

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

FLT ID: 20140128H2	From: CYHZ → OAS Annapolis	To: CYHZ
FLT #: Ocean Winds #2	Blk In: 1943 (CYHZ) Z	Lnd Time: 1946 (CYHZ) Z
ETD: 28/1100 Z	Blk Out: 28/1101 Z	T/O Time: 28/1111 Z
ETE: 28/21Z	Total Blk: 8.8	Total Flt: 8.6
Sponsoring Org: NESDIS	Program: Ocean Winds	Purpose: Support PI Research → Sat derived wind products

AOC Flight Crew

Aircraft Commander: LCDR K. Beyer	SSA: Basko
Co-Pilot: LCDR Kerns, LCDR D. Dier	AVAPS: Newnam
Navigator: CDR Gallagher	Scientists: Paul Chong
Flight Eng: Darby, Lalonde	Scientists: Zorana Jelenak
Flt Director: Sears, Holmes	Scientists: Joe Sapp
SEB: Lynch, Ti	Scientists: Mirah Baker
Crew Chief: Crouch (not flying)	Visitors: /

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

AS REQUIRED BY ORM	YES / NO	REMARKS
VOLCANIC ASH	✓	Strong tailwind pushed us ahead of schedule for first 3 points.
SCIENCE MISSION WITHIN BOUNDARY LAYER	✓	Lead wind of 150 kts on the nose between CYRX - CYHZ. led to a long flight.
LACK OF PRECIPITATION	✓	
RELATIVE HUMIDITY AT OR ABOVE 80%	✓	
LARGE AIR-SEA TEMPERATURE GRADIENT	✓	
HIGH SURFACE WINDS	✓	
LONG FETCH AND/OR DURATION OF SFC WIND	✓ (temp)	
SEA SALT ACCRETION FORECAST	✓	
SEA SALT ACCRETION OBSERVED	✓	

Dropsondes	Good:	Bad:	Sent:
AXBT	Good:	Bad:	Sent:

List other data sources in Remarks section

Remarks (Storm VDM Identifier, Mission ID, Fix Times)	Fix #	VDM Ob Num	Fix Time / SLP
Storm Number Identifier (VDM): (ie: AL072012)			
TCPOD/WSPOD Mission ID: WXWXA Ocean Winds. 2 (ie: NOAA2 2418A SANDY)			

Remarks:

actual 1st/10n

comb drop @ 1438Z ascat-b @ test sonde @ 1635Z

sonde @ 1517Z ascat-q @

sonde @ 1553Z amsr2 @

sonde @ 1609Z osat-p @

CYRX → CYHZ

Block out: 280 TO: 205Z

Block in: 22: land: 22:

total block: Total Flt:



N42RF ERROR SUMMARY

Ocean Winds Flight

28 January 2014



Flight ID: 20140128H1

Sensor or system

Static Pressure Probe
Dynamic Pressure Probe
Total Temperature Probe
Dewpoint Temp. Probe
Vertical Accelerometer
Altimeter
INE Selection
Differential Attack Pressure Probe
Differential Sideslip Pressure Probe
Dynamic Attack Pressure Probe
Dynamic Sideslip Pressure Probe
Flight Directory

Number or Name

PSM.2
PQM.2
TTM.1
TDM.1X
AccZfilterI-GPS.2
AltIGPS.3
1
PDALPHA.1
PDBETA.1
PQALPHA.1
PQBETA.1
acdata/MET/2013/20140128H1

Local Met Data:

Aircraft Static Pressure
Tower Pressure (corrected)

Takeoff (1102Z)

994.2mb
993.7mb

Landing (2253Z)

1005.0mb
1004.7mb

Notes:

The measured Dewpoint Temperature from the Buck sensor (TDM.1) had periods during the scientific portion of the mission where erroneous values were recorded. Specifically, the dewpoint temperature exceeded the calculated ambient temperature resulting in relative humidity values greater than 105%. To mitigate these erroneous data, TDM.2 (EdgeTech) was substituted in for TDM.1 between 11:22:00Z and 20:24:26Z. There were also small gaps in data noted in AccZfilterI-GPS.1. These gaps were not present in AccZfilterI-GPS.2, so AccZfilterI-GPS.2 was selected for use to derive the ".AXC" file.

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, vertical air, 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.

