

19820915H-LPS

Form E-1
Page 1 of 5

On-board Lead Project Scientist Checklist

Adams

DATE 15 Sept 1982

AIRCRAFT N42

FLT 820915H

A. Participants

Function	Participant	Function	Participant
Lead Proj. Sci.	<u>Adams</u>	Gust Probe	<u> </u>
Cloud Physics	<u> </u>	Omegasonde	<u>Willoughby/Lord/Jorgensen</u>
AXBT	<u> </u>	Sys Eng	<u>DUGRA-NEUT</u>
Hot Film	<u> </u>	Data Tech	<u>BEUNSON</u>
Radar	<u>LORD</u>	EI Tech	<u>JARVEY</u>
Flt Dir/Met	<u>DAVIS</u>	Other (TECH)	<u>Berles</u>

Take Off 181627

Location KMIA

Landing 0340

Location Langley

B. Past and Forecast Storm Position

Date	Time	Latitude	Longitude	MSLP
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

C. Mission Briefing

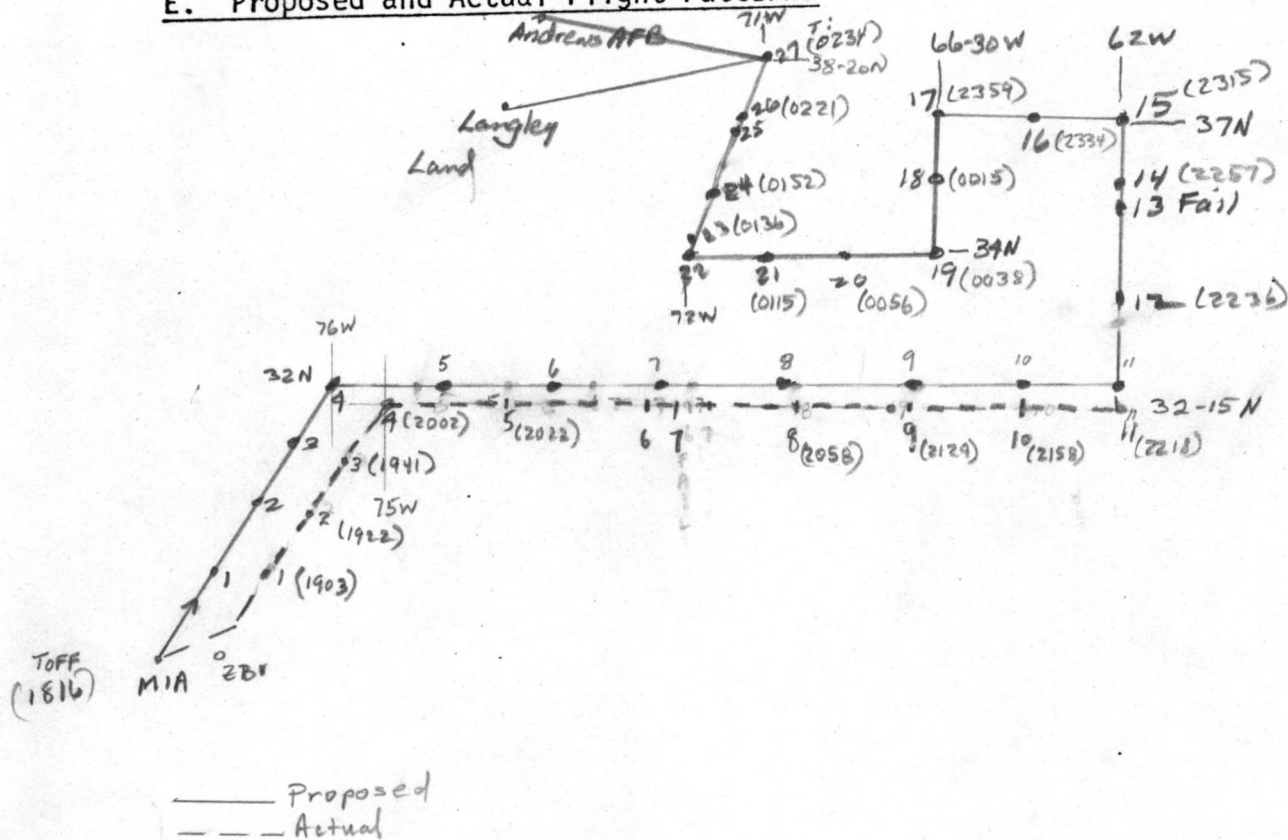
LPS Adams
FLT. 820915H
N42RF

D. Equipment Status

<u>Equipment</u>	<u>Pre Flt</u>	<u>In Flt</u>	<u>Post Flt</u>	<u>Reports Collected</u>
Aircraft	✓	✓	✓	
Radar	✓	✓	✓	
Cloud Physics	NA	—	—	
Data Sys	✓	✓	✓	
Omegasondes	✓	✓	✓	
AXBT	NA	—	—	
Gust Probe	NA	—	—	
Hot Film	NA	—	—	
Photography	5/sec	✓		

REMARKS

E. Proposed and Actual Flight Patterns



RFC-1 WORK FORM (7-76) U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION RESEARCH FACILITIES CENTER MIAMI, FLORIDA FLIGHT LOG		AIRCRAFT N42RF FLIGHT NO. 69-22 FLIGHT ID 220915H DATE SEP 15, 82 ALTITUDE 17K, 21K, 23K, 24K 26K
TAKE OFF (City or airport) MIA	LAND (City or airport) LFI	
PURPOSE NHRL - RESEARCH, ON W 14K DEBBY		
PROPOSED TAKEOFF TIME: 1800Z		PROPOSED FLIGHT DURATION: 9 HRS
TIME IN: 0345Z		TIME ON: 0345Z
TIME OUT: 1800Z		TIME OFF: 1817Z
BLK. TIME: 9:45 HRS		FLIGHT TIME: 9:00 HRS
FLIGHT PERSONNEL		
OPERATIONS CREW		SCIENTIFIC CREW
LUNNDE	ROSE	LAVIS
GENZLINER	CALVERT	BRUNSON
WELSON	KINNEY	BERLES
CORRELL		DUGANRWI
		VISITORS
		WILLOUGHBY
		JORGENSEN
		ADAMS
		LORD
PROPOSED MISSION MIA → 2145 7500 → 2145 6500 → 3700 6500 → 3700 6630 → 3400 6630 → 2400 7000 → 2230 7100 → LFI		
ACTUAL MISSION AND REMARKS AS PLANNED		
DATA COLLECTED AND REMARKS 1 STD FLT LVL TAPE 3 RADAR TAPE 3 LOGS, 1 CLO FILM INE 1, RS GOOD, CUS = 4.85, AV 1, TT 1		

