NOAA P-3 N42RF
IFEX/Hurricane 2005
KMCF - KMCF

Flight ID: H050629

Sensor or system	*Number or Name*
Inertial + Accelerometer Data	*1*
Temperature Probe	*1*
Dew Point Probe	*1*
Altitude (for vertical wind)	*Radar Altitude 159*
Static and Dynamic Pressure	*Rosemount Fuselage*
Time Source	*Micro 99*
Constants File	*CO2054.CON*

Notes:

There were no noted time/data gaps for this flight.

Radar Altitudes were put in standby during formation flying. PQM1 was not operational early in the flight. Dewpointer 2 was not installed. TT2 was in and out for most of the flight.

There were no working Liquid Water Sensors for this flight.

All other instruments worked optimally during the flight.

The aircraft INE positions were renavigated with respect to GPS.

Due to AOC equipment/printer failure, the last step of our Quality Control process (visual QC) was not able to be performed. While other measures were taken to ensure there were no problems with the data, questions concerning questionable data should be brought to the attention of the Flight Director ASAP.

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: Contact Paul Flaherty
Phone #: (813) 828-3310 ext. 3094

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

AOCWF1

Flt ID: 050629H	From: KMCF	To: KMCF
Flt No: 05-028	Blk In: 1638Z	ATA: 1630Z
ETD: 13Z	Blk Out: 1301Z	ATD: 1314Z
ETE: 4+00	Blk Time: 3+37 (3.6)	Flt Time: 3+16 (3.3)
Sponsor Org: NOAA/AOC	Program: CALIBRATION	Purpose: TEST FLT

AOC Personnel

AC: KENNEDY, P	Sys Eng:
CP: TEBEST, R	Data Sys: McMILLEN, S
Nav: GALLAGHER, T	Radar:
FE:	GPS/BT: OLNEY, B
FD: FLAHERTY, P	Cld Phys:
Avionics:	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
BLACK, MIKE	Sci	HRD
VALDE, KRYSTAL	Sci	HRD
TOPSY, B	GUEST	NOAA - AOC/FS
~~MARTIN~~, G	GUEST	MACDILL/MED/FS

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

PHX

RADARS - STANDBY DURING FORM (+159)

AXBT'S @ 500' + 100' OVER BUOY (DRESS)

DWPT 2 NOT WORKING - TAXI CNOT INSTALLED - SM

159 ON 131420

PQIM INOP EARLY

LU9 - OUT

KING LW INOP - NO LIQUATER SENSORS WORKING

26 00 085 55

20,000' LEG START 135633

TT2 OUT + IN

159 NOT OFF FOR 1ST LEG BACK ON 153115Z

1347Z (NY3RF DROP @ BUOY

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

AOCWF2

Flt ID: 050629H	Time Off: 1630z	Time On: 1314z

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	1016.2		1015.8	

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

Video

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

Remarks

KT

+3000 T/O

3002 LAND

050629H

Time	Lat	Lon	TA	TD	Trk	Hdg	RA	PS	SP	WD	WS	WZ	Comments
125830	27.50.94	-82.29.58	26.7	24.5	86.3	134.6	9976.0	1016.4	2807.3	103.4	4.3	-.3	test
130214	27.50.82	-82.29.52	27.7	24.5	148.8	153.0	9976.0	1016.3	2798.7	326.6	3.3	-.0	taxi
131345	27.50.64	-82.31.56	26.5	24.9	40.3	41.3	-4.0	1016.9	1016.4	123.1	3.5	-2.7	t/o
132317	27:29.46	-82.18.78	5.1	4.2	176.2	177.7	3873.0	645.5	1014.8	201.2	3.2	.2	12000'
133715	27. 0.60	-83.13.08	-4.8	-6.9	248.7	247.6	5884.0	504.7	1013.6	201.2	4.5	-.2	ob
134331	26.49.50	-83.45.00	-7.2	-10.8	247.4	246.0	6358.0	475.0	1011.9	213.6	5.9	.1	Sonde Launch, Drop 1
135017	26.37.32	-84.22.26	-6.8	-12.4	257.7	255.8	6374.0	473.8	1010.4	192.2	6.2	-.1	ob
135633	26.25.86	-84.54.96	-7.8	-14.6	247.6	246.1	6545.0	464.6	1012.3	196.4	5.7	.2	start 1st leg
140203	26.15.66	-85.21.84	-7.6	-13.7	244.0	242.4	6547.0	464.8	1012.4	217.7	7.0	.3	end leg
140756	26. 3.84	-85.48.24	-.1	-.6	242.5	242.1	5734.0	570.6	1113.8	196.8	4.1	.1	start 15000' leg
141307	25.53.28	-86.10.98	1.0	-4.1	244.5	243.3	5734.0	572.1	1114.7	194.0	4.7	-.2	end leg
143305	25.58.68	-85.58.08	.3	-1.4	57.9	58.7	4856.0	571.0	1011.0	221.9	4.8	.2	recco test message sent
143510	26. 3.78	-85.48.96	.2	-1.0	58.5	58.9	4793.0	571.4	1004.5	233.9	5.3	.4	descending to 5000'
144446	26.19.14	-85.29.52	18.1	15.1	228.9	227.0	1648.0	841.8	1016.1	111.4	3.1	-.6	5000'
144600	26.15.96	-85.33.72	18.2	13.7	231.4	230.0	1639.0	842.7	1016.2	117.0	3.5	-.0	start 5000'leg
145604	25.50.94	-86. 8.46	18.5	14.2	231.4	230.8	1652.0	841.5	1016.0	76.5	2.8	.1	end
150354	25.50.76	-86.13.38	25.3	24.1	60.5	62.4	319.0	980.8	1016.7	118.8	4.3	-.3	start 1000' leg
150906	26. 0.42	-85.55.56	25.5	24.3	55.7	57.9	308.0	982.0	1016.6	127.5	4.5	-.3	axbt ch 14

