



NOAA P-3 N43RF
TS Karen
26 Sept 2007



Flight ID: 070926I

Sensor or system

INE

Accelerometer

Temperature Probe

Dew Point Probe

Altitude (for vertical wind)

Static Pressure

Dynamic Pressure

Time Source

Number or Name

ine1

acc1

tt1

tdm2x (Edgetech-Corrected)

alti1 (GPS aided inertial alt)

psf (Rosemount Fuselage)

pqf1 (Rosemount Fuselage)

Micro 99

Local Met Data:

Takeoff (1915Z)

Landing (0427Z)

Aircraft Static Pressure

1005.8 mb

1007.6 mb

Tower Pressure

1006.0 mb

1008.0 mb

Notes

Data Gaps: 224730Z – 224742Z, 233310Z – 233331Z, 233350Z – 233411Z

Ashtech Altimeter has data spikes at: 015248Z – 015355Z, 025617Z – 025728Z

Data spike in TD2/TDM2 at 201300Z – 211000Z. Substituted TD1/TDM1 into TD2/TDM2.

Data spike in TD1/TDM1 at 235200Z – 235600Z. Substituted TD2/TDM2 into TD1/TDM1 with an offset of 1.5

There were periods where the dewpoint temperature exceeded the ambient temperature resulting in RH values > 100%. This was likely due to heavy 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. Corrections were not made to the data.

Radar altitude from the HG9550 radar altimeter is in the RA-232 variable slot. GPS aided INE1 altitude is in the RA-159 variable slot. The RA-232 and RA-159 altimeters are no longer installed on the aircraft.

There is no King Liquid Water Content (KLWC) sensor installed.

There is no Maycomm Water Vapor Sensing System (WVSSII) installed

There is no TT3 installed.

All other instruments appeared to work optimally.

Note: In the net CDF file, 070926I_RXC.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:

LTJG Jackie Almeida

Phone #:

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

FLT ID: 070926I	From: TBPB	To: TBPB
Flt No: 07-037	In: 0433 ^Z	On: 0427 ^Z
ETD: 1930 ^Z	Out: 1907 ^Z (9.4)	Off: 1915 ^Z (9.2)
ETE: 8hrs 45min	Blk Time: 9hrs 26min Hrs	Flt Time: 9hrs 12min Hrs
Sponsoring Org: NOAA-HRD	Program: HUR07	Purpose: Hurr. Research.

AOC Flight Crew

Aircraft Commander: Choy, B	Data System: Lynch, T
Co-Pilot: Nelson, M	AVAPS: Smith, J
Navigator: Bishop, J	System Engineer:
Flight Eng: Floyd, D	AA:
Flight Director: Almeida, J Shepherd, T	AA:
Avionics: Peek, B	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
Rogers, R	PI	ARD
Leighton, P	SCI	HRD

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

Recco Times

Fix #

Fix Time

Storm Name: TS Karen

Mission ID: 0112A Karen

NOAA3

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

FLT ID: 070926 I	TIME OFF: 1915 Z	TIME ON: 0427 Z
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	A/C - Takeoff	WX Station - Takeoff	A/C - Land	WX Station - Land
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Pressure	1005.8	1006.0	1007.6	1008.0
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ATIS - Takeoff	1900Z	10011 kt 29/24		1012 mb
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ATIS - Land	0400Z	09012 kt 27/23		1014 mb
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Data Source	Number	Data Disposition / Date / Quality
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Flight Level Tapes		
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Radar Tapes		
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Cloud Physics Tapes / Cds		
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Video Tapes/DVDs		
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Dropsondes		Good: Bad:
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AXBT		
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AXCP		
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AXCTD		
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SONOBUOY		
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REMARKS:

