

NOAA P-3 N43RF

Tail Doppler Radar Ike



Flight ID: 080910I

<u>Sensor or system</u>	<u>Number or Name</u>
INE	1
Accelerometer	1
Temperature Probe	1
Dew Point Probe	2 (EdgeTech)
Altitude (for vertical wind)	Blended GPS
Static Pressure	Rosemount Fuselage PSF
Dynamic Pressure	Rosemount Fuselage PQF1
Time Source	Micro99
Constants File	n43_hur08.adc

Notes:

There were two time/data gaps during this flight. These occurred from 132430Z-132432Z and 150649Z-150708Z.

Due to hardware changes in some of the navigational equipment, a number of parameters have been adjusted in the netCDF file. RA159 and ALTI1 both display the blended altitude solution of the GPS/RINU system, RA232 displays the corrected HG9550 radar altitude, ALTI2 displays the uncorrected HG9550 radar altitude, and ALTCLN displays the NOVATEL radar altitude data.

Temperature data from sensor number 3 is erroneous.

There was an ~40 mb difference in differential attack pressure between the fuselage and radome.

There was an ~12 mb difference in differential sideslip pressure between the fuselage and radome.

No Collins or Ashtech GPS data exist for this flight.

The King Liquid Water Sensor was inoperative throughout the flight.

Data from dew point sensor number 2 was edited in order to bring relative humidity values down below ~120% during times when oversaturation occurred. These corrections occurred from 132457Z-132510Z and from 135521Z-135549Z. Also, dewpoint sensor number 2 was erroneous from 151710Z-151946Z. Data from dewpoint sensor number 3 was substituted into sensor number 2 values during this time.

There was a data spike in the NOVATEL data from 130631Z-130632Z.

Dewpoint sensor number one displayed erroneous spikes during the following times: 103010Z-103352Z, 130135Z-130430Z, and 151520Z to the end of the flight. No corrections were made to the data.

SPECIAL NOTE!!!

Vertical ground, vertical air and vertical speeds, computed using Dave Jorgensen's vertical wind algorithm should be used for vertical wind analysis.

Takeoff
0808Z

Land
1526Z

Aircraft Static Pressure
Corrected Tower Pressure

1011.3 mb
1011.1 mb

1012.1 mb
1013.2 mb

Flight Director:

Martin Mayeaux (813) 828-3310 ext. 3086

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

Fit ID: 080910 I	From: Kmcf	To: Kmcf
Fit. No: 08-048	Blk In: 1534 Z	Time On: 1526 Z
ETD: 0800 Z	Blk Out: 0755 Z	Time Off: 0808 Z
ETE: 7+30	Blk Time: 7+39 (7.7) Hrs	Fit Time: 7+18 (7.3) Hrs
Sponsoring Org: NHC/ENC	Program: Tail Doppler Radar	Purpose: Ike TOR #1

AOC Flight Crew

Aircraft Commander: Choy	Data System: Lynch
Co-Pilot: Ebbhardt, Sweeney, B	AVAPS: Naether, D
Navigator: Kidder, R Bishop, J	System Eng: Smith, J
Flight Eng: Floyd, D Khepo, J	A A:
Flight Director: Mayeaux	A A: San Souci
Avionics:	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
✓ McFadden, J	Obs/PM	AOC
Baldi, Chad	Obs	Prosewing
✓ James, Benjamin	Obs	Um-Ax BT
✓ Dunham, Jason	Obs	HRD
✓ Black, Mike	Obs	HRD
✓ Dorst, Neal	Obs	HRD

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

Storm Name: IKE
 Mission ID: NOAA3 1909A IKE
 Penetration number and time
Radar started at 0812Z

8000 ft PA
 Slower than forecast
 Tpal 74 1130Z last fix
 GIV
 Tpal 70 1532

Recco Times

Drop in center on
 last pass for 15Z
 on detren - 1200 ft
 up Tampa Bay

Fix # Fix Time

1 0943Z
 2 1043Z
 3 1149Z
 4 1258Z
 5 1357Z

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

Flight ID: 080910 I

Time Off: 0808

Z

Time On: 1526

Z

A/C: Takeoff

Wx Station: Takeoff

A/C: Land

Wx Station: Land

Pressure

1011.3

mb

2986

mb

1012.1

mb

2992

mb

ATIS

Time

Observation

Takeoff

0730 Z

08012kt 27kt 10sm str A2986 1kt

Land

1355Z

09016622KT 10sm fow 021 BKN120 BKN250 29/25 A2992

Number

Data Disposition / Date / Quality

Flight Level Tapes

Radar Tapes

Cloud Physics Tapes / CDs

Video Tapes

Dropsondes

18

Good: 15 Bad: 1 bad winds

AXBT

20

AXCP

AXCTD

Remarks:

2318

8436

0750Z

2327 N 8440W

964 mb from Dropsonde

max 5cm R = 76kt NE gust

max FL 72 kts NE gust

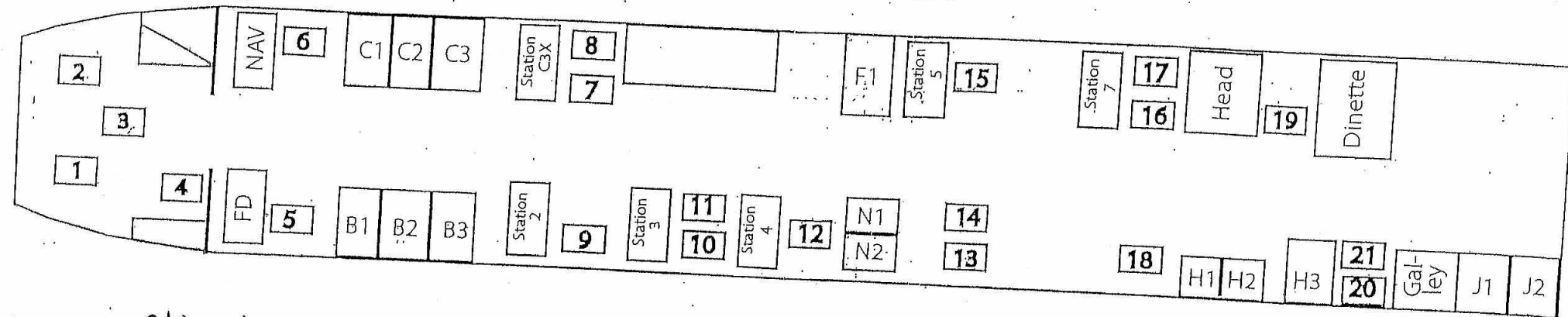
Eye E30/20/10 - op 4

0900

23.5 84.9

NOAA AIRCRAFT OPERATIONS CENTER

Flight ID 080910E

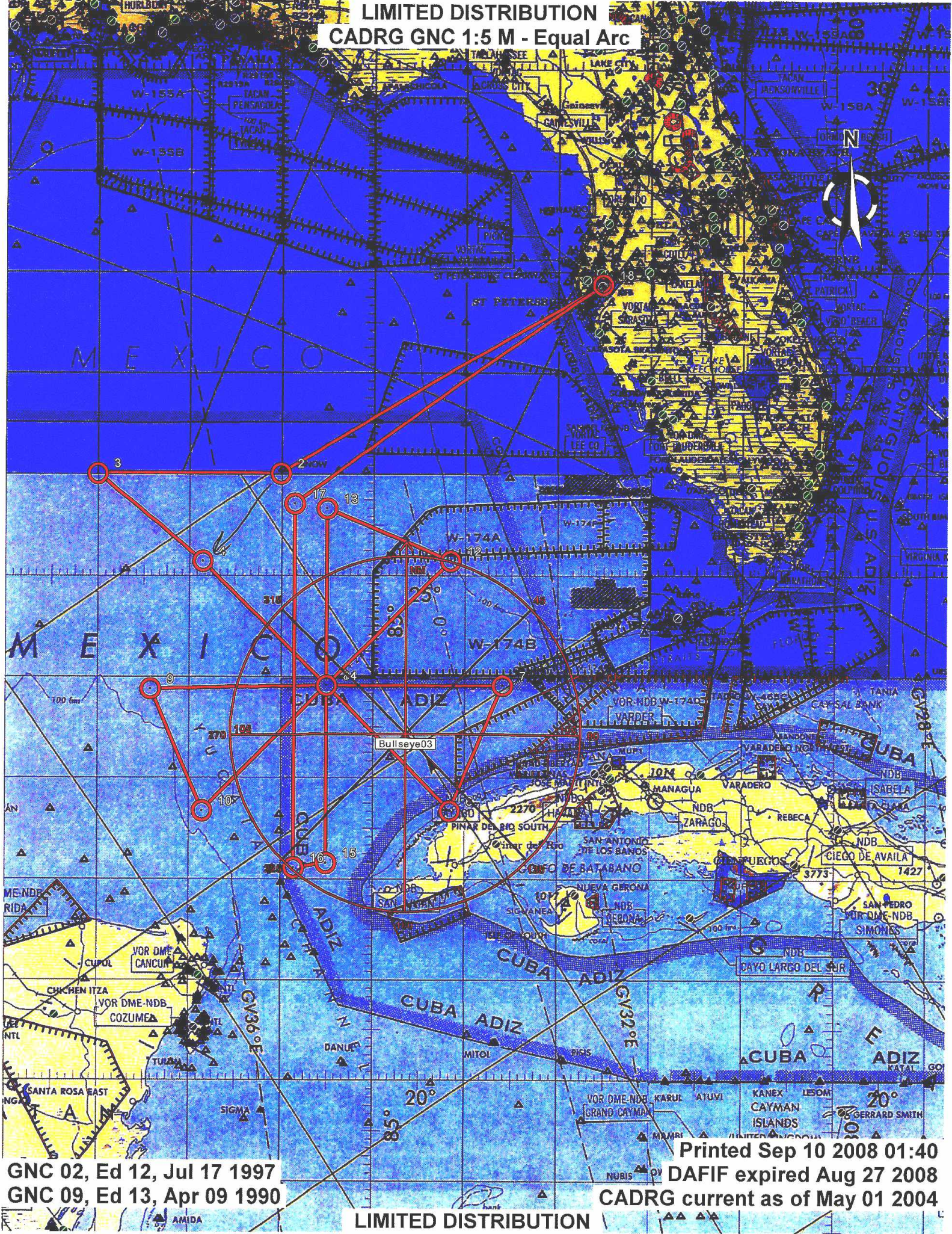


1. Elhardt, A
PILOT
2. Coy, B
COPILOT
3. Floyd, D
FLIGHT ENGINEER
4. Jason Dunim
STATION 1
5. Mayeaux, m
FLIGHT DIRECTOR
6. Kiddler, R
NAVIGATOR
7. McLadden, J
STATION C3X

8. B. Shol, J
STATION C3X
9. Benjamin James
STATION 2
10. NEAL M. DORST
STATION 3
11. Mike Black
STATION 3
12. Lynch, T
STATION 4
13. Naehor, D
PROJECT SEAT
14. _____
PROJECT SEAT

15. Smith, J
STATION 5
16. ~~Baldi, C~~ ~~McLadden, J~~ Sweeney, m
STATION 7
17. Baldi, C
STATION 7
18. San Saver, D
STATION 8
19. Klippel, J
DINETTE
20. ~~Sweeney, m~~ ~~Sweeney, m~~
GALLEY
21. _____
GALLEY

