

NOAA P-3 N42RF
Ocean Winds 2005
FLIGHT #2

Flight ID: H050118

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 181500Z 26518G26 15SM M3/M8 A2975

Take off: 1622Z

Land: 2344Z

The RA-232 was substituted for the RA-159 during take off and landing due to spiking (161901 - 162544 T.O.; 234314 - 234700 Land).

There were no data gaps noted. (**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	992.3 mb	998.4 mb
Corrected Tower Pressure	1007.4 mb	1014.2 mb

Flight Director:	Tom Shepherd
	813-828-3310 x3053

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Fit ID: 050118H	From: CYT	To: CYT
Fit. No: 05-007	Blk In: 2353z	Time On: 2344z
ETD: 1630	Blk Out: 1613z	Time Off: 1622z
ETE: 7+00	Blk Time: 7+40 (7.7 Hrs)	Fit Time: 7+22 (7.4 Hrs)
Sponsoring Org: NOAA/NESDIS	Program: OCEAN WINDS	Purpose: TOP2

AOC Flight Crew

Aircraft Commander: SILAH, M	Data System: M ^C MILLAN, S
Co-Pilot: NELSON, M	AVAPS:
Navigator: SIEGEL, P ; BRAKOB, D	System Eng:
Flight Eng: WADE, S	A A:
Flight Director: FLANERTY, P ; SHEPHERD, T	A A:
Avionics: ROGERS, M	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
CHANG, P	PI	NESDIS
MAYOR, T	SCI	"
ESTEBAN, D	"	"
ASUZU, P	"	UMASS
CONTRERAS, R	"	"
BROCK, S	"	NESDIS

Remarks (Storm Name, Mission ID, Recco Times, Fix Times) Storm Name: <u> </u> Mission ID: <u> </u> I.P. - 5720 0052 INX 2 INOP OUT @ 2030	Recco Times ATTACK 1 INOP @ TAXI SWITCHING TO ATTACK #2 162050Z BACK TO ATTACK #1 164020 PQUM- ICING 1746 1902- (CHECKED) JWLAW 1903 (See reverse for additional remarks)	Fix # Fix Time 162050Z 164020
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Flight ID: **050118 H**

Time Off: **1622 z**

Time On: **2344 z**

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	992.3	1007.4	998.4	1014.2

	Number	Data Disposition / Date / Quality	
Flight Level Tapes	2		
Radar Tapes	1		
Cloud Physics Tapes / CDs	0		
Video Tapes	4		
Dropsondes	7	Good: 7 Bad:	
AXBT	4		
AXCP			
AXCTD			

