

RFC-1 WORK FORM (7-76) U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 RESEARCH FACILITIES CENTER
 MIAMI, FLORIDA

AIRCRAFT
 N43RF
 FLIGHT NO.
 43-83
 FLIGHT ID
 830823I
 DATE
 AUG 23, 83

FLIGHT LOG

TAKE OFF (City or airport) MIA LAND (City or airport) MIA ALTITUDE SK

PURPOSE HRD RESEARCH - PRE - TS BARRY

PROPOSED TAKEOFF TIME: 1100Z PROPOSED FLIGHT DURATION: 9 HRS
 TIME IN: 2105Z TIME ON: 2059Z
 TIME OUT: 1100Z TIME OFF: 1113Z
 BLK. TIME: 10105HRS FLIGHT TIME: 946HRS

FLIGHT PERSONNEL

OPERATIONS CREW		SCIENTIFIC CREW		VISITORS	
JORDAN	NUNN	DAVIS		JORGENSEN	FEINBERG
NOBLE		GOLDSTEIN		FRANKLIN	WILLIS
NELSON		SWANE		CHENG	
FLEURY				LORD	

PROPOSED MISSION



3 PATTERNS - ROTATE 200 AFTER EACH LEG. LEGS 200K AT POINT 3, 200K EXTENDED 3, 1, 4, 2, 3, 4, 5 TO POINT 5. NO FIXED ORBITAL.

ACTUAL MISSION AND REMARKS

MIA ALT. SP. 1016.0 A/C 1017.5
 MIA ALT. SP. 1019.3 A/C 1019.1
 AS PLANNED
 3000K 200K 200K 200K 200K 200K
 200K 200K 200K 200K 200K 200K
 200K 200K 200K 200K 200K 200K
 200K 200K 200K 200K 200K 200K

DATA COLLECTED AND REMARKS

1 STD FLT LVL TAPE, 3 BRADAR TAPES, 3 DOPPLER TAPES,
 2 CD KHT TAPES, 3 KHT TAPES, 1 KHT TAPES
 12 RADAR DOPPLER PMS TAPES TO HRD

RFC/SIG FLIGHT PERFORMANCE LOG

TECH: ASG/DHS
 CRAFT: N43RF
 TIME: (Pre-Flt) 0920Z

FLIGHT I.D.: 830823I
 MISSION: RECCO/RESEARCH
 (Take-Off) 1112Z (Land) 2059Z

SYSTEM				PRE-FLIGHT	INFLIGHT	POST-FLIGHT		
		ALIGN PI	AID			LAT	LON	GS
N A V	INE1	1	Y	✓		-0.8	-1.6	1
	INE2	3	Y	✓		-1.4	+0.2	2
	ONE			✓				
	DOPLR			✓				
R A D A R	INTEGRATION(PRI'S)							
	NOSE			✓				
	L/F			✓				
	TAIL			✓				
	DATA SYSTEM			✓				
RAMS DATA SYSTEM				(1)	ON 1056 (3)(4)(5)			
TEMP	CAL HI	CAL LO	AMBIENT			CAL HI	CAL LO	
TEMP #1	+30.5	-30.1	26.4			+30.4	-30.1	
TEMP #2	+31.0	-30.1	27.4			+30.9	-30.1	
DEW POINT (CLEANED:Y/N) N				22.0				
ATTACK ANGLE				✓				
SLIP ANGLE				✓				
ABSOLUTE PRESSURE				✓				
DIFFERENTIAL PRESSURE				✓				
RDR ALTM. S/N: SN-1				✓				
J&W				✓				
P M S	OAP 2D-C			✓	(2)			
	OAP 2D-P			✓				
	FSSP-100			✓				
	DATA SYSTEM			✓				#TAPES: #INCHES:
FOIL IMPACTOR				NI				
ICE RATE DETECTOR				NI				
CO2 RADIOMETER				NI				
MICROWAVE RADIOMETER				NI				
SURFACE RADIOMETER				✓				
SEEDER				NI				
GUST PROBE				NI				
ASDL				✓				#MESSAGES: 19
TAPE HEADS CLEANED				✓				
ROSEMIT WING TIP KAWERS				✓				
DOPPLER				✓				
NOISE RADAR RECEIVER				INOP				(COUNTS)
P H O T O	RATE		(COUNTS)					
	FORWARD	1	NI					
	VERTICAL		NI					
	RIGHT SIDE	1/5	66	1130Z	6832	2100Z		
	LEFT SIDE	1/5	66	1130Z	6839	2100Z		
AXBT SYSTEM				NU				
ODW SYSTEM								
AXBT EXPENDABLES: #ON BOARD: 0				#DROPPED:		#GOOD:		
DROPSONDES: #ON BOARD: 4				#DROPPED: 0		#GOOD:		
CUMMULATIVE ACCEL. (MELC)				#1 (2G)	#2 (2.5G)	#3 (3G)	#4 (3.5G)	
(LOG AT END OF FLIGHT)				8062	6679	5966	2892	

