



**NOAA P-3 N42RF
Ocean Winds 2005
FLIGHT #1**

Flight ID: H050112

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 121600Z 31525G31 15SM M8/M12 A3001

Take off: 1713Z

Land: 2306Z

The RA-232 was substituted for the RA-159 during take off and landing due to spiking (171001 – 171405 T.O.; 230341 - 230600 Land).

Both Total Temperature probes 1 and 2 were not responding well during the first 10 – 15 minutes of the flight. This could have possibly been frozen precipitation (aircraft parked outside).

There were data gaps noted: 170014 – 170016. (**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	1001.0 mb	1007.1 mb
Corrected Tower Pressure	1016.0 mb	1022.5 mb

Flight Director:

Tom Shepherd
813-828-3310 x3053

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

Flt ID: 05012 H	From: CYYT	To: CYYT
Flt. No: 05 - 06	Blk In: 2313Z	Time On: 2306Z
ETD: 17Z	Blk Out: 1701Z	Time Off: 1713Z
ETE: 6 + 00	Blk Time: 6 + 12 (6.2 Hrs)	Flt Time: 5 + 53 (5.9 Hrs)
Sponsoring Org: NESDIS	Program: OCEAN WINDS	Purpose: IOP #1

AOC Flight Crew

Aircraft Commander: SILAH, M	Data System: McMillen, S
Co-Pilot: NELSON, M	AVAPS:
Navigator: SIGAL, P, BRAKES, D	System Eng:
Flight Eng: KLIPPEL, J	A A:
Flight Director: FLAHERTY, P, SHEPHERD, T	A A:
Avionics: ROGERS, M	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
CHANG	PI	NESDIS
ESTEBAN	SCI	UMASS - NESDIS
CANTREAS	SCI	UMASS
ASUZU	SCI	UMASS
MANOR	SCI	NESDIS

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

Storm Name: KINGWOOD

Mission ID: PQ1M - OUT BACK UP

Recco Times: JW UNABLE TO BE ADJUSTED 195035 - TRKED AGAIN

Fix # Fix Time

PQ4M TOO LOW (141NG) 19?? OUT

PQ1M BACK UP 2010

DEWBUSTER 2 OFF DURING FEARFUL TIME

AIRCRAFT PRESSURE HIGH BUT OK. (DRAIN, SPEED) OUTBOUND

IAS. CHECK 255 vs 254 173820 OK

7000 FT NO FURMS / 5000 FT NO FURMS / 3500

FURMS 04-406 SW 1930

(See reverse for additional remarks)

813 933 1734

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

Flight ID: 050112H

Time Off: 1713z

Time On: 2306

A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
1000.0	1016.0	1007.1	1022.5

Pressure	Number	Data Disposition / Date / Quality
Flight Level Tapes	12	
Radar Tapes	1	
Cloud Physics Tapes / CDs		
Video Tapes		
Dropsondes	5	Good: 5 Bad: 0
AXBT	2	
AXCP		
AXCTD		

Remarks:

CYIT WX T.O 1600z 31525 G31 MTS 15SM 2600SCT -8/-12 3001

IP LAT N 53.00 172 32527 G34 15SM FEW -8/-12 3004

LANDING 2200z 325 @ 30 G37 15SM CL -10/-16 3020

461 FEET
CYIT

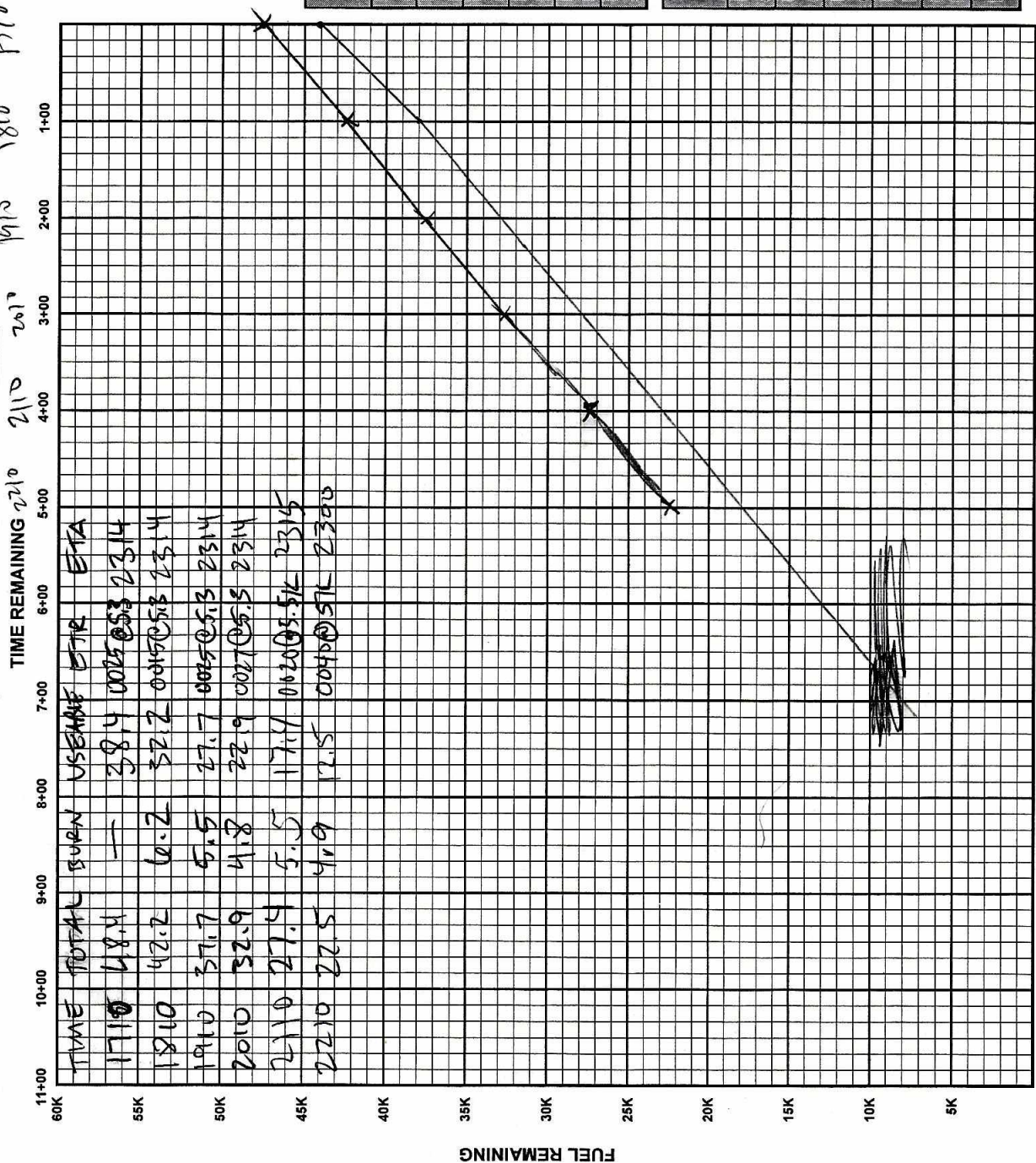
NOAA Aircraft Operations Center
1000 1016 1007 1022
1000 1016 1007 1022
1000 1016 1007 1022

(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]

RANGE CONTROL GRAPH

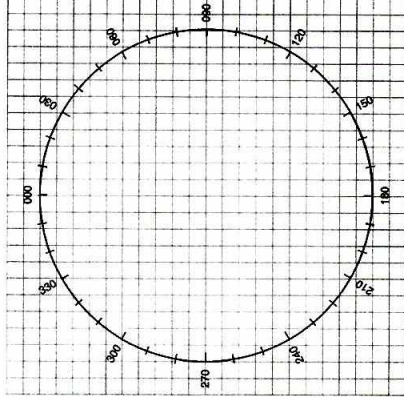


ENROUTE FUEL	
ENROUTE TIME	6+00
ENROUTE FUEL (6K SK 45K RULE)	34
RESERVE AT DESTINATION	13
REQUIRED RAMP	44
ACTUAL RAMP FUEL	48.4

CEX - TRUE BEARING METHOD				CEX SIGHT	
COMPASS TYPE	INS1	INS2	WET	GNT	
MCH (READING)				GHA	
- MTH (SEXTANT)				CORR	
CE				GHA	
- VAR				LONG +W -E	
DEV				EXACT LHA	
				LAT	
				BODY	
				DEC	
				HC/D	
				CORR	
				HC	
				Z	
				ZN	

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

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



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		200		250		300		350	
10,000	1.0	.99	.98	.97	.96	.95	.94	.93	.92
20,000	.99	.98	.97	.96	.95	.94	.93	.92	.91
30,000	.97	.96	.95	.94	.93	.92	.91	.90	.89
40,000	.96	.95	.94	.93	.92	.91	.90	.89	.88

TRUE AIRSPEED CROSS-CHECK					
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT
1738	255	090	-11	280	255

DISTANCE REMAINING

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80																				

A vertical strip of a black and white checkerboard pattern. The pattern consists of alternating black and white squares arranged in a grid. The strip is oriented vertically, showing a portion of the grid. The squares are of equal size and are separated by thin black lines. The overall appearance is a high-contrast, repeating geometric pattern.