	55 KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	353 DEG 18 NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	100 DEG 69 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	358 DEG 29 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	988 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	18 C / 144 F		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	20 C / 163 F		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	18 C / 25 C		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE				
L	poorly defined 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 8		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 <u>69</u> 55 KT <u>N</u> QUAD <u>Z</u>							

HDOB 28

DATE		SCHEDULED RX TIME	AIRCRAFT NUMBER	FLIGHT DIRECTOR
WX MISSION IDENTIFIER				OB NUMBER
VORTEX DATA MESSAGE				
A	22 2201 Z	DATE and TIME of FIX		
B	19 DEG 56 MIN N S	LATITUDE of FIX		
	110 DEG 0 MIN W E	LONGITUDE of FIX		
C	850 MB 1334 M	MINIMUM HEIGHT of STANDARD LEVEL		
D	48 KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED		
E	104 DEG 25 NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND		
F	182 DEG 63 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER		
G	104 DEG 25 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND		
H	989 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.		
I	18 C / 1458 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE		
J	20 C / 1553 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE		
K	18 C / 21 C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE		
L	POORLY DEFINED	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 8	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 63 KT E QUAD 2855 Z			