CODE: ✓ - OPERATIONAL; X(#) (TIME) - FAILURE (NOTE);
 NI - NOT INSTALLED; NU - NOT USED
 USE REVERSE SIDE FOR NOTES.
 REPORT COMPLETION OF PRE-FLIGHT AND INSTRUMENT STATUS TO FLIGHT DIRECTOR

See over

- ① ADC#11 SOMETIMES MALF
- ② CLOUD PROBE, CLEAR AIR UPDATING. 1140Z
- ③ PAR ERROR @ $\approx 1220Z$
- ④ HLT 76 @ 1718; Reload - Restart OK
- ⑤ HALT @ 1956, Reload - Restart OK

SYSTEM		PRE-FLIGHT	
INSTRUMENT	STATUS	INSTRUMENT	STATUS
TEMP	OK	TEMP	OK
TEMP 21	OK	TEMP 21	OK
TEMP 22	OK	TEMP 22	OK
TEMP 23	OK	TEMP 23	OK
TEMP 24	OK	TEMP 24	OK
TEMP 25	OK	TEMP 25	OK
TEMP 26	OK	TEMP 26	OK
TEMP 27	OK	TEMP 27	OK
TEMP 28	OK	TEMP 28	OK
TEMP 29	OK	TEMP 29	OK
TEMP 30	OK	TEMP 30	OK
TEMP 31	OK	TEMP 31	OK
TEMP 32	OK	TEMP 32	OK
TEMP 33	OK	TEMP 33	OK
TEMP 34	OK	TEMP 34	OK
TEMP 35	OK	TEMP 35	OK
TEMP 36	OK	TEMP 36	OK
TEMP 37	OK	TEMP 37	OK
TEMP 38	OK	TEMP 38	OK
TEMP 39	OK	TEMP 39	OK
TEMP 40	OK	TEMP 40	OK
TEMP 41	OK	TEMP 41	OK
TEMP 42	OK	TEMP 42	OK
TEMP 43	OK	TEMP 43	OK
TEMP 44	OK	TEMP 44	OK
TEMP 45	OK	TEMP 45	OK
TEMP 46	OK	TEMP 46	OK
TEMP 47	OK	TEMP 47	OK
TEMP 48	OK	TEMP 48	OK
TEMP 49	OK	TEMP 49	OK
TEMP 50	OK	TEMP 50	OK
TEMP 51	OK	TEMP 51	OK
TEMP 52	OK	TEMP 52	OK
TEMP 53	OK	TEMP 53	OK
TEMP 54	OK	TEMP 54	OK
TEMP 55	OK	TEMP 55	OK
TEMP 56	OK	TEMP 56	OK
TEMP 57	OK	TEMP 57	OK
TEMP 58	OK	TEMP 58	OK
TEMP 59	OK	TEMP 59	OK
TEMP 60	OK	TEMP 60	OK
TEMP 61	OK	TEMP 61	OK
TEMP 62	OK	TEMP 62	OK
TEMP 63	OK	TEMP 63	OK
TEMP 64	OK	TEMP 64	OK
TEMP 65	OK	TEMP 65	OK
TEMP 66	OK	TEMP 66	OK
TEMP 67	OK	TEMP 67	OK
TEMP 68	OK	TEMP 68	OK
TEMP 69	OK	TEMP 69	OK
TEMP 70	OK	TEMP 70	OK
TEMP 71	OK	TEMP 71	OK
TEMP 72	OK	TEMP 72	OK
TEMP 73	OK	TEMP 73	OK
TEMP 74	OK	TEMP 74	OK
TEMP 75	OK	TEMP 75	OK
TEMP 76	OK	TEMP 76	OK
TEMP 77	OK	TEMP 77	OK
TEMP 78	OK	TEMP 78	OK
TEMP 79	OK	TEMP 79	OK
TEMP 80	OK	TEMP 80	OK
TEMP 81	OK	TEMP 81	OK
TEMP 82	OK	TEMP 82	OK
TEMP 83	OK	TEMP 83	OK
TEMP 84	OK	TEMP 84	OK
TEMP 85	OK	TEMP 85	OK
TEMP 86	OK	TEMP 86	OK
TEMP 87	OK	TEMP 87	OK
TEMP 88	OK	TEMP 88	OK
TEMP 89	OK	TEMP 89	OK
TEMP 90	OK	TEMP 90	OK
TEMP 91	OK	TEMP 91	OK
TEMP 92	OK	TEMP 92	OK
TEMP 93	OK	TEMP 93	OK
TEMP 94	OK	TEMP 94	OK
TEMP 95	OK	TEMP 95	OK
TEMP 96	OK	TEMP 96	OK
TEMP 97	OK	TEMP 97	OK
TEMP 98	OK	TEMP 98	OK
TEMP 99	OK	TEMP 99	OK
TEMP 100	OK	TEMP 100	OK

