

Flt ID: H011104B	From: KMCF	To: KMCF
Flt No.: 02-07	Blk In: 0712Z	ATA: 0704Z
ETD: 2200Z	Blk Out: 2145Z	ATD: 2156Z
ETE:	Blk Time: 9:27 (9.5)	Flt Time: 9:08 (9.1)
Sponsor Org: NHL	Program: RECCO	Purpose: H. MICHELLE

AOC Personnel

AC: TENNESEN	Sys Eng:
CP: TEBEEST / HALVERSON	Data Sys: McMILLAN ✓
Nav: ADLER ✓	Radar:
FE: WADE / FLOYD	GPS/BT: SMITH ✓
Avionics:	Cld Phys:
FD: DAMIANO ✓	CARPENTER ✓

Participating State (US/SA/ATO/SAOC)

Name (Last, First)	Activity on Aircraft	Affiliation
ZHANG, A	SFMR	UMASS

Proposed/Actual Mission/Remarks (Recco, Fixes, Storm, PENET, NHOP #)

27.89 2055Z 26 29.54 2304
 20 2057H
 DW2 not operative
 NO KLWC
 Del DW1 2233Z
 Del DW3 2235Z
 NO TA at all
 LF down 0204Z
 LF 2708Z

2342Z
 22°19'
 81°02'
 EX 956mb
 OVER LAND

2300 0535Z
 7935'
 EXT 971mB
 0515

Fit ID: H011104B Time Off: 2156Z Time On: 0704Z

	A/C (Take Off)	Wx Stn (Take Off)	A/C (Land)	Wx Stn (Land)
Pressure	<u>1011.7</u>	<u>29.89</u>	<u>1010.5</u>	<u>29.85</u>

	Number	Data Disposition/Date/Quality
Slow/Fast Fit Lvl Tapes	<u>2</u>	
Radar Tapes	<u>1</u>	
Cloud Physics Tapes		
Video Tapes	<u>3</u>	
AXBT		
AXCP		
AXCTD		
Dropsondes	<u>4</u>	<u>1 new 3 old</u>

	Forward	Left Side	Right Side	Down	Remarks
Time On					
Time Off					
Rate					

Remarks

H. Michelle

Flight #3 011104HB (Second Flight on November 4)

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	3(Buck Research)
Altitude (for vertical wind)	RA159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2012.CON

Notes:

There were two time/data gaps: 215231Z - 215250Z and 054021Z - 054040Z.

A couple of spikes were noted in the output from the radar altimeter, RA159, during the periods 2324Z - 2327Z and 2337Z - 2340Z. These spikes were removed and patched over.

Several small spikes were noted in the output from the Buck Research probe, DW3, during the following periods: 2224Z - 2227Z, 2227Z - 2230Z, 2229Z - 2231Z, 2233Z - 2236Z, 2342Z - 2345Z, 0142Z - 0144Z, 0147Z - 0150Z and 0349Z - 0351Z. These spikes were removed and patched over.

During periods of heavy precipitation, the dewpoint temperature, TD, was greater than ambient temperature, TA.

The King Liquid Water probe was inoperative for the entire flight.

All other instruments worked optimally during the flight.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1011.7mb	1010.5mb
Corrected tower pressure	1011.7mb	1010.7mb

The aircraft INE positions were renavigated with respect to GPS.

SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

Flight Director: A. Barry Damiano, (813) 828-3310 ext. 3073

N42RF AVAPS DropSonde Log

N42RF Project: Hurricane 2001

Flight ID 0111046h

Mission: Michelle #3

Flight #:

System Status:

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status / Failure Reason	GOOD ☒
1	003135071	1	0502	0	82	DWC		☒
2	011218096	4	0502	0	0		prototype	☒
3	003135159	2	0526	0	36			☒
4	003825321	4		0	0		prototype	☒
5								
6								
7								
8								
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10								
11								
12								
13								
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31								
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33								

NOAA2 1615A Michelle

DATE		SCHEDULED RX TIME	AIRCRAFT NUMBER	FLIGHT DIRECTOR
WX MISSION IDENTIFIER				OB NUMBER 16
VORTEX DATA MESSAGE				
A	0510535Z		DATE and TIME of FIX	
B	23 DEG 00 MIN (N) S		LATITUDE of FIX	
	79 DEG 35 MIN (W) E		LONGITUDE of FIX	
C	700 MB 2901 M		MINIMUM HEIGHT of STANDARD LEVEL	
D	NA KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED	
E	DEG NA NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND	
F	145 DEG 76 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER	
G	27 DEG 28 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND	
H	EXTRAP 971 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.	
I	12 C 13101 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE	
J	14 C 13147 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE	
K	11 C 1 NA 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	12345/7		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 96 KT NW QUAD 2332Z SEA LVL PRS EXTRAPOLATED FROM 700MB VERY POOR RADAR PRESENTATION CENTER IS BROAD AND DIFFUSE VERY			

INSTRUCTIONS: Items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled (intermediate) fixes.