A/C COMMANDER		NAVIGATOR		A/C NO.		MISSION NO.		TIME AIRBORNE		LOCATION		DATE		PROJ. NAME	
Gunnoe		NELS.		NCAA 42		820915		1817		N25 48.2 W080 17.6		15 Sept 82.		Pretty	
TIME OF ENTRY	POSITION	TYPE	INERTIAL POSITION		LAT LON COR'S	POSITION	LAT LON COR'S	REMARKS							
1800	N25 48.2 W080 17.6	4	48.1 17.6			48.1 17.6		BIR							
181558	N25 47.9 W080 18.1	4	47.8 18.3			47.8 17.9		T/O MIN. Rwy 12. Rwy 12							
184420	N26 33.3 W078 41.9	2/9	N26 33.1 W 41.7			N26 33.3 W078 41.2		Freeport VOR OVER No 2 Lockport BEGC Lockport							
204256		9	N31 48.0 W070 59.6			N31 50.1 W070 59.2		20201210 Drop #6. Stenmer.							
213536	N31 48.0 W066 07.0	2/9	N31 48.3 W066 06.7			N31 51.7 W066 04.8		Bermuda. B065/067/8000							
215108	N31 46.5 W064 41.0	2/9	N31 47.9 W064 40.9		Good Fix	N31 52.0 W064 39.1	Good Fix	Bermuda. B000/35.1							
222220	N32 20.0 W062 02.0	2/9	N32 16.4 W062 01.6		AE ?	N32 21.5 W061 58.8	AE ?	Bermuda VOR TRAC. No 2 B270/135.1							
003428	N34 10.0 W066 30.5	2/9	N34 11.2 W066 36.4			N34 19.1 W066 24.3		Bermuda VOR/TRAC. B 140/141							
003613	N34 03.0 W066 30.0	2/9	N34 03.0 W066 30.2			N34 11.1 W066 24.1		Bermuda. B 138/135							
004415	N33 59.0 W067 12.0	2/9	N34 00.5 W067 12.4			N34 09.3 W067 06.2		" 13.127 1/2 / 160							
033915	N37 04.7 W076 22.6	4	N37 02.8 W076 24.6			N37 16.6 W076 12.4		Ldy Tangley. Rwy 7.							
0345	N37 05.1 W076 21.1	4	N37 03.4 W076 23.4		+1.7 -2.3	N37 17.4 W076 10.8	-12.3 +10.3	BIR Tangley 4							
SYS	BEGIN ALIGN TIME	NCS CONN	Ω AID	TIME OUT OF COARSE ELAPSE ALIGN POST TIME	ALIGN STS 0-5	(1) TIME INTO NAV.	(2) TIME OUT NAV.	Δ T (2)(1)	TERMINAL ERRORS						
									LAT	LONG	GS				
INS 1	1630	Y	050		1	1730	0346	10.3	+1.7	-2.3	4				
INS 2 or IMU	1630	Y	050		1	1730	0346	10.3	-12.3	+10.3	1				
ALIGN REMARKS :															
OTHER REMARKS :															
TYPE OF FIX : (1) DR (2) RADIO (3) CELESTIAL (4) VISUAL (5) LORAN (6) RADAR (7) DOPPLER (8) OMEGA (9) INERTIAL (10) OMEGA - INERTIAL															

820915H

1613.0

TIME	TH	LA	LD	GA	PA	DV	TA	TD	WD	WS	HT		
		16502	29.93		A/C 1011.6								
			A/C 1011.3	PARO 1010.4	PARF								
175735	OUT MIA	ALT	29.91	A/C 1011.2	PARO 1010.2								
181635	OFF		1010.9										
181930	75412	PARO	A/C SLP 1010	MIA SLP 1013.0									
182100	S		1010										
1822		CNS=4.85											
1845	ALT	16910	A/C	526.7	PARO 524.7								
		D1=-1.3	D2=-5.9	PS 527									
1900	030	27 63	77 97	5390	5129	262	-2	-24	350	08	5264		
1903	029	27 84	77 88	5460	5194	264	-2	-24	360	08	5260	D# 1	
		PS=526.7	ALT	16720	532.0							(+73)	
1922	031	29 14	76 89	5433	5181	252	-2	-26	003	12	5252	D# 2	
1930	030	29 63	76 57	5435	5176	251	-2	-26	015	10	5251		
		D1=-1.9	D2=-5.8	PS 527.6	PAR 525.6	PA 5175	KD 5143						
1941	034	30 40	76 01	5424	5174	242	-3	-26	017	08	5249	D# 3	
2000	030	31 65	75 06	5415	5176	249	-3	-27	352	09	5246		
2000												D# 4	
		D1=-2.0	D2=-5.5										
2005		CLME TO 21K											
2020	D1	-1.1	D2=-5.3	PS 445.9	PAR 442.9	PA 6406	KD 6382	(+23)					
2022												D# 5	
2030	090	31 77	72 21	6720	6414	305	-12	-28	358	14			
		D1=-1.3	D2=-5.2	PS 445.5	PAR 442.9	PA 6412	KD 6386	(+26)					
2043	087	31 80	70 90	6688	6393	296	-12	-25	002	11	NG	D# 6	
2046	101	31 77	70 70									NG	D# 6A
2057	098	31 61	69 58	6681	6387	291	-11	-32	010	08		D# 7	
2100	091	31 60	69 45	6635	6344	288	-11	-31	025	08			
		D1=-1.4	D2=-5.1	PS 450.6	PAR 447.1	PA 6335	6322	(+12)					
2129	088	31 79	66 65	6685	6374	309	-13	-13	173	22		D# 8	
		D1=-1.8	D2=-5.3	PS 448.1	PAR 445.0	PA 6370	6353	(+17)					
2130		CLME TO 23K											
2145	D1	-1.0	D2=-4.9	PS 411.2	PAR 407.4	PA 6978	6972	(+6)					
2158	091	31 78	63 96	7397	7017	383	-12	-12	222	10		D# 9	
		D1=-0.8	D2=-4.3	PS 412.3	PAR 408.8	PA 6966	KD 6969	(-3)					
2217		WIND CK	NG										
2217	358	31 84	62 00	7432	7032	403	-12	-12	190	07		D# 10	
		D1=-1.0	D2=-4.4	PS 412.3	PAR 408.6	PA 6962	KD 6966	(-4)					
2236	359	33 50	61 99	7341	6941	399	-16	-20	185	14		D# 11	
2255	359	35 26	62 02	7393	6992	400	-15	-20	192	14		D# 12	
2257												D# 12A	
		D1=-1.3	D2=-4.5	PS 411.5	PAR 407.8	6985	KD 6990	(-5)					
2316	271	37 00	62 24	7719	7302	424	-12	-22	193	10		D# 13	
		D1=-1.0	D2=-4.2	PS 392.7	PAR 388.8	PA 7317	KD 7310	(+7)					
2334	270	37 01	64 03	7674	7271	403	-12	-21	187	12		D# 14	
		D1=-1.2	D2=-4.6	PS 395.8	PAR 392.0	PA 7234	KD 7270	(-16)					
2359	177	36 87	66 49	7636	7233	362	-20	-20	167	17		D# 15	
0015	179	35 63	66 47	7653	7286	367	-20	-32	194	18		D# 16	
0033	262	33 99	66 62	7643	7248	397	-17	-24	240	02		D# 17	
0056	272	34 03	68 30	8300	7871	432	-20	-44	275	10		D# 18	
0115	262	34 01	70 12	8350	7923	433	-21	-47	328	15		D# 17	
0134	012	34 09	71 96	8350	7890	450	-21	-44	354	14		D# 20	
0136												D# 20A	
0152	016	35 33	71 54	8335	7894	440	-21	-41	338	20		D# 21	