LIMITED DISTRIBUTION
 CADRG GNC 1:5 M - Equal Arc



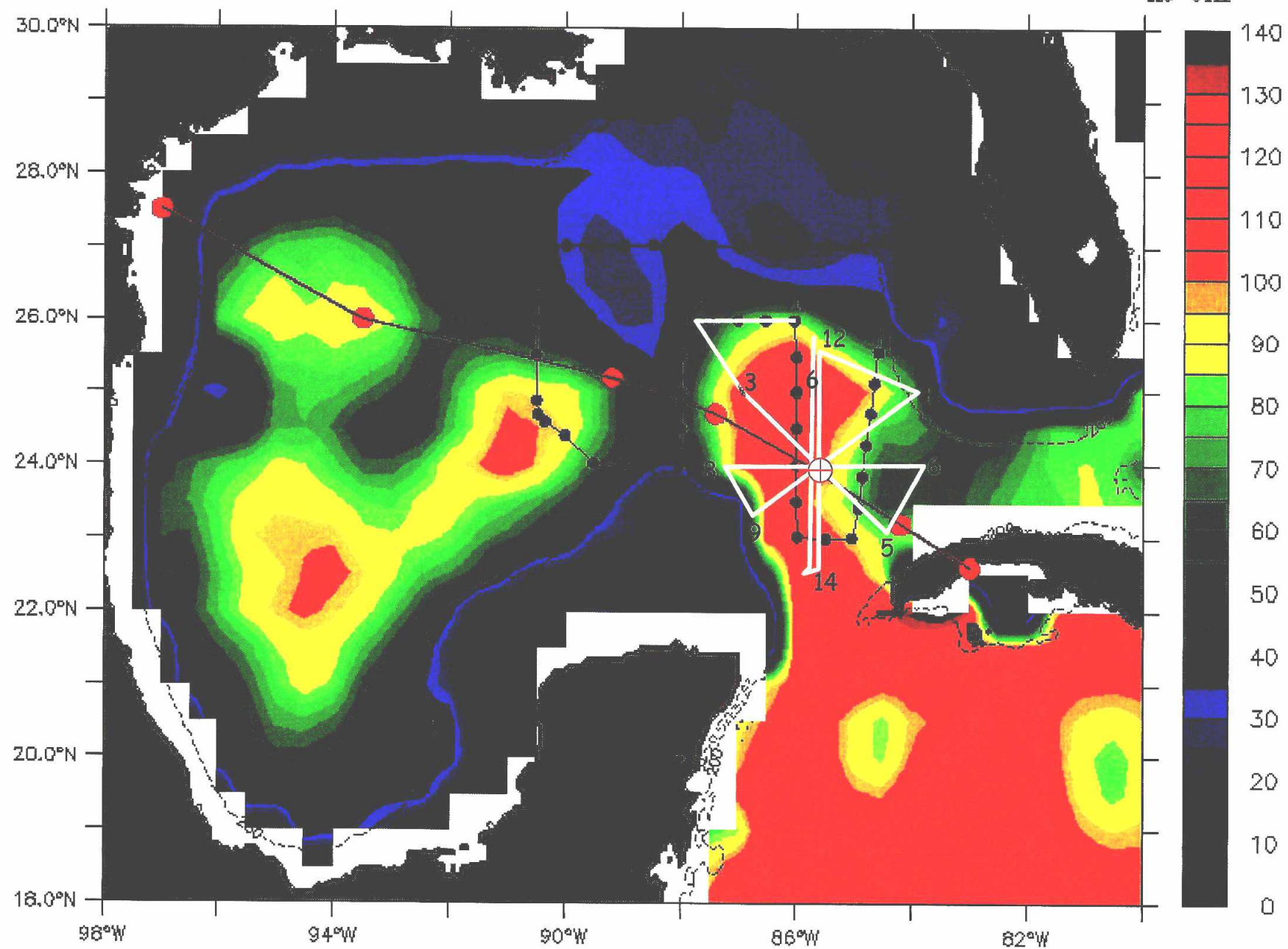
GNC 02, Ed 12, Jul 17 1997
 GNC 09, Ed 13, Apr 09 1990

Printed Sep 10 2008 01:40
 DAFIF expired Aug 27 2008
 CADRG current as of May 01 2004

LIMITED DISTRIBUTION

10 Sep 12z: 24.0N 85.8W Sep 09 2008

OHC
 kJ cm^{-2}



Flight ID : 0809101

Launcher S/N:

HRD 10
N+C 6

COMBO DROPS HRA - ALL OTHERS N/A

MISSION PREFLIGHT LOG						NAVIGATOR		AIRCRAFT COMMANDER		FLIGHT DIRECTOR		SCHEDULED / ACTUAL TAKEOFF Z		DATE OF TAKEOFF				
DESTINATION KMCF			MISSION HRD			KIDDER/BISHOP		CHOY		MAYEAUX		0800Z 10807Z		10 SEP 2008				
WP	LAT / LON	RTE	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ETA	ATA	REMARKS

