

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

AOCWF1

Flt ID: 0030704H	From: KBZV	To: KBZV
Flt No: 03 - 28	Blk In: 0414Z	ATA: 0410Z
ETD: 1800Z	Blk Out: 2142Z	ATD: 2148Z
ETE:	Blk Time: 6:32 (6.5)	Flt Time: 6:22 (5.4)
Sponsor Org: NCAR/NSSL	Program: BameX	Purpose: Investigate Bow Echoes across 20/10/15

AOC Personnel

AC: Tebeest	Sys Eng: Mcmillan
CP: Silah/Tennessee	Data Sys: Peek
Nav: Braikos	Radar: Sansouci
FE: Floyd	GPS/BT:
FD: Shepherd/Maxeaux	Cld Phys:
Avionics:	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
McFadden, J	Program Manager	AOC
Jorgensen, D	NSSL Scientist PI	NSSL
Daugherty, J	Sci	NSSL
Rauber, B	Sci	U-TLL
Bouchard, C	obs	Lyndon
Dore, J	obs	NCAR
Davis, Z	media	Decatur TV
Hughes, K	media	Decatur TV

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

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

AOCWF2

Flt ID: 230704H Time Off: 2148 Time On: 0400Z

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	2990	1011.9	1014.9	2993

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes	2	
Radar Tapes	1	
Cloud Physics Tapes		
Video Tapes		
AXBT		
AXCP		
AXCTD		
Dropsondes		

Video

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

Remarks



**NOAA P-3 N42RF
BAMEX
INVESTIGATION FLIGHT 17**



Flight ID: H030704

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	1 (General Eastern)
Altitude (for vertical wind)	Pressure Altitude
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2032.CON

Notes:

There was one time/data gap during this flight which occurred from 234651Z-234710Z.

Corrected a data spike in Radar Altimeter 232 between 214600Z and 214630Z. Also, substituted Radar Altimeter 232 for 159 during the times 214501Z-214930Z and from 040930Z -041300Z.

Johnson-Williams Liquid Water Sensor could not be base lined to zero.

King Liquid Water Sensor stopped recording data after 234650Z.

All other instruments worked optimally during the flight. However, between 011300Z-011600Z the dewpoint temperature exceeded ambient temperature resulting in an RH>100%. This was likely due to heavy rain (as noted by the Johnson-Williams Liquid Water Sensor), a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dewpoint sensor as it tried to burn off excess moisture. No corrections were made during these events.

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.

	Takeoff	Landing
Aircraft Static Pressure	1011.9 mb	1014.9mb
Corrected Tower Pressure	995.8 mb	996.8 mb
Flight Director:	Martin Mayeaux (813) 828-3310 ext. 3086	

