

Hurricane 2000

Hurricane Michael

Flight 001018H

<u>Sensor or system</u>	<u>Number or Name</u>
INE	1
Accelerometer	1
Temperature Probe	2
Dew Point Probe	1
Altitude (for vertical wind)	RA-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2004.CON

Notes:

Takeoff: 1410Z

Land: 2248Z

Prior to and during takeoff, the radar altimeter (RA-159) was replaced by the RA-232 (1407:01-1422:00) due to spiking. Prior to and during landing the RA-159 was replaced by the RA-232 (2237:00-2251:00) due to spiking.

One spike in dewpointer #1 (due to dewpointer balancing procedure) was removed and patched (1455:00-1502:00). A spike in dewpointer #1 was removed and patched (1815:00-1815:30).

There were two time problems with the Micro 99 between 2056:31-2056:45 and 2101:21-2101:27. Both time problems resulted in a loss of data during those times.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1019.1 mb	1015.4 mb
Corrected tower pressure	1019.6 mb	1016.6 mb

The aircraft INE positions were re-navigated 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: Tom Shepherd, (813) 828-3310 ext. 3053

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AOCWF1

Flt ID: 001018H	From: KMCF	To: KMCF
Flt No.: 01-	Blk In: 2255	ATA: 2248Z
ETD: 1400Z	Blk Out: 1356Z	ATD: 1410Z
ETE: 2300Z	Blk Time: 8:59 9.0	Flt Time: 8:38 8.6
Sponsor Org: AOC	Program: TRAINING	Purpose: HURRICANE MICHAEL

AOC Personnel

AC: TAGGART, B ✓	Sys Eng: LYNCH, T ✓
CP: TEBEST, R / HALVERSON, H ✓	Data Sys: CARPENTER, D ✓
Nav: ADLER, J / RATHBUN, D ✓	Radar:
FE: MOORE, B / WADE, S / TORREY, R ✓	GPS/BT: SMITH, J ✓
Avionics: ROGERS, M ✓	Cld Phys:
FD: SHEPHERD, T / PARRISH, J ✓	

Participating Scientists/Visitors/AOC

Name (Last, First)	Activity on Aircraft	Affiliation
FLOYD, D ✓		
McFADDEN, J ✓		
CASTELL, T ✓		

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

1459 Bal Dpt #1
2157 Update INE 2

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AOCWF2

Fit ID: 001018H	Time Off: 1410 Z	Time On: 2248		
	A/C (Take Off)	Wx Stn (Take Off)	A/C (Land)	Wx Stn (Land)
Pressure	1019.1	30.11	1015.4	30.02

	Number	Data Disposition/Date/Quality
Slow/Fast Fit Lvl Tapes	2	
Radar Tapes	1	
Cloud Physics Tapes	1	
Video Tapes	4	
AXBT	12	
AXCP		
AXCTD		
Dropsondes	7	3 good (production) 1 BAD production sample 3 BAD PROTOTYPE

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

Remarks

3002

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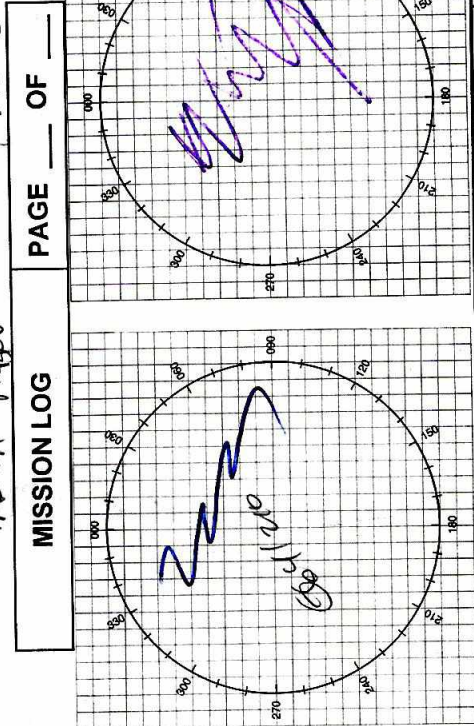
Form 413-50

