



NOAA P-3 N43RF

Rainex Test Flight



Flight ID: 050822I

Sensor or system

INE

Accelerometer

Temperature Probe

Dew Point Probe

Altitude (for vertical wind)

Static Pressure

Dynamic Pressure

Time Source

Constants File

Number or Name

2

2

1

2 (Edgetech)

Radar Altimeter 232

Rosemount Fuselage

Rosemount Fuselage 1281

Micro 99

CO3051.CON

Notes:

There were no time/data glitches during this flight.

Rhythmic spikes in many of the pressure sensors are the result of changes in the roll angle during frequent turns.

The difference in values between the dynamic attack pressure from the radome and the fuselage is greater than 20 mb. No corrections were made to the data.

There was one time during the flight where the dewpoint temperature exceeded ambient temperature resulting in $RH > 100\%$. This was likely due to rain, a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dewpoint sensor as it tried to burn off excess moisture. No edits were made to the data to resolve this since the relative humidity values were less than 120%.

The King Liquid Water sensor was not operating during this flight.

The aircraft INE positions were renavigated with respect to GPS.

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.

	Takeoff	Landing
Aircraft Static Pressure	1013.2 mb	1012.2 mb
Corrected Tower Pressure	1014.5 mb	1013.8 mb

Flight Director: Martin Mayeaux (813) 828-3310 ext. 3086

U.S. Dep't. of Commerce / NMAO / NOAA / Aircraft Operations Center

FLT ID: 050822 I	From: Kmcf	To: Kmcf
Flt No: 05 - 0404	In: 1820 Z	On: 1812 Z
ETD: 1400 Z	Out: 1523	Off: 1531
ETE: 2 + 00	Blk Time: 2 + 57 (3.0) Hrs	Flt Time: 2 + 41 (2.7) Hrs
Sponsoring Org: HRD	Program: Rainier	Purpose: Coordination flight

AOC Flight Crew

Aircraft Commander: Tebeest	Data System: Lyncl, T
Co-Pilot: Nelson	AVAPS: Olney, B
Navigator: Siegel	System Engineer:
Flight Eng: Floyd Klippel	AA:
Flight Director: Damiano Mayeaux	AA:
Avionics:	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
Small, B	Pi	UW
Hence, Deanna	Sci	UW
Mayer, Adam	Sci	HRD
Willis, P	Sci	HRD

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)	Recco Times	Fix #	Fix Time
Storm Name:	Delay due to SEO Requirements and Pump light Problem on Engine		
Mission ID: WXXA Train	Post-Process - SUBRA159 W132-153200Z		
	Standby - RA159-15530. Switched to 232		
	to 006 Clouds 1654Z & 1716Z		
rdcc.guest,ucaneda/8RA159			
(See reverse for additional remarks)			
1-866-508-5608			

OK - Standby 2 mins - on

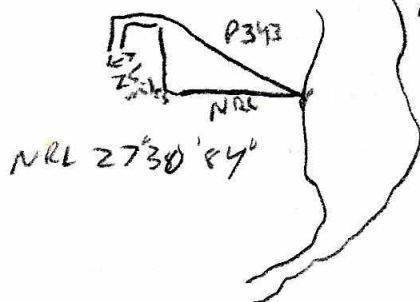
U.S. DEPT OF COMMERCE / NMAO / NOAA / AIRCRAFT OPERATIONS CENTER

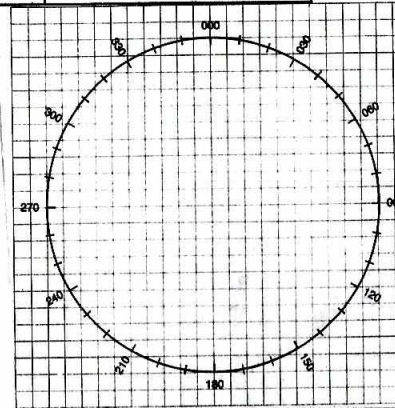
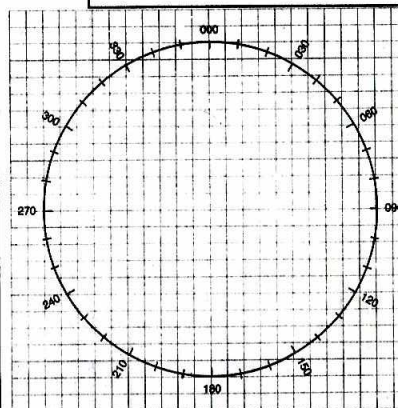
FLT ID: 050822I	TIME OFF: 1531 Z	TIME ON: 1812 Z	
	A/C - Takeoff	WX Station - Takeoff	A/C - Land
Pressure	1013.2	2994	1012.2
ATIS - Takeoff	1055Z 00000ft P65m 26/24 A299Z PA+13 09004kt Takeoff		
ATIS - Land	1655Z 09004kt P65m 30/26 A299Z PA-6		

Data Source	Number	Data Disposition / Date / Quality
Flight Level Tapes		
Radar Tapes		
Cloud Physics Tapes / Cds		
Video Tapes		
Dropsondes		Good: Bad: Total:
AXBT		
AXCP		
AXCTD		
SONOBUOY		

