



NOAA P-3 N43RF
Hurricane Research
TS ISIDORE LANDFALL
IN LOUISIANA



Flight ID: I020925

<u>Sensor or system</u>	<u>Number or Name</u>
INE	1
Accelerometer	1
Temperature Probe	1
Dew Point Probe	3 (Buck Research)
Altitude (for vertical wind)	Radar Altitude (RA-159)
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO3022.CON

Notes:

There were no time/data gaps.

The radar altimeter 159, RA159, had numerous spikes during the following time frames: 0039Z - 0041Z, 0153Z - 0155Z, 0219Z - 0221Z, 0301Z - 0303Z, 0305Z - 0307Z, 0311Z - 0313Z, 0329Z - 0331Z, 0402Z - 0404Z, 0414Z - 0416Z, 0432Z - 0434Z, 0515Z - 0517Z, 0519Z - 0521Z, 0615Z - 0617Z, 0622Z - 0625Z and 0646Z - 0656Z. These spikes were removed and patched over using the RA232 (radar altimeter 232) and pressure altitude as references.

The King liquid water probe was not operating for the entire mission.

There were several occurrences during the flight where dewpoint temperature exceeded ambient temperature from heavy precipitation events.

All other instruments worked optimally during the 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	1008.6 mb	1008.0 mb
Corrected Tower Pressure	1008.8 mb	1008.0 mb
Flight Director:	A. Barry Damiano	(813) 828-3310 ext. 3073

Flt ID: 020925E	From: KMCF	To: KMCF
Flt No.: 02-37	Blk In: 0817Z	ATA: 0800Z
ETD: 2230Z	Blk Out: 2216Z	ATD: 2230Z
ETE:	Blk Time: 10:01 (10.0)	Flt Time: 9:30 (9.5)
Sponsor Org: NHC	Program: HURR. RECCO	Purpose: TS ISIDORE LANDFALL

AOC Personnel

AC: KENOL ✓	Sys Eng: SMITH ✓
CP: HALVERSON/SEAH ✓	Data Sys: LYNCH ✓
Nav: NEWMAN	Radar:
FE: CURRY/FLOYD ✓	GPS/BT: TONG
Avionics: SANS SOULT ✓	Cld Phys:
FD: DAMIANO ✓	

Participating Scientists/Visitors/AOC

Name (Last, First)	Activity on Aircraft	Affiliation
DODGE, P. ✓	HAPS	HRD
CIONE, J. ✓	AXBT	}
GAMACHE, J. ✓	RADAR	
UHLHORN, E. ✓	SFMR	
WALSH, E. ✓	SAR	
BECKMAN, DAN ✓	MEDIA	NASA
NOLAN, DAVE ✓	OBS	NBC
		HRD/OSMAS

Proposed/Actual Mission/Remarks (Recco, Fixes, Storm, PENET, NHOP #)

6 0005Z 6 0312
 2739 2819
 9015 4048
 984m fms surface 987m fms deep
 0614Z
 center was inland
 29 03 9035
 007 Forecast
 27.9 90.3
 latest 27.3 90.5

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

ACCWF2

Flt ID: *D020925*

Time Off: *2230Z*

Time On: *0800Z*

	A/C (Take Off)	Wx Stn (Take Off)	A/C (Land)	Wx Stn (Land)
Pressure	<i>1008.6</i>	<i>29.80 / 1008.8</i>	<i>1008.0</i>	<i>29.78 / 1008.0</i>

	Number	Data Disposition/Date/Quality
Slow/Fast Flt Lvl Tapes	<i>2</i>	
Radar Tapes	<i>2</i>	
Cloud Physics Tapes		
Video Tapes		
AXBT	<i>12</i>	
AXCP		
AXCTD		
Dropsondes	<i>18</i>	<i>8 with no winds; 1 no launch detect</i>