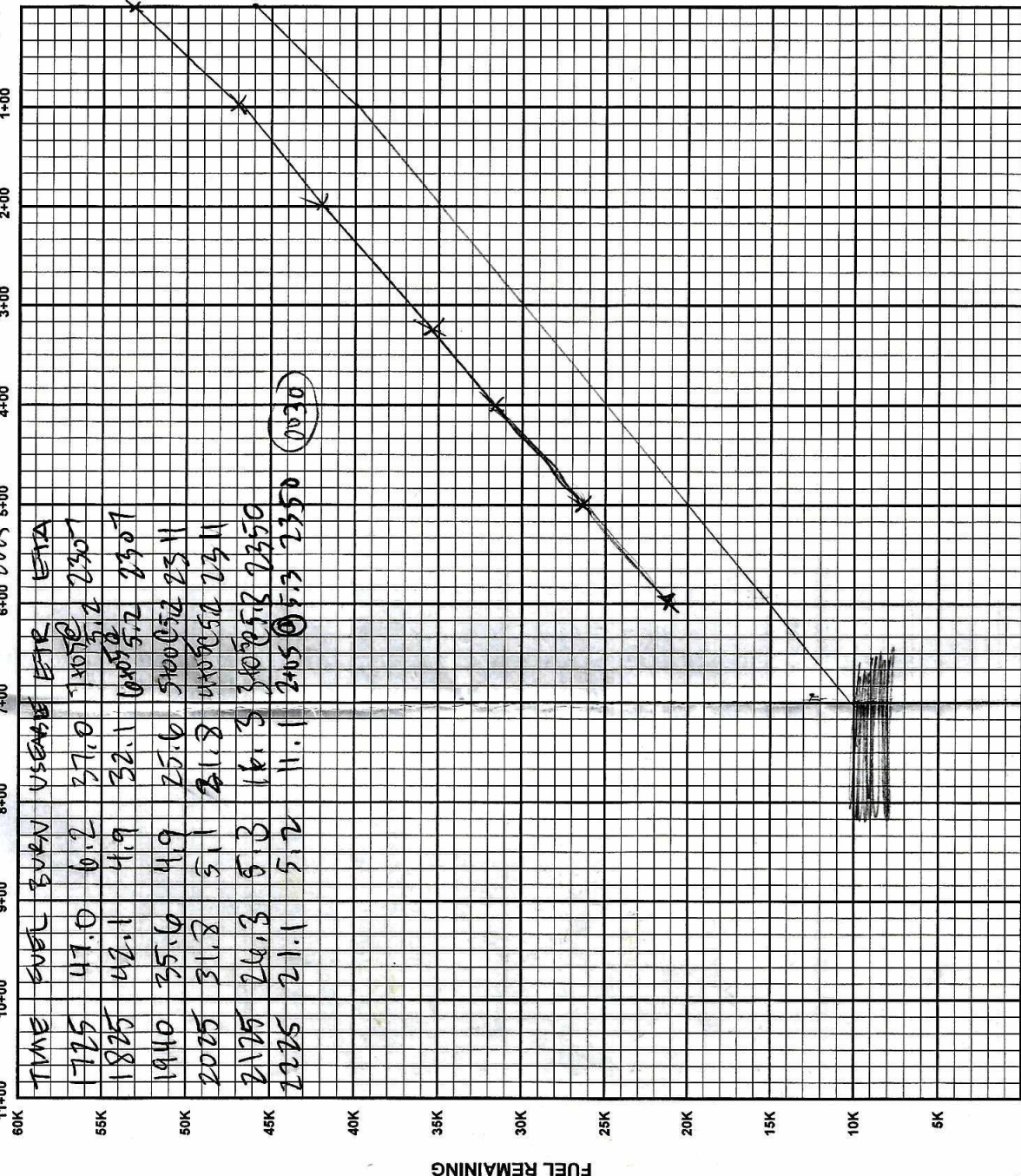
Remarks:

T/O WEATHER 1500z 26518G26 KTS 15sm -03/-08 29.75
LAND 2300z 26508 KTS 15sm -04/-09 29.95