REPORT COMPLETION OF PRE-FLIGHT AND INSTRUMENT STATUS TO FLIGHT DIRECTOR
 USE REVERSE SIDE FOR NOTES.
 NI - NOT INSTALLED; NU - NOT USED
 CODE: \checkmark - OPERATIONAL; X(N) (TIME) - FAILURE (NOTE);

A/C COMMANDER	NAVIGATOR	A/C NO.	MISSION NO.	TIME AIRBORNE	LOCATION	DATE	PROJ. NAME
Purcell	Nels	NCAA 43	830823	1112.	N25 48.2 W080 17.6	23 Aug 83	Stor... (H) Purcell

TIME OF ENTRY	POSITION	TYPE	INERTIAL POSITION	LAT LON COR'S	POSITION	LAT LON COR'S	REMARKS
1102	N25 48.2 W080 17.6	4	N 48.1 W Some		N W Some		B/K.
1112	N25 48.0 W080 18.0	4	N 47.8 W 18.2		N 47.9 W 18.3		76 94.12.
112709	N25 42.3 W079 17.7	2/9	N25 42.0 W079 17.6		N25 41.5 W079 17.7	Good 1nm.	ZBV OVER I only.
120706	N24 02.0 W077 10.0	4/10	N24 03.0 W077 10.6		N24 03.1 W077 10.2	Good Fix with	Isle OVER 1nm.
124003		2/10	N25 41.8 W076 37.2		N25 42.2 W076 36.0	FAIR.	NASSAU 038/60 I-2 ON QF UNK
134900		10	N27 25.8 W075 40.8		N27 26.9 W075 40.0		I-2 ON QF 028
1434	N24 37.7 W075 39.4	4/10	N24 38.2 W075 40.4		N24 37.1 W075 41.0	EXCELLEN FIX 2nm	ARTHUR'S TOWN A/P OVER. I-2 ON QF 026 BETA
150316		10	N24 30.7 W074 41.9		N24 31.2 W074 40.3		I-2 QF 026
160658	N27 25.2 W076 56.9	2/10	N27 24.4 W076 54.4		N27 23.5 W076 54.5	FAIR FIX with	TREASURE CRY 030/4. I-2 ON QF 026 BETA
161943	N26 30.7 W077 04.5	4/10	N26 31.0 W077 04.5		N26 30.3 W077 04.3	EXCELLEN	MARSH HARBOR A/P OVER. Treasure Cry I-2 ON QF 026 BETA
1708		10	N26 41.4 W075 04.3		N26 41.6 W075 02.1		I-2 ON QF 026 BETA
182320	25 33.0 N W076 44.0	4/10	N25 33.8 W076 44.1		N25 33.8 W076 43.2	Good	I-2 ON QF 026 BETA