24.1.4

0117 D1 -0.6 D2 -3.8 PS 359.2 PAR 355.5
PA 7922 KO 7932 (-16)

0157 D1 -0.9 D2 -3.7 PS 360.7 PAR 356.4
PA 7902 7920 (-12)

0214	008	3694	7130	8254	7924	432	-22	-29	251	20	D22
0221	009	3746	7120	8318	7888	429	-23	-35	602	21	D22A
0234	217	3841	7115	8271	7864	429	-22	-38	008	15	D25

0236 D1 -0.8 D2 -3.7 PS 359.5 PAR 354.9
PA 7918 KO 7914 (+4)

LFI ALT 29.96 1014.8

032915 ON LFI
FNR OFF BEFORE B/I
03452 IN LFI

820916H FRT LFI -> MIA

ALT 29.95 1014.2 A/C PS 1012.9 PAR 1012.0
CN#5=2.85 KO-40' 1014.7

1730 OUT LFI

DATE 15 Sept. 1982

FLIGHT 800915H
N42

LPS ~ Adams

Lead Project Scientist Event Log

EVENT	TIME*	POSITION	PS HT	COMMENTS**
Drop 1	190246	27.84N 77.84W	5863	Altitude = 17000' widely scatt. Clear Air below - cumulus
Drop 2	192216	29.13N 76.90W	527.5 5854	Same
Drop 3	194055	30.39N 76.02W	527.7 5847	Clear below + to 30 n.m. to North Widely scattered below to South
Drop 4 (Turn Point)	200137	31.74N 74.92W	527.1 5848	Clear broad area T: 2000 Change TH to 085°
Drop 5	202224	31.78N 72.97W	445.6 5834	T: 2022 ASDL received by NHE T: 2007 climb to FL 21000' Clear below - Medium size cu 2 mi. ahead.
STREAMER			446.8	Clear below but line of
Drop 6	204255	31.80N 70.99	5819	Cumulus 5 n.m. in head of alc.
Drop 7	204540	31.77N 70.71W	447.0 5818	Clear below - line of cumulus ahead
Drop 8	205715	31.61N 69.59W	447.2 5815	Thin stratus layer below
Drop 9	212901	31.79N 66.68W	T: 2106 enter outer rainband of storm 447.9 5830	Dropped in the soup.
Drop 10	215739	31.78N 63.99	410.0 5882	Dropped in less severe part of rainband but still no visibility.
Drop 11 (Turn Point)	221745	31.89N 62.00W	408.3 5895	Thin haze but clear to the surface
Drop 12	223552	33.51N 61.99W	414.0 5886	Clear air to deck
Drop 13	225452	35.28N 62.02W	411.0 5882	Thin stratus layers below (No Omega)
Drop 14	225725	35.50N 62.02W	411.5 5883	Thin Stratus Dark outside
Drop 15	231510	36.99N 62.13W	408.0 5892	Clear at Flight Level 2312 climb to FL 24000'
Drop 16	233332	37.01N 64.01W	394.7 5872	Dropped 5 n.m. before weather on radar.
Drop 17	235845	36.90N 65.50W	394. 5872	Clear at Flight Level
Drop 18	001522	35.65N 66.47W	394.4 5847	Lightning to the East. Clear at Flight Level
Drop 19	003735	33.99N 66.60W	396.1 5863	Not clear at flight level but No clouds on radar
	0040			Climb to FL 26000'

*Log times of all significant altitude changes, turns, and eye fixes

**New altitude, heading, center position, etc.

Pg 2032

DATE 15 Sept 82

FLIGHT 820915H

LPS Adams

Lead Project Scientist Event Log

EVENT	TIME*	POSITION	PS HT	COMMENTS**
Drop 20	005534	34.03N 68.27W	362.0 5851	Clear at Flight level Clear on Radar
Drop 21	011457	34.01N 70.08W	359.9 5860	Clear at flt. lvl. Clear on Radar
Fail Drop 22 ^{Bad Omega}	013420	34.04N 71.98W	359.6 5868	Clear Bad Omega Clear
Drop 23 ^{ch 2}	013608	34.18N 71.94W	361.7 5872	Clear at flt. lvl - scatt below Clear
Drop 24	015156	35.34N 71.54W	361.4 5859	Clear at flt. lvl Scattered clouds below
Fail Drop 25	021335	36.94N 71.30W	3600 5860	Clear at flt. lvl
Drop 26	022035	37.46 N 71.20 W	361.6 5870	Clear
Drop 27	023428	38.42 N 71.14 W	364.5 5875	T: 0233 C/H to 225° T Clear 220° T
END OF DROPS			T:	
	0257		365.7 5897	C/H TO 270° T
	0310	→ To land		
Land	0340			Langley AFB

*Log times of all significant altitude changes, turns, and eye fixes

**New altitude, heading, center position, etc.

E.1 Lead Project Scientist (On-Board) *Adams*

The on-board lead project scientist is responsible for carrying out the scientific mission of his assigned aircraft. (Check off and initial when completed.)

