



NOAA P-3 N43RF

CBLAST- HURRICANE FABIAN

INVESTIGATION FLIGHT 2



Flight ID: 030903I

<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)	Radar Altimeter 159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage 1281
Time Source	Micro 99
Constants File	CO3033.CON

Notes:

There were several time/data gaps during this flight which occurred during the times 152241Z-152250Z, 171711Z-171720Z, 171741Z-171750Z, 223731Z-223740Z, 223811Z-223820Z, 223831Z-223840Z, 223901Z-223910Z, 223931Z-223940Z, 224001Z-224050Z, 224101Z-224110Z and 224331Z-224340Z.

Due to large differences between Dynamic Attack Pressure and Dynamic Pressure (PQF1), adjustments were made to Dynamic Attack Pressure to decrease the difference to within 3 mb during the time period 211001Z-232000Z. Also, similar adjustments were made to Dynamic Sideslip Pressure to reduce the difference to within 7 mb during the period 204101Z-221300Z.

Substituted Radar Altimeter 232 for 159 during the times 151801Z-152200Z and from 232030Z-232400Z.

There were numerous times during the flight where 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 to the dewpoint values 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	1013.0 mb	1012.3 mb
Corrected Tower Pressure	1012.8 mb	1012.2 mb
Flight Director:	Martin Mayeaux (813) 828-3310 ext. 3086	

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

AOCWF1

Flt ID: 0309031	From: TISX	To: TISX
Flt No: 03-072	Blk In: 2327Z	ATA: 2321Z
ETD: 1530Z	Blk Out: 1512Z	ATD: 1520Z
ETE:	Blk Time: 8:15 (8.3)	Flt Time: 8:00 (8.0)
Sponsor Org: HRD	Program: CBIAS	Purpose: Fabian Invest

AOC Personnel

AC: Tennesen, D	Sys Eng:
CP: Tebeest/STRONG	Data Sys: Lynch
Nav: Adler	Radar: San Souci
FE: Bast, Greg / Floyd, D	GPS/BT: Tong
FD: Mayeaux / Damiano	Cld Phys:
Avionics:	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
Walsh, Ed ✓	Sci	HRD
Black, Mike ✓	Sci	HRD
Landsea, Chris ✓	Sci	HRD
Utho Uhlhorn, Eric ✓	Sci	HRD
Lasswell, Jim	Sci	scripps
French, Jeff ✓	Sci	scripps
Rogers, Rob ✓	Sci	HRD

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

8 Sondas
2 ABTS

43 43

Radios may have
10 miles 30 second drops260000-006th while waiting
for 42

1721 10k Penetration SW-NE

2231 6245
947 1850219' 6245'
947ms 171422°23.47' 062°43.18'
1750Z 947ms
Air force

2 Penetrations

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AOCWF2

Flt ID: 030903I Time Off: 1521 Time On: 2321

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	1012.2	29.98		29.96

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes		
Radar Tapes		
Cloud Physics Tapes		
Video Tapes		
AXBT	2	
AXCP		
AXCTD		
Dropsondes	8	

Video

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

Remarks

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _a	T _d	Press. Alt	Geo. Alt	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
153203	1810	6434	41	46	268	15.7	14.2	9.7	2115	2242	1014.4	783.4	72.7	Sch cu 5000
154900	1904	6411	300											Start leg 1
155100	1906	6416	300											End leg 1
155200	1909	6416	030											Start leg 2
155400	1915	6412	030											End leg 2
155510	1915	6408	120											Start leg 3
155710	1911	6404	120											End leg 3
155816	1907	6406	210											Start leg 4
160018	1900	6405	220											End leg 4
160214	1903	6408												Start circle left
160439	1903	6408												End circle left
160506	1905	6407												Start circle right
160723	1905	6406	356	353	307	20.8	19.9	15.6	1183	1264	1013.6	873.5	62.0	End circle right
162632	2017	6409	352	348	314	34.3	18.3	15.7	1447	1504	1010.6	850.9	67.4	RA
164827	2130	6411	7	3	340	45.9	17.4	18.7	1509	1532	1006.9	845.1	72.8	TD
170855	2207	6301												Drop 1
170926	2208	6259												Drop 2
170956	2209	6258												Drop 3
171026	2210	6256												Drop 4 AXBT
173636														Drop 1 AXBT
173716														Drop 2
173736														Drop 3
173816	2233	6220												Drop 4
173940	2233	6219	59	85	144	94.1	18.4	19.1	1703	1523	982.3	825.6	73.7	-RW
														End Eye Penetration
														Start Stop Descent process #3
182100	2320	6203							2500 ft					Start leg 1
182530	2334	6222												End leg 1
191312	2217	6325							2500 ft					Start leg 1
192058	2235	6335							2500 ft					End leg 1
192846	2225	6336							1200 ft					Start leg 2
193608	2158	6302							1200 ft					End leg 2
195041	2235	6156	30	47	171	99.1	16.6	16.9	1600	1532	996.4	835.6	76.3	