REMARKS:

Join up Point **28.0 * 84** Coord w/ NRL. Separate aircrafts initially.
 Bring Satcom System up ASAR 2F Radar, Tail, Straight Level legs while lastering.
 Parallel tracks w/ NRL, Parallel tracks 25 nm. 12000 ft x Chat critical
 we'll be lead. Keep 159 on and close in until interference.
 On Return - VHA for Science Talk Coordination Science/Science



[illegible]

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 13 SOULS ON BOARD

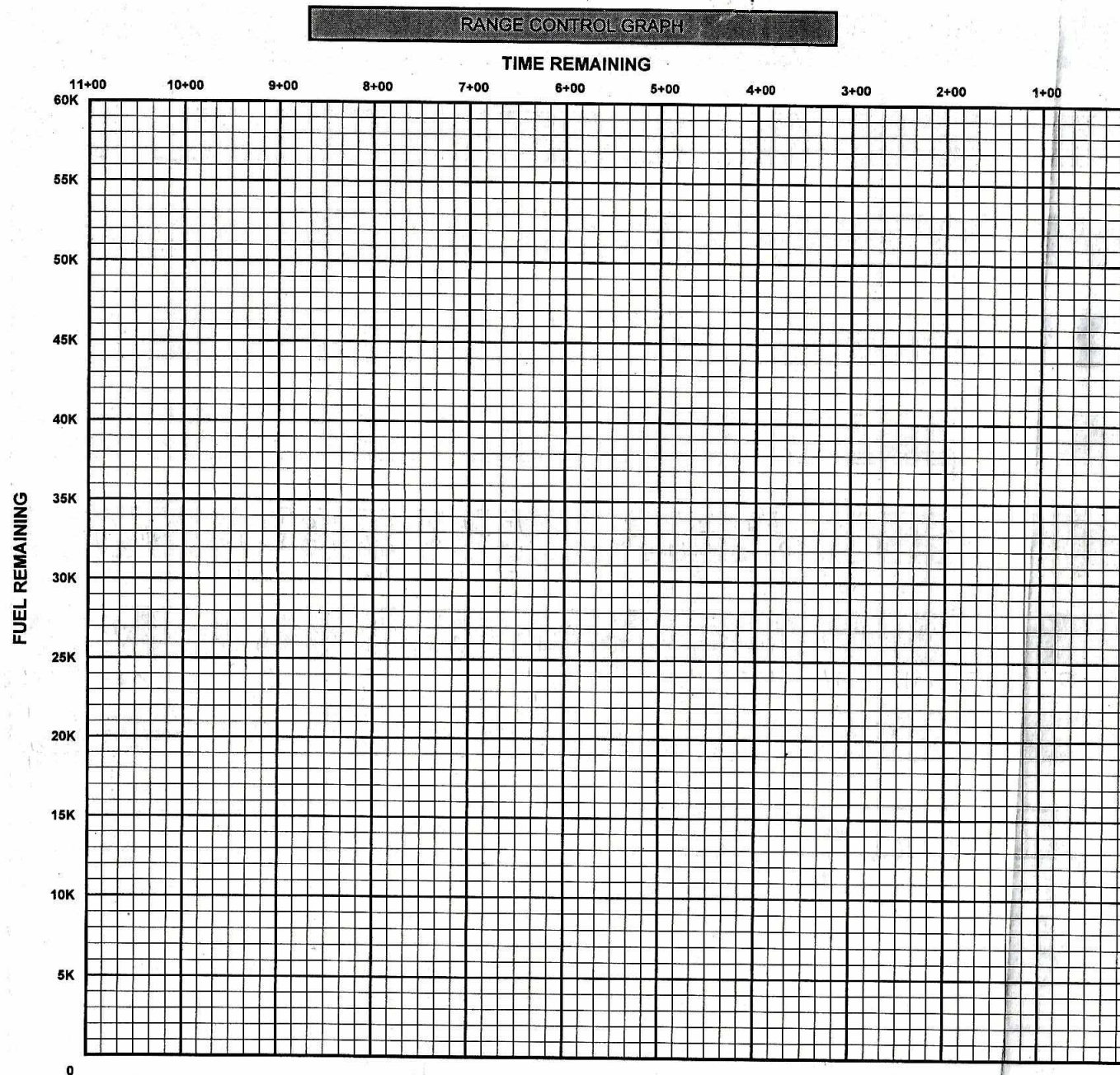
- NATURE OF EMERGENCY

- ASSISTANCE DESIRED

- PILOT INTENTIONS

- WE HAVE _____ ENDURANCE REMAINING

[illegible]



DISTANCE REMAINING

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

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

ENROUTE FUEL	
ENROUTE TIME	
ENROUTE FUEL (5K, 5K, 4 5K RULE)	
RESERVE AT DESTINATION	
REQUIRED RAMP	
ACTUAL RAMP FUEL	

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		

P 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
1545	203	085	X	X	19	236	236

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	