<u>OUT</u>	<u>IN</u>
1907Z	0433
<u>OFF</u>	<u>ON</u>
1915Z	0427Z

No Tr3

020903I	LAT	LON	TA	TD	TK	SHD	RA	PS	SP	WD	WS	WZ	SFWS	COMMENTS
182739	13. 4.80	-59.28.92	35.8	22.4	90.0	345.5	1.0	1006.3	1011.6	346.4	1.5	-.1	0.0	Test
182750	13. 4.80	-59.28.92	35.8	22.3	90.0	345.5	1.0	1006.3	1011.7	268.6	1.5	-.0	0.0	test 2
190247	13. 4.80	-59.28.92	32.6	23.5	90.0	345.5	1.0	1005.7	1011.4	8.2	1.3	.7	0.0	Jeff reported
white puff from #4														
190632	13. 4.80	-59.28.92	31.3	23.6	88.4	345.5	1.0	1005.9	1011.7	283.2	1.5	.1	0.0	Block Out
191422	13. 4.26	-59.30.42	29.7	24.1	90.0	75.3	1.0	1006.2	1011.7	88.8	1.5	-.3	0.0	Nose radar
says Fail														
191519	13. 4.44	-59.29.70	28.6	24.3	76.0	76.4	1.0	1006.9	1012.3	89.7	6.4	2.9	0.0	Takeoff
192031	13. 5.22	-59.12.24	15.8	13.4	95.0	94.7	1979.0	810.4	1012.1	78.2	6.7	1.8	5.6	Recco1 Sent
192524	13. 4.14	-58.54.00	8.2	3.0	94.9	93.3	3579.0	671.6	1010.4	53.7	7.7	1.8	8.5	1924Z Radar
tape started														
195953	13. 0.84	-56.21.30	.6	-29.6	92.0	91.7	4898.0	571.2	1009.8	68.0	9.7	2.1	6.5	Recco 2 sent
204642	12.54.30	-52.42.00	-3.5	-8.1	91.8	92.0	5747.0	515.4	1006.0	43.0	4.1	1.9	3.4	TD2 too warm
205418	12.53.04	-52. 4.86	-3.2	-34.4	92.1	92.7	5765.0	515.3	1006.7	51.3	3.0	2.1	1.1	Balancing TD2
212121	12.47.16	-49.53.46	-2.5	-38.1	93.7	93.7	5757.0	515.4	1006.2	57.1	5.8	2.2	0.0	Sent Recco 3
at 2115Z														
220707	12.35.46	-46.12.90	8.7	8.1	89.1	86.2	3279.0	694.6	1010.1	33.6	11.7	1.9	13.6	Recco 4 sent
223157	12.44.82	-44.26.94	14.5	8.8	69.7	67.0	3211.0	695.8	995.2	327.3	9.0	34.6	22.8	Data system
Reset.														
223401	12.47.82	-44.18.72	15.7	6.3	69.2	68.0	3188.0	695.7	992.9	347.0	5.8	23.1	4.3	Possible
surface center														
223504	12.48.12	-44.14.40	15.6	7.2	100.2	102.0	3196.0	695.6	993.0	117.4	3.5	13.8	4.2	Drop sonde
225209	12.42.60	-43. 1.26	6.5	8.9	81.8	96.3	3270.0	694.6	1010.3	193.7	32.1	17.4	23.5	Vert winds
going up to 40 m/s														
230106	12.49.80	-42.22.80	7.8	9.8	19.9	26.4	3265.0	696.6	1010.7	170.4	28.7	1.6	21.6	2245Z Vert
wind too high														
231509	13.50.52	-43. 0.84	7.0	8.8	326.8	332.1	3275.0	695.7	1012.4	128.6	27.1	1.9	16.9	Sent Recco 5
at 2206Z														
235235	13. 3.24	-44.11.04	8.2	12.5	199.4	194.5	3231.0	695.5	1004.2	163.2	24.4	5.2	27.6	2351z Vortex
msg out														
000048	12.55.56	-44.33.84	15.6	12.5	260.8	262.9	3216.0	695.9	993.4	322.8	4.4	1.7	14.1	center
002721	11.23.94	-45.20.34	9.4	8.5	90.0	92.8	3276.0	695.9	1010.4	246.2	9.2	1.8	0.0	Sent vortex
msg and recco 6														
005636	11.56.22	-43.57.06	7.7	2.3	329.5	322.6	3271.0	695.9	1012.6	198.3	24.3	2.3	9.8	0049z sent
recco 7 and turned, 0054 started vortex1														
013514	14.20.10	-45.32.28	9.2	8.7	330.2	338.2	3280.0	695.8	1010.5	88.7	17.6	1.6	17.5	Vortex 3 sent
013857	14.33.36	-45.42.18	8.6	4.6	264.8	266.6	3404.0	686.2	1012.0	75.6	18.6	2.1	16.4	turned to go
home. recco 8 sent														
020649	14.22.02	-48. 2.64	-18.2	-21.8	264.5	266.4	8049.0	383.9	1009.7	284.7	4.0	2.5	9.3	re-sent vortex
3														