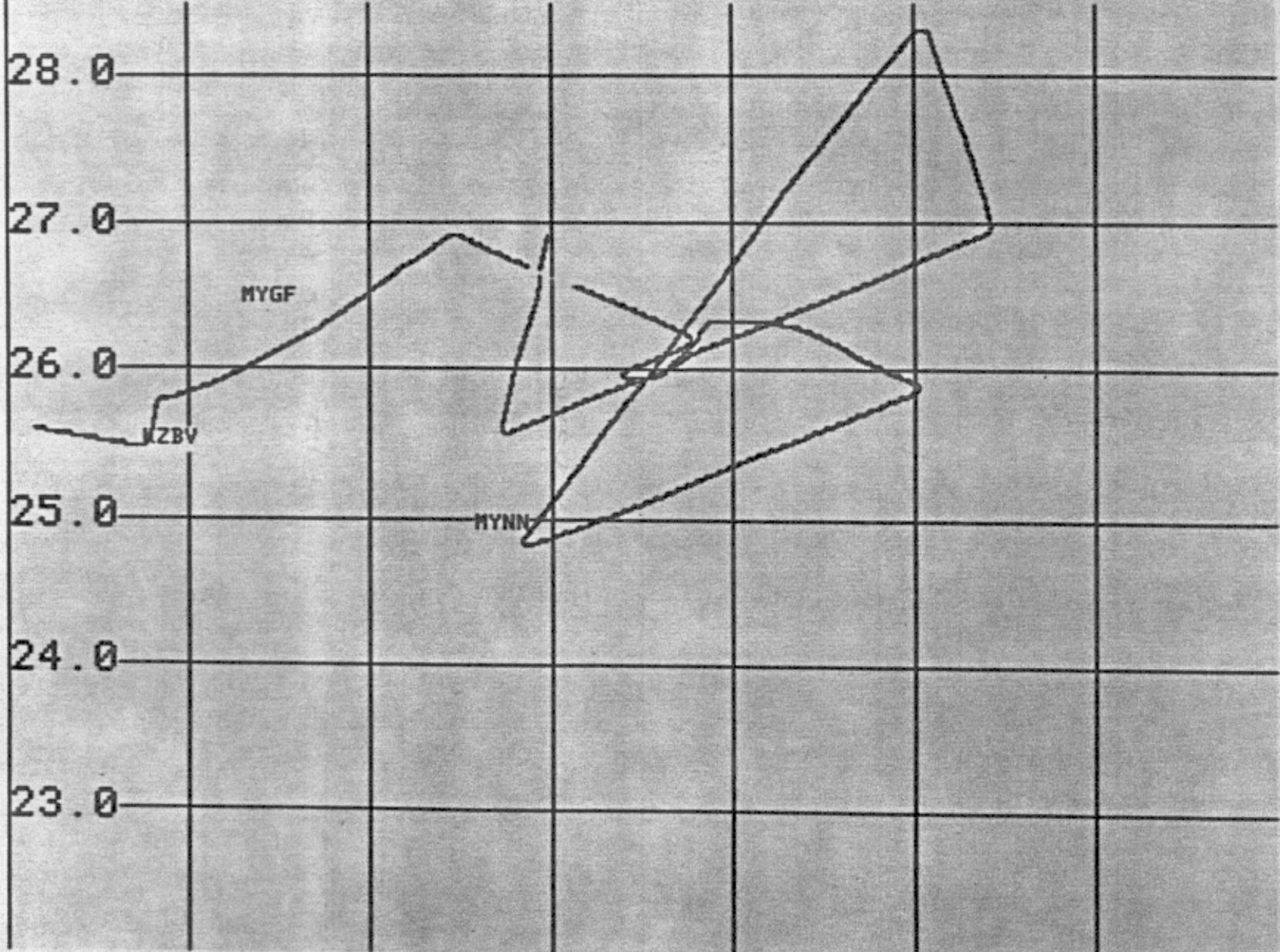
SYS	BEGIN ALIGN TIME	NCS CONN	Ω AID	TIME OUT OF COARSE	ALIGN STS 0-5	(1) TIME INTO NAV.	(2) TIME OUT NAV.	Δ T (2)(1)	TERMINAL ERROR		
				ELAPSE ALIGN POST TIME					LAT	LONG	G
INS 1	1000	Y	Y	050	1	1035.	2104	10.7	-0.8	-1.6	
INS 2 or IMU	1000	Y	Y	050	3	1035	2104	10.7	-1.4	+0.2	