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _a	T _d	Press. Alt.	Geo. Alt.	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
1356	27 30.7	82 30.1					23.3	16.3	-45		1018.8		0.0	Block Out
1412									450	500	1018.0			
1415									1480	15?	1017.8			
142215	27 40.7	81 53.5	57		300	16	6.2	-33.1	3612	3760	1009.8	643	65	1 thru 1214
152625	29 54	76 51	070	069	294	15.0	-1.8	-42.3	4673	4908	1012.7	564.3	78.1	Sct Bld
164040	31 42	70 32	52	43	302	44.3	17.7	12.4	1547	1522	1006.6	846.8	81.3	BT 1 / SCODE
164658	31 59	70 09												BT 2
164940	32 07	69 56												Sound x 2
165438	32 23	69 47												Mark #1
170007	32 42	69 35	29		137	51	16.1	16.2						Drop BT 3
1708	33 21	69 16			133	51	15.9	15.9	1576	1538	1010			Drop BT 4, sound
1713	V	to 1.5K												
1728	32 31	69 40					24	21			982			G # 2
174630	31 55	68 54												BT 5 SSE pt
175152	32 15	69 08	332		196	87	20.3	20.2	622	461	991			BT 6 25 mi to G
1801	32 40	69 33									981			G # 3
180640	32 56	69 46												BT 7 25 Out
181237	33 13	69 57	331		25	50	16.7	-	984	909				BT 8 50 Out
1818	33 05	70 08			Inbound from W & W									
182830	32 45	69 25									980			G # 4
1844	32 25	68 31			AT ESE AT									
1846	32 33	68 28	1		189	71	18.5	17.6	1024	950	999			
184944	32 51	68 27	~		167	78								BT 9 E of cake
185345	32 54	68 47			BT 25 mi east									BT 10
1902	32 59	69 19									979			G # 5
19005	32 59	69 37			BT W of cake 25 mi									BT 11
1912	32 59	70 03	261		3	51	22.7	19.6	1009	911	995	897	68	BT 45 W of cake
1916	32 47	70 00	70		340	45	21	13	1014	906	995	897		Inbound
1928	33 07	69 14					22	20			980			G # 6
193930	33 27	68 32			↑ to 6K									
1948	33 22	68 36												Sound x 2
1957	33 12	69 07					19				979			# 7 G
	HARD center				3312	69 05								
203255	32 22	71 52	216	250	281	26.8	-3.9	-26.7	5055	5267	1005.7	536.2	86.8	Sct Bld
220110	29 18	79 10	245	247	282	16.9	-3.1	-19.4	4905	5150	1010.2	550.4	99.2	Sct Bld CI ABV

22
USSR
TRK 074 H088 2202Z
1715Z
Red 81 12305

HF 11330 8846
2740 RTB

CLEARANCES		OTHER	
FREQ	ALT	HDG	OTHER
		R-4	
			1000
			17K 600g
			100' 28K 2724
			217K 211K 215K
			15K 220ASK
			180' 2600
			220° 24