Turn Pt	Type	Fix/Point	Latitude	Elev	A-pd	Cafe Bank	Altitude	Temp	MH
	DTD	Description	Longitude	MV	Bank	Time Adjust	Wind	FP	MC
1	ST	KMCF 04/RW	N 27 50.24	8FT		0	8M	9C	045
*M		MACDILL AFB	W082 31.96	4.6W		0.0		0	045
2		MINOW/W	N 26 02.79	unk	250T	0	12000M	9C	245
*M		MINOW	W085 58.93	1.9W		0.0		0	245
3			N 24 39.28	unk	250T	0	12000M	9C	182
*M			W085 58.81	1.8W		0.0		0	182
4		Bullseye04	N 23 25.46	unk	250T	0	12000M	9C	135
*M			W084 37.84	2.4W		0.0		0	135
5			N 22 10.90	unk	250T	0	12000M	9C	137
*M			W083 17.73	3.1W		0.0		0	137
6			N 23 24.40	unk	250T	0	12000M	9C	026
*M			W082 48.10	3.6W		0.0		0	026
7			N 23 24.89	unk	250T	0	12000M	9C	274
*M			W086 32.14	1.2W		0.0		0	274
8			N 22 10.41	unk	250T	0	12000M	9C	155
*M			W085 57.93	1.4W		0.0		0	155
9			N 24 39.61	unk	250T	0	12000M	9C	046
*M			W083 16.55	3.5W		0.0		0	046
10			N 23 10.73	unk	250T	0	12000M	9C	237
*M			W084 37.77	2.7W		0.0		0	237
11			N 21 40.47	unk	250T	0	12000M	9C	183
*M			W084 37.94	2.1W		0.0		0	183
12			N 21 44.69	unk	250T	0	12000M	9C	233
*M			W083 09.57	1.0W		0.0		0	233
13		MINOW/W	N 26 02.79	unk	250T	0	12000M	9C	350
*M		MINOW	W085 58.93	1.9W		0.0		0	350
14		MCF/T	N 27 51.67	14FT	250T	0	12000M	9C	051
*M		MACDILL	W082 30.81	4.5W		0.0		0	051

Turn Pt	Leg Time	Leg Dist	Leg Fuel
	Clock Time	Total Dist	Total Fuel
1	00:00:00	0.0	500
*M	00:00:00	0.0	9500
2	00:27:30	213.8	0
*M	00:27:30	213.8	9500
3	00:19:59	83.2	0
*M	01:07:29	297.0	9500
4	00:25:03	104.4	0
*M	01:32:32	401.4	9500
5	00:25:11	104.9	0
*M	01:57:43	506.3	9500
6	00:19:40	79.0	0
*M	02:16:49	585.3	9500
7	00:50:20	209.7	0
*M	03:07:09	795.7	9500
8	00:19:22	80.7	0
*M	03:26:31	876.3	9500
9	00:50:25	210.1	0
*M	04:16:56	1086.4	9500
10	00:19:13	80.1	0
*M	04:36:09	1166.5	9500
11	00:50:18	209.6	0
*M	05:26:27	1376.1	9500
12	00:05:09	21.5	0
*M	05:31:36	1397.6	9500
13	01:03:04	262.8	0
*M	06:34:40	1660.3	9500
14	00:31:41	215.4	0
*M	07:26:21	1875.7	9500

INS PERFORMANCE		
	INS 1	INS 2
BEGIN ALIGN TIME		
ALIGN STATUS (0-5)		
END NAV TIME		
START NAV TIME		
DELTA T		

TERMINAL ERRORS		
	INS 1	INS 2
DELTA LAT		
DELTA LON		
RGS		
RADIAL ERROR		

REMARKS

6586

0730Z

23.27

8440

2348 8520W

2514 086 41

MISSION LOG

PAGE ____ OF ____

POSITION REPORT

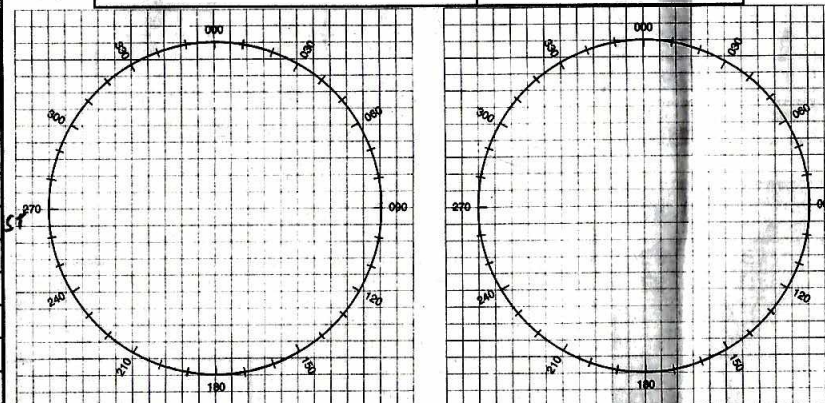
EMERGENCY MESSAGE

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 243.0 VHF/VOICE 121.5 MF/VOICE 2182 KHZ HF/CW 8384 KHZ MF/CW 500 KHZ