ALIGN REMARKS :

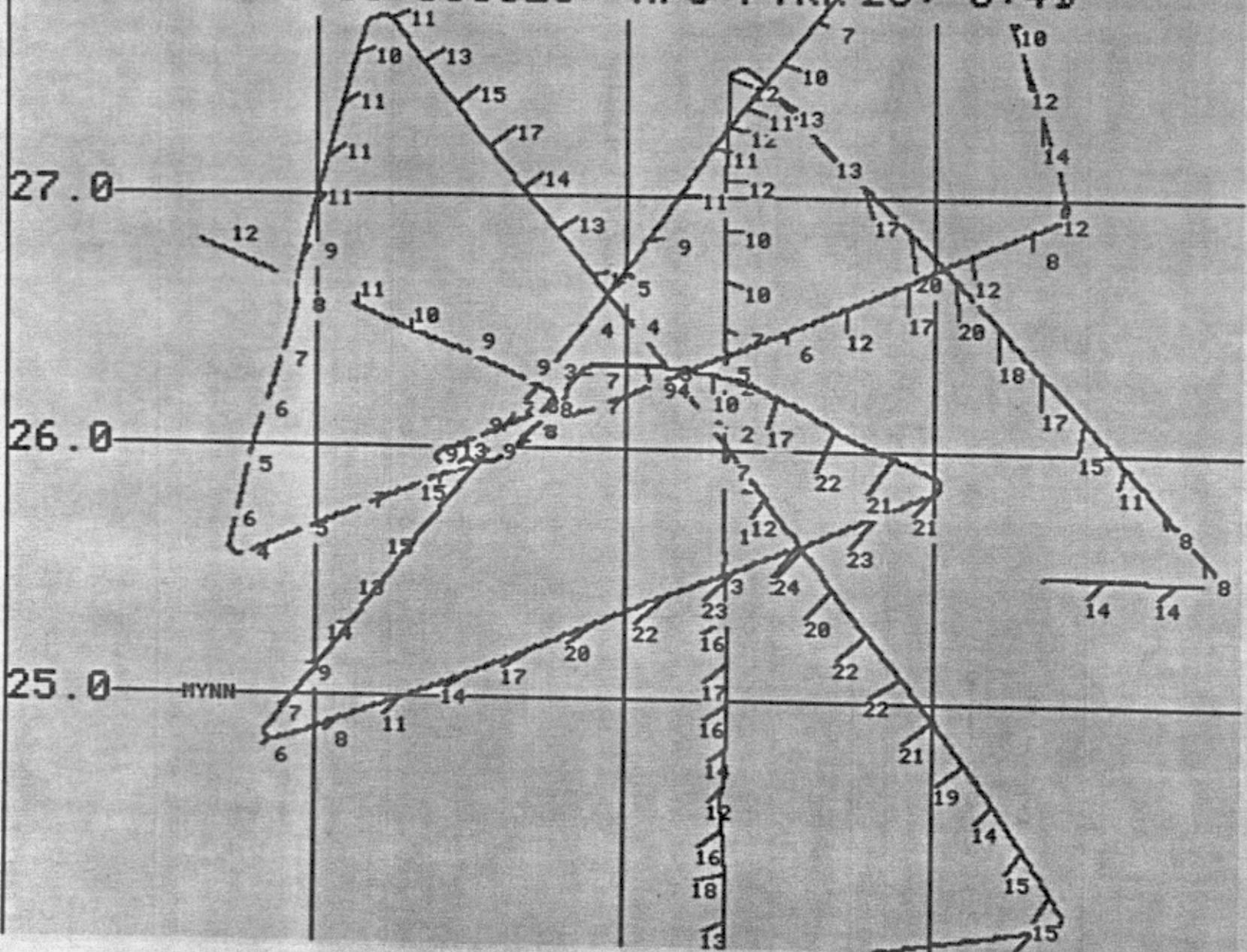
OTHER REMARKS : Mission flown @ 5KtRA

TYPE OF FIX : (1) DR (2) RADIO (3) CELESTIAL (4) VISUAL (5) LORAN
 (6) RADAR (7) DOPPLER (8) OMEGA (9) INERTIAL
 (10) OMEGA - INERTIAL

