



NOAA P-3 N43RF
T.D. 10
9/21/2007



Flight ID: 070921I

Sensor or system

INE

Accelerometer

Temperature Probe

Dew Point Probe

Altitude (for vertical wind)

Static Pressure

Dynamic Pressure

Time Source

Number or Name

1

N/A

1

2 (Edgetech)

RA159(INE1 blended GPS)

Rosemount Fuselage psf

Rosemount Fuselage pqf1

Micro 99

Local Met Data:

Takeoff (2159Z)

Landing (0237Z)

Aircraft Static Pressure

1011.6 mb

1013.4 mb

Tower Pressure

1011.9 mb

1014.9 mb

Notes:

There were no errors noted in the selected sensors. The flight was shortened when the NHC required no further storm positions and data.

There were data gaps noted: 220041-220051, 222421-222440, 224747-224755, 021711-021730.

There were times during heavy precipitation events (e.g. eye wall penetrations) when the dew point exceeded ambient temperature³ yielding a RH 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.

SPECIAL NOTE: In the netCDF file, 070921I_RC.nc, vertical ground speed (dpj_wgs), vertical air speed (dpj_was), and vertical wind speed (dpj_wz) were computed using Dr. Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

Flight Director:

Tom Shepherd

Phone #:

(813) 828-3310 ext. 3053

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

FLT ID: 070921I	From: KMCF	To:
Flt No: 07-035	In: 0248Z	On: 0237 Z
ETD: 2200Z	Out: 2151 Z	Off: 2159 Z
ETE: 8+00	Blk Time: 4+57 4.9 Hrs	Flt Time: 4+38 4.6 Hrs
Sponsoring Org: NOAA/HRD	Program: AEROSONDE	Purpose: T.D. 10

AOC Flight Crew

Aircraft Commander: NELSON, M	Data System: LUNCH, T
Co-Pilot: GIRIMONTE, A	AVAPS:
Navigator: BISHOP, J	System Engineer: SMITH, J
Flight Eng: FLOYD, D	AA:
Flight Director: SHEPHERD, T	AA:
Avionics: SANS SOUCCI, D	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
BLACK, M	PI	HRD
LEIGHTON, P	CO PI	
X CASCELLA, Guy	OBS	1
X HOLMAN, BRENT	MEDIA	Pro Pilot + MAG

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)	Recco Times	Fix #	Fix Time
Storm Name: TD 10	2208		
	2230		
Mission ID: NOAA3 0610A CYCLONE	2342		
2031 IP	0027		
2957 2842	0112		
8618 8453			2326

(See reverse for additional remarks)

U.S. DEP'T OF COMMERCE / NMAO / NOAA / AIRCRAFT OPERATIONS CENTER

FLT ID: 070921 I	TIME OFF: 2159 Z	TIME ON: 0237 Z
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	A/C - Takeoff	WX Station - Takeoff	A/C - Land	WX Station - Land
Pressure	1011.6	29.88	1013.4	29.97

ATIS - Takeoff	
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ATIS - Land	
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Data Source	Number	Data Disposition / Date / Quality
Flight Level Tapes		
Radar Tapes		
Cloud Physics Tapes / Cds		
Video Tapes/DVDs		
Dropsondes	10	Good: 10 Bad: 9 HRD 1 NHC
AXBT		
AXCP		
AXCTD		
SONOBUOY		

REMARKS:

300

0

2597
2159

438

Flight ID : 0709211

Launcher S/N:

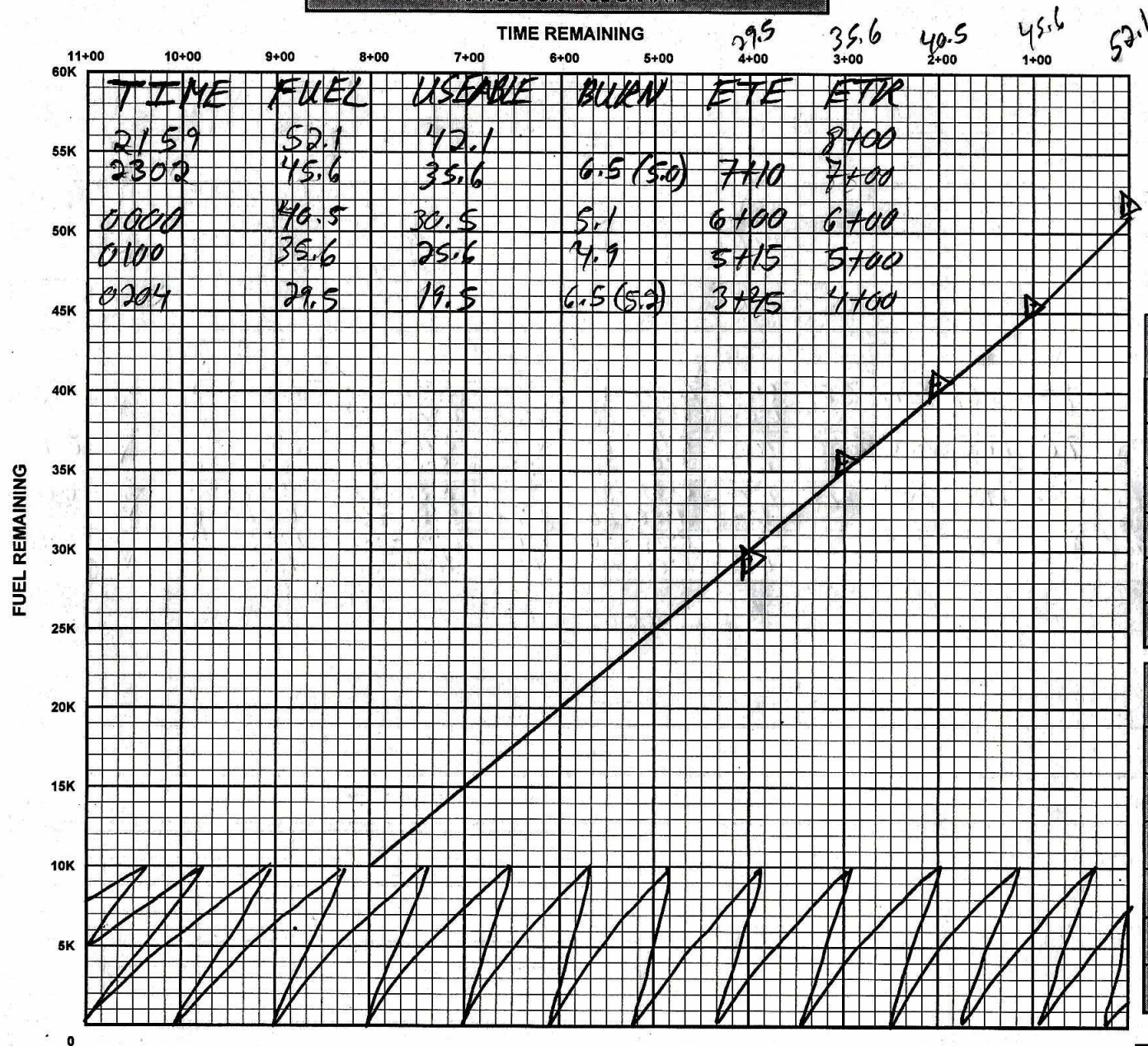
[illegible]

INS PERFORMANCE		
	INS 1	INS 2
BEGIN ALIGN TIME	/	/
ALIGN STATUS (0-5)	/	/
END NAV TIME	0252	0252
START NAV TIME	2045	2045
DELTA T	5+07	5+07

TERMINAL ERRORS		
	INS 1	INS 2
DELTA LAT	- .6	- .3
DELTA LON	+ .9	+ .2
RGS	/	/
RADIAL ERROR	/	/

[illegible]

RANGE CONTROL GRAPH



ENROUTE FUEL	
ENROUTE TIME	8+00
ENROUTE FUEL (5K 5K 4.5K RULE)	41.0
RESERVE AT DESTINATION	10.0
REQUIRED RAMP	51.0
ACTUAL RAMP FUEL	52.1

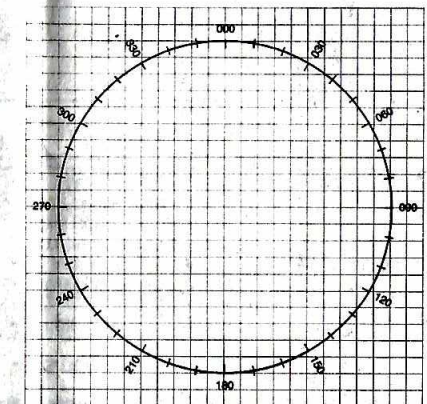
CEX - TRUE BEARING METHOD			
COMPASS TYPE	INS1	INS2	WET
MCH (READING)			
- MTH (SEXTANT)			
CE			
- VAR			
DEV			

CEX SIGHT	
GMT	
GHA	
CORR	
GHA	
LONG +W -E	
EXACT LHA	
LAT	
BODY	
DEC	
HC/D	
CORR	
HC	
Z	
ZN	

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		

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

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		



DISTANCE REMAINING

$$ETP = .5(TOTAL DISTANCE \times OUTBOUND WIND FACTOR)$$

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

PRESS ALT	200	250	300	350
	10,000	20,000	30,000	40,000
10,000	1.0	.99	.98	.97
20,000	.99	.98	.97	.96
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