Video

	Forward	Left Side	Right Side	Down	Remarks
Time On					
Time Off					
Rate					

Remarks

9823 last sonde

Department of Commerce/NOAA/National Oceanic and Atmospheric Administration															Form
Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _s	T _a	Press. AL	Geo. AL	Slc Press.	Press. Slc	Dyn. Press	Remarks	
225100	2742	8349	267	261	169	37	4.3	-7.1	4318	4530	1003.8	591.6	86.8	CLN	
231700	2739	8614	267	257	169	51	4.4	2.9	4464	4637	994.3	580.1	79.1	RW	
232500	2736	8656	269	261	169	49	4.8	2.5	4460	4617	992.2	580.3	84.9	BTN CLD	
234339	2732	8831	265	258	175	41	13.1	11.7	3021	3030	989.2	699.3	76.3	BT 16	
235700	2730	8939	273	270	182	16	13.4	12.3	3019	3012	987.0	699.4	74.2	BTN CLD	
000600	2739	9015												EYE/SONDE	
002951	2737	9212	158	157	4	25	12.1	10.3	3015	3042	992.9	699.6	79.0	BT 12	
004903	2628	9126	41	37	335	26	13.4	10.0	3015	3034	990.8	699.7	79.9	BT 16	
011344	2754	9021												EYE/BT 12	
014641	2914	8812	49	61	153	48	11.6	11.6	3029	3065	993.9	698.4	73.9	SONDE/BT 16	
020848	3004	8703	272	264	133	65	10.4	9.6	2973	3048	1000.8	701.9	73.1	SONDE (21)	
021514	3004	8739	271	260	137	70	10.8	11.9	2999	3053	997.8	702.6	73.9	SONDE (W)	
021832	3005	8758	272	264	133	65	11.3	12.2	2997	3055	996.6	701.5	74.4	SONDE (49)	
022220	3005	8819	271	265	137	57	11.0	13.8	2990	3040	995.2	701.2	72.2	SONDE (15)	
023053	3001	8902	199	190	136	46	12.6	12.7	3023	3053	992.8	698.2	74.4	SONDE (NW)	
024833	2854	8928	230	228	109	19	13.0	13.4	3041	3037	987.3	697.3	80.9	SONDE/BT 12	
025047	2848	8938	232	228	115	18	13.0	14.0	3043	3037	988.3	697.3	79.3	SONDE (NW)	
030745	2826	9039			WINDS	LGT/VAR	14.4	11.4	3037	3029	985.9	697.9	78.3	SONDE (35)	
031228	2819	9048												EYE	
040231	2604	8957	33	29	250	32	14.7	9.4	3035	3070	990.7	697.8	64.4	SONDE/BT 16	
040348	2609	8953	31	29	241	31	14.3	9.7	3035	3066	990.5	698.0	64.0	SONDE (20)	
044400	2851	8759	33	41	171	52	14.1	6.5	3037	3069	991.5	697.8	78.3	DARK	
050500	3010	8709	267	256	152	59	11.6	11.9	3038	3097	996.4	697.7	68.6	SONDE (21)	
051054	3010	8739			153	62	12.3	11.9	3015	3061		699.7		SONDE NW	
051352	3008	8752			152	64	12.4	12.8	3018	3057	993.3	699.5	76.9	SONDE (23) NW	
051834	3008	8819			153	53								SONDE NW	
052635	3006	8900			145	45					990.1			SONDE NW	
055800	2857	9058			0	21	13.6	12.3	3105	3098	985.9	691.8		SONDE	
070900	2838	8748	101	110	176	37	.1	-4.5	5229	5476	994.7	523.9	77.7	SONDE dark	

N43RF AVAPS DROP LOG

Project : Hurricane '02

Mission : ISIDORE 6

Flight ID : 020925 I

Take Off: 2230 Z

Landing :

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Comments	Good ?
1	984 715 169	1	0	005	29	DSS		L
2	011 938 003	1	0	0146	32	RT		V
3	021 735 094	1	0	0208	31	RT	O ver.	V
4	022 918 046	1	0	0215	-	RT	NOW WINDS	
5	021 735 226	2	0	0218	49	RT		V
6	913 925 231	3	0	0222	-	RT		V
7	022 918 061	4	0	0230	-	RT	NO WINDS	
8	022 945 191	1	0	0245	-	RT	NO WINDS	
9	011 838 020	2	0	0251	-	RT	NO WINDS	
10	022 918 057	3	0	0307	35	RT		V
11	993 818 040	1	-0.2	402	-	RT	NO LAUNCH DETECT	
12	011 115 068	2	-1.8	403	20	DSS		V
13	020 615 260	3	0	510	-		NO WINDS	
14	021 735 078	2	-0.1	505	18.4			V
15	020 615 243	2	0	513	-		NO WINDS	
16	011 415 053	4	-1.4	518	-		NO WINDS	
17	020 615 299	3	0	526	-		NO WINDS	
18	020 215 227	1	.1	558	42			V
	Last P. 988.3							
	CHARGE TO							
	NHC							
	HRI							
	AOC							