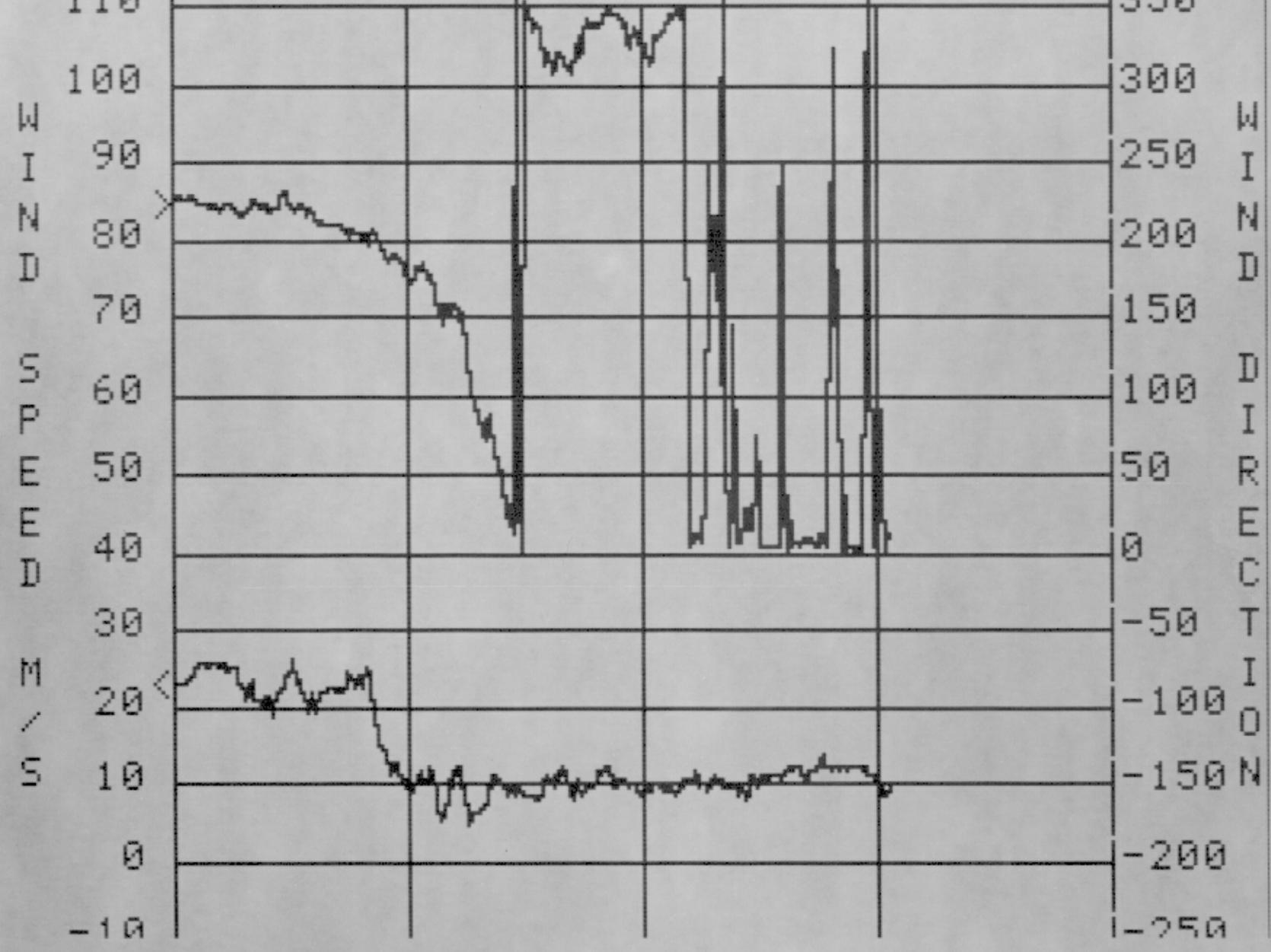
79 0 78 0 77 0 76 0
16:14: 1 830823 RFC FTRK 20:43:55.0



