



**NOAA P-3 N42RF
Ocean Winds 2005
FLIGHT #3**

Flight ID: H050125

Sensor or system

Number or Name

INE.....	1
Accelerometer.....	1
Temperature Probe.....	1
Dew Point Probe.....	1
Altimeter (for vertical wind).....	RA-159
Static Pressure.....	Rosemount (fuselage)
Dynamic Pressure.....	Rosemount (fuselage)
Time Source.....	Micro 99
Constants File.....	CO2051.con

CYYT 251400Z 23015G25 8SM -SHSN BKN022 OVC040 M03/M06 A2933 (not current)

Take off: 1651Z

Land: 2343Z

The RA-232 was substituted for the RA-159 during take off and landing due to spiking (164801 - 165143 T.O.; 234153 - 234600 Land).

PQAF and PQSF had a spike that was removed and patched (165402 - 165407).

There were data gaps noted. 175730 - 175751; 190200 - 190221; 200620 - 200641; 221150 - 221211. (**NOTE** These data gaps were noted using 'ncplot' on the acquired netCDF file after the flight. The final processing uses different algorithms for detection of missing data. These gaps may or may not be included in the final processed file.)

There were times during heavy precipitation events when the dew point exceeded ambient temperature and yielded a RH of greater than 100%. This is probably due to a wet bulb effect on the total temperature probe and/or the dew pointer over heating while trying to remove excess moisture. In these instances, no corrections were attempted.

The aircraft INE positions were re-navigated with respect to GPS.

SPECIAL NOTE: Locations 80, 81, and 82 of record 5 in the standard data contain vertical ground speed, vertical air speed, and vertical wind speed computed using Dr. Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	Take off	Land
Aircraft Static Pressure	977.4 mb	984.2 mb
Corrected Tower Pressure	993.3 mb	1000.7 mb

Flight Director: Tom Shepherd
813-828-3310 x3053

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

Flt ID: 050125H	From: CYYT	To:
Flt. No: 05-08	Blk In: 2354z	Time On: 2343z
ETD: 1630	Blk Out: 1635z	Time Off: 1651z
ETE: 7+00	Blk Time: 7+19 7.3 Hrs	Flt Time: 6+52 6.9 Hrs
Sponsoring Org: NOAA/NESDIS	Program: OCEAN WINDS	Purpose: IOP3

AOC Flight Crew

Aircraft Commander: KENNEDY, P	Data System: MS MILLAN, S
Co-Pilot: SILAH, M	AVAPS: BARR, J
Navigator: SIEGEL, P ; BRAKOB, D	System Eng:
Flight Eng: KLIPPEL, J	A A:
Flight Director: SHEPHERD, T	A A:
Avionics: ROGERS, M	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
CHANG, P	PI	NESDIS
ESTEBAN, D	COPI	
MAVOR, T	1	
ASUZU, P		UMASS

Remarks (Storm Name, Mission ID, Recco Times, Fix Times) Recco Times Fix # Fix Time

Storm Name: _____

Mission ID: _____

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

Flight ID: 050125H Time Off: 1651 Time On: 2343

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	977.4	993.3 29.33	984.2	29.55

	Number	Data Disposition / Date / Quality	
Flight Level Tapes	2		
Radar Tapes	1		
Cloud Physics Tapes / CDs	0		
Video Tapes	4		
Dropsondes	10	Good: 10 Bad:	
AXBT	10		
AXCP			
AXCTD			

Remarks:

$$\begin{array}{r} 13 \\ 30 \overline{) 400} \\ 3 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 54 \\ 35 \\ \hline 19 \end{array}$$