Flight ID: 030704H

Page of

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

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
214900	3832	8945	48	51	216	16	30.3	19.5	493	372	950.9	65.8	65.8	TS North
220400	3921	8908	29	27	279	12	2.9	2.1	2809	2780	—	950.9	63.1	
223000	4056	8756	35	28	290	36.8	9.3	-4.6	3367	3352	—	668.9	78.6	IP
225500	4017	8626	50	45	289	27	10.0	-0.1	3084	2965	—	693.5	73.0	Td'n
233000	4034	8537	71	62	296	57	8.6	3.3	3074	2961	—	694.3	71.7	Stratiform Rain
235400	4033	8542	72	67	298	43.5	6.1	-0.1	3608	3539	—	644.9	56.7	Start Spiral Climb
000400	4027	8546	103	143	306	49.1	-2.2	-2.0	4704	4640	—	565.2	60.1	Spiral descend
001200	4024	8440	72	63	325	42.1	9.0	-1.3	2719	2556	—	732.3	66.5	Spiral end
004900	4028	8358	35	29	276	31	9.8	7.6	2780	2646	—	720.7	62.3	Rain
012400	4010	8432	144	145	223	61	8.5	2.8	3274	3167	—	672.1	60.5	Spiral start
012844	3953	8413	101	101	280	29.5	-0.2	0.7	4381	4376	—	583.2	55.0	Spiral end
013700	3949	8404	073	672	256	22.3	-6.2	-5.2	5424	5432	—	511.2	59.5	Spiral Descend
015600														Spiral end
015620	3952	8351	325	328	339	44.4	10.3	8.2	2433	2253	—	753.3	69.5	Spiral End
020710	3945	8338	24	20	253	21	11.3	6.8	2644	2470	—	731.9	57.3	PT1
021600	4029	8321	286	289	9	20	8.7	6.5	2681	2540	—	730.1	62.6	PT2
022600	4017	8415	212	216	302	217	10.6	7.1	2683	2424	—	729.7	86.1	PT3
023600	3943	8438	153	154	317	35.3	11.1	3.2	2676	2535	—	730.4	46.4	PT4
024800	3934	8328	92	93	247	25	11.2	4.1	2680	2547	—	730.7	76.4	End of Science
End of Science														
032107	3906	8605	260	260	233	6.7	15.4	3.0	2444	2361	—	752.1	79.8	CJR
034400	3847	8826	260	260	211	5	15.1	4.1	2447	2461	—	752.8	93.3	CJR

```

TITLE (MAX 21 CHARACTERS) -- EX HURRICANE PAINE
BAMEX FLIGHT 17
YYMMDDL FLT I.D.
030704H
HHMMSS START TIME -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
214501
HHMMSS END TIME 999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
041300
HHMMSS TAKE OFF TIME
214800
* NUMBER OF TAPES (I2) ...FOR STANDARD TAPE OUTPUT ONLY
18
* -----LOGICAL UNIT OF INPUT DATA (I1) 5, 8 OR 9 FOR TAPE DRIVE
8
* -----LOGICAL UNIT OF OUTPUT TAPE DRIVE (I1) [FOR STANDARD TAPE ONLY]
8
* -----LOGICAL UNIT OF PRINTER (I1)
6
* -----DATE OF PROGRAM (MMDY)
06094
* -----STATIC PRESSURE PROBE (I1)
* 1 = PSW (WINGTIP)
* 2 = PSF (CO-PILOT/FUSELAGE)
* 3 = FUTURE USE
2
* -----DYNAMIC PRESSURE PROBE (I1)
* 0 = PQW(WINGTIP)
* 1 = PQF1 (FUSELAGE 1281)
* 2 = PQF2 (FUSELAGE 1221)
* 3 =FUTURE US
1
* -----INE SELECTION (I1)
* 1 = INE 1
* 2 = INE 2
2
* -----ACCELEROMETER (I1) - USUALLY THE SAME AS YOUR INE SELECTION
2
* ----- TOTAL TEMPERATURE PROBE (I1) [1 OR 2]
1
* ----- DEWPOINT TEMPERATURE PROBE (I1) [1 OR 2]
1
* -----ALTIMETER OPTION (I1) - FOR VERTICAL WIND COMPUTATION
* 0 = PRESSURE ALTITUDE (OVER LAND)
* 1 = RADAR ALTITUDE APN-159 (OVER WATER)
* 2 = RADAR ALTITUDE APN-232 (OVER WATER)
0
* -----PRINTOUT RATE SECONDS (I2)
90
*-----WINDSPEED/DIRECTION RUNNING AVERAGE TIME, SECONDS (I2)
10 ! FOR STANDARD TAPE OUTPUT ONLY
* -----TIME OPTION (I1)
* 1 = MICRO 29
* 2 = TIME BASED GENERATOR #1
* 3 = TIME BASED GENERATOR #2
1
* -----NAME OF CONSTANTS FILE EX CO3863.CON
CO2032.CON
*****

```

030704H

KLWC went out 2358Z

LWCSW operable but reading very low. (-8.5)

POAF-POAR Difference 15-20 ~~to~~ through ~~0136~~ 0136Z followed by
huge spike to -50. Then difference trends back toward 0

POSF-POSR - Large Spike at 0136Z

Inertial 2 is better

At 0136Z we were in a spiral. also 2359 spiral

TT1, TT2 differences ~~are~~ exceeded 2 degrees after 0132Z

030704H
Post Processing

INC 2
TT 2

TD 1

PSF

PQPI

LWCJW below 0

KLCW - No data After 234650

Heavy Rain TOSTA around

0113 - 0116Z

Missing data - 234651 - 234710

214501 - 041300Z

041300 -4.0, 4.4

031300 -3.6, 3.3

021300 -3.5, 2.3

011300 -3.0, 1.8

001300 -2.3, 1.1

231300 -1.4, 0.3

221300 -0.7, 0.1

Renov

041300, -4, 4.4

031300, -3.6, 3.3

021300, -3.5, 2.4

011300, -3, 1.8

001300, -2.3, 1.1

231300 -1.4, .3

221300 -.8, .1

RA Substitutions - 214501 - 214930

040930 - 041300

~~Fixed Spike in 232 @ 214232~~

Fixed Spike in 232 @ 6/w 214600 and 214630Z

XN

175

~~107~~

~~158707~~

22

100