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

MISSION

DESTINATION

WP

LAT / LON

RTE

MH

VAR

TH

DR

TRK

GS

WD

WS

ALT

TAS

LEG / TOT
DIST

LEG / TOT
TIME

PROP
ETA

ETA

ATA

REMARKS

NAVIGATOR

AIRCRAFT COMMANDER

FLIGHT DIRECTOR

SCHEDULED / ACTUAL TAKEOFF Z

DATE OF TAKEOFF

McF

Isidore

Newman

Kennel

Damiano

2230

' 2227

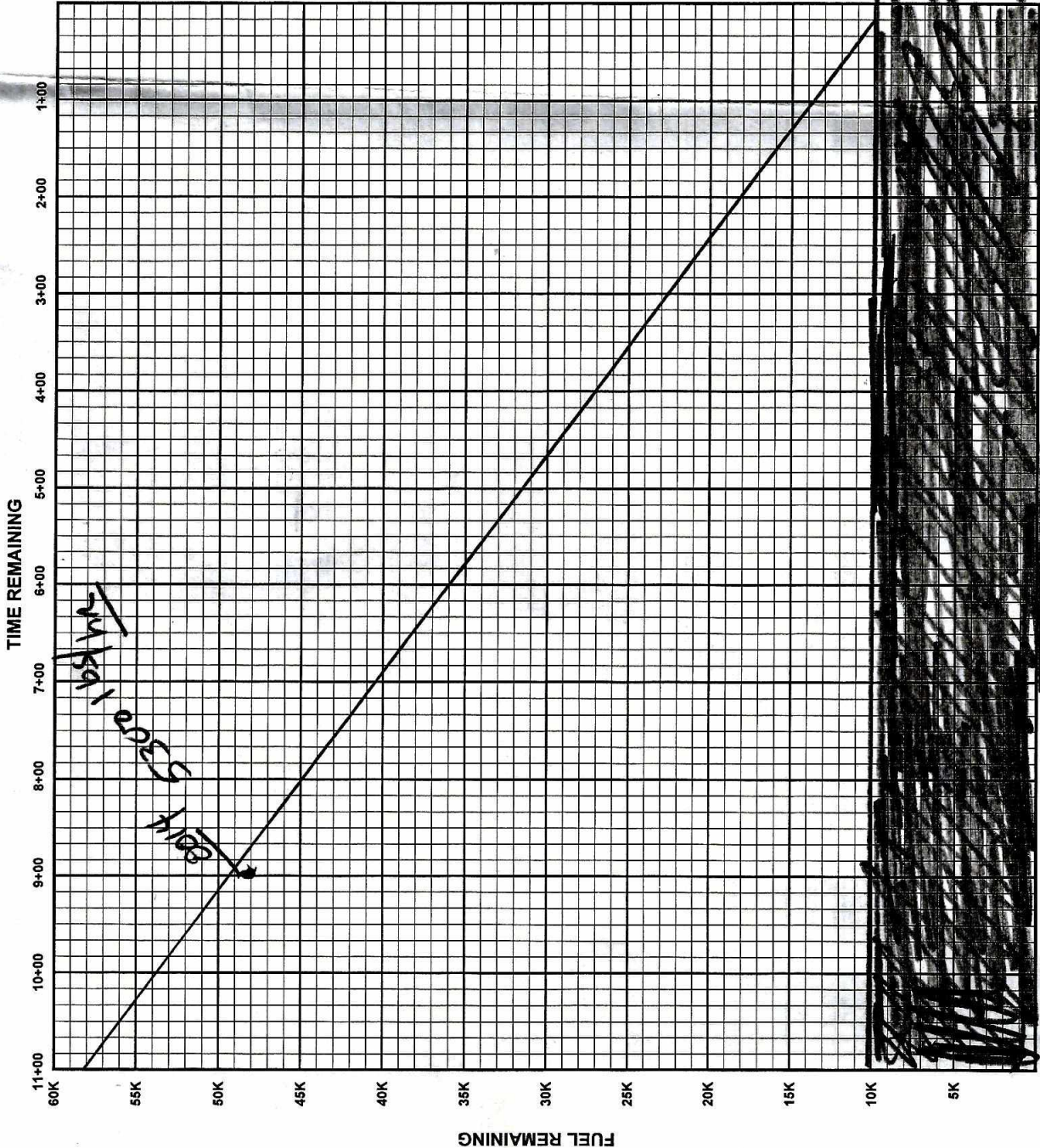
25 Sep 02

INS PERFORMANCE		INS 1	INS 2
BEGINALIGN TIME		1630	1630
ALIGN STATUS (0-5)		0	0
END NAV TIME		0740	0400
START NAV TIME		1830	1830
DELTA T		10	10

TERMINAL ERRORS		INS 1	INS 2
DELTA LAT		-3	+3
DELTA LON		+1	-3
RGS		3	3
RADIAL ERROR		4	4.