E.1.1 Preflight

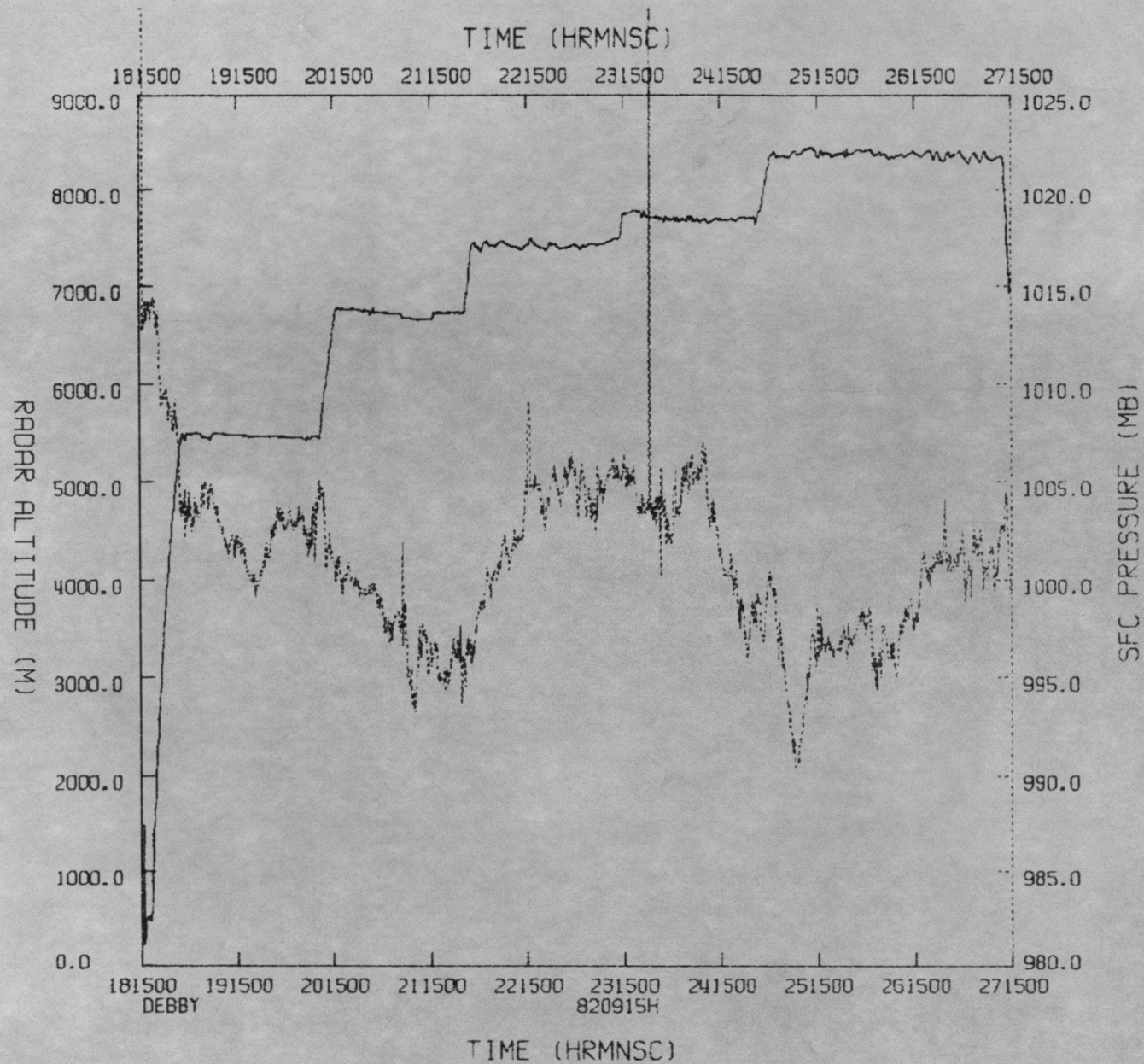
- ✓ 1. Participate in general mission briefing.
- ✓ 2. Determine specific mission and flight pattern(s) for his aircraft.
- NA 3. Determine from CARCAH or field program director whether aircraft has operational fix responsibility and discuss with RFC flight director/meteorologist and CARCAH, unless briefed otherwise by field program director.
- ✓ 4. Contact NHRL members of crew to:
 - a. Assure availability for mission.
 - b. Arrange ground transportation schedule when deployed.
 - c. Determine equipment status.
- ✓ 5. Provide supplementary briefing to specific crew.
- ✓ 6. Report status of aircraft, systems and crews to appropriate NHRL operations center.

