

Flight ID: 20140703I1

<u>Sensor or system</u>	<u>Number or Name</u>
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.1
Dewpoint Temp. Probe	TDM.2
Vertical Accelerometer	AccZfilterI-GPS.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.1
Differential Sideslip Pressure Probe	PDBETA.1
Dynamic Attack Pressure Probe	PQALPHA.1
Dynamic Sideslip Pressure Probe	PQBETA.1
Flight Directory	acdata/MET/2014/20140703I1

Local Met Data:	<u>Takeoff (1840Z)</u>	<u>Landing (2350Z)</u>
Aircraft Static Pressure	1015.6 mb	1017.4 mb
Tower Pressure (corrected)	1016.6 mb	1017.7 mb

Notes:

This quality control effort revealed a number of anomalous -100m to -200m drops in the uncorrected Novatel (ALTGPS.4) data throughout the flight. These anomalies were not present in the corrected Novatel (ALTGPS.3) data and therefore, ALTGPS.3 was used as the altitude source for the entire mission. All other instruments performed nominally.

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

Supersaturation: It is common when flying through heavy precipitation in tropical environments to observe dewpoint temperatures that exceed the ambient temperature and generate relative humidity values that exceed 100%.

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	7	7	7
AXBT	10	8	8
Test Sondes	0	0	0

Flight Director:
Phone #:

Mike Holmes
(813) 828-3310 ext. 3140

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

FLT ID: 20140703I1 From: KMLF Hum ANLOR To: KMLF
 FLT #: M8P3A43PHX Blk In: Z Lnd Time: Z
 ETD: 1800 Z Blk Out: 1833 Z T/O Time: Z
 ETE: 0200 Total Blk: Total Flt:
 Sponsoring Org: HRTD Program: HFIP + 1 NW5^{21st fix} Purpose: Surveillance

AOC Flight Crew

Aircraft Commander: CAPT Halverson SSA: Nacher
 Co-Pilot: Martin, D. Dier AVAPS: Wernicke, I
 Navigator: Sloan, I Scientists: Sam Abersson
 Flight Eng: Hersteck, Lalonde Scientists: Jun Zhang
 Flt Director: Holmes, Sears Scientists: Kathryn Serlwood
 SEB: T Lynch, I Scientists:

Crew Chief: Visitors: Kyle Nolan, Nick Perrini, Joe Patton, Kelly Nunez, Oscar

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

AS REQUIRED BY ORM	YES	NO	REMARKS
VOLCANIC ASH		✓	
SCIENCE MISSION WITHIN BOUNDARY LAYER		✓	
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	✓		
SEA SALT ACCRETION FORECAST		✓	
SEA SALT ACCRETION OBSERVED			

Dropsondes	7	Good: 7	Bad: 0	Sent: 7
AXBT	10	Good: 8	Bad: 2	Sent: 8

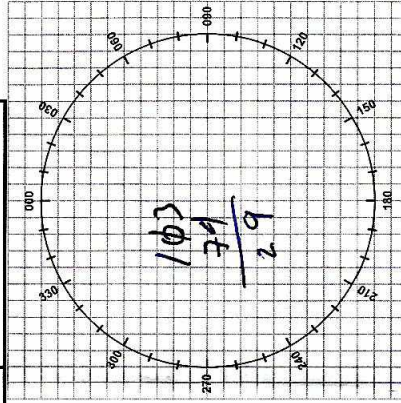
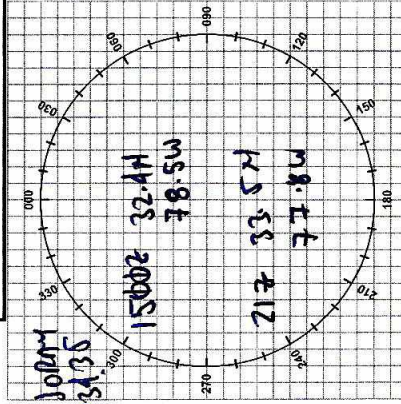
Remarks (Storm VDM Identifier, Mission ID, Fix Times)	Fix #	VDM	
		Ob Num	Fix Time / SLP
Storm Number Identifier (VDM): (ie: AL072012)			
TCPOD/WSPOD Mission ID: (ie: NOAA2 2418A SANDY)			