DATE		SCHEDULED RX TIME		AIRCRAFT NUMBER		FLIGHT DIRECTOR	
WX MISSION IDENTIFIER						OB NUMBER 48	
VORTEX DATA MESSAGE							
A	04 12342 Z		DATE and TIME of FIX				
B	22 DEG 19 MIN N S		LATITUDE of FIX				
	81 DEG 02 MIN W E		LONGITUDE of FIX				
C	700 MB 2738 M		MINIMUM HEIGHT of STANDARD LEVEL				
D	NA KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	DEG NA NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	60 DEG 96 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	337 DEG 13 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	756 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	18 C 13250 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	23 C 13199 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	10 C 1 NA 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	12345/7		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 1 NM		NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY				
P	REMARKS MAX FL WIND <u>96</u> KT <u>NW</u> QUAD <u>2332</u> Z VERY POOR RADAR PRESENTATION						

INSTRUCTIONS: Items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled (intermediate) fixes.

2332Z

0350m

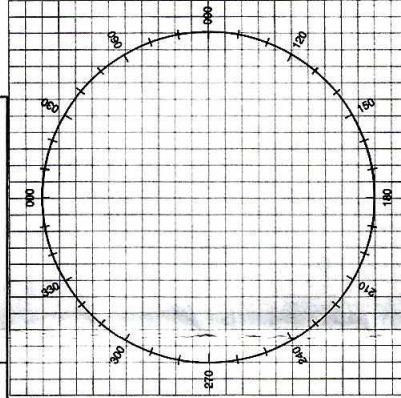
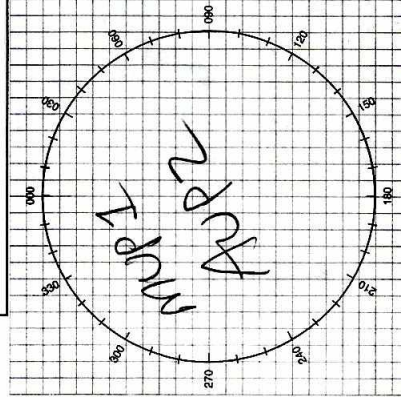
CLEARANCES

FREQ	ALT	HDG	OTHER
			212K
			R-60
			211K
			K
			1141

MISSION LOG

PAGE OF

PAGE OF



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/CW	MF/CW
243.0	121.5	2182 KHZ	8364 KHZ	500 KHZ

**MAYDAY, MAYDAY, MAYDAY
THIS IS NOAA . NOAA**

- POSITION _____ N

- 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	VAR +E=>	TH	DR +R=>	(TRK)	(GS)	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
2139	ENG																			
2145	TRK																			
2146	Black																			
2156	T10																			
2201	XV	27 47.8 082 27.4	27 47.7 082 27.5	+1.1 -1.1	27 47.8 082 27.4	+0 +0	2W	255	2L	253	250	055	30	712K	224	CANOA				146/5 mcf
2248	Δ	24 32.3 083 00.4	24 31.6 083 00.0	+1.7 +4	24 32.1 083 00.6	+1.6 -1.2	2W	185	3L	192	273	330	20	12K	254	CANOA				
2258	Δ	23 39.6 082 12.3								075	215									
2330	Δ	22 27.7 081 14.0	22 25.7 081 14.0		22 28.9 081 13.7				13L	140	227	065	70	10K	240					22 15.6 081 04.9 233
2352	Δ	22 35.6 080 20.6	22 33.4 080 20.3	+1.2 +1.3	22 35.8 080 20.3	-1.2 +1.3			13L	024	306	155	70	12K	255					22 19.2 081 01.7
0041	Δ	24 00.7 081 55.7	23 57.3 081 55.6	+3.4 +1.1	24 00.9 081 55.8	-1.2 -1.1	2W	273	4L	269	263	060	25	10K	238					22 19N 2342 081 02W 2342
0124	Δ	23 21.6 080 30.2	23 17.6 080 30.4	+4.0 -1.2	23 21.8 080 30.4	-1.2 -1.2			4L	090	190	100	60	10K						
0212	Δ	24 00.7 079 38.6	23 53.8 079 38.7	+8.6 -1	23 59.4 079 38.9	+1.0 -1.3			8R	271	281	130	60	10K	240					
0310	Δ	23 14.1 080 52.8	23 07.5 080 53.6	+6.6 -1.8	23 13.8 080 53.1	+1.3 -1.3			9R	120	226	050	45	10K	247					
0404	Δ	23 56.1 079 16.8	23 47.7 079 17.2	+8.4 -1.1	23 53.5 079 16.7	+1.6 +1.1			6R	272	270	135	60	10K	241					
0452	Δ	23 22.5 081 03.9	23 13.6 081 05.3	+8.9 -1.4	23 21.4 081 04.1	+1.1 -1.2			6R	122	255	010	30	19K	245					22 19.2 081 02W 2342
0540	Δ	23 05.4 079 51.7	22 58.3 079 53.8		23 05.1 079 52.2				8L	301	286	030	40	10K	257					22 19.2 081 02W 2342