

Gulf Warm Core Ring (Continued)
N43RF

Flight 2 I991004

DATA TYPE	SENSOR or OPTION
INE	2
Accelerometer	2
Temperature Probe	1
Altitude (for vertical wind)	RA159
Static Pressure	Fuselage
Dynamic Pressure	Fuselage
Dewpoint Probe	2

Notes:

Patched bad values of APN-159 radar altimeter before take-off, after landing.

Renavigated this flight's INE positions using 11 valid GPS positions.

SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical wind speeds, respectively, derived from Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	Takeoff	Landing
Aircraft static pressure	1015.0 mb	1014.0 mb
Corrected tower pressure	1016.2 mb	1014.0 mb

Flight Director: Jack Parrish, (813) 828-3310 ext. 3077

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.2 OROWF2 1

FLT ID:

TIME OFF:

TIME ON:

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE				

NO

DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES		
FAST FLT LVL TAPES		
RADAR TAPES		
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES		
AXDT		
AXCP		
ODW		

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON					
OFF					
RATE					

REMARKS

991004I Air-Sea Interaction

Time	Lat	Lon	TK	WD	WS	PA	GA	TA	TD	SP	PS	CTD	
1723	27 09	82 29.6				-17		29	23		1015.3		BLK
1816	27 48.2	82 23.7	229	129	9.2	2050	2150	13.6	9.0	1015.3	779	↑	
1850	27 10.6	84 54.8	251	185	12.5	3054	3231	8.7	6.2	1013.6	696		
190045	26 56	85 39	251	150	15.7	1441	1527	12.5	16.0	1014.6	851	-5K	
190559	26 49	86 00	251	167	24.6	1440	1511	17.8	14.9	1013.8	851.5	CTD 14	Drop 1
191716	26 36	86 45	251	180	23	1455	1533	17.2	15.5	1013.9	850.3	CP 12	
1925	26 27	87 15	254	186	21	1436	1511	17.1	14.8	1013.5	852.4	CP 16	
193330	26 19	87 51	252	83	10	1436	1501	18.4	15.2	1011.9	852.5	BT 12	
194226	26 07	88 26	251	32	8	1424	1497	18.1	15.3	1011.7	852.4	CTD 14	Drop 2
194822	25 59	88 51	251	105	18.5	1429	1489	17.3	16.3	1011.9	853	BT 14	
195155	25 55	89 00	249	76	25	1480	1541	18.0	17.0	1011.4		CP 12	
200122	25 43	89 46	251	106	3.5	1468	1538	17.8	16.4	1011.4	847.7	CP 14	
200759	25 33	90 07	126	48	7.1	1476	1537	17.9	16.1	1011.1	848	CTD 16	Drop 3
201910	25 03	89 36	149	168	14.7	1512	1582	18.2	15.1	1010.5	843.8	BT 12	
203452	24 29	88 39.5	130	176	18	1500	1558	19.6	11.9	1010.1	845.7	BT 16	Drop 4
204345	24 05.6	88 07.9	129	172	18.5	1500	1560	19.2	12.7	1010.3	845.6	26.2	
205052	23 47	87 43	99	167	24.2	1501	1563	19.3	13.0	1010.4	845.6	26.4	BT 12
210312	23 42	86 52	47	172	26	1488	1556	18.6	14.3	1011.4	845.5		CP 12 & Drop 5
210941	24 01.5	86 31.5	44	175	23.8	1491	1561	19.3	15.1	1011.3	845.6	27.0	CTD 14 (3402)
212307	24 01	86 25	38	179	26	1499	1567	19.6	14.0	1010.9	846	26.9	CTD 14 (3402)
213359	24 31	86 01	42	177	25.2	1496	1569	19.3	12.5	1011.6	845.9	26.7	CP 16 Drop 6
213921	24 42.5	85 44	39	180	26.8	1497	1570	18.8	11.3	1012.1	845.8	26	BT 12
214420	25 06	85 25	43	185	30	1497	1573	18.4	11.9	1012.7	845.9	26.3	BT 16
215030	25 27	85 03	43	186	28.8	1497	1574	19.0	11.7	1012.8	846	26.4	BT 12
215815	25 50	84 34	55	186	28.7	3304	3486	7.5	3.6	1012.3	674	-	-10K
2223	27 19	83 25	61	198	6.6	2499	2555	11.5	10.7	1014.6	754.5	↑	to MCF
223515	27 33	82 47	39	27	6.5	1033	1086	19.9	17.8	1013.1	904	26.8	
2252	27 51	82 29.6				-6		27.3	21.2		1014		BLK