MAYDAY, MAYDAY, MAYDAY
THIS IS NOAA 43, NOAA 43, NOAA 43

1. POSITION _____ N/S
2. TIME _____ E/W AT _____ Z
3. ALTITUDE _____
4. NEXT POSITION _____
5. ETA _____
6. NEXT POSITION _____
- POSITION _____ N/S
- HEADING _____ TRUE/MAG
- AT _____ KTS TRUE/INDICATED
- FLIGHT LEVEL OR ALTITUDE _____
- WE ARE A P-3 AIRCRAFT WITH 18 SOULS ON BOARD
- NATURE OF EMERGENCY _____
- ASSISTANCE DESIRED _____
- PILOT INTENTIONS _____
- WE HAVE _____ ENDURANCE REMAINING



CLEARANCES			
FREQ	ALT	HGD	OTHER
			3717-Squawk
			As Filed 080 1600P
			118.8 135.77 Houston
			TEAL 74 130.7 Air
			135.1 HAV
			631 244 2492 124.55 EAST
			2200Z
			8-0

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
0750Z	ENB																				
0755Z	TAXI	RUN ON C, 6																			
0807	T/O	RMCF																			
0810	FIX	080/05	21 53	0	21 53	0	206	4W	063	AL	247	347	126	34	4	205	0142				
0829	SAC	✓																			
0850	C	NY RADIO CRZ 0810																			
0909	Δ	2536 8605	2535 08606	71 -1	2536 8606	0 -1	184	2W	182	6R	192	258	076	49	8K	244					
0919	IP																				
92	Fix	235 84.7	3001 7445																		
0944	δ	2345 84.58																			
1008	Δ	2319 8342	2320 8341	-1 +1	2319 8344	0 -2	054	3W	051	12L	0397	301	186	80	8K	241					
1044	δ	2317 83.29																			
1100	C	NY RADIO PAGS INT																			
1107	Δ	2347 83.49	2348 83.49	-1 0	2347 83.51	0 -3															
1130	C	HAV Relay	TEAL 74																		
1140	Δ	2317 83.51	2320 83.50	-2 -1	2318 83.53	-1 -2															