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 COMM, ATTEMPT CONTACT ON ANY OF THE FOLLOWING EMERGENCY FREQUENCIES:
 UHF/VOICE 2182 KHZ HF/CW 8364 KHZ MFC/W 500 KHZ
 243.0 121.5
 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	
1352	BNG																				
1357	TAXI																				
1356	BUCK																				
1410	T/O																				
1412	XV	27 53.0 082 24.7	27 53.0 082 24.6	±0 ±1	27 53.0 082 24.6	±0 ±1	152	4W	148	4L	147	230	10	217K	220					MCAR 075T/0000	
1422	△	27 40.7 081 53.8	27 40.7 081 53.8	±0 ±0	27 40.7 081 53.7	±0 ±0	059	4W	055	1R	056	249	10	217K	239	4000	170	141	1503		
1457	△	29 01.5 079 25.1	29 01.4 079 25.2	±1 ±1	29 02.9 079 24.8	±0 ±1	060	6W	054	3R	057	285	20	15K	276	ENTR	445	193	1630	ofm 2500 91	
1541	△	30 19.3 075 33.2	30 19.5 075 33.2	±2 ±0	30 17.9 075 32.5	±1 ±1	077	9W	068	1R	069	288	15	155	276	ENTR					
1625	△	31 11.7 071 35.3	31 11.9 071 35.4	±1 ±1	31 08.8 071 34.5	±2 ±1	092	11W	081	5R	076	280	30	25K	259					to MICHAEL	
1655	△	32 22.7 069 46.6	32 20.4 069 46.3	±1 ±1	32 20.4 069 46.3	±1 ±1	047	11W	036	6L	030	216	30	5K	225					32 22.9 / 069 46.6	
1726	△	32 30.5 069 37.6	32 29.3 069 36.2	±1 ±1	32 25.3 069 35.4	±2 ±1	194	11W	183	5L	178	210	20	1.5K	220					29.13	
1759	△	32 39.9 069 34.0	32 36.4 069 35.6	±1 ±1	32 35.3 069 35.2	±1 ±1	050	11W	339	124	327	210	45	28K	223					FIX	
1828:50		32 49.7 69 25.3							122	2L	120	236	8	3K	233						03/24 34500K
1902:20	△	32 59.1 069 18.6	32 57.5 069 19.6	±1 ±1	32 52.5 069 19.4	±1 ±1	301	11W	290	18L	272	230	60	3K	210						3058 0300 69 16
1928	△	33 09.9 069 10.8	33 04.1 069 15.8	±1 ±1	32 58.7 069 15.6	±1 ±1	290	11W	279	12L	267	215	45	6K	220						33 05.5 069 14.9
1957	△	33 12.0 069 06.8	33 10.1 069 07.9	±1 ±1	33 04.5 069 08.0	±1 ±1															716.6
2002	△	33 42 070 55																			716.6
2112	△	31 03.2 075 06.1	31 00.3 075 07.2		30 58.9 075 08.9				285	3L	242	285	20	16.5	297						
																					4058 442 200 1105 1105 442 2154