Expendable Type	Number deployed	Number good	Number of messages transmitted
GPS dropwindsonde	3	3	0
AXBT	1	1	1
Test Sondes	1	1	0

Flight Director:
Phone #:

Mike Holmes
(813) 828-3310 ext. 3140

NOAA • AOC • SED N42RF AVAPS DROP LOG

Lead Tech: Joe Bosco

Project: Hurricane 2013 Mission: Ocean Winds 2

Flight ID: 2014012841

Take Off: 1111Z

Landing: 1945Z

Flt Dir: Sene / Palmer

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	112 115 132	1	-1.6	143106	JKM	NESTIS		✓
2	111 755 360	2	✓	1445.04	I	I		✓
3	103 125 327	3	✓	151703	I	I		✓
4	114 425 043	4	0	155309	I	I		✓
5	114 425 009	5	✓	160903	I	NESTIS		✓
6	112 815 083	6	✓	162954	JKM	ABC	Test Sonde AVAPS ver. 3.5 on Windows 7	✓
7	114 425 731	7	✓			NESTIS		
8	112 815 008	8						
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

Go to 1131.2

Sonde 15178
15556

1337

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
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57								

Drop Station Operator Notes

Charge \$\$ To Options: AOC, NWS, HFIP, NESDIS, or HRD ONLY – Do not use accounting codes!!!

AVAPS Pre-Flight Check:

- If time-permits, verify cabin pressure sensor w/ lab standard
- Start AVAPS., then start Soundings and set the Project Name and full Flight ID (example 20110823h2).
- Update the Frequency band allocation as required:
Band A - W53rd, Band B - N42RF, Band C - N43RF, Band D - N49RF, Band E - not allocated
- Perform a prelaunch check on each channel, look for reasonable data and no CRC error status lights. Verify data is available on Remote AVAPS at the FD Station, then terminate the sonde by selecting **Abort** to cancel the sonde initialization. Verify the AVAPS Data mission folder has been created.

AVAPS Launch:

- Select a sonde frequency in the Green band and away from other sondes
- Enter sonde pressure error offset if 0.4mB or greater
- Select "begin data collection" and verify good data (including Winds) prior to putting sonde in launch tube
- Cut off about ½ of ribbon, Unwind ribbon and flip the screen, Re-wind ribbon, Use orange tape to make a pocket at end of ribbon
- Loosen ribbon and extend end of ribbon to near, but not over, the sensor end of the sonde
- Place the sonde in the launch tube, sensor arm up, with the power pin socket facing starboard
- Verify the sonde is actively tracking GPS data prior to launch and no Early Launch detect

5562

EMERGENCY MESSAGE

TRANSMIT THE FOLLOWING MESSAGE TO ANY AIRCRAFT ON THE AIR-GROUND FREQUENCY IN USE. IF UNABLE TO ESTABLISH COMMUNIS, 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 _____ Z

- HEADING _____ TRUE/MAG _____

- AT _____ KTS TRUE/INDICATED _____

- FLIGHT LEVEL OR ALTITUDE _____

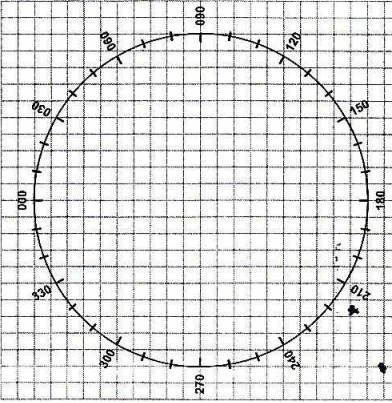
- WE ARE A P-3 AIRCRAFT WITH _____ SOULS ON BOARD

- NATURE OF EMERGENCY _____

- ASSISTANCE DESIRED _____

- PILOT INTENTIONS _____

- WE HAVE _____ ENDURANCE REMAINING _____



TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	MH	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
10 ⁵⁰	10⁵⁰	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
11 ⁰⁰	11⁰⁰	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
11 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
12 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
13 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
14 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
15 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
16 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
17 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
18 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
19 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	
19 ¹⁵	△	44-56.6 063-06.0	44-56.6 063-06.1	-	44-56.5 063-06.1	-	068	18W	050	2R	052	370	233	100	5230	264	62504	405	1512	1232	

