

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

AOCWF-1

Flt ID: 030702H	From: KBLV	To: KBLV
Flt No: 03-27	Blk In: 0749Z	ATA: 0742Z
ETD: 2300Z	Blk Out: 0749 2236Z	ATD: 2244Z
ETE:	Blk Time: 9.13 (9.2)	Flt Time: 8.58 (9.0)
Sponsor Org: NSSL/NCAR	Program: Bamer	Purpose: IOP16 Central Minnesota Investigate Bow Echo

AOC Personnel

AC: Teboest	Sys Eng: McMillan
CP: Silah	Data Sys: San Souci
Nav: Brakob	Radar: Peeke
FE: Teboest Floyd	GPS/BT:
FD: Shephard/Mayeaux	Cld Phys:
Avionics:	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
McFadden	Project Manager	AOC
Tennessee	Pilot	AOC
Jorgensen, D	Sci	NSSL
Dougherty, J	Sci	NSSL
Jewett	U.I/I Sci	U.I/I
Lowy Wang	Sci	U.I/I
Pedigo, J	Sci/Obs	NWS/NOAA

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

Scientific Power had a problem at first but was corrected. This was during preflight.
 No impact on data.
 IP-45.0 962
 Science Ends 0607Z

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AOCWF2

Flt ID:

~~030~~ 030702H

Time Off:

2244Z

Time On:

0742

A/C (Take Off)

Wx Station (Take Off)

A/C (Land)

Wx Station (Land)

Pressure

1018.0

2987

1010.8

~~2988~~ 2986

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 16**



Flight ID: H030702

<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 235811Z-235830Z.

Substituted Radar Altimeter 232 for 159 during the times 224131Z-224530Z and from 074201Z - 074500Z.

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

All other instruments worked optimally during the flight. However, there were multiple times when the dewpoint temperature exceeded ambient temperature resulting in an RH>100%. These times were during heavy rain events (as noted by the Johnson-Williams Liquid Water Sensor) and were likely due to 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 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.

	Takeoff	Landing
Aircraft Static Pressure	1018.0 mb	1010.8mb
Corrected Tower Pressure	994.8 mb	994.5 mb
Flight Director:	Martin Mayeaux (813) 828-3310 ext. 3086	

Flight ID: 630702H

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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
224600	3835	8953	300	301	307	5	26.9	16.6	475	301	-	555.9	59.8	Hazy
230900	3915	9129	299	302	38	13	0.8	-33.3	4282	4236	-	594.1	82.0	Set 040
233200	4035	9224	5	4	348	27	1.0	-15.8	4300	4256	-	592.6	89.3	Sky clear
000000	4209	9340	320	321	323	17	1.0	-5.5	4285	4162	-	593.8	87.0	Sky clear
003200	4424	9524	322	318	261	20	1.8	-5.5	4313	4187	-	591.5	75.1	Set 180
010100	4611	9553	282	277	227	28.4	14.1	-2.9	2804	2489		719.6	71.1	Clouds both sides
013000	4651	9409	087	089	261	27.9	11.3	8.5	2814	2459		717.9	79.3	Line Right
014500	4651	9417	266	268	277	22.6	10.9	8.9	2800	2453		718.9	82.1	Line Left
022000	4655	9403	99	101	272	25.6	11.2	8.5	2794	2434		719.4	76.8	
030400	4631	9516	56	44	267	16	12.7	11.6	2529	2132		743.1	71.9	
033000	4631	9531	40	36	285	18	14.5	5.7	2517	2139		746.5	68.5	
040000	4607	9537	320	320	315	25	13.4	10.4	2538	2148		743.1	68.0	Turn W/NRL
042600	4611	9501	290	246	313	24	14.9	4.2	2569	2185		740.9	64.7	Rain
045900	4632	9320	118	120	297	33.5	9.2	2.7	3017	2734		693.0	68.9	Start Spiral Alt 2974 Rain
051830	4612	9403	307	305	267	22.5	-5.7	-6.0	5112	4889		536.5	62.0	End Spiral Start Spiral Rain
052700	4620	9358	64	62	314	45	10.9	0	2983	2592		710.1	65.1	End Spiral
055500	4633	9204	166	172	232	27	6.6	5.0	2993	2647		704.1	76.2	Rain
060731	4544	9147	166	171	226	25	7.5	-0.2	3378	3116		662.3	63.6	End of science
064050	4310	9103	169	172	306	19	-11.2	-19.8	5827	5742	-	483.1	91.9	
070614	4050	9023	169	168	7	30	-16.2	-30.3	5827	5878		483.1	91.1	

