



NOAA P-3 N42RF
Ocean Winds 2004 Hurricane Ivan #1
KMCF - KMCF



Flight ID: H040912

<u>Sensor or system</u>	<u>Number or Name</u>
<i>Inertial</i>	<i>2</i>
<i>Accelerometer Data</i>	<i>2</i>
<i>Temperature Probe</i>	<i>1</i>
<i>Dew Point Probe</i>	<i>1</i>
<i>Altitude (for vertical wind)</i>	<i>Radar Altitude</i>
<i>Radar Altitude</i>	<i>RA-159</i>
<i>Static and Dynamic Pressure</i>	<i>Rosemount Fuselage</i>
<i>Time Source</i>	<i>Micro 99</i>
<i>Constants File</i>	<i>CO2042.CON</i>

Local meteorological data:

Observation taken at 1255Z, by KMCF. Wind ENE (070 deg) at 11 knots. Visibility 7 miles. Temperature 26 degrees C, Dewpoint 23 deg C. Surface Pressure 29.98 in (1015 mb).

Observation taken at 2155Z, by KMCF. Wind NNW (340 deg) at 9 knots. Temperature 28 deg C, Dewpoint 26 deg C. Surface pressure 29.89 in (1012 mb).

Notes:

The data from this flight was collected on three DATs, with significant time breaks between the tapes. The time gaps were 171140Z – 171431Z, and 173400Z – 175101Z. There was another short time gap 184638Z – 184700Z

RA-232 was substituted for RA-159 during the following times: 135401-135702Z (take off), and 220721-221100Z (landing) due to spiking.

There were several instances when the dew point temperature exceeded the ambient temperature resulting in a RH% above 100%. TD2 was substituted for TD1 161541Z – 161700Z. These times were during heavy precipitation events and were likely due to a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dew point sensor as it tried to burn off excess moisture. These periods are typically reflected in the J/W liquid water data. No corrections were made during these events unless noted above.

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.

Flight Director:
Phone #:

Contact Jack Parrish
(813) 828-3310 ext. 3077

19 07
82 00

19 02
81 55
16472

922
16202

Flight ID: 04091217 H. Ina Ocean Winds

Page 1 of

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Form 413-50

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _a	T _c	Press. Alt	Geo. Alt	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
140845	1751	8230					28.9	24.1	-15	-9	1014	1015	.2	Taxi
142245	1754	8222	50	93	90	16	21	14.9	1069	1138	1014.5	887	59	↑
144844	2620	8255	Start buoy leg 20 mi to the north											
145324	2603	8305	201	188	17	10.0	-0.1	1013	1013		1013.3			Drop at buoy - bad
145800	2545	8315	End of buoy leg											
152830	2350	8220	137	135	96	21.9	1.5	-1.1	4260	4495	1010.9	595.9	-	141k
1609	2120	8153	192	178	101	64	15.1	13.2	2114	2162	1005			21 m/s Drop
162630	2012	8200	179	159	91	80	16.1	13.4	2153	2116	993	780		
163811	1932	8157			16	3840								Drop 2
164425	Inner eye drop													
164646	1901	8155	179	182	246	14					920			§
170018	1810	8155	179	197	269	70	14.4	14.6	2213	2151	991	774	77.3	Drop W. Winds 55k
1712	Turning down system for deicing													
174030	1801	8032	255	245	206	61.5	14.6	12.8	2117	2134	1001.6	783	837	Orbit SE side
1752	1801	8039	306	242	211	58	14.0	13.0	2118	2127	1001	783		Inbound to SE
180514	1835	8120	311	293	204	84	15.1	13.8						Drop No land set
181130	1830	8141	Drop 1						18192	19062	8207W			
182430	1716	8227	Drop 2						919mb					
1850	Orbiting to fix SFMR.													
191020	1937	8259	125	106	42	83	16.4	13.4	2215	2117	985	774		Drop WNW
191824	Drop 1													
1945	1911	8215									917			§
1950	Drop 1		Drop 2								917			
2003	2000	8125	↑ Rough down lower.											
200630	2010	8140	300	298	130	85	9.9	-	3082	3092	992	694	-	10k
2014	2019	8218	Inbound from N											
202415	2002.5	8222.4	~	~	98	91.3	10.0	11.3	3066	3021	987	695		Orbit to fix SFMR
2040	1915	8220					15	15			915			§
205630	1855	8137	1	355	198	92	10.1	10.3	3062	3000	985	695.6	68.8	ESE of storm
220830	2434	8306	356	1	105	22	-3.6	-6.5	5178	5483	1008.9	527.4	75	
2308	2751.0	8229.6	-	-	-	-	28	22.2	2	-	1011.7	1013.0	0.1	Blk