REMARKS

RANGE CONTROL GRAPH



ENROUTE FUEL				
ENROUTE TIME	ENROUTE FUEL (60.5K/4.5K/RULE)	RESERVE AT DESTINATION	REQUIRED RAMP	ACTUAL RAMP FUEL

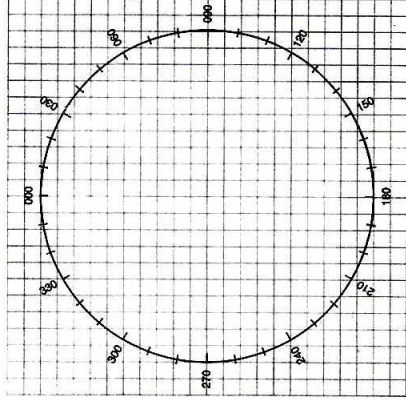
TACTICAL (OFFSTA TO DESTINATION)			
DISTANCE (OFFSTA TO DEST)	4 ENG	3 ENG	
ENROUTE TIME (OFFSTA TO DEST)			
BURN RATE (LBS/HR)	4500	5500	
ENROUTE FUEL REQUIRED			
RESERVE AT DESTINATION			
FUEL AT OFFSTA			

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

F. FACTOR		
PRESS ALT	200	350
10,000	1.0	.99
20,000	.99	.97
30,000	.97	.95
40,000	.96	.92

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



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

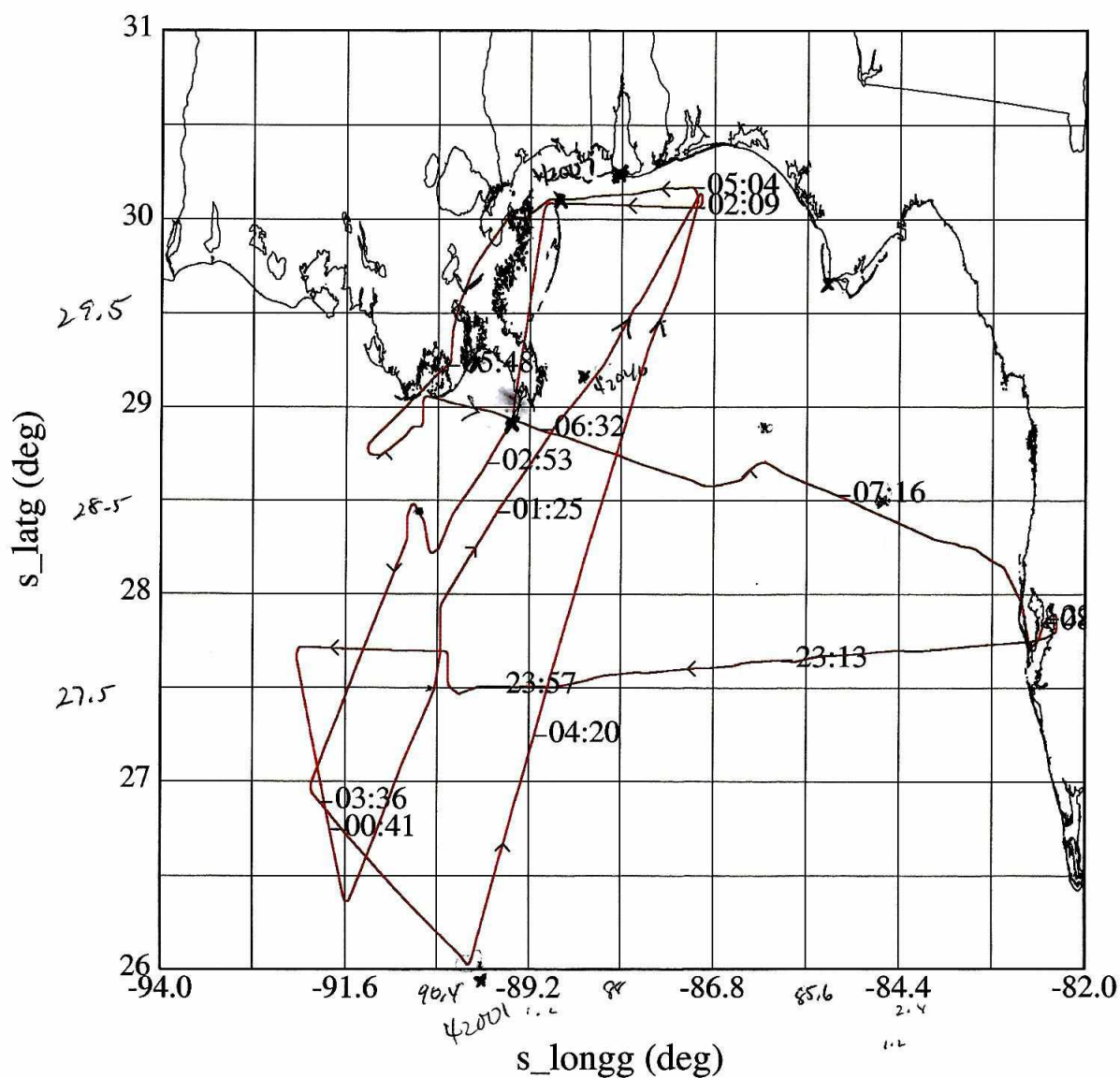
CEX SIGHT	
GMT	
GHA	
CORR	
GHA	
LONG → W ← E	
EXACT LHA	
LAT	
BODY	
DEC	
HC / D	
CORR	
HC	
Z	
ZN	