77 0 7A 0
13: 6:51 830823 RFC FTRK 20: 0:40



18:57:34 830823I NOAA RFC 20: 2: 4 MT#10



15: 0: 4 830823I NOAA RFC 16: 1:49

WT#10

350

300

250

200

150

100

50

0

-50

-100

-150

-200

-250

W
I
N
D

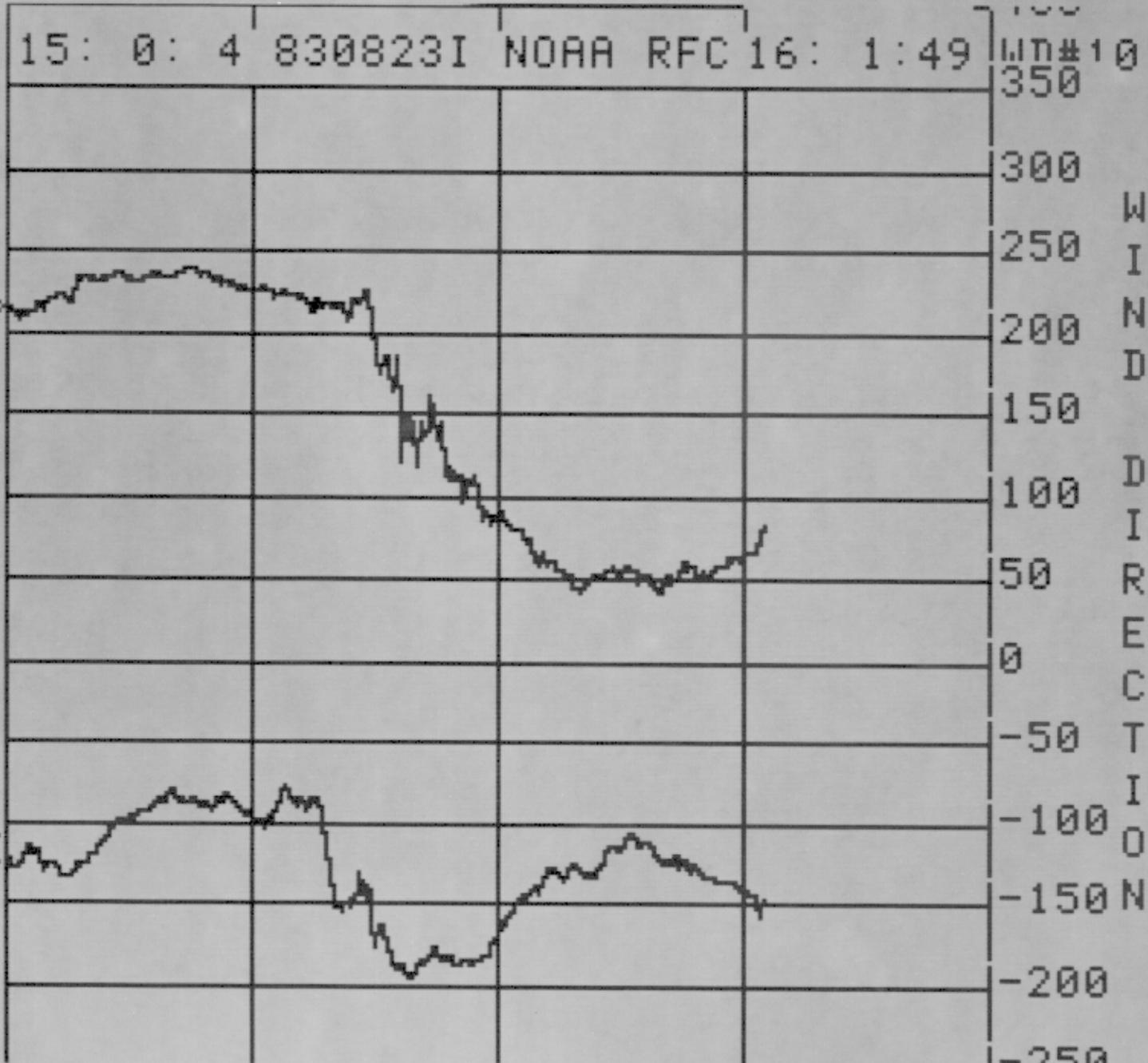
S
P
E
E
D

M
/
S

W
I
N
D

D
I
R
E
C
T
I
O
N

110
100
90
80
70
60
50
