19770831 #1 LPS

APPENDIX I. OPERATIONAL CHECKLISTS

FORM I-1 Onboard Lead Project Scientist CHECKLIST

DATE 8/31/77 AIRCRAFT 42 RF FLT 770831H

A. Participants

Function	Participant	Function	Participant
Lead Proj. Sci.	SHEETS	Gust Probe	N/A
Cloud Physics	SPAHN	Omega Sonde	N/A
AXBT	N/A	Sys Eng	CONNER
Hot Film	N/A	Data Tech	BROWN BRANCH
Radar	JORGENSEN ELDER	El Tech	FENNELL
Flt DIR/MET	DAVIS	Other	FRANK CSU McBRIDE CSU

Time Off ~1335Z ~~1385Z~~ Location NEW ORLEANS Time On Location MIAMI

B. Past and Forecast Storm Position - Observed Positions

Date	Time	Lat	Lon
31/10Z	10Z	26.3°N	91.8°W

Date	Time	Lat	Lon	MSLP
8/31	1440Z	26°07'	92°08'	988
8/31	1634Z	2607	9208	
8/31	1720	2610	9210	
8/31	1850	2610	9225	
8/31	1909	2608	9221	984
			N SIDE	85KTS
8/31	2027Z	2607	9225	982.8
			N. SIDE	85 KTS

C. Mission Briefing

15Z & 18Z Fix at 1500 Ft.
Pattern at 18,000 ft & 28,000 ft.
Return to Miami - No flight Tomorrow

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D. Equipment Status

Equipment	Pre Flt	In Flt	Post Flt	Reports Collected
Aircraft	OK		OK	
Radar	OK	NOTE BELOW	OK	
Cloud Physics	OK CO$_2$ RAD NOT ON	NOTE BELOW		
Data Sys	OK		OK	
Omega Sondes	N/A	—	—	
AXBT	N/A	—	—	
Gust Probe	N/A	—	—	
Hot Film	N/A	—	—	
Photography	NONE AVAILABLE	—	—	
POLOROID - RADAR				

REMARKS

Temp Problem (-20°C to -11°C. at ~1939Z)
Perhaps some moisture freeze up problem - We entered a band at about the time I noticed the temp malfunction.

Foil Impactor Mafunction ~ 1937 -

Knollenberg Recording system problems ~ 1940Z
All out until system repaired,
Knollenberg appears up again at ~2000Z
Knollenberg still down - intermittent in and out. Problem not identified.

Temperature appeared to freeze up again on East eyewall at 28,000ft.
Radar continued to have system dropouts.

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