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

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

TS ISIDORE LANDFALL

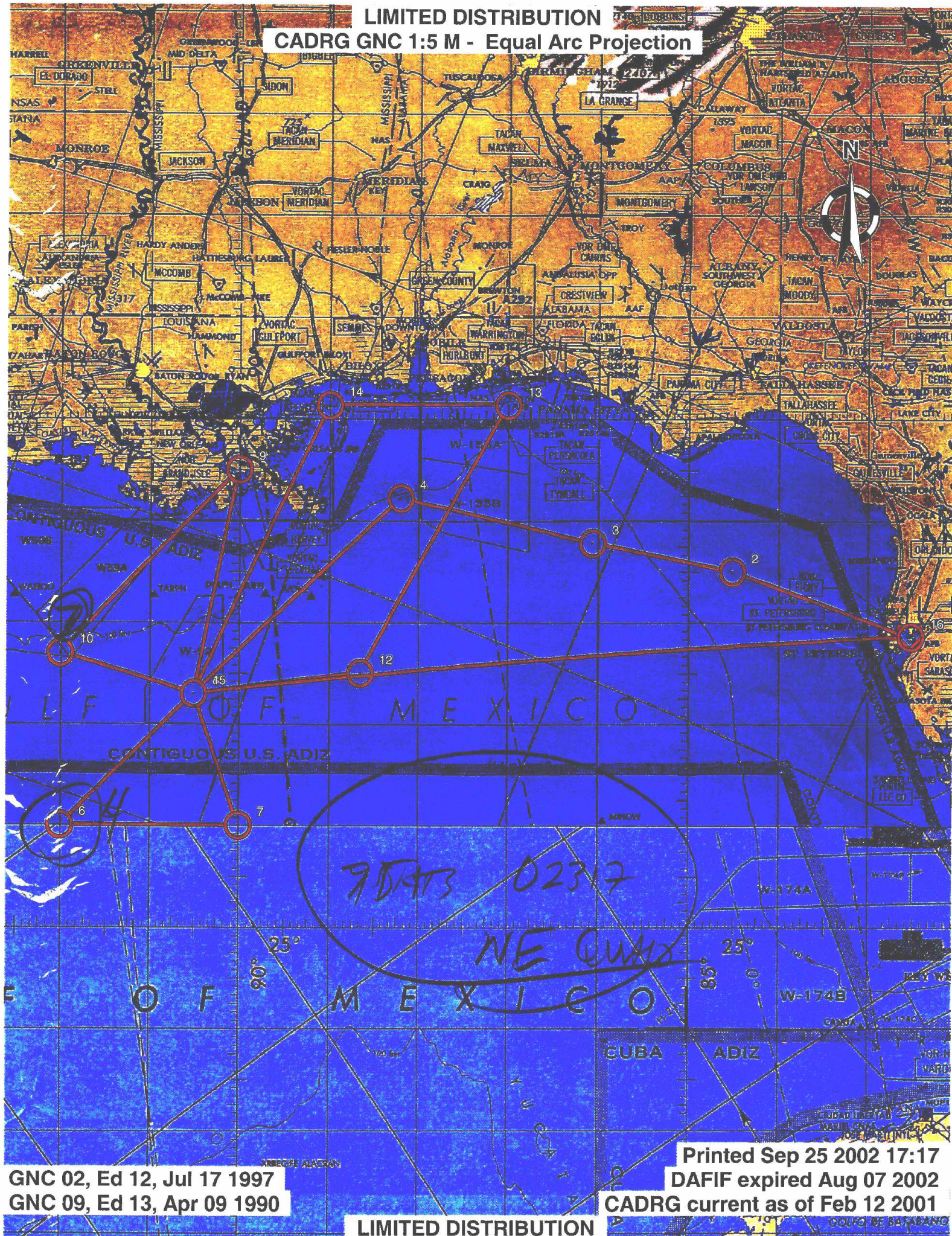
020925Is_P, 22:30:00-32:00:00



	mean	sigma	min	max
— s_latg (deg), 1 s/sec	28.31	1.05	26.03	30.17
— s_longg (deg), 1 s/sec	-88.47	2.53	-92.22	-82.37

Turn Pt	Type	Fix/Point	Latitude	Elev	Aspd	Altitude	Temp	MH	Leg Time
	DTD	Description	Longitude	MV	Bank	Wind	FF	MC	Clock Time
1	ST	KMCF/A	N 27 50.95	14		14M	+15C	044	00+00+00
	*M	MACDILL AFB	W082 31.28	4.0W			0	044	00:00:00
		.level off	N 28 11.40	unk	N/A	10000M	-5C	295	00+09+59
	*M		W083 32.94	3.5W			1000	295	00:09:59
2			N 28 30.00	unk	280T	10000M	-5C	294	00+11+36
	*M 1		W084 30.60	2.7W			1000	294	00:21:35
3			N 28 46.80	unk	280T	10000M	-5C	285	00+17+54
	*M 2		W086 03.60	1.8W			1000	285	00:39:29
4			N 29 13.02	unk	280T	10000M	-5C	285	00+24+46
	*M 3		W088 12.00	0.3W			1000	285	01:04:15
5			N 27 18.00	unk	220T	10000M	-5C	228	00+45+38
	*M		W090 30.00	1.3E			1000	228	01:49:53
6			N 26 00.00	unk	220T	10000M	-5C	225	00+30+33
	*M 4		W092 00.00	2.5E			1000	225	02:20:26
7			N 26 00.00	unk	220T	10000M	-5C	087	00+29+29