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _a	T _d	Press. Alt	Geo. Alt	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
2500 Ft														
203130	2354	6243	269	272	82	53	20.9	20.7	800	801	1004.0	970.7	15.4	Start leg 3
203614	2356	6307												End leg 3
1200 ft														
204000	2351	6308	61	54										Start leg 2
204750	2406	6250												End leg 2400
900 ft														
205106	2358	6304												Start leg 2
205312	2354	6314												Restart 2 270
210000	2337	6342												Restart 1
210410	2319	6355												End leg 2
600 Ft														
210752	2321	6351												Start leg 2
211558	2342	6345												End leg 2
400 ft														
212242	2330	6352												Start leg 2
212651	2315	6406												End leg 2
Salt on wind shield														
Cross winds														
214145	2313	6401												Start leg 2
214713	2319	6423												End leg
1200 ft														
215004	2318	6415												Start leg
215426	2310	6400												End leg
900 ft														
215758	2313	6409												Start leg
22050	2317	6424												End leg
and of science														
223517	2036	6413	177	184	273	31	-1.8	-23.6	5372	5666	1003.1	514.0	88.3	

POSITION REPORT

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 _____, NOAA _____

- POSITION _____ **N / S**

E/W AT 2

- HEADING _____ TRUE/MAG

-AT _____ KTS TRUE/INDICATED

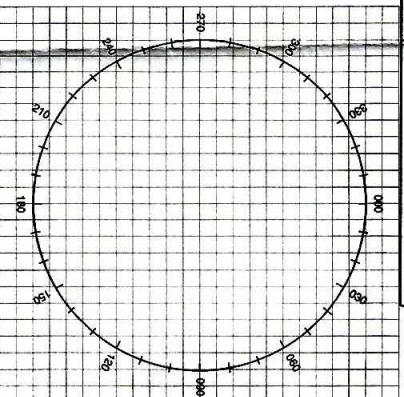
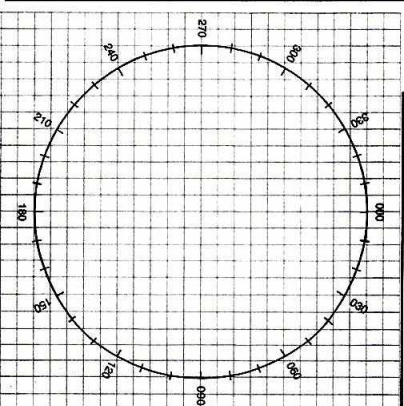
- FLIGHT LEVEL OR ALTITUDE _____

- WE ARE A P-3 AIRCRAFT

- NATURE OF EMERGENCY

- ASSISTANCE DESIN

- PILOT INTENTIONS
WE HAVE
GUIDANCE REGARDING

[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/VFOICE	VHF/VFOICE	M/FVFOICE	H/FICW	M/FICW
243.0	121.5	2182 KHZ	8364 KHZ	500 KHZ

MAYDAY, MAYDAY, MAYDAY

THIS IS NOAA _____, NOAA _____, NOAA _____

- POSITION	_____	N / S
- HEADING	_____	E / W
- AT _____	TRUE/MAG	AT _____
- AT _____	KTS TRUE/INDICATED	Z
- 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	