Remarks: RTB after FOUR... nose radar had to be shut off as likely cause

91E8

FREQ	ALT	HGD	OTHER
135-70(5)	6k	290	13505 110N
125-37	11k	330	123.67 carpenter
124.9(5)	14k	010	119.82 joray "
127-4(5)	8k	350	
124.63(5)		090	
		060	
135-05	JAX		
135-3	WASH		(4) N
118-25	WIA APP		(3) N
			(2) N 3328 W 7751 2118
			(1) N 3322 W 7800 2032

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 P
1830	START	N W			
1833	TAKE	N W			
1835	V	N W			
1840	+10	N W			
1842	IV	N W			
1845	III	N W			
1918	0	N 3005 W 8221			
1936	0	N 3016 W 8134			
1958	0	N 3209 W 8000			
2100	0	N 3335 W 7453			
2351	END	N W			
		N W			
		N W			
		N W			
		N W			

[illegible]

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

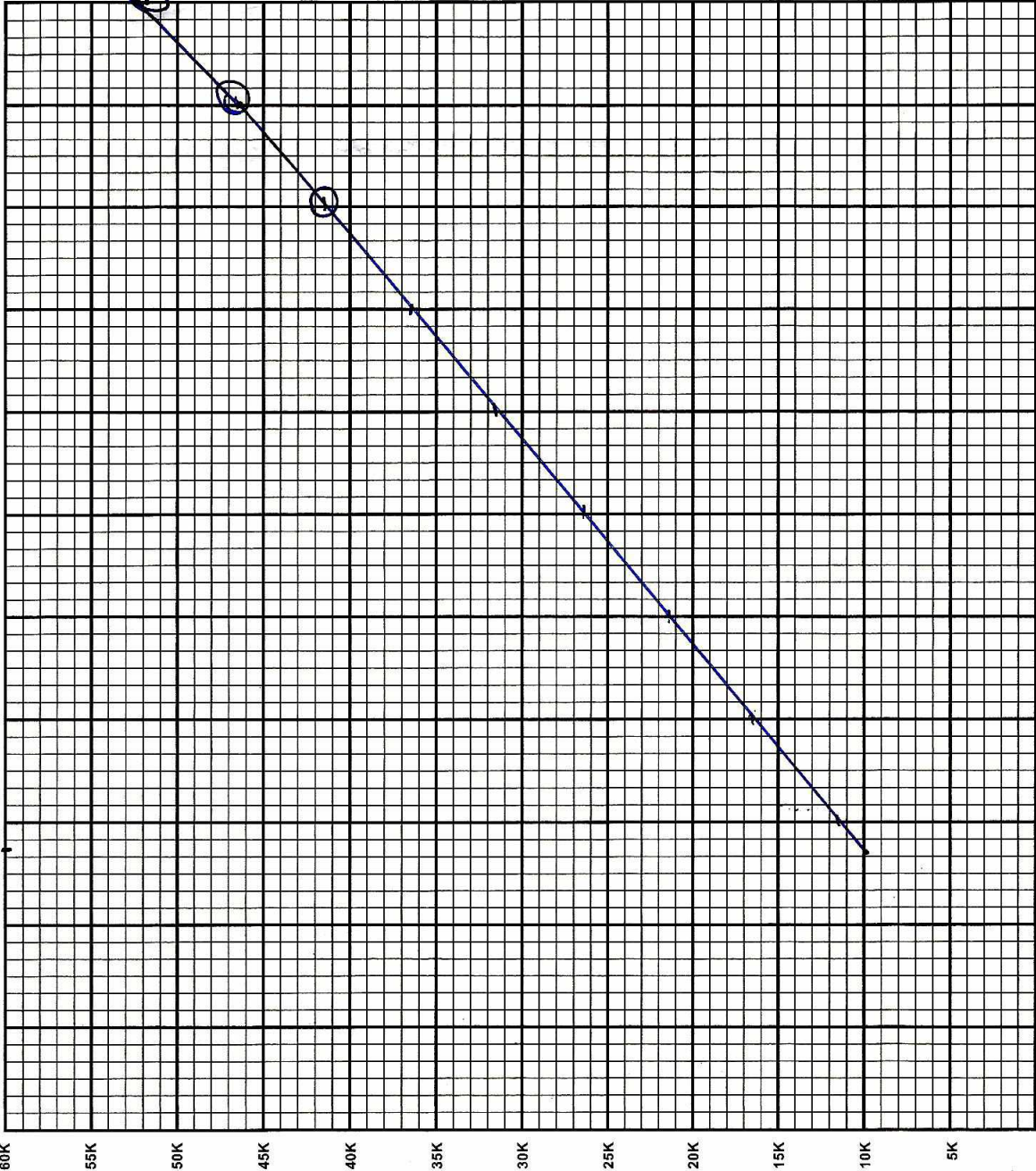
EMERGENCY MESSAGE

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/ICW	MF/ICW	
243.0	121.5	2182 KHZ	8364 KHZ	500 KHZ	
MAYDAY, MAYDAY, MAYDAY					
THIS IS NOAA <u>43</u> , NOAA <u>43</u> , NOAA <u>43</u>					
- POSITION	<u>32° 05'</u> <u>77° 56'</u>		<u>(M)</u> S		<u>Z</u>
- HEADING			<u>(M)</u> AT		
- AT			TRUE/MAG		
- FLIGHT LEVEL OR ALTITUDE					
- WE ARE A P-3 AIRCRAFT WITH					<u>18</u> SOULS ON BOARD
- NATURE OF EMERGENCY					- ASSISTANCE DESIRED
- PILOT INTENTIONS					
- WE HAVE					- ENDURANCE REMAINING

RANGE CONTROL GRAPH