151401	26. 9.42	-85.38.52	25.3	24.4	58.5	60.3	327.0	980.0	1016.7	131.6	4.2	-.2
end leg												
151948	26. 7.62	-85.41.88	9.3	5.8	239.9	239.7	3256.0	695.9	1014.9	125.4	1.4	-.4
start 10000 leg												
152312	26. 0.30	-85.55.56	9.2	2.6	239.6	239.3	3262.0	695.2	1015.1	185.5	1.1	-.4
AXBT drop ch 16												
152950	25.45.96	-86.21.78	9.4	2.1	238.3	237.8	3249.0	696.4	1015.2	231.0	2.5	-.1
end leg												
154340	26.15.54	-85.35.10	3.0	.1	60.9	60.8	4384.0	606.8	1014.0	246.8	4.1	.1
enroute KMCF												
154838	26.26.58	-85.12.84	3.4	-1.0	59.6	60.2	4385.0	607.0	1013.8	218.7	4.3	-.0
recco test message sent												
160011	26.52.92	-84.21.24	4.1	2.3	60.8	61.8	4203.0	620.6	1014.1	209.3	4.5	-.1
ob												
161137	27.20.28	-83.31.56	3.6	.8	57.4	58.5	4205.0	620.5	1015.3	203.0	4.8	.2
precip for tail radar												

25-59.953 085-56.298

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION	MISSION	NAVIGATOR	AIRCRAFT COMMANDER	FLIGHT DIRECTOR	SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
KMCF	SMRF CAL	LT GALLAGHER	CAPT(sel) KENNEDY	FLAHERTY	1300 / 1314	29JUN05

+22

WP	LAT / LON	RTE	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ETA	ATA	REMARKS
KMCF	27-51.0 082-31.3														1300	1314		
42003	26-00.53 085-54.83	D	244	4W	240	–	240	290	L	W	2000	290	212 212	+49 +49	1549	1603		
DELAY														2+30 2+49	1549	1603		No Buoy 42003
MILWE	27-39.5 082-40.7		061	1W	060	–	060	290	L	W	1000	290	200 200	+41 3+30	1630	1644		
KMCF	27-51.7 082-30.8		040	4W	036	–	036						15 215	+25 3+35	1635	1649		
														+10 3+45	1645	1659		

INS PERFORMANCE	INS 1	INS 2
BEGIN ALIGN TIME	1100	1100
ALIGN STATUS (0-5)	0	0
END NAV TIME	1640	1640
START NAV TIME	1252	1252
DELTA T	3+48	3+48

TERMINAL ERRORS	INS 1	INS 2
DELTA LAT	+1.5	-4.5
DELTA LON	-.8	+.5
RGS	2	4
RADIAL ERROR	2	5

REMARKS

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AIRCRAFT OPERATIONS CENTER

RANGE CONTROL GRAPH

TIME REMAINING

11+00 TIME 10+00 FUEL 9+00 BURN 8+00 USABLE 7+00 @ 6+00 ETE 5+00 ETA 4+00 3+00 2+00 1+00

TIME	FUEL	BURN	USABLE	@	ETE	ETA
T/OFF	30.6		20.6	5K/4	4+10	17[illegible]
4[illegible]	24.5	6.1	14.5			
5[illegible]	18.4	6.5	8.0			

FUEL REMAINING

60K 55K 50K 45K 40K 35K 30K 25K 20K 15K 10K 5K 0

DISTANCE REMAINING

ETP = .5(TOTAL DISTANCE x OUTBOUND WIND FACTOR)

ENROUTE FUEL	
ENROUTE TIME	4+00
ENROUTE FUEL (6K 5K 4 5K RULE)	21
RESERVE AT DESTINATION	10
REQUIRED RAMP	31
ACTUAL RAMP FUEL	30.6