[illegible]

1750
Z

NOAA • AOC • SED
N43RF AVAPS DROP LOG

Project : Hurr '03 / CBLAST

Mission : HURR. FABIAN * 2

Flight ID : 0309036

Take Off : 15212

Landing : _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Comments	Good ?
1	032 335 360	1	0	1709	27	RT	Rev. E	✓
2	023 285 283	2	1.4	1709	40	RT	B.2	✓
3	023 235 028	3	1.2	1710	48	RT	"	✓
4	022 945 277	4	0	1710	38	RT	"	✓
5	023 535 302	1	.3	1736	20	RT	"	✓
6	023 535 193	2	0	1757	45	RT	"	✓
7	023 535 349	3	1.4	1737	34	RT	"	✓
8	023 535 398	4	0	1738	25	RT	"	✓
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N43RF AXBT DROP LOG

Flight ID : 030908I

Operators : Sans souci

Landing :

[illegible]

I030903

SONDE ID	MISSION NAME	LAUNCH TIME	CH #	LAUNCH	LAUNCH	AC FL PRESS (mb)	AC FL TEMP (C)	AC FL RH (%)	AC FL WIND (m/s)	AC FL WIND (deg)	AC ALT (m)	Last Press (mb)	Last Press Time (SEC)
				DETECT DELAY (SEC)	DETECT PIN PULLED								
32335360	030903i	160227.5	2	-99.9	F	-999.99	999.99	999.99	-99.99	-99.99	-9999.9	974.59	14.
32335360	030903i	170857.4	1	4.9	T	822.40	18.50	103.82	47.60	334.50	1503.7	976.09	122.5
23235233	030903i	170930.9	2	0.0	T	820.20	18.70	103.82	47.40	327.30	1503.7	972.98	113.
23235028	030903i	170959.8	3	0.0	T	818.60	18.90	103.17	48.50	326.20	1489.8	968.72	113.
22945277	030903i	171032.0	4	0.0	T	812.70	19.80	95.74	46.00	317.70	1511.7	965.78	138.
23535362	030903i	173642.2	1	0.0	T	802.90	18.50	105.78	63.20	152.40	1590.6	959.61	129.
23535193	030903i	173721.2	2	0.0	T	812.90	18.80	97.53	60.30	148.40	1530.7	964.80	121.
23535349	030903i	173750.9	3	0.0	T	818.40	18.80	100.00	55.50	145.90	1501.8	968.73	122.
23535398	030903i	173821.5	4	0.0	T	817.30	18.40	103.83	55.10	143.50	1537.7	972.50	128.

~ to 5mb

Last Wind Dir (deg)	Last Wind Speed (m/s)	Last Wind Offset (SEC)	Winds Acquire Time (sec)	PTH Data Good (%)	Wind Data Good (%)	Temp Equil. Delay (sec)	Max Wind (m/s)	Max RH (%)	RH1 Fail Press	RH1 Fail Press	RH2 Fail Press	RH2 Fail Press	RH1/ RH2 Delta >10
-99.0	-99.00	-99.0	-99.9	662.1	0.0	2.5	0.0	46.7	F		F		F
298.6	34.42	2.0	26.0	100.4	48.9	13.0	57.6	99.1	F		F		F
295.1	48.71	0.0	39.5	100.0	96.6	8.5	60.5	94.5	F		F		F
295.0	49.87	0.0	48.1	99.5	97.7	13.1	62.3	98.0	F		F		F
294.9	53.80	4.0	37.9	99.7	60.8	12.4	61.3	95.5	F		F		F
107.2	55.43	5.5	20.1	99.5	79.9	9.1	68.0	96.3	F		F		F
111.8	54.71	5.0	45.1	99.5	68.8	9.6	64.2	100.0	F		F		F
106.2	49.05	-0.5	34.1	98.7	88.3	8.1	66.7	100.0	F		F		F
107.5	38.49	-0.5	25.2	98.7	90.9	13.2	59.3	91.6	F		F		F