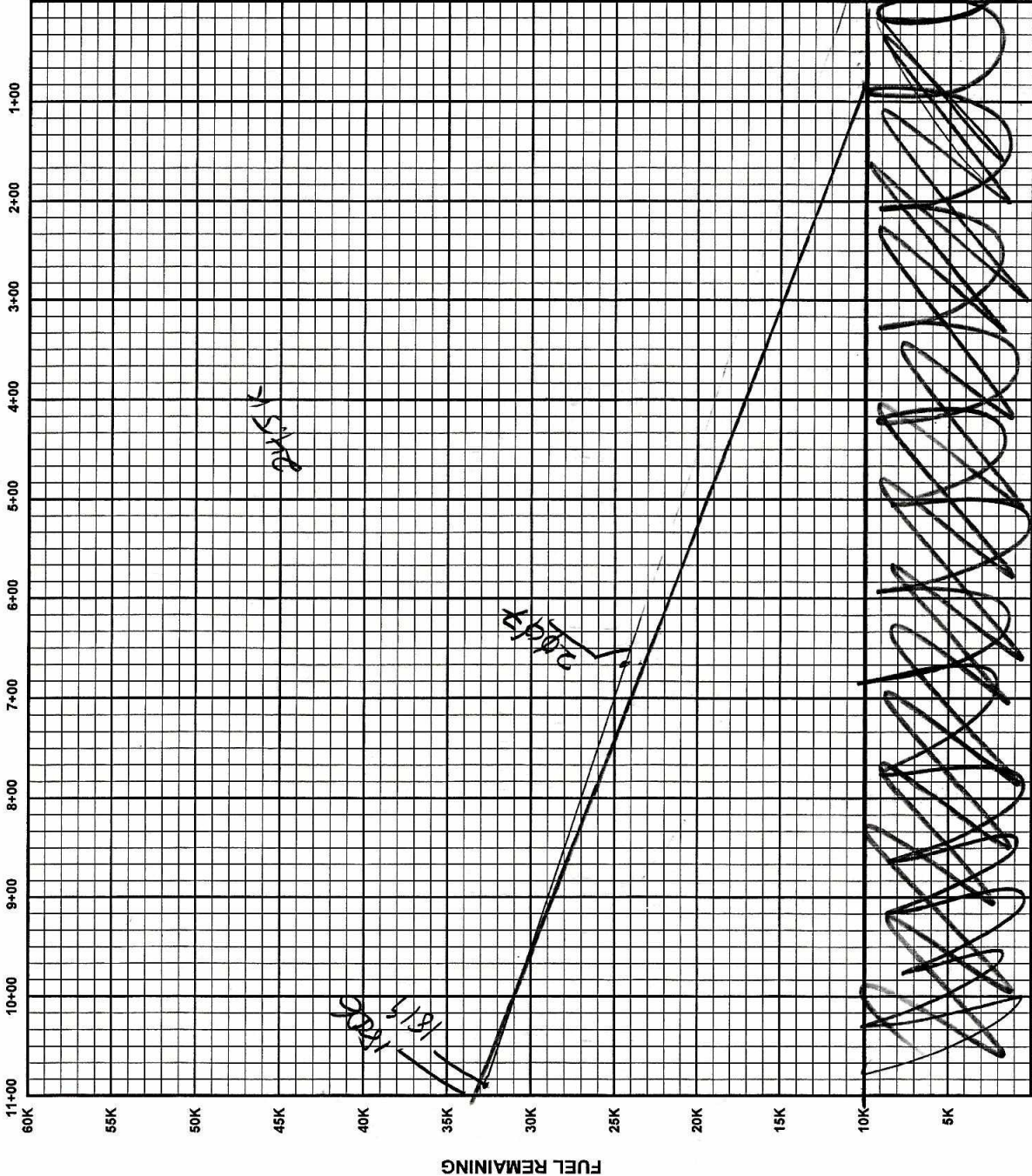
OF

(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

[illegible]

RANGE CONTROL GRAPH

TIME REMAINING



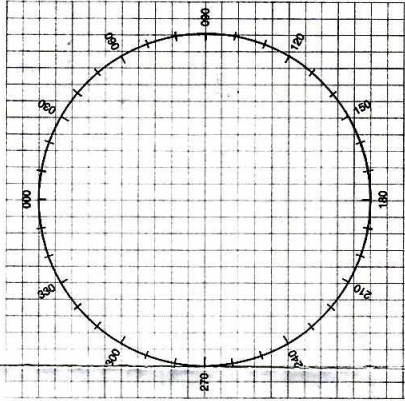
ENROUTE FUEL	
ENROUTE TIME	
ENROUTE FUEL (6K/5K/4.5K RULE)	
RESERVE AT DESTINATION	
REQUIRED RAMP	
ACTUAL RAMP FUEL	

TACTICAL (OFFSTA TO DESTINATION)	
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	
ETP DISTANCE (TO DEPARTURE)	
ENROUTE TIME (TO DEPARTURE)	
BURN RATE (LBS/HR)	4500 5500
FUEL REQUIRED	
RESERVE AT DEPARTURE	
PSR FUEL	

CEX - TRUE BEARING METHOD				CEX SIGHT	
COMPASS TYPE	INS1	INS2	WET	GMT	
MCH (READING)				GHA	
- MTH (SEXTANT)				CORR	
CE				GHA	
- VAR				LONG +W -E	
DEV				EXACT LHA	
				LAT	
				BODY	
				DEC	
				HC/D	
				CORR	
				HC	
				Z	
				ZN	