050118H	LAT	LON	TA	TD	Hdg	TK	RA	WD	WS	WZ	Comments
161835	47.37.20	-52.44.40	-2.1	-10.0	329.7	321.4	-6.	148.2	3.5	0.0	taxi
162250	47.37.20	-52.47.40	-6.5	-12.1	264.8	262.0	282.	286.9	16.4	0.0	t/o
164100	48.47.40	-52.40.80	-12.7	-23.2	3.7	13.3	1721.	249.1	25.0	0.0	ob
164712	49.12.60	-52.32.40	-13.8	-23.0	9.1	19.4	1710.	249.0	27.9	0.0	ob
170614	50.30.60	-52.3.60	-12.5	-26.9	337.3	352.6	1674.	245.6	32.8	0.0	5300ft
173715	52.6.60	-53.17.40	-12.6	-14.1	332.0	335.0	1517.	312.0	19.6	0.0	in frozen precip
180731	53.28.80	-54.33.00	-14.9	-16.4	335.6	326.9	1601.	5.1	24.6	0.0	broken ice pack
182452	54.14.40	-55.25.80	-16.6	-18.9	335.3	326.5	1624.	11.4	22.8	0.0	Almost solid ice blo
183323	54.37.80	-55.52.20	-17.1	-19.5	339.5	331.1	1604.	11.2	23.1	0.0	Descend to 4300 RA
183759	54.49.20	-56.7.80	-15.7	-18.3	331.0	324.3	1375.	357.8	22.3	0.0	4500 RA
185359	55.30.00	-56.58.80	-17.6	-17.4	333.5	326.4	1389.	1.8	20.7	0.0	Coming right to trk 055; hdg for the box.
185812	55.39.00	-56.42.00	-17.6	-18.3	50.5	57.6	1394.	351.5	17.8	0.0	Trk 057; Ovr open water now.
191621	56.13.80	-55.12.00	-16.6	-17.7	50.3	58.6	1369.	358.3	20.1	0.0	ob
195646	57.19.20	-51.35.40	-16.3	-16.1	87.6	96.0	1329.	6.1	18.1	0.0	descending to 3000
202202	56.57.00	-49.28.80	-11.4	-10.7	179.6	180.5	901.	10.4	18.4	0.0	overpass dropsonde drop 1
204712	55.13.80	-49.28.80	-7.6	-7.6	179.7	180.7	908.	9.2	9.9	0.0	frontal boundary
205055	54.59.40	-49.28.20	-6.3	-7.7	184.4	183.3	900.	339.2	6.0	0.0	dropsonde 2
212923	53.0.00	-49.23.40	-8.4	-9.6	195.0	181.4	982.	247.9	27.5	0.0	dropsonde 3
215240	51.43.80	-49.24.00	-11.4	-14.7	193.1	183.8	1288.	246.6	18.6	0.0	ob
223546	49.30.60	-50.0.00	-11.5	-26.7	267.8	270.6	1527.	233.2	11.5	0.0	AXBT1 and Dropsonde 4
224125	49.31.20	-50.30.00	-16.0	-15.6	266.0	269.6	1524.	227.9	13.4	0.0	AXBT 2 and Sonde 5
224738	49.31.20	-51.1.20	-16.3	-16.1	266.4	268.4	1516.	244.6	11.4	0.0	AXBT 3 Drop 6
225612	49.32.40	-51.45.60	-14.2	-20.8	265.0	265.4	1510.	254.7	9.6	0.0	AXBT4 + Sonde 7
230854	49.17.40	-52.8.40	-15.4	-23.3	197.1	192.4	1752.	248.3	9.1	0.0	enroute CVYT
234418	47.37.80	-52.44.40	-4.0	-9.3	265.2	264.4	-8.	109.2	2.7	0.0	touchdown

RANGE CONTROL GRAPH

TIME REMAINING 2425 2025 1925 1825 1725 1625



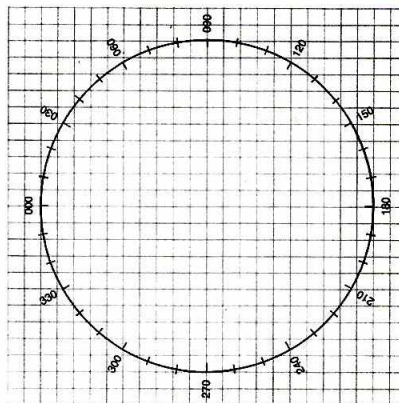
TIME	FUEL	BURN	USE	ETP	ETA
1725	47.0	6.2	37.0	2307	2307
1825	42.1	4.9	32.1	2307	2307
1940	35.6	4.9	25.6	2307	2307
2025	31.8	5.1	21.8	2307	2307
2125	26.3	5.3	16.3	2307	2307
2225	21.1	5.2	11.1	2307	2307

ENROUTE FUEL	
ENROUTE TIME	7+00
ENROUTE FUEL (6% 5K/45K RULE)	36.0
RESERVE AT DESTINATION	18.0
REQUIRED RAMP	51.0
ACTUAL RAMP FUEL	53.2

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	
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

PRESS ALT	
10,000	1.0 .99 .99
20,000	.99 .98 .97
30,000	.97 .96 .95
40,000	.96 .94 .92

TRUE AIRSPEED CROSS-CHECK					
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT TAS ITAS

DISTANCE REMAINING

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

Handwritten calculations: 1400 / 2.145 = 652.5, 1400 / 2.145 = 652.5, 1400 / 2.145 = 652.5

[illegible]