40
30
20
10
0
-10



SSE

NNW

15: 0: 4 830823I NOAA RFC 16: 2:19

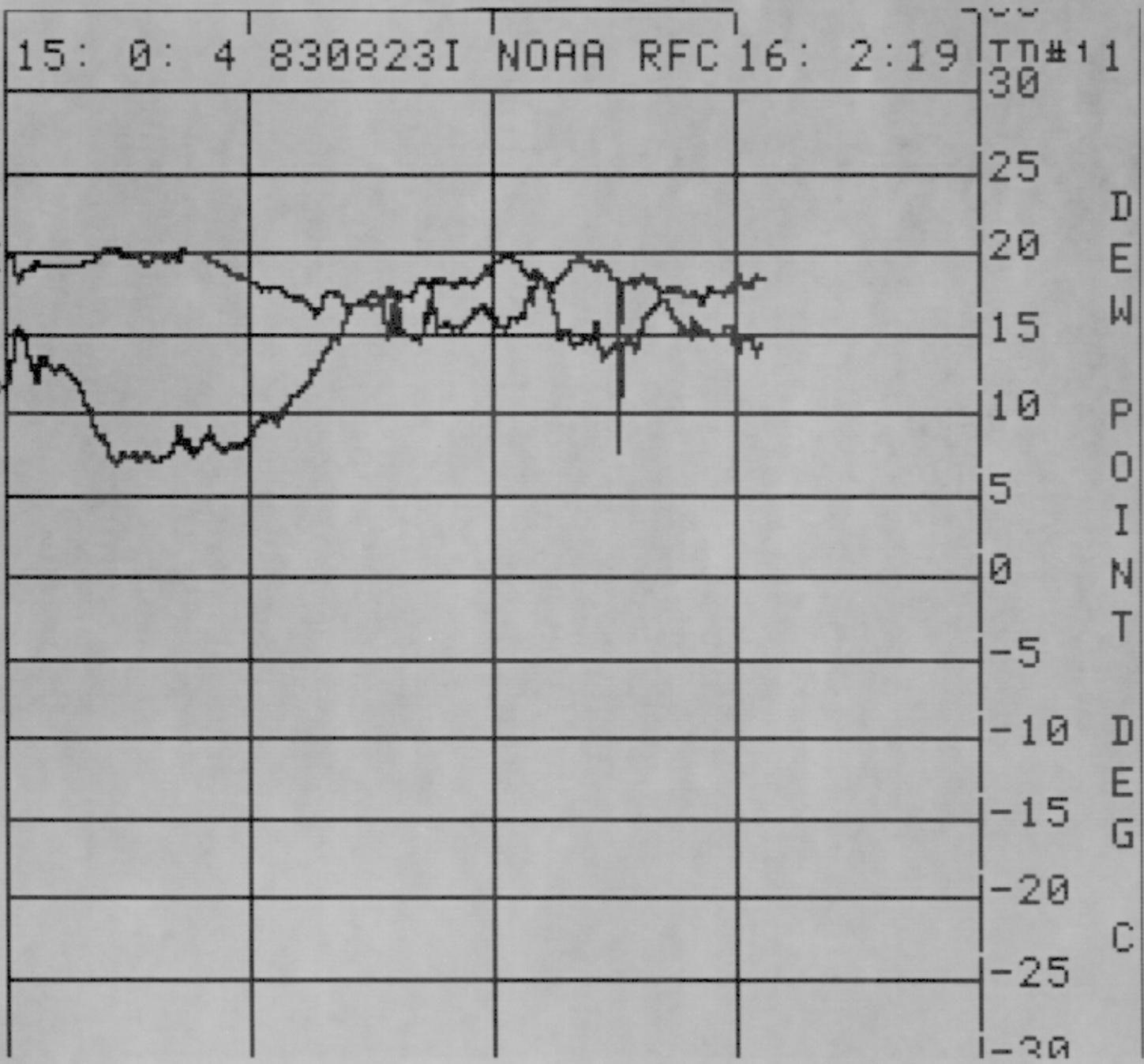
TT#11

N
O

30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30

D
E
W
P
O
I
N
T
D
E
G
C

30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30



SSE

NW

13: 77 0 74 0
6:51 830823 RFC FTRK 20: 0:24