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



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	1.0	1.0	.99	1.0	.99	1.0	.99	1.0	.99
20,000	.99	.99	.98	.98	.97	.97	.97	.97	.97
30,000	.97	.97	.96	.96	.95	.95	.94	.94	.94
40,000	.96	.96	.94	.94	.92	.92	.90	.90	.90

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

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

[illegible]

FLEET NUMERICAL METEOROLOGY AND OCEANOGRAPHY CENTER

3132

OPTION #1 - Flight Plan N43RF 4 October 1999

Flight Level 05-08

Location	Latitude (°)	Longitude (°)	Total Track (nm)	Time in pattern (HH:MM:SS)
MacDill AFB	27.850	82.500		
1 26°50'	26.833	86.000 86°	195.55	0:55:52
2 25°35' 25.583		90.167 90°10'	431.02	2:03:08
3 23°20'	23.333	87.167 87°10'	642.29	3:03:30
4 25°15'	25.250	85.250 85°15'	798.50	3:48:08
MacDill AFB	27.850	82.500	1014.5	4:49:51

Expendables:

AXBT 6 4 12 2-16

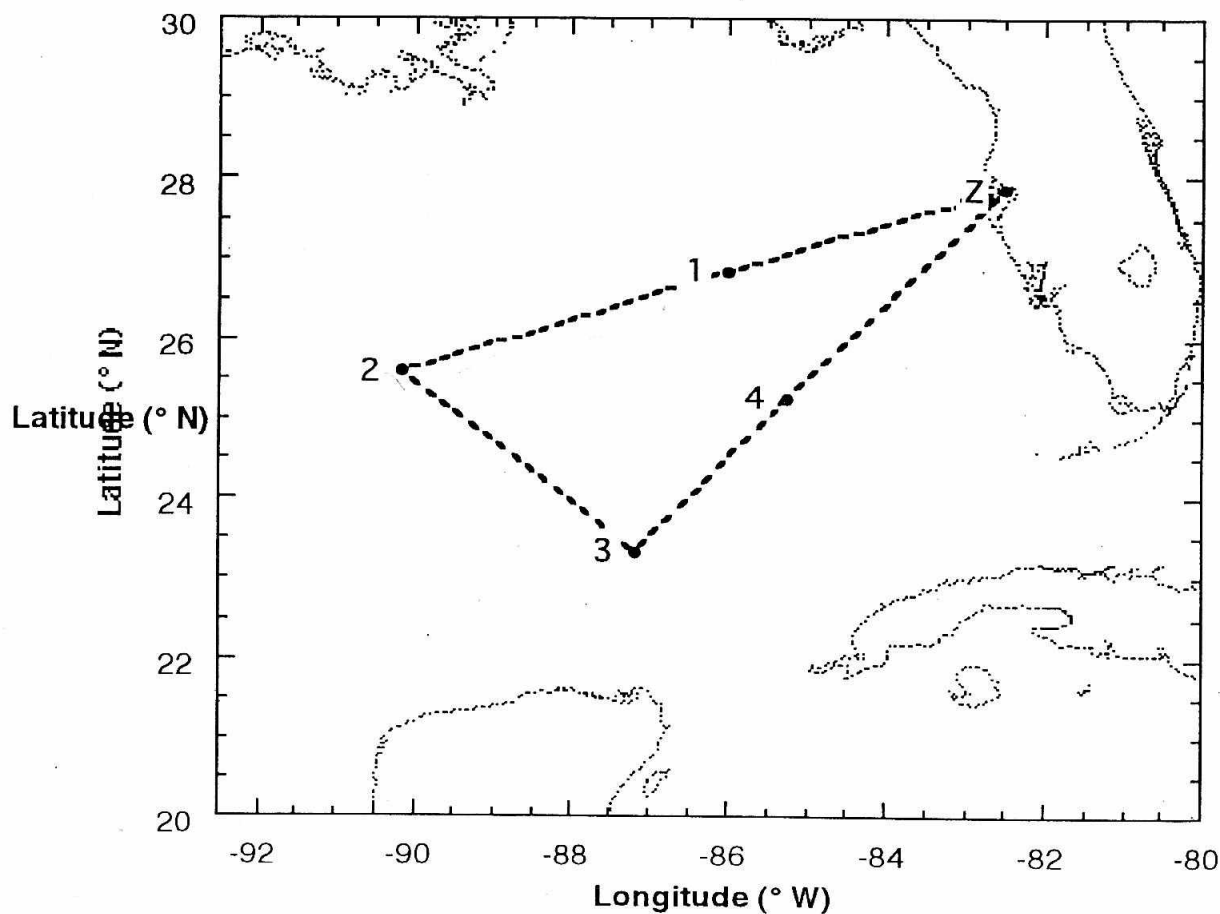
AXCP 6 3 12 1 14 2-16

AXCTD 5 4 14 1 16

Spec 2

5 Scientists

Dropsondes 20



air temperature $\circ$ pressure
 wave height $\circ$ 5h pressure tendency

deg C mbs10 (last 3 digits)
 meters $\circ$ deg C mbs10