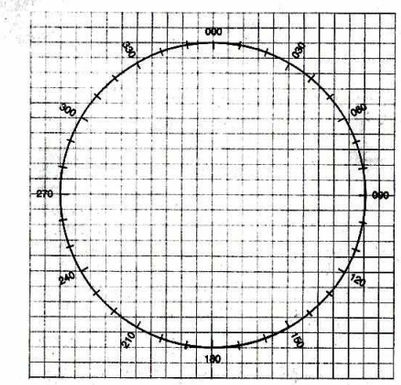
TACTICAL (OFFSTA TO DESTINATION)	4 ENG	3 ENG
DISTANCE (OFFSTA TO DEST)		
ENROUTE TIME (OFFSTA TO DEST)		
BURN RATE (LBS/HR)	4500	5500
ENROUTE FUEL REQUIRED		
RESERVE AT DESTINATION		
FUEL AT OFFSTA		

POINT OF SAFE RETURN	4 ENG	3 ENG
ETP DISTANCE (TO DEPARTURE)		
ENROUTE TIME (TO DEPARTURE)		
BURN RATE (LBS/HR)	4500	5500
FUEL REQUIRED		
RESERVE AT DEPARTURE		
PSR FUEL		

CEX - TRUE BEARING METHOD	INS1	INS2	WET
COMPASS TYPE			
MCH (READING)			
- MTH (SEXTANT)			
CE			
- VAR			
DEV			

CEX - ERB METHOD	INS1	INS2	WET
COMPASS TYPE			
MERB (DIAL 000)			
+ ZN			
= MTH			
MCH (READING)			
CE			
- VAR			
= DEV			

CEX SIGHT	
GMT	
GHA	
CORR	
GHA	
LONG +W -E	
EXACT LHA	
LAT	
BODY	
DEC	
HC / D	
CORR	
HC	
Z	
ZN	



WIND FACTOR		
WINDSPEED	HEADWIND	TAILWIND
10	1.03	.97
20	1.06	.94
30	1.10	.92
40	1.14	.89
50	1.18	.87
60	1.22	.85

T-F FACTOR	PRESS ALT	200	250	300	350
	10,000	1.0	1.0	.99	.99
	20,000	.99	.98	.97	.97
	30,000	.97	.96	.95	.94
	40,000	.96	.94	.92	.90

TRUE AIRSPEED CROSS-CHECK							
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	TAS	ITAS
1339	237	FL180			+09	305	297/306

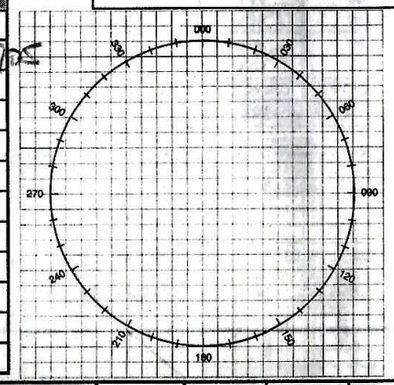
12500

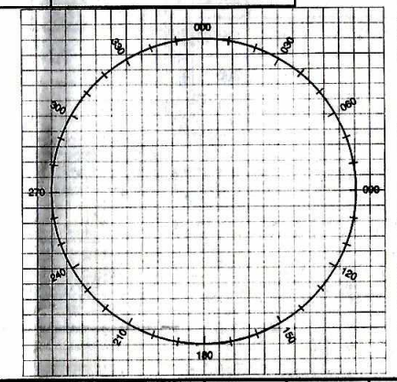
MISSION LOG

PAGE ___ OF ___

CLEARANCES

FREQ	ALT	HDG	OTHER
119.9	16,000	080	FL 180





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 _____, 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	N W 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
1238	~~GYR TAXI~~																				
~~1314~~	~~GYR TAXI~~																				
1325	△ G	27-18.2 082-21.6	27-18.1 082-21.5	+.1 +.1	27-18.3 082-21.4	-.1 +.2	255	4W	251	—	257	247	084	12	FL480	234	48003	195	47	1402	SYS 1 PT
1423	△ G	25-56.2 086-02.4	25-56.6 086-02.5	-.4 -.1	25-57.5 086-02.0	-1.3 +.4	058	2W	056	1+	057	276	244	30	↳ 500	256	42003	[illegible]	+02	1422	/
1525	△ G	25-53.8 086-07.8	25-53.8 086-08.9	— -1.1	25-55.8 086-07.8	+2.0 —	240	2W	238	—	238	250	062	15	@ 1000	232	MILNE	217			
1650	LAND	27-51.0 082-29.6	27-49.5 082-30.4	+1.5 -.8	27-53.5 082-29.1	-4.5 +.5															
1638																					

NOAA · AOC · SED

N42RF AVAPS DROP LOG

Project : Hurricane '05 Mission : CAL FLIGHT Flight ID : 050629H

Take Off : Landing :

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Comments	Good ?
1	042715127		0	1345	00:50	OLNEY		YES
2	BT CH 14	1		1518	—	OLNEY		YES
3	BT CH 16	1		1523	—	OLNEY		YES