

9744

975.1

27.8 BT

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

FLT ID: 20121015H1	From: KMCF	To: KMCF
FLT #:	Blk In: 0250 Z	Lnd Time(on): 0243 Z
ETD: 182 Z	Blk Out: 1749 1749 Z	T/O Time (off): 1809 Z
ETE: 9	Total Blk: 9.0	Total Flt: 8.6
Sponsoring Org: AOC	Program: TRAC	Purpose: RAFAEL

AOC Flight Crew

Aircraft Commander: Nelson	Data System: Lynch T
Co-Pilot: Sweeney / Price	Avaps: Roles
Navigator: Kidder /	System Engineer:
Flight Eng: Klopel / Heystek	AA: Peek
Flt Director: Parrish / Williams	AA:
Avionics: Newman	Crew Chief:

Participating Scientists, Visitors, & Add'l Aircrew on back. (14) # of people listed on back: 2

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	1013.3	29.90 1012.1		29.88 1011.4

ATIS - Takeoff 1755 30004 105M SCT090 30/24 2990

ATIS - Land

Data Source	Number	Data Disposition / Date / Quality / File Name(s)
Flight Level Tapes		
Radar Tapes		
Dropsondes	13	Good: Bad: Sent: 5
AXBT	2	

List other data sources on back in Remarks section. Recco Times: Fix # Fix Time

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)	Recco Times:	Fix #	Fix Time
Storm Name: WAITA RAFAEL AL172012	2123	1	974b
	2147	2	978E
	2212	3	976
	2240	4	975
Mission ID: 5 4	2302	5	974
	2319	6	975

26 BT

Pennies
4 ASD

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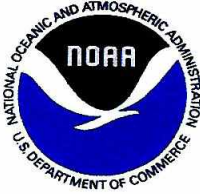
FLT ID: _____ T/O Time: _____ Z Lnd Time: _____ Z

Name (Last, First)	Activity on Aircraft	Affiliation
Klein, Jordan	✗ Media	Discovery Ch
Cook, Mikel	Media	Discovery Ch

Remarks:

18Z Est 23.5 65.9
 00Z Est 24.5 65.7

PQM.4 went out after climb to 22k



N42RF ERROR SUMMARY

HUR RAFAEL, KMCF-KMCF

15 Oct 2012



Flight ID: 20121015H1

<u>Sensor or system</u>	<u>Number or Name</u>
Inertial Selected (for wind derivation)	INE 1
Accelerometer	AccZfilterI-GPS.1
Temperature Probe	TTM.1
Dew Point Probe	TDM.2X
Static Pressure	PSM.2
Dynamic Pressure	PQM.2
Altitude (for vertical wind)	AltI-GPS.1
Flight Directory	acdata/MET/2012/20121015H1
Constants File	20121015H1/AAMPSConfig/core/n42.xml

Local Met Data:	<u>Takeoff (1809Z)</u>	<u>Landing (0243Z)</u>
Aircraft Static Pressure (PSM.2)	1013.3 mb	1009.6 mb
Tower Pressure (corrected)	1012.1 mb	1011.4 mb

Notes:

The Edgetech dewpoint, TDM.2, performed best and was used as default. However, it spiked erroneously on descent for landing from 02:32:09Z – 02:36:29Z, when TDM.1 also spiked. Because of this, the Maycomm TDL was used to substitute during this time as: TDM.2X = TDM.3 – 1.5. Dew point values intermittently exceeded ambient temperature values during portions of flight where the aircraft was in precipitation, causing RH values greater than 100%.

The Novatel Alt, Lat and Lon (GPS.3) had several one second data spikes from 20:16Z to 01:33Z. The blended inertial-GPS solution Alt, Lat and Lon (I-GPS.1) is the default position source.

Radome variables PQM.4, PTR, PDAalpha.2, PDBeta.2 are all erroneous while the radome was in icing conditions from 19:43Z – 20:13Z and again from 00:16Z – 01:46Z. PQM.2, PDAalpha and PDBeta # 1 are all default.

SPECIAL NOTE!!! The variable names GSZ_DPJ, ASZ_DPJ and WSZ_DPJ 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.

All other AOC instruments worked properly.

There were 13 GPS dropsondes (5 sent) and ~~1~~² AXBT's released from the aircraft. There were 6 hurricane penetrations.

Flight Director:
Phone #:

Jess Williams / Jack Parrish
(813) 828-3310 ext. 3140/3077

N49RF AOC GPS Dropwindsonde Log

Flight ID: 20121015H1

Flight Director: Williams

Mission ID: WAITA Rafael

Storm/Track: Training

Pg of

Drop #	Ob #	Sonde ID	Drop Time (UTC)	Lat (°N)	Lon (°E)	Wx Cond.	L5/R5?	SFC Prs (mb)	Last Wind Alt (m)	Comments	Ch #	SatComm failures	KWBC #
1		11755220	2120			W max		977.1		51 978		212337	
2		11215235	2123			E max				20 976.2			
3		11215256	2129			E max		981		57			
4		11215276	2142			E max				59.5 985			
5		111925012	2212			E max				58 984		221219	
6	972	11945378	2215			NNE max				974.9			
7			2226			NW max		28	35	73			
8			2238			NW max		28	35	526.2			
9			2240			E max		975	975	975.1			
10			2302			E max		976	23	976.3			
11			2306			NW max				74			
12			2318			E max		974.4					
13													
14													
15													
16													
17													
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23													
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25													
26													
27													
28													
29													
30													