Rwy 04 2700
13nm East

MOSEA 3300

SUP 70K

Radios

FDFH 400nm J/a Direct

VHF/HFISAT

41 45 + 30

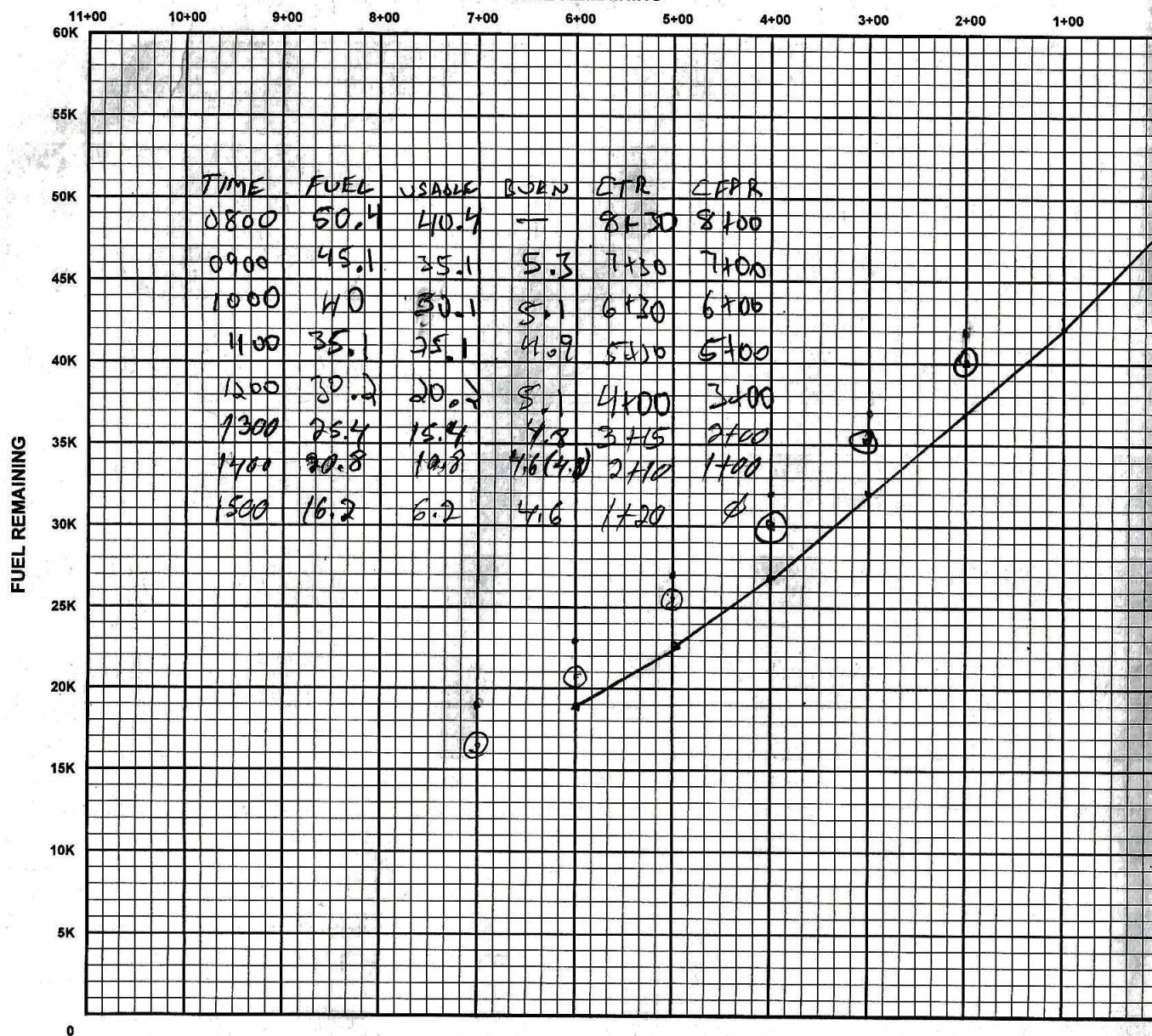
1125

1220

1300

RANGE CONTROL GRAPH

TIME REMAINING



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

ENROUTE FUEL

ENROUTE TIME	8
ENROUTE FUEL (5K, 5K, 4.5K RULE)	38
RESERVE AT DESTINATION	10
REQUIRED RAMP	48
ACTUAL RAMP FUEL	51

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		