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TITLE (MAX 21 CHARACTERS) -- EX  HURRICANE PAINE
BAMEX FLIGHT 16
YYMMDDL  FLT I.D.
030702H
HHMMSS START TIME  -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
224101
HHMMSS END TIME      999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
074500
HHMMSS TAKE OFF TIME
224400
* NUMBER OF TAPES (I2) ...FOR STANDARD TAPE OUTPUT ONLY
17
* -----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 (MMDDY)
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
*****

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030702H

Post Processing

LCW Sw - Below Zero

KLWC - worked fine

TD 1

TT 1

0207TA

Paf1

PSF

INE 2

Missing data:

23:58:11 23:58:30

074500 2.1, -2.3

064500 1.5, ~~-0.7~~ -1.3

054500 1.2, -0.7

044500 1.1, -0.3

034500 0.5, -0.7

024500 0.4, 0.0

014500 0.3, 0.1

004500 0.0, 0.0

234500 0.1, 0.1

224500 0.1, 0.0

030702H

RA23Z spiked down 130 feet at 0046Z and ~~0658Z~~ 375 feet at
0658Z from RA159

KLWC working but reading high

LWC5W working ~~but reading low~~ but reading negative

Large spike in ~~difference~~ difference b/w pda1 and pda2 between 0513 and
0525Z. Problem with Pdar

PDSR looks like it became erroneous at 0600Z. 10 mb difference b/w PDSF-PDSR

Inertial 2 is more reliable.

Around 05Z we encountered Rain. Most of the data discrepancies occurred around
this period.

[illegible]

POSITION REPORT

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 42 42 NOAA
THIS IS NOAA 42 42 NOAA

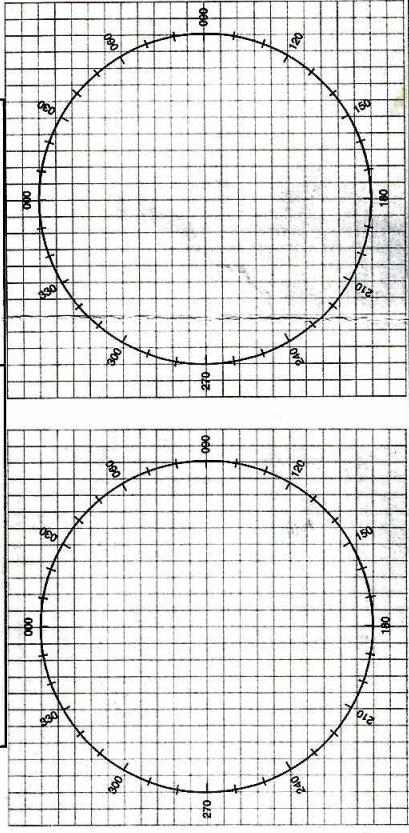
- POSITION _____ N/S _____
 _____ E/W AT _____ Z _____

- HEADING _____ TRUE/MAG _____
- AT _____ KTS TRUE/INDICATED _____
- ALTITUDE _____

- FLIGHT LEVEL OR ALTITUDE _____
- WE ARE A P-3 AIRCRAFT WITH 16 SOULS ON BOARD
- NATURE OF EMERGENCY _____

- ASSISTANCE DESIRED
- PILOT INTENTIONS

ENDURANCE REMAINING

[illegible]

9567