2237
Drop

NOAA • AOC • SED N42RF AVAPS DROP LOG

Lead Tech: Joe Bosko

ct: Hurricane 2012

Mission: TS Rafael

Flight ID: 20121015#1

Take Off: 1809Z

Landing: 0202Z

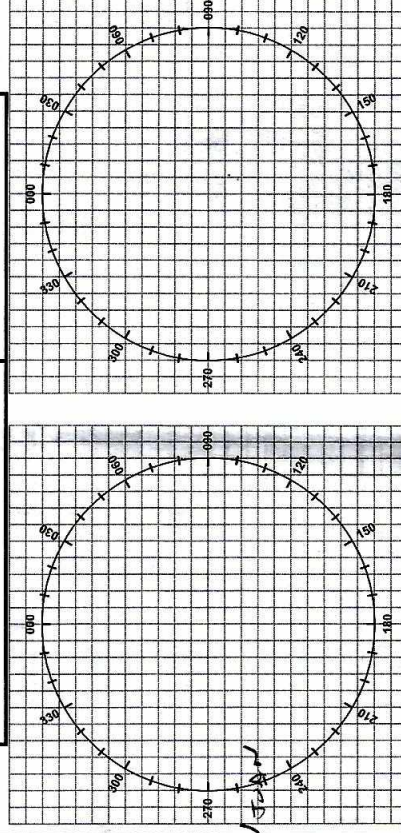
Flt Dir: Williams/Parrish

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	111 755 220	1	Ø	212059	JKN	AOC		✓
2	112 115 235	2	Ø	212338				✓
3	112 115 256	3	Ø	212953				✓
4	112 115 234	4	Ø	214226				✓
5	112 115 244	5	Ø	215242				✓
6	111 975 012	1	Ø	221220				✓
7	111 945 378	2	Ø	221543			good, but did lose small bits of data	✓
8	112 115 318	3	Ø	223655				✓
9	121 215 201	4	Ø	223913				✓
10	103 845 024	1	Ø	224052				✓
11	112 115 383	2	Ø	230251			Late LD. (6 sec)	✓
12	112 115 246	3	Ø	230658				✓
13	112 115 243	4	Ø	231835	JKN	AOC		✓
14	112 115 256	1	Ø					
15	111 975 012	1	Ø					
16								
17								
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34								

BTD

ST

CLEARANCES		
FREQ	ALT	HDG
		OTHER
		MST 2100' 9kr
		Carade 3100hr VRS SE
300/3	27.93	ROYAL SVA - MPA'S Central PE Wren Standoff
1742	44000	MADAMS - NYC TRAK 71 304.8 123.05
18452	1314	FEL PLN - ALT Storm INTR SA
1907	1348	PDFT 8800m 900m
		NODADA
		14 SOB



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

EMERGENCY MESSAGE
 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/VOICE MF/CW MF/CW
 243.0 121.5 2182 KHZ 8364 KHZ 500 KHZ

MAYDAY, MAYDAY, MAYDAY
 THIS IS NOAA 43, NOAA 43, 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 _____/14 SOULS ON BOARD
 - NATURE OF EMERGENCY _____
 - ASSISTANCE DESIRED _____
 - PILOT INTENTIONS _____ 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
1745	SMT	1712 HFD 1142 NODADA	CEW CALK	11330																	
1751	PRX	5762																			
1808	T10	127.3																			
1816	CONTR	2751.4 8159	2753 8158	0 0	2753 8158	0 0	101	SU	046	0	101	254	253	11	9156	243	TRJ	73	1839		
1918	A6	2648 01625.7	2648 01625	-1 +1	2648 01626	0 0	121	9W	112	0	121	273	290	S	FL190	271	MILF	155			
1952	C	NY POS 117	1949 NADAK																		
1959	C	125 2420	6540W	080-11790				REA													
2004	C	TUN REC	LANE	EXPECT																	
2014	A	2523 7130	2523 7139		2523 7120		150	11W	109	31	117	302	235	18	190	292	LAMEL				
2017	C	80-915	LAMEL																		
2030	C	LAMEL 2030 2400N 6540V	2120																		
2058	C	2420 6540	1850m 015-8.5		6100																
2100	CLM	2420 6540	1850m 015-8.5		6100																
2105	NY	ALT DLR CARL																			
2109	A	2405 6641	2405 6641	-1 +1	2405 6642	0 0	095	13W	082												
2123	B	2420 6540	1850m 015-8.5																		

8151

8846

8918

11330

4232

FIX TYPES
(G) GPS (I) INS (R) RADIO (M) VISUAL (C) CELESTIAL (D) DR

MISSION LOG PAGE ___ OF ___

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	VAR +E→	TH	DR +R→	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
2152	POWDER	ATC NY																		
2149	✓	2709 6541																		
2212	✓	2402.1 6544																		
2214	Δ	2458 6536	2500 6535	-2 +1	2800 6537	-2 -1														
2227	OPS	NOVA																		
2241	✓	2417.6 6548																		
2303	✓	2419 6547																		
2318	✓	2417 0654																		
2324	C	2420 N 06544 W	2322	VESLA 3352																
2326	C	VESLA VESLA 2352 FL 230	670 TRV GRMX 0105	MCF MCF	KNCF TRV	FL 230														
0105	✓	GRMX 0105 FL 230	TRV 0214	MCF																
0120	Δ	2707 7544	2710 7543	-3 +1	2709 07543	-2 +1														
0243	LAND	TRV KNCF	BRN 666																	

515