021348	14.18.96	-48.38.70	-18.4	-38.3	264.4	266.8	8034.0	384.0	1011.4	322.8	3.4	2.0	6.5	recco 8 sent.
Last Report														
024235	14. 3.42	-51.10.50	-18.2	-38.1	263.3	264.7	8047.0	384.0	1010.6	42.4	.7	2.1	0.0	stop record LF
radar														
042640	13. 4.32	-59.30.24	27.7	22.1	75.8	74.8	2.0	1008.6	1013.8	93.8	2.9	.7	0.0	~042630 NAV
and FD hear noise and smell fumes.														
042651	13. 4.38	-59.29.94	27.8	22.2	76.0	75.2	1.0	1007.2	1012.3	82.8	4.4	3.6	0.0	Landing
043319	13. 4.80	-59.28.92	27.4	23.9	90.0	345.6	1.0	1007.6	1012.8	354.4	1.5	.1	0.0	Block out
execute fire bill														
043319	13. 4.80	-59.28.92	27.4	23.9	90.0	345.6	1.0	1007.6	1012.8	354.4	1.5	.1	0.0	~0446Z
stopping the fire of unknown origin bill. Problem may have been with the reefer turbine.														

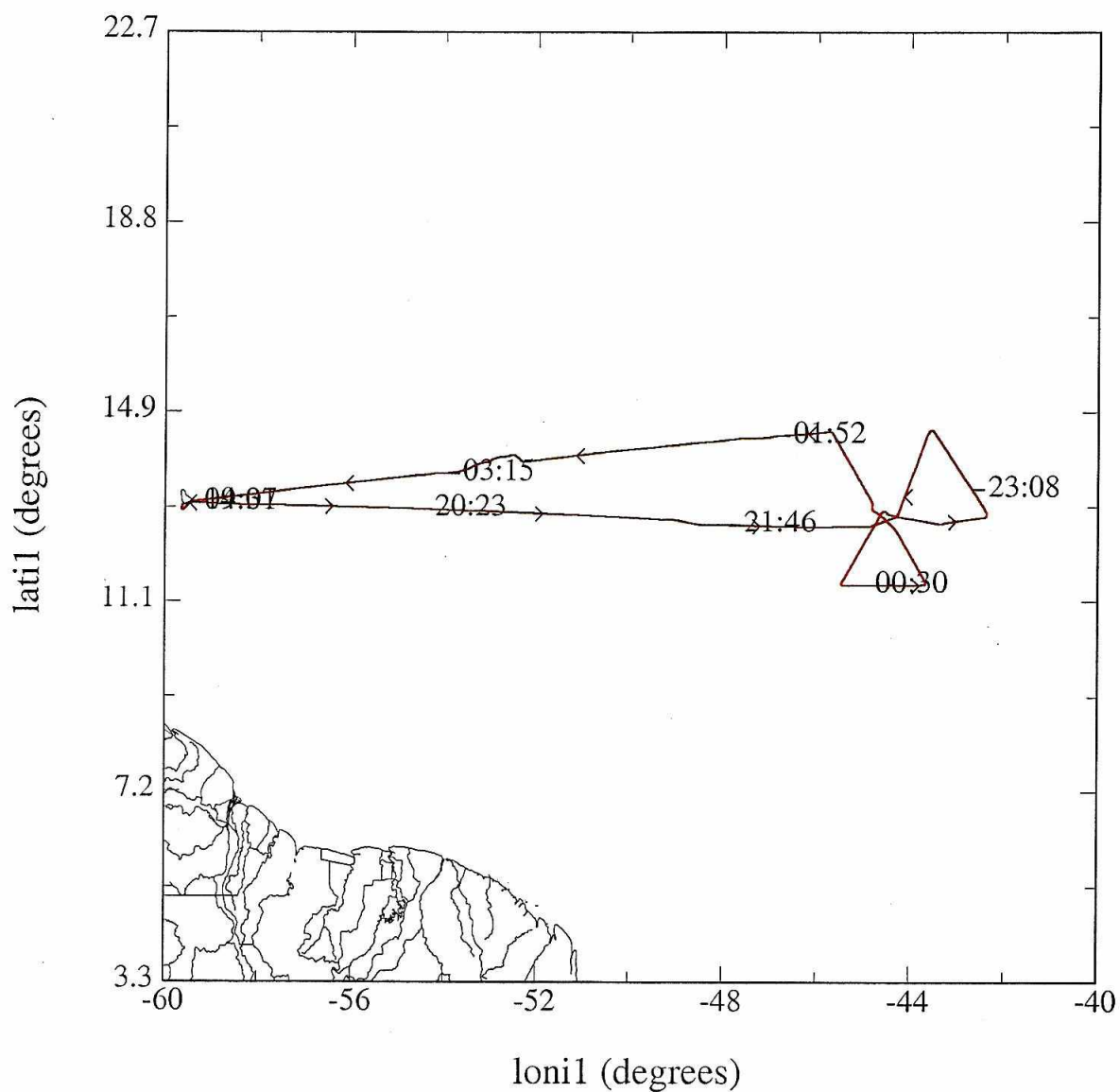
Flight ID : 0709261

Launcher S/N:

TS KAREN Charge all drops to NYC

TS Karen - N43RF - 070926I

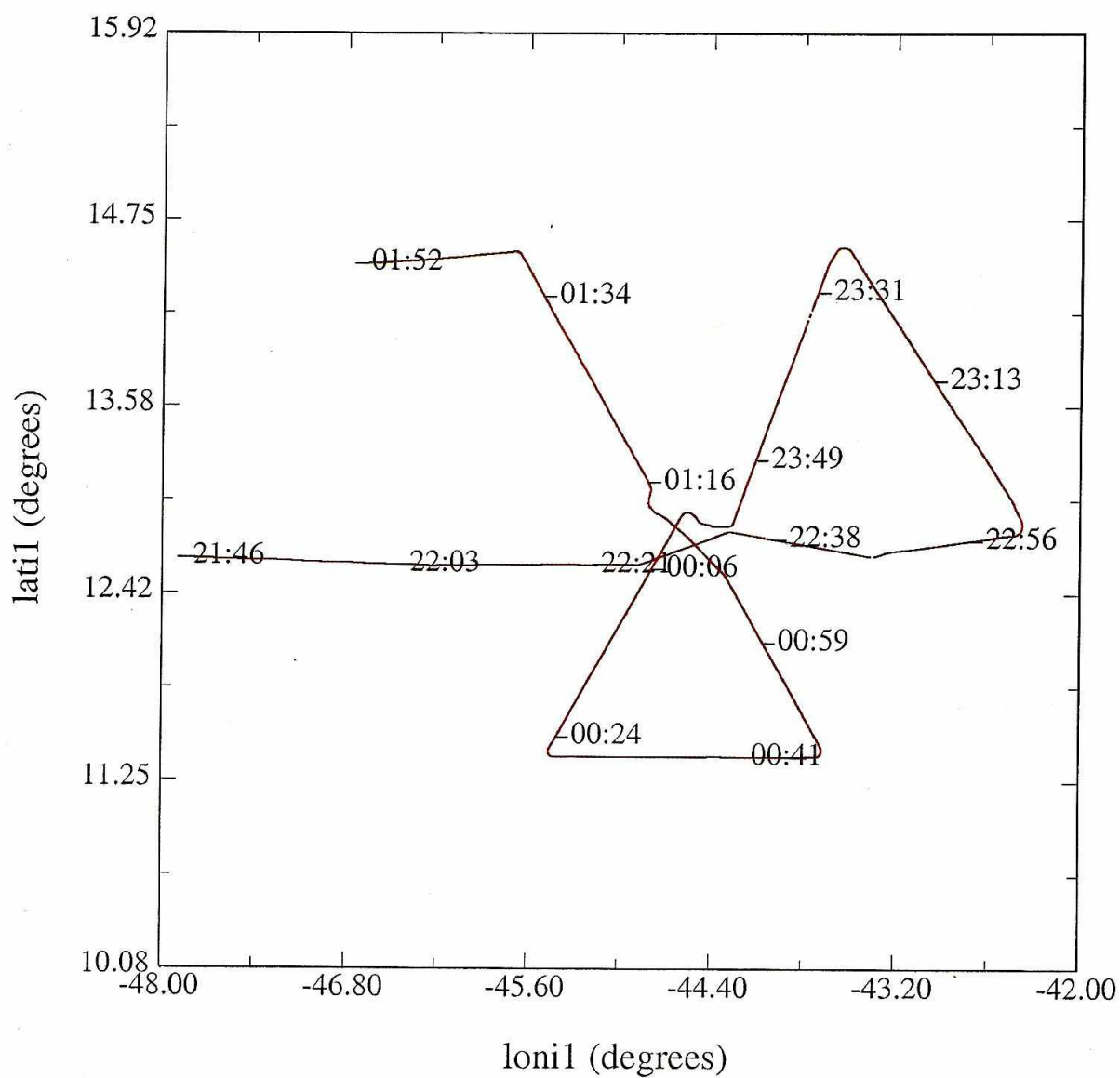
09/26/2007 UTC, 19:01:41-28:37:30



	mean	sigma	min	max
lati1 (degrees), 1 s/sec	13.15	0.74	11.40	14.59
loni1 (degrees), 1 s/sec	-50.08	5.57	-59.64	-42.38