Flt ID: 04091214	From: KMCF	To: KMCF
Flt No: 04-042	Blk In: 2308	ATA: 2258
ETD: 14Z	Blk Out: 1402	ATD: 1419 1413 (about)
ETE: 9	Blk Time: 9:06 (9.1)	Flt Time: 8:39 (8.8)
Sponsor Org: NESDIS	Program: Ocean Winds	Purpose: SFMR Wind Mapping

AOC Personnel

AC: Kennedy	Sys Eng: McMillan
CP: S. Lah	Data Sys: Reeb
Nav: Coallagher	Radar:
FE: Bart/Wood	GPS/BT:
FD: Parrish	Cld Phys:
Avionics: Rowe	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
Paul Chiang	RE PI	NESDIS
Suzy Broeb		
Skip O'Dowd		
Dan Conan		
Beth Kerr		
Ian Adams		
Fernando Tobon	Last Ride	

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

1 box drop. Aborted T.O., low power # 2. ~~WZ~~ dead, H. IVAN

1014.1	1647Z	1901N	81.55W	920mb	990/146kt
80/12	1849Z	1906N	82.07W	919mb	2090/137kt
501015.3 Fin 1.5K	1945Z	1911N	82.15W	917mb	
0516K RA	2040Z	1915N	82.20W	915mb	840/147kt

4 eye penetrations.
H. D.

37/15
1010.7
29/22

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AOCW/F2

Flt ID: **04091217** Time Off: **1419Z** Time On:

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	1014.1	29.98(1015)		1012

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes		
Radar Tapes		
Cloud Physics Tapes		
Video Tapes		
AXBT		
AXCP		
AXCTD		
Dropsondes	20	6 failed