0237 08+00 0137 7+00 2337 8+00 2337 5+00 2137 3+00 41-5 2037 2+00 1938 1837 1-00 46-2 51-8



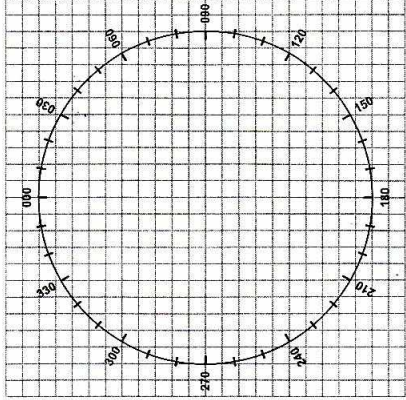
CEX - TRUE BEARING METHOD				CEX SIGHT	
COMPASS TYPE	INS1	INS2	WET	GMT	
MCH (READING)				GHA	
- MTH (SEXTANT)				CORR	
CE				GHA	
- VAR				LONG +W -E	
DEV				EXACT LHA	
				LAT	
				BODY	
				DEC	
				HC/D	
				CORR	
				HC	
				Z	
				ZM	

CEX - TRUE BEARING METHOD			
COMPASS TYPE	INS1	INS2	WET
MCH (READING)			
- MTH (SEXTANT)			
CE			
- VAR			
DEV			

CEX - ERB METHOD			
COMPASS TYPE	INS1	INS2	WET
MERB (DIAL 000)			
+ ZN			
= MTH			
MCH (READING)			
CE			
- VAR			
= DEV			

TACTICAL (OFFSTA TO DESTINATION)	
DISTANCE (OFFSTA TO DEST)	
ENROUTE TIME (OFFSTA TO DEST)	
BURN RATE (LBS/HR)	4500
ENROUTE FUEL REQUIRED	5500
RESERVE AT DESTINATION	
FUEL AT OFFSTA	

POINT OF SAFE RETURN	
ETP DISTANCE (TO DEPARTURE)	
ENROUTE TIME (TO DEPARTURE)	
BURN RATE (LBS/HR)	4500
FUEL REQUIRED	5500
RESERVE AT DEPARTURE	
PSR FUEL	



WIND FACTOR		
WINDSPEED	HEADWIND	TAILWIND
10	1.03	.97
20	1.06	.94
30	1.10	.92
40	1.14	.89
50	1.18	.87
60	1.22	.85

F _W FACTOR					
PRESS ALT	200	250	300	350	
10,000	1.0	1.0	.99	.99	
20,000	.99	.98	.97	.97	
30,000	.97	.96	.95	.94	
40,000	.96	.94	.92	.90	

TRUE AIRSPEED CROSS-CHECK					
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT

DISTANCE REMAINING

ETP = .5(TOTAL DISTANCE x OUTBOUND WIND FACTOR)