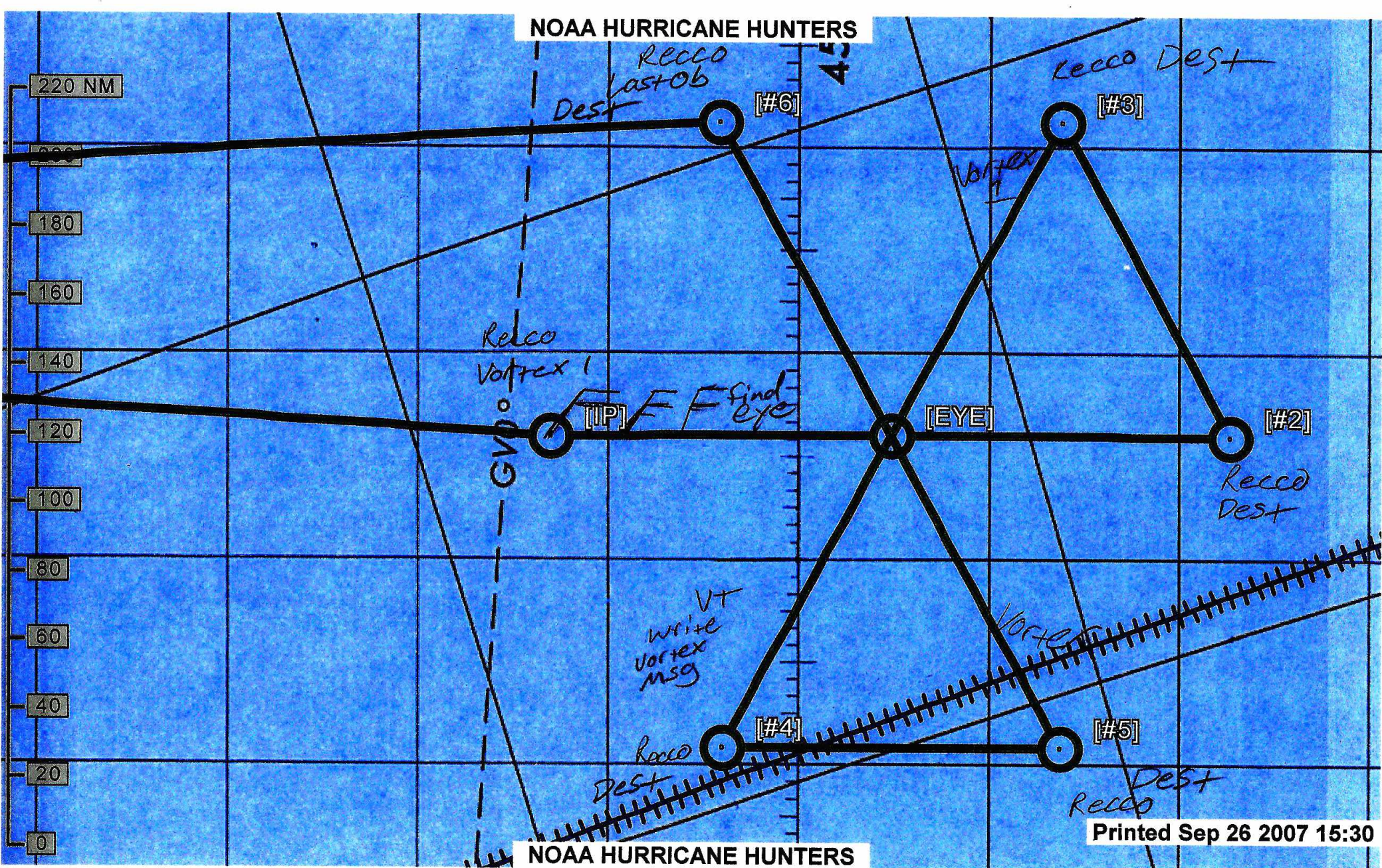
TS Karen - N43RF - 070926I

09/26/2007 UTC, 21:46:00-25:52:00



	mean	sigma	min	max
latil (degrees), 1 s/sec	12.90	0.90	11.40	14.59
lonil (degrees), 1 s/sec	-44.63	1.20	-47.90	-42.38