	*M 5		W090 00.00	1.2E			1000	087	02:49:55
8			N 27 18.00	unk	220T	10000M	-5C	340	00+22+27
	*M		W090 30.00	1.3E			1000	340	03:12:22
9			N 29 30.00	unk	220T	10000M	-5C	010	00+36+37
	*M 6		W090 00.00	0.9E			1000	010	03:48:59
10			N 27 42.00	unk	220T	10000M	-5C	224	00+41+09
	*M 7		W092 00.00	2.2E			1000	224	04:30:08
11			N 27 18.00	unk	220T	10000M	-5C	104	00+22+47
	*M		W090 30.00	1.3E			1000	104	04:52:55
12			N 27 30.06	unk	220T	10000M	-5C	081	00+27+06
	*M 8		W088 39.17	0.2E			1000	081	05:20:01
13			N 30 08.00	unk	220T	10000M	-5C	028	00+49+06
	*M 9		W087 00.00	1.3W			1000	028	06:09:07
14			N 30 08.00	unk	220T	10000M	-5C	272	00+28+23
	*M 10		W089 00.00	0.1E			1000	272	06:37:30
15			N 27 18.00	unk	220T	10000M	-5C	205	00+51+02
	*M 11		W090 30.00	1.3E			1000	205	07:28:32
16		MCF/T	N 27 51.68	14	350T	10000M	-5C	082	01+13+13
	*M	MACDILL	W082 30.81	4.0W			1000	082	08:41:45

LIMITED DISTRIBUTION
CADRG GNC 1:5 M - Equal Arc Projection



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

Printed Sep 25 2002 17:17
DAFIF expired Aug 07 2002
CADRG current as of Feb 12 2001

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