① ② ③ ④ ⑤ ⑥ ⑦

N42RF AVAPS DropSonde Log

N42RF Project: Michael - TRAIN

Flight ID 001018H

Mission: Michael #1

Flight #: _____

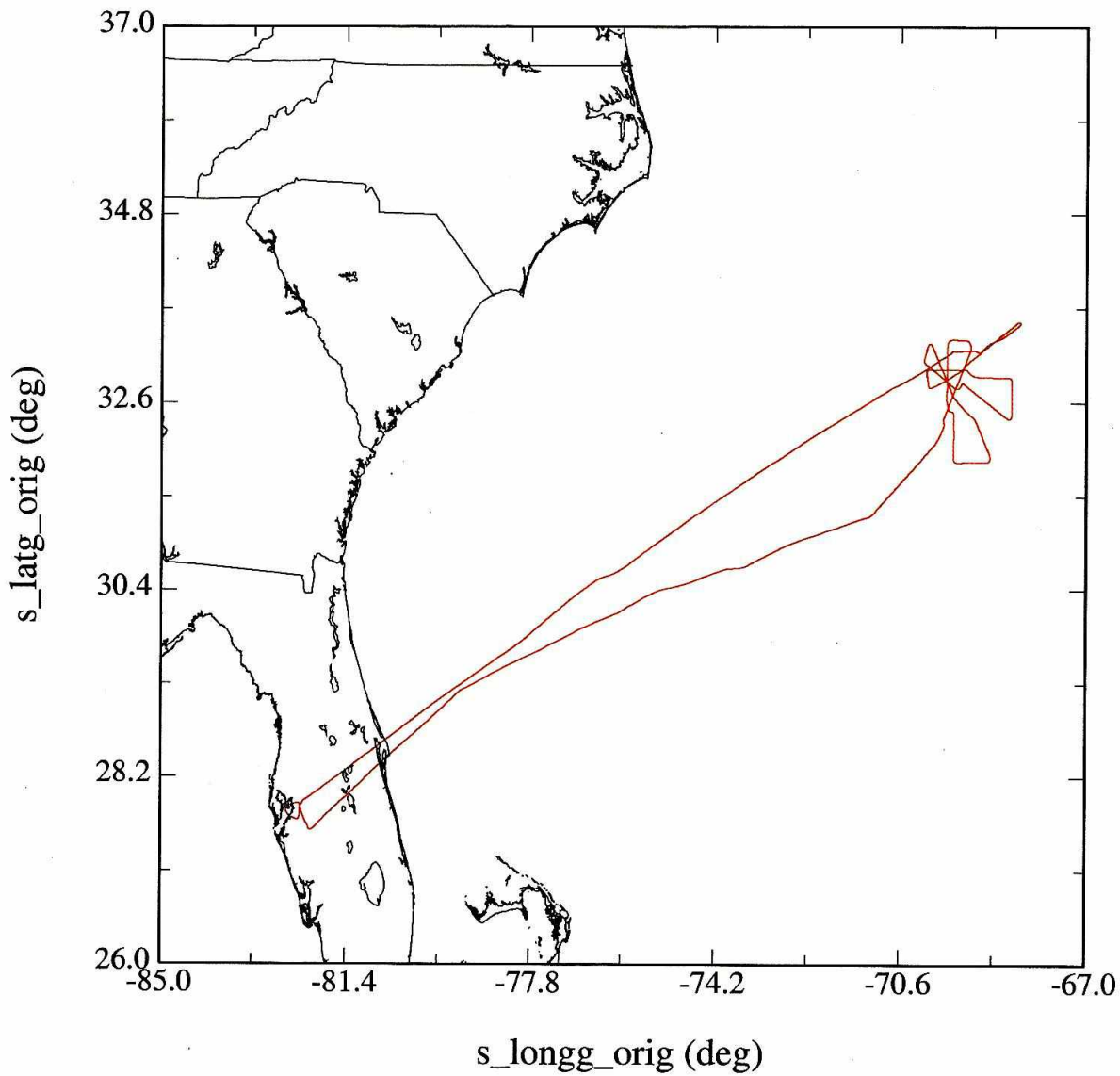
System Status: ✓

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status / Failure Reason	GOOD <input type="checkbox"/>
1	992 515 719	2	1641	∅	—	JAS	No WINDS - H/S/D	B
2	993 925 275	1	1649	∅	30	JAS	- ADC	✓
3	001 048 011	3	1649	∅	—	JAS	No LAUNCH DETECT CODED GR - 07 Rem. - AOC	B
4	993 948 051	2	1708	∅	20	JAS		✓
5								
6	990 935 194	3	1803	1.0	—	JAS	PROTOTYPE - SAT LOCK - No WINDS	B
7	001 048 012					JAS	PI collected - NO DROP	
8								
9	993 925 225	1	1948	∅	32	JAS		✓
10	991 037 068	3	1948	∅	—	JAS	Prototype - No WINDS	
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								

AVAPS CH3/4 USING PROTOTYPE GPS SONDES

HUR00, Hurricane Michael

001018Hs_P, 13:52:51-22:53:03



	mean	sigma	min	max
— s_latg_orig (deg), 1 s/sec	31.03	1.86	27.58	33.54
— s_longg_orig (deg), 1 s/sec	-74.10	4.83	-82.55	-68.29