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

CEX - TRUE BEARING METHOD

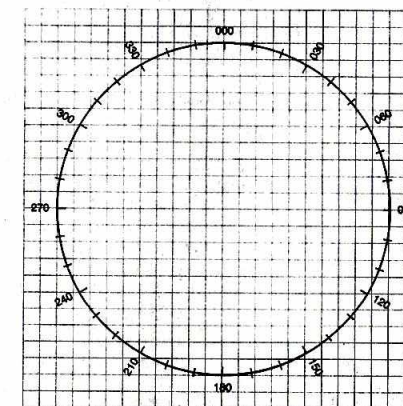
COMPASS TYPE	INS1	INS2	WET
MCH (READING)			
MTH (SEXTANT)			
CE			
-VAR			
DEV			

CEX SIGHT

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

CEX - ERB METHOD

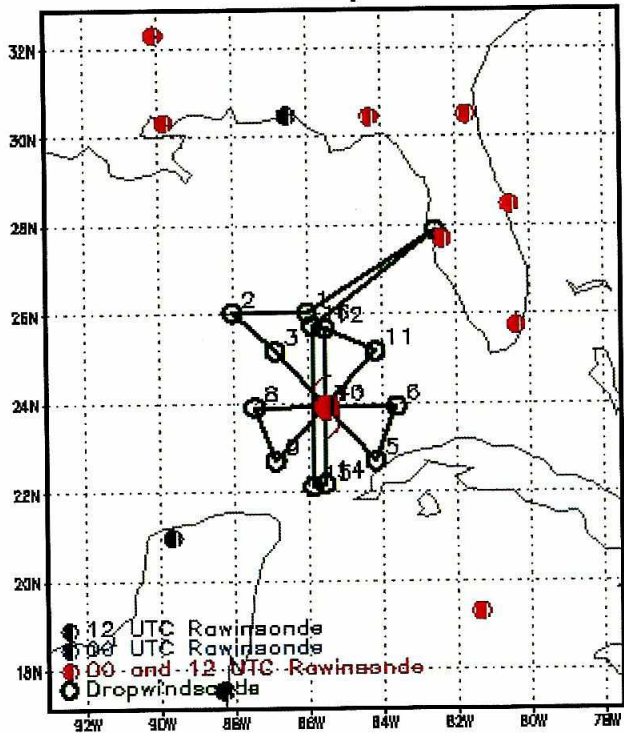
COMPASS TYPE	INS1	INS2	WET
MERB (DIAL 000)			
+ ZN			
= MTH			
MCH (READING)			
CE			
-VAR			
= DEV			