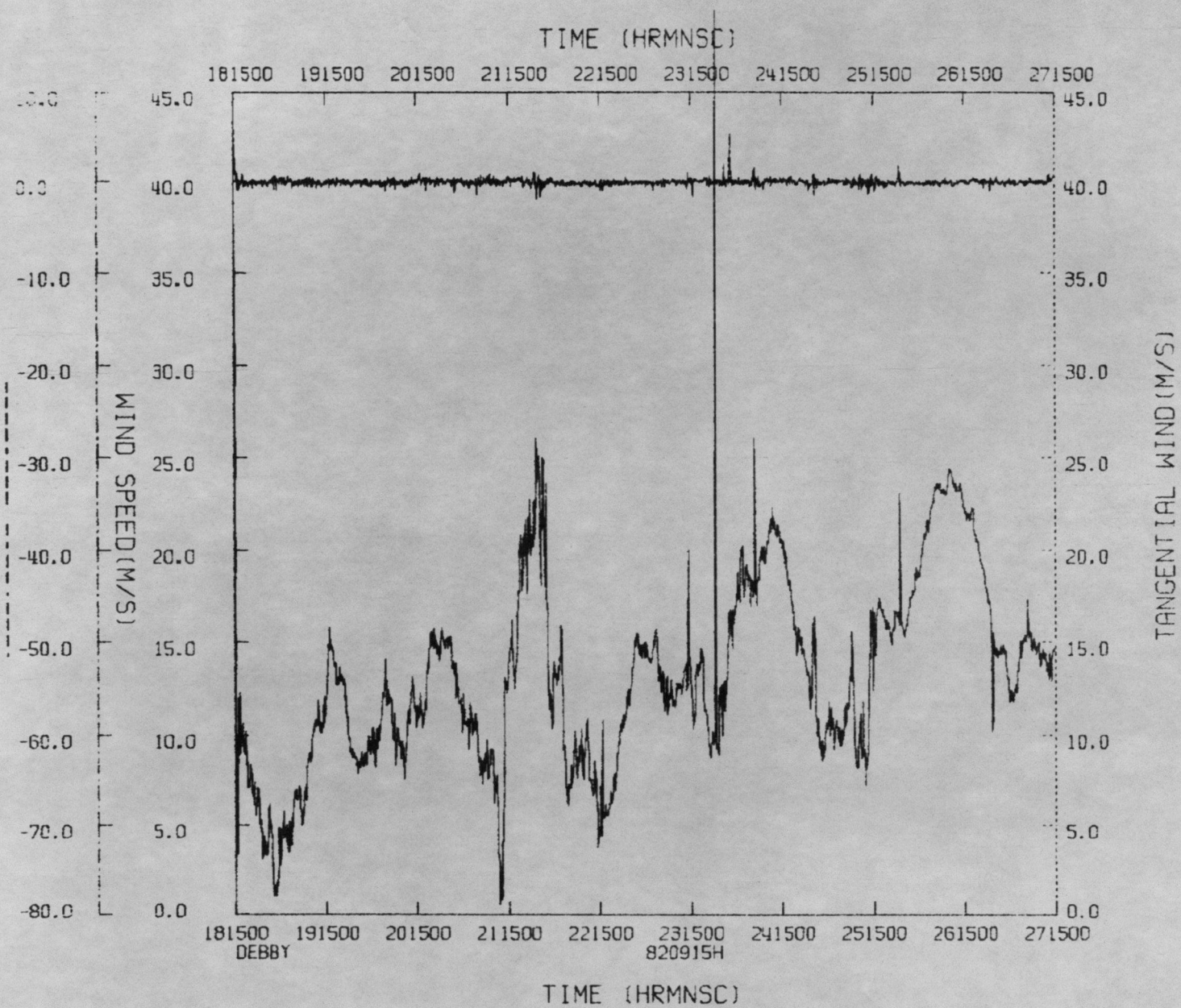
E.1.2 In-Flight

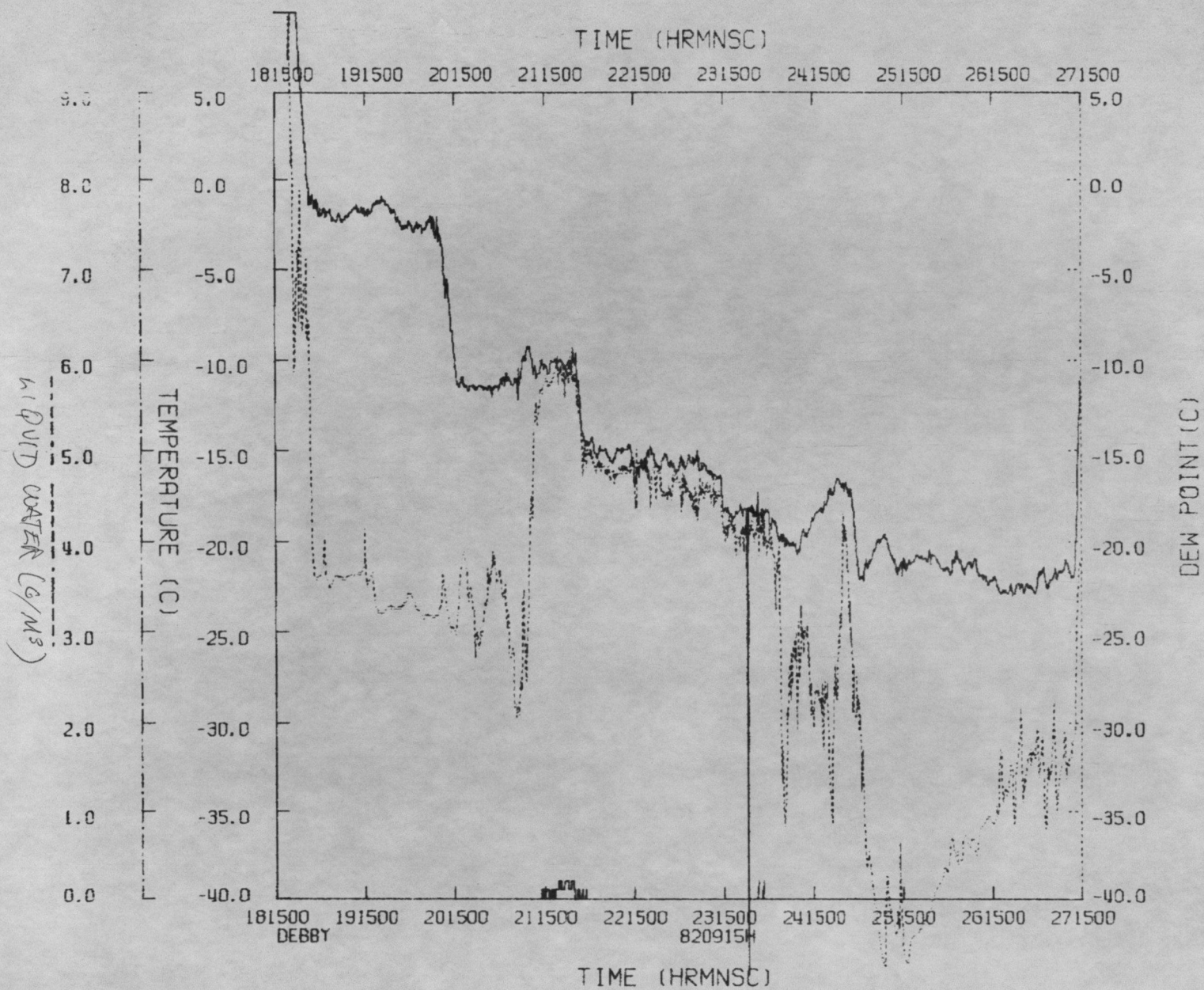
- ✓ 1. Confirm from RFC flight director/meteorologist that satellite data link is operative (information).
- ✓ 2. Confirm camera mode of operation.
- ✓ 3. Confirm data recording rate. *360*
- ✓ 4. Complete form E-1.