$$\begin{array}{r} 22 \ 103 \\ 16 \ 51 \\ \hline 6 \ 52 \end{array}$$

251500Z 26525435 VIS 1 -SN -10/-15 29.33

050125H	LAT	LON	TA	TD	Hdg	TK	RA	WD	WS	WZ	Comments
152616	47.37.20	-52.44.40	-1.1	-18.8	245.4	247.7	12.	239.6	2.3	0.0	test
163047	47.37.20	-52.44.40	-2.9	1.1	239.2	193.9	12.	248.9	3.2	0.0	Engine starts
163522	47.37.20	-52.44.40	-3.0	1.2	240.2	192.0	12.	242.4	6.1	0.0	Block out
165059	47.37.20	-52.45.00	-3.2	-0	264.8	264.9	-7.	230.1	6.1	0.0	Take off
165551	47.50.40	-52.48.60	-10.7	-13.8	6.0	12.2	1992.	245.4	18.9	0.0	Cld tops 5200
170124	48.14.40	-52.41.40	-14.1	-19.8	8.8	10.4	2932.	209.1	16.9	0.0	PA 10k; 27 min to box
171046	49.0.60	-52.30.00	-13.7	-22.4	2.7	5.1	2914.	205.1	20.5	0.0	10 k pa; 17 min to box; clr abv, ovc blo
171800	49.35.40	-52.19.20	-14.6	-21.8	10.8	12.5	2899.	211.6	19.0	0.0	Bkn blo; approx 35-40 kt sfc wind
173016	50.33.60	-51.59.40	-12.9	-24.5	90.7	81.3	2868.	207.8	23.3	0.0	In box descend to 3K
174351	50.42.00	-50.33.60	-9.2	-8.8	91.4	81.2	914.	209.6	21.0	0.0	3k RA; 45 min to combo drop; depressurized
175646	50.49.80	-49.15.00	-8.7	-8.5	97.1	86.3	928.	204.4	20.7	0.0	Descend to 2500 RA
181416	50.57.00	-47.28.80	-5.4	-6.6	91.5	84.8	782.	215.8	14.7	0.0	Blo cld deck; sfc wind abt 225/35
182906	51.0.00	-45.59.40	-3.2	-5.9	96.2	89.6	808.	209.8	12.5	0.0	BT1 ch12; D1
183903	51.0.00	-45.0.00	-1.3	-3.2	96.7	91.4	748.	192.2	10.1	0.0	BT2 ch16
184905	51.0.00	-44.0.00	1.6	2.2	95.6	90.2	770.	212.0	11.3	0.0	BT3 ch 12; D2
185836	51.0.00	-42.59.40	2.8	-9	96.7	91.1	910.	230.8	15.2	0.0	BT4 ch 16
190847	51.0.00	-42.0.00	5.2	6.5	107.3	91.7	930.	173.9	30.1	0.0	BT5 ch12; D3
191736	51.0.00	-41.13.20	6.2	7.2	109.4	91.2	928.	175.5	33.6	0.0	D4 in hvy precip band
192504	51.0.00	-40.35.40	7.9	5.9	140.3	126.4	950.	172.2	30.5	0.0	Reversing track
193150	51.0.00	-41.10.20	5.3	6.7	250.8	267.1	929.	169.5	33.3	0.0	D5 in hvy precip band
194754	51.0.00	-42.41.40	1.5	2.7	268.8	270.0	906.	239.9	7.8	0.0	D6
195401	51.0.00	-43.12.60	2.6	.5	245.6	246.7	909.	232.1	12.0	0.0	Reverse trk
200006	51.0.60	-42.40.80	1.7	2.9	86.8	84.1	913.	230.0	6.9	0.0	D7
200818	51.15.60	-42.25.20	2.1	3.0	332.5	335.9	914.	221.2	9.5	0.0	Now hdg to N end of BT pattern, 53N 44W
202714	52.20.40	-43.10.80	1.5	1.6	329.0	334.7	900.	211.4	13.9	0.0	3k RA; dark now
204910	53.3.60	-44.0.60	1.7	-1.2	185.5	184.4	885.	189.7	11.3	0.0	Now trk 180
205023	53.0.00	-44.0.00	.9	.4	180.0	177.9	888.	190.8	12.1	0.0	BT6 ch16; D8
210844	52.0.00	-44.0.00	.0	-2.7	182.3	182.2	897.	173.3	8.4	0.0	BT7 ch12
212624	51.0.00	-44.0.00	1.1	-8.4	182.8	182.3	906.	190.6	10.1	0.0	BT8 ch 16; D9
214409	50.0.00	-44.0.00	1.9	-8.3	183.4	182.0	908.	191.3	9.1	0.0	BT9 ch 12
220143	49.0.00	-44.0.00	2.4	-11.7	183.6	181.3	915.	219.2	5.5	0.0	BT10; D10
220610	48.45.00	-44.0.00	2.2	-10.9	184.5	183.1	922.	205.7	3.6	0.0	End science; turn to trk 262
231247	47.57.00	-50.21.00	-11.4	-22.6	255.8	258.1	2863.	210.6	10.0	0.0	9.5 k RA; almost home where there is F00D!
231904	47.52.20	-50.58.20	-11.2	-22.7	255.4	258.5	2764.	215.6	12.3	0.0	Begin descent to CYT
234309	47.37.20	-52.44.40	-3.1	-7.0	262.4	263.4	-8.	94.9	6.1	0.0	Land
235338	47.37.20	-52.44.40	-.5	-5.1	263.6	228.1	6954.	270.6	24.9	0.0	Block in

(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

[illegible]

MISSION PREFLIGHT LOG

DESTINATION
CANT

MISSION
CLEAN WINDS #3

NAVIGATOR

SEBEL

AIRCRAFT COMMANDER

KENNEDY

FLIGHT DIRECTOR

SHEDDERS

SCHEDULED / ACTUAL TAKEOFF Z

1630 1

DATE OF TAKEOFF

25 JAN 05

WP	LAT / LON	RTE	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ATA	REMARKS
1	N 47 37.1 W 52 45.1	CNT	031	28W	009	0	009	210	L	V	100	210					to Dendv
2	50 30.2 52 04.1	DENDV	101	21W	080		080										to 3
3	51 00 40 30	3	108	20W	088		088										to 4
4	51 00 44 30	4	350	21W	509		329										to 5
5	52 00 44 00	5	200	20W	180		180										to 6
6	48 40 44 00	6	311	22W	289		229										to DENDV
9	47 29.1 52 51.1	14T															

INS PERFORMANCE	
INS 1	INS 2
BEGN ALIGN TIME	1510 1510
ALIGN STATUS (0-5)	0 0
END NAV TIME	2343 2343
START NAV TIME	1612 1612
DELTA T	7431 7431

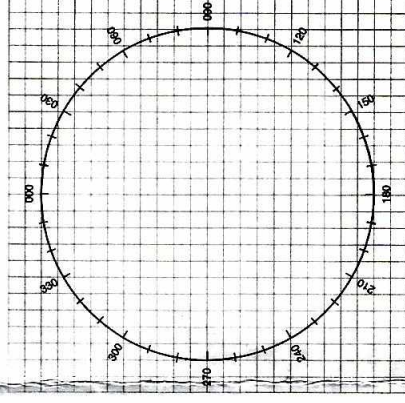
TERMINAL ERRORS	
INS 1	INS 2
DELTA LAT	-2.0 +32.4
DELTA LON	+1.6 -30.8
RGS	4 9
RADIAL ERROR	3 40

REMARKS
"JAN" 110 5057N 0475W
icing 7.7

100)

TIME REMAINING

1855²⁺⁰⁰



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

PRESS		200	250	300	350
ALT		1.0	1.0	.99	.99
10,000					
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
1804	720	030	 	 	+3	725	721
			 	 			

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