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Printed Sep 26 2007 15:30

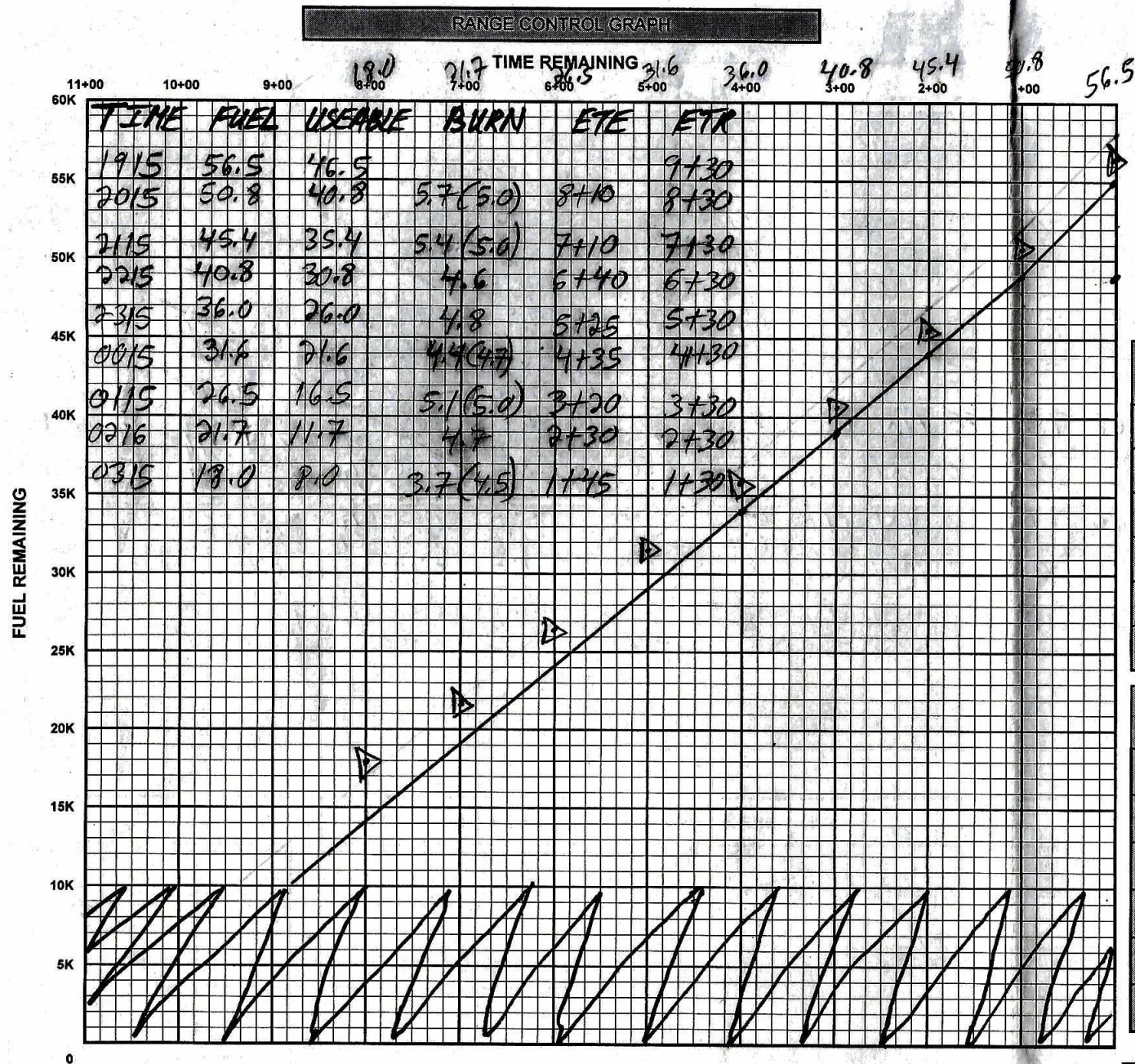
MISSION PREFLIGHT LOG		NAVIGATOR	AIRCRAFT COMMANDER	FLIGHT DIRECTOR	SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
DESTINATION	MISSION					
					/	

[illegible]

INS PERFORMANCE		
	INS 1	INS 2
BEGIN ALIGN TIME		
ALIGN STATUS (0-5)		
END NAV TIME	0446	0446
START NAV TIME	1800	1800
DELTA T	10+46	10+46

TERMINAL ERRORS		
	INS 1	INS 2
DELTA LAT	+2.6	+1.5
DELTA LON	+1.0	+3
RGS	/	/
RADIAL ERROR	2.6	1.3

[illegible]



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	9+30
ENROUTE FUEL (6K 5K 4.5K RULE)	44.8
RESERVE AT DESTINATION	10.0
REQUIRED RAMP	54.8 (55.0)
ACTUAL RAMP FUEL	56.5

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		

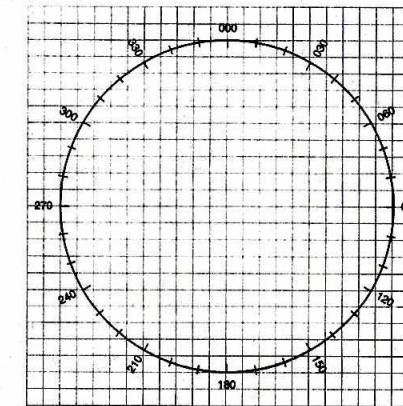
F-FACTOR	PRESS ALT	200	250	300	350
10,000	1.0	1.0	.99	.99	
20,000	.99	.98	.97	.97	
30,000	.97	.96	.95	.94	
40,000	.96	.94	.92	.90	

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

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	



45
+3
48

1st Hr → 6
2nd Hr → 5
7.5 x 4.5 = 33.75