TRUE AIRSPEED CROSS-CHECK

TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	TAS	ITAS
0830	218	8.5	/	/	113	246	248

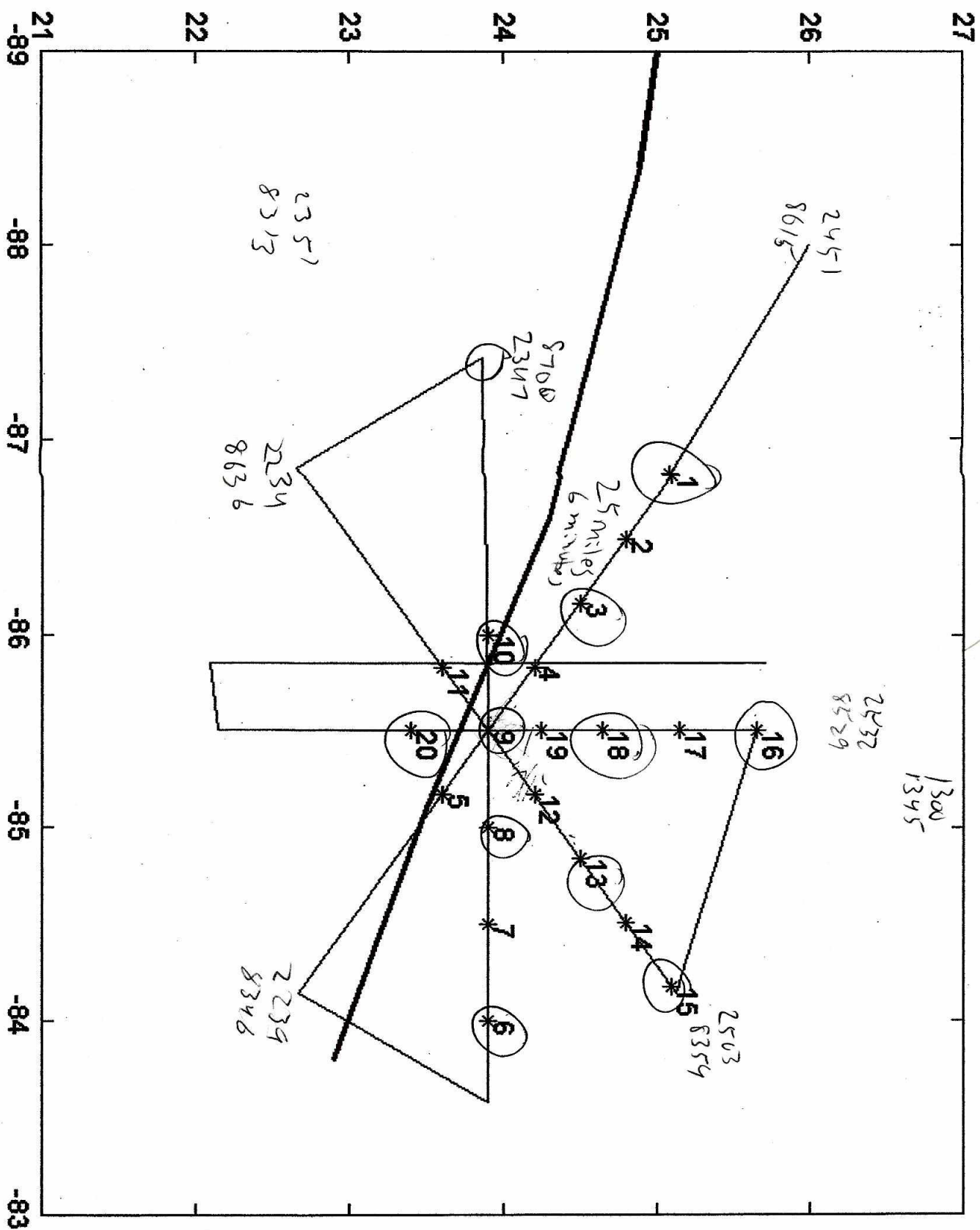
080910I 10/12Z ike



Eliminate PT 2

QADS: COLA/16CS

2008-08-10-01:20



33-4256

ST - 5 mdo - BT