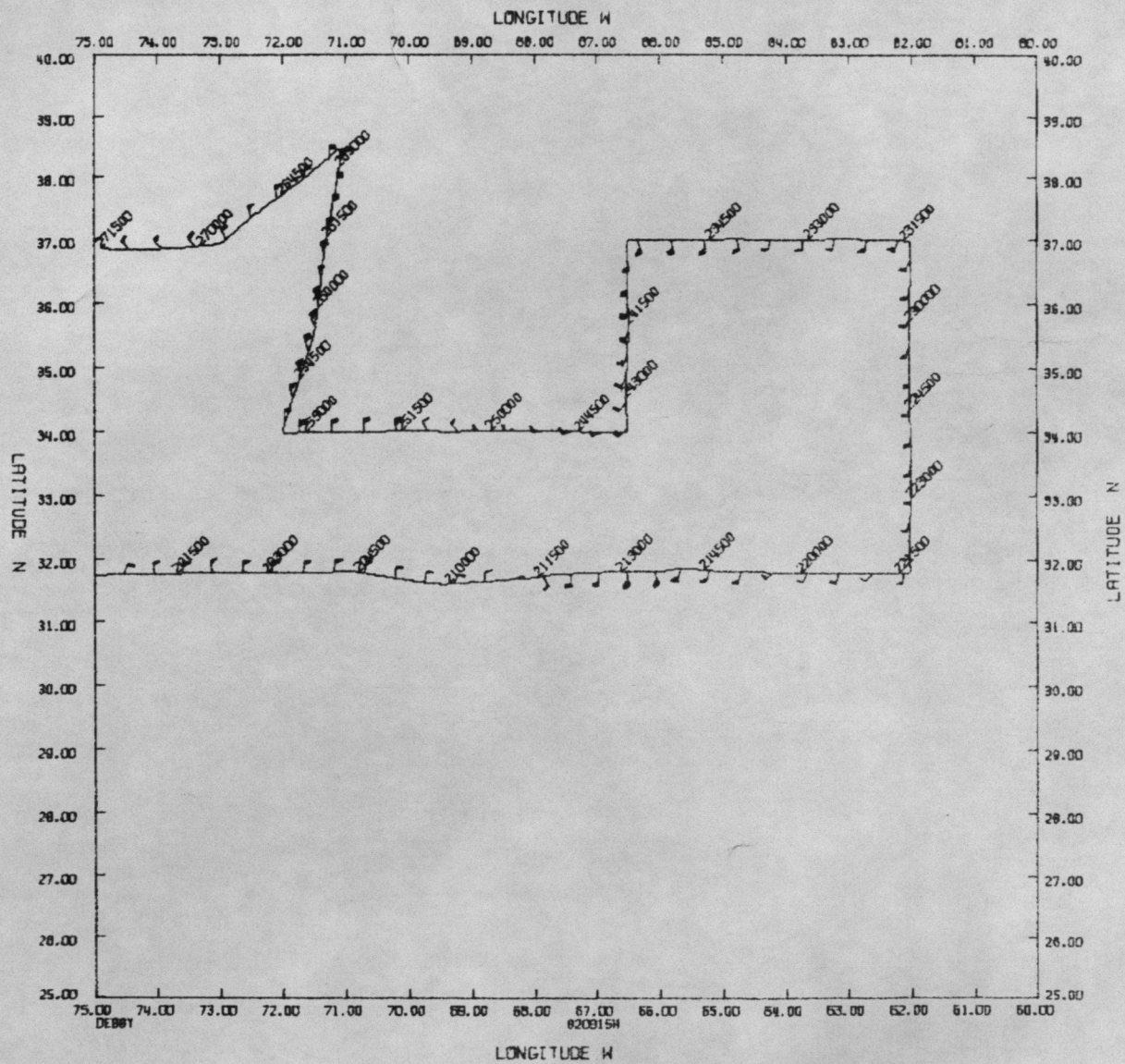
E.1.3 Postflight

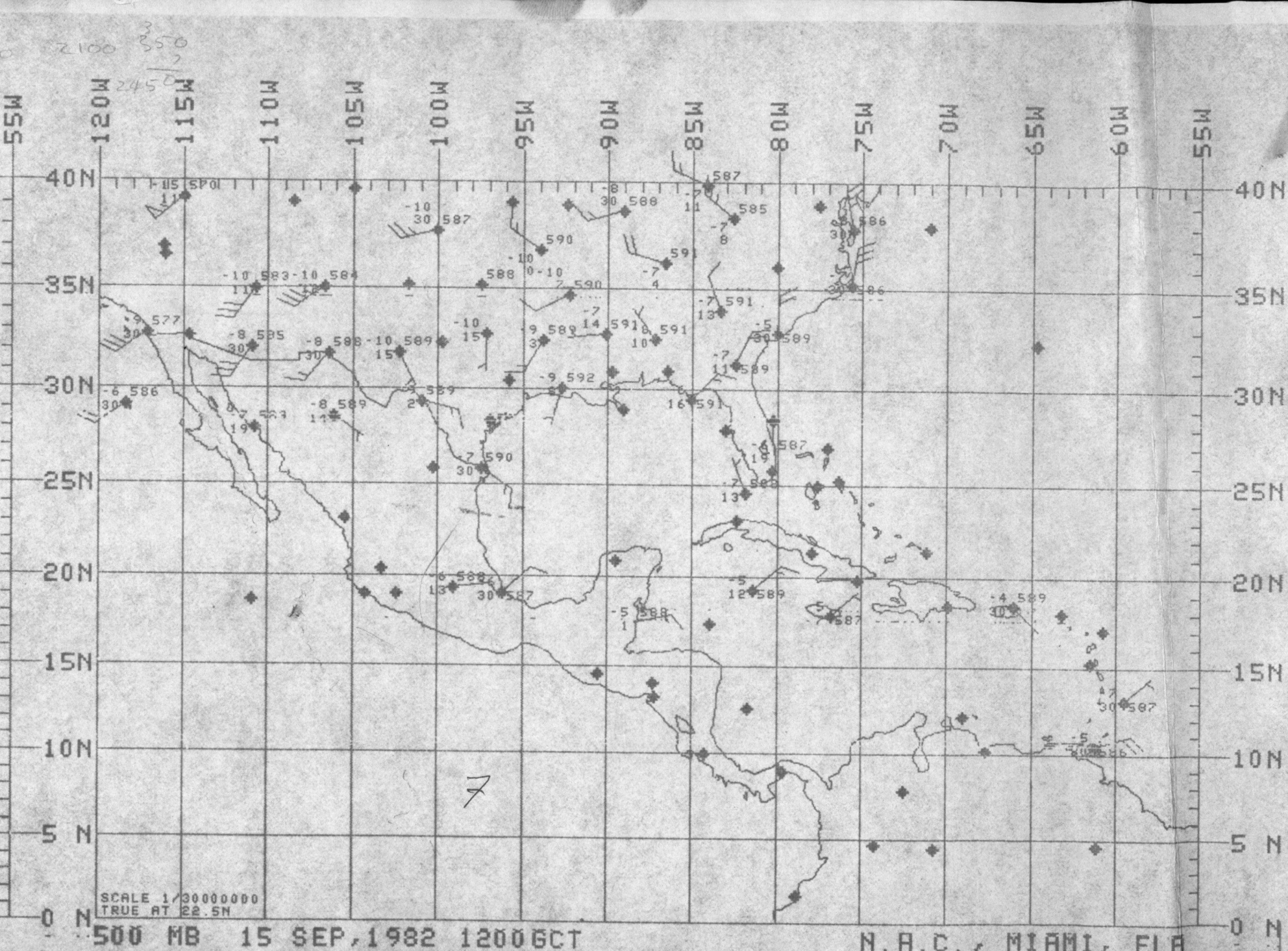
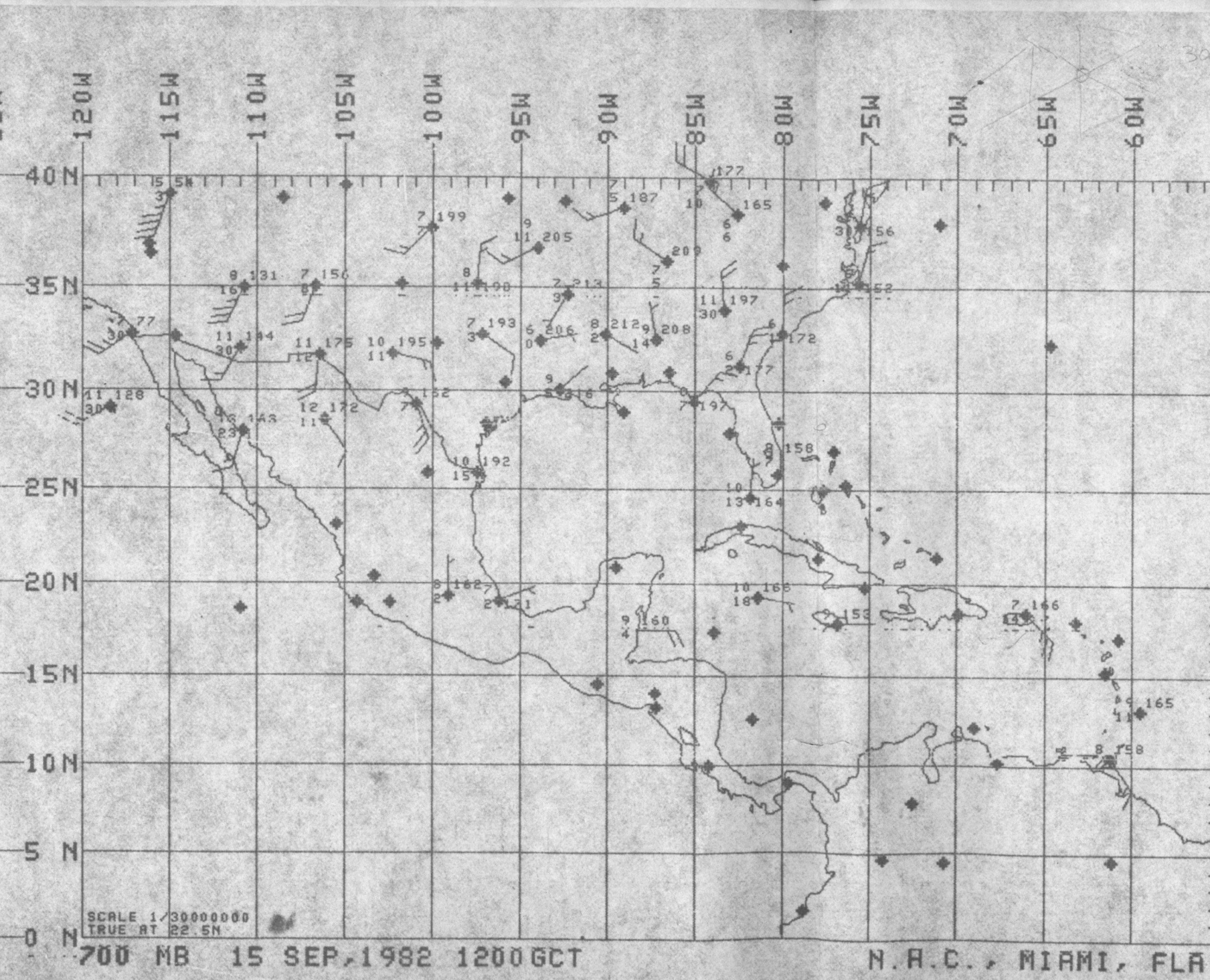
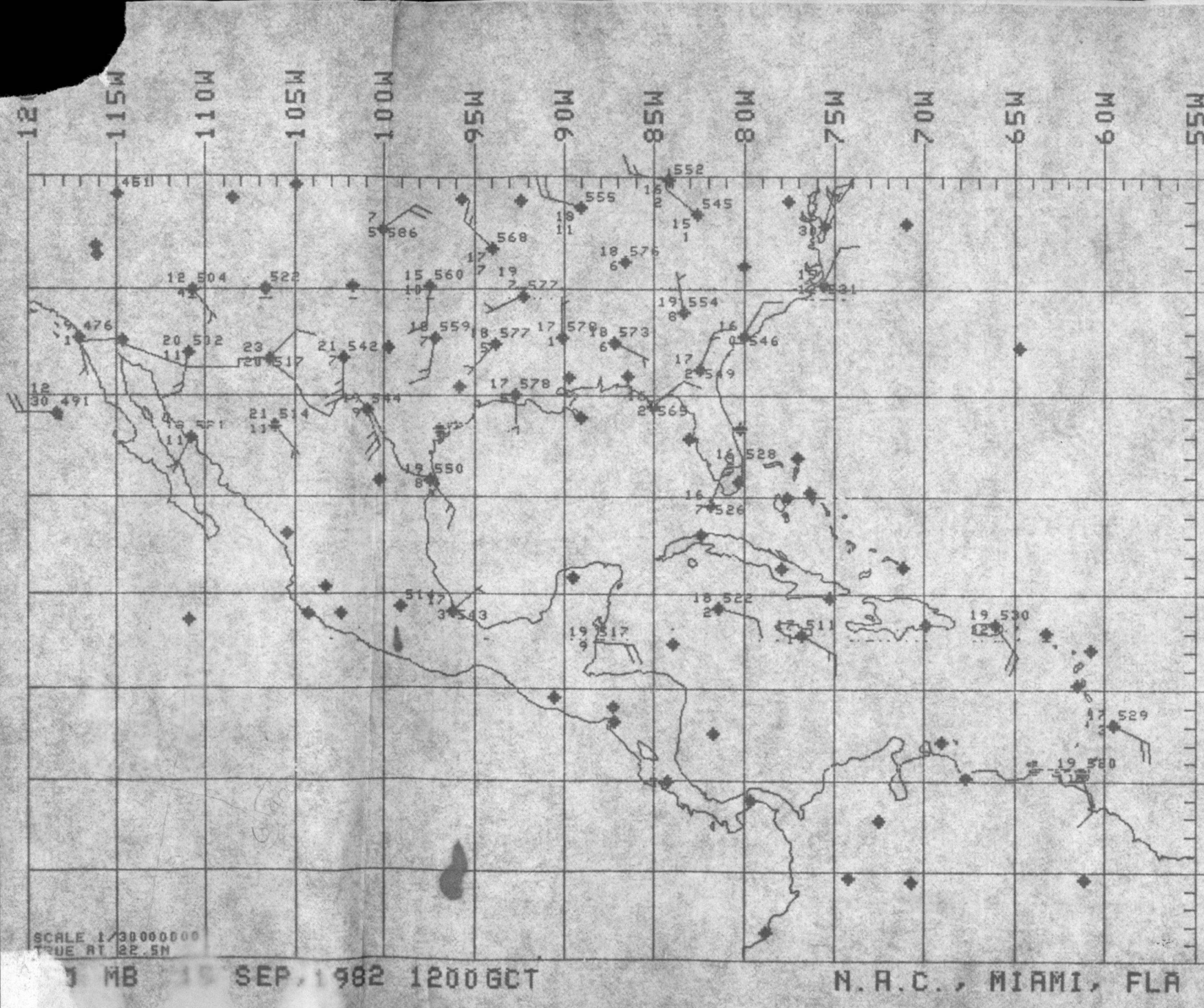
- _____ 1. Debrief crew.
- _____ 2. Report landing time, aircraft, crew and mission status to NHRL
operations center.
- _____ 3. Gather completed forms for mission and turn in at the operations
center.
- _____ 4. Determine next mission status, if any, and brief crews as
necessary.
- _____ 5. Notify operations center as to where you can be contacted.