Video

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

Remarks

1255Z
070/10
7mi
Ten 3L
26/23
29.98
(1015
T.O

2155Z
340/9kt
28/26
29.89

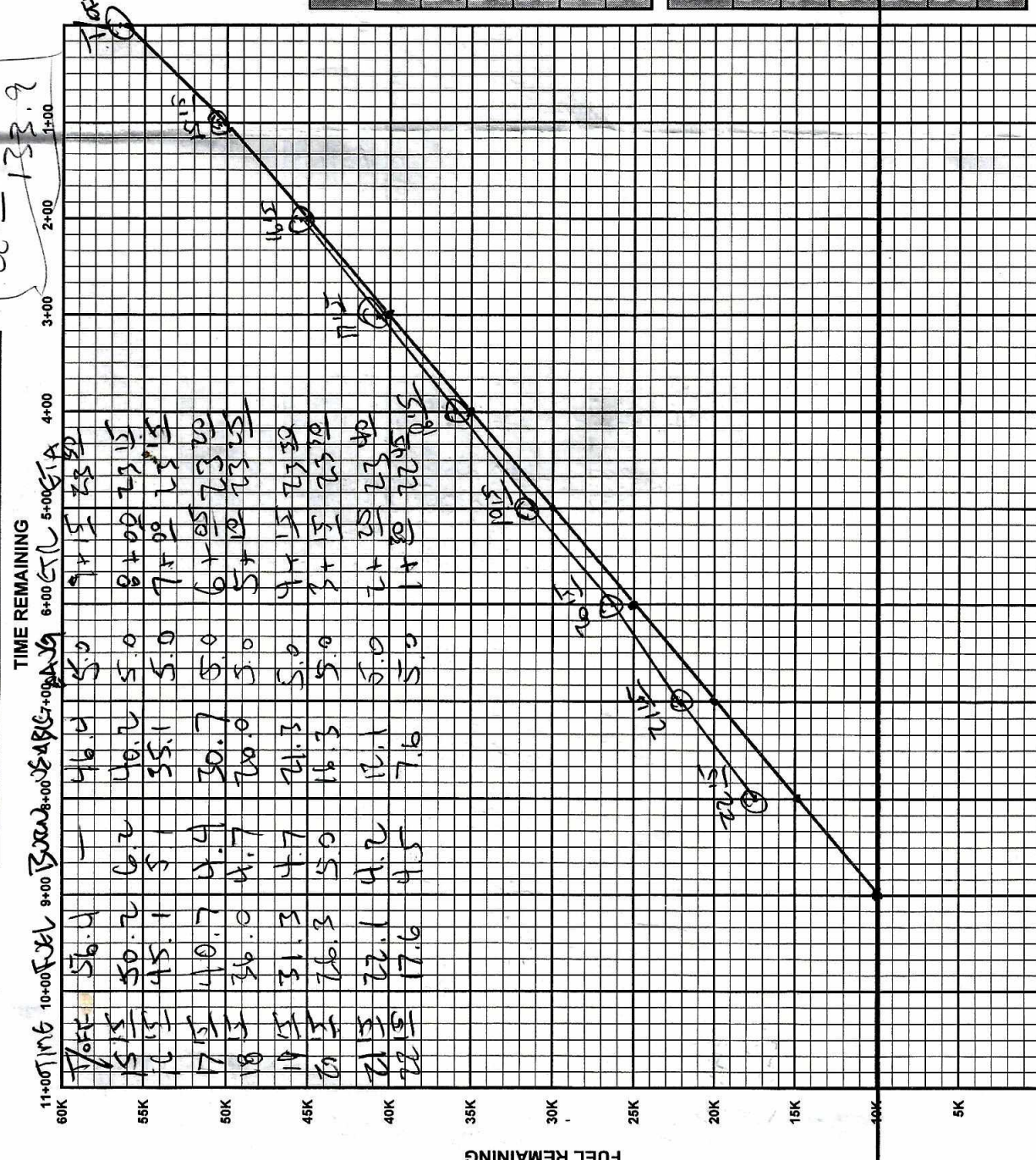
133.9
Blond GPT BIX
10
10
10
10

08218.07 73.

1912.11
2230 133.9

29.82
31.1

RANGE CONTROL GRAPH



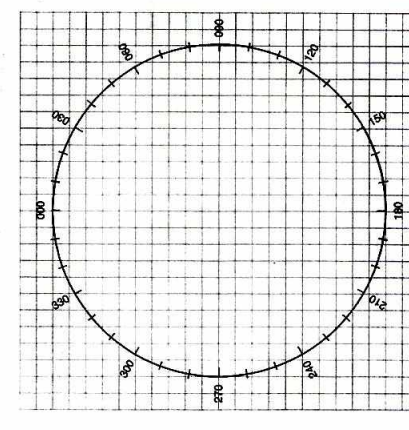
ENROUTE FUEL	
ENROUTE TIME	9+00
ENROUTE FUEL (6% 5K/4.5K RULE)	47.
RESERVE AT DESTINATION	10K
REQUIRED RAMP	56.0
ACTUAL RAMP FUEL	56.4

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

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

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

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



2990
10

WINDSPEED	WIND FACTOR	
	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

PRESS ALT	PRESS ALT FACTOR					
	200	250	300	350	400	450
10,000	1.0	1.0	.99	.99	.99	.99
20,000	.99	.98	.97	.97	.97	.97
30,000	.97	.96	.95	.95	.94	.94
40,000	.96	.94	.92	.92	.90	.90

TRUE AIRSPEED CROSS-CHECK						
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	ITAS
2332	208	170	.99	206	-3	270
						256

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