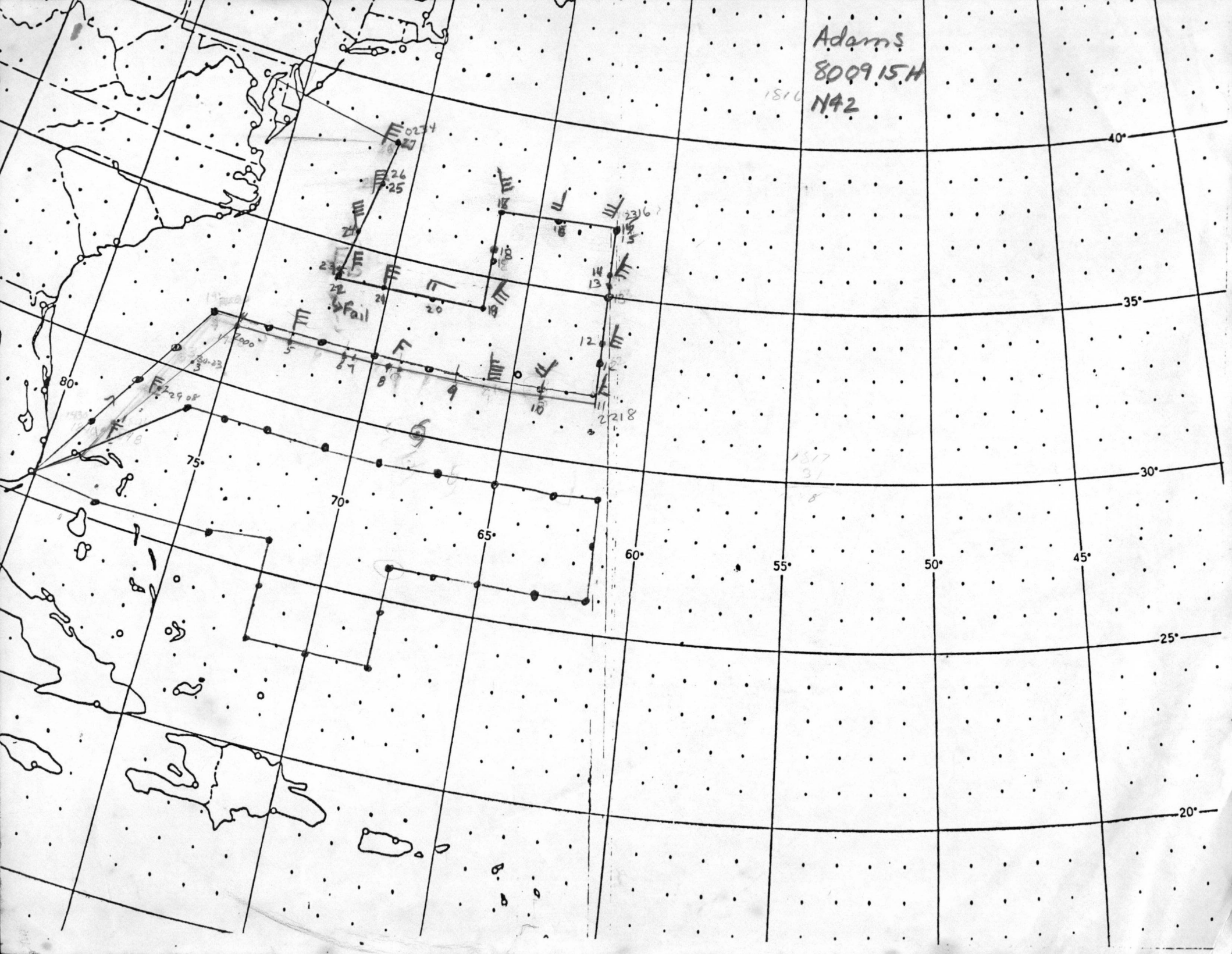


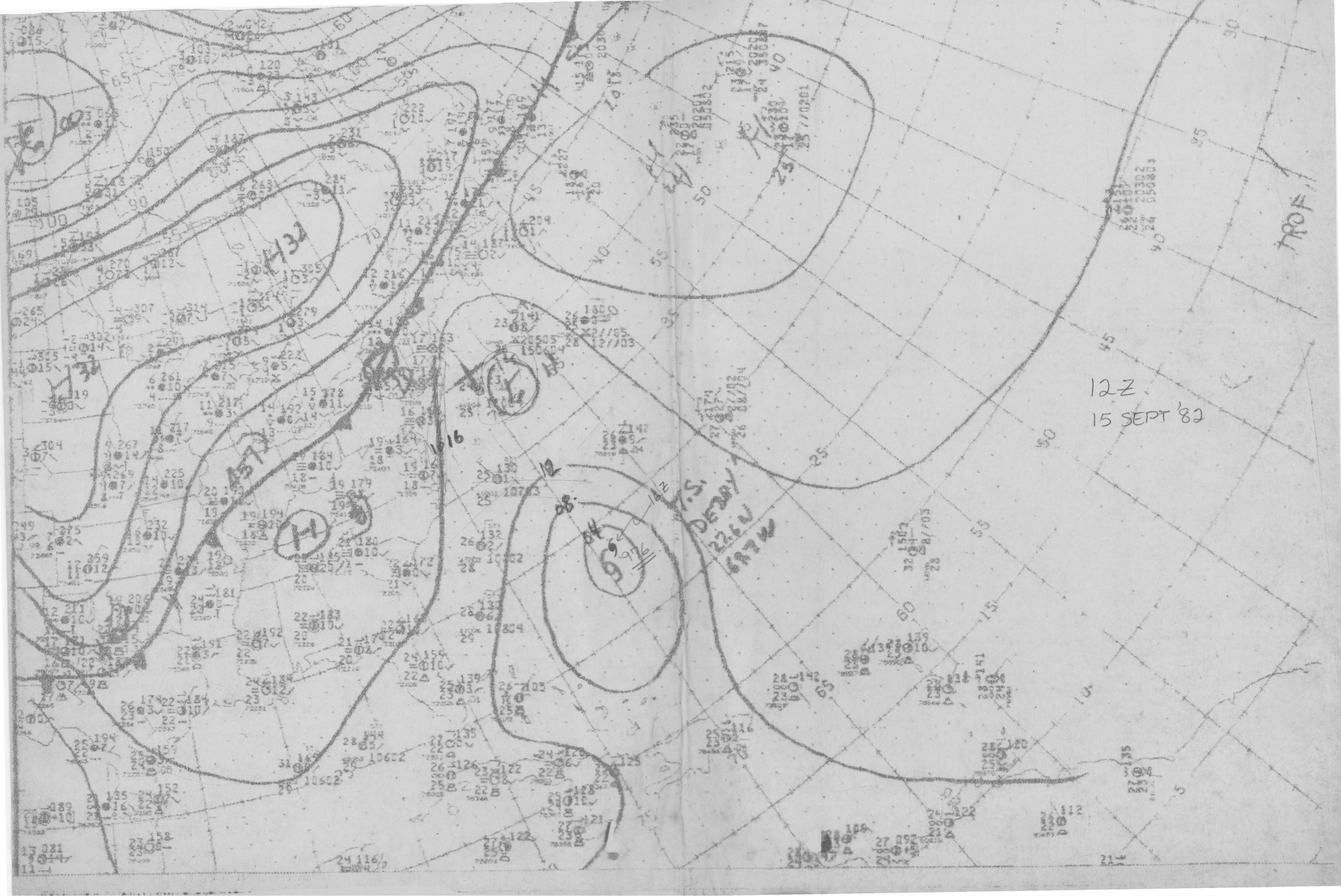






1816





12Z

15 SEPT '82

TROP

U.S. DEPT OF AGRICULTURE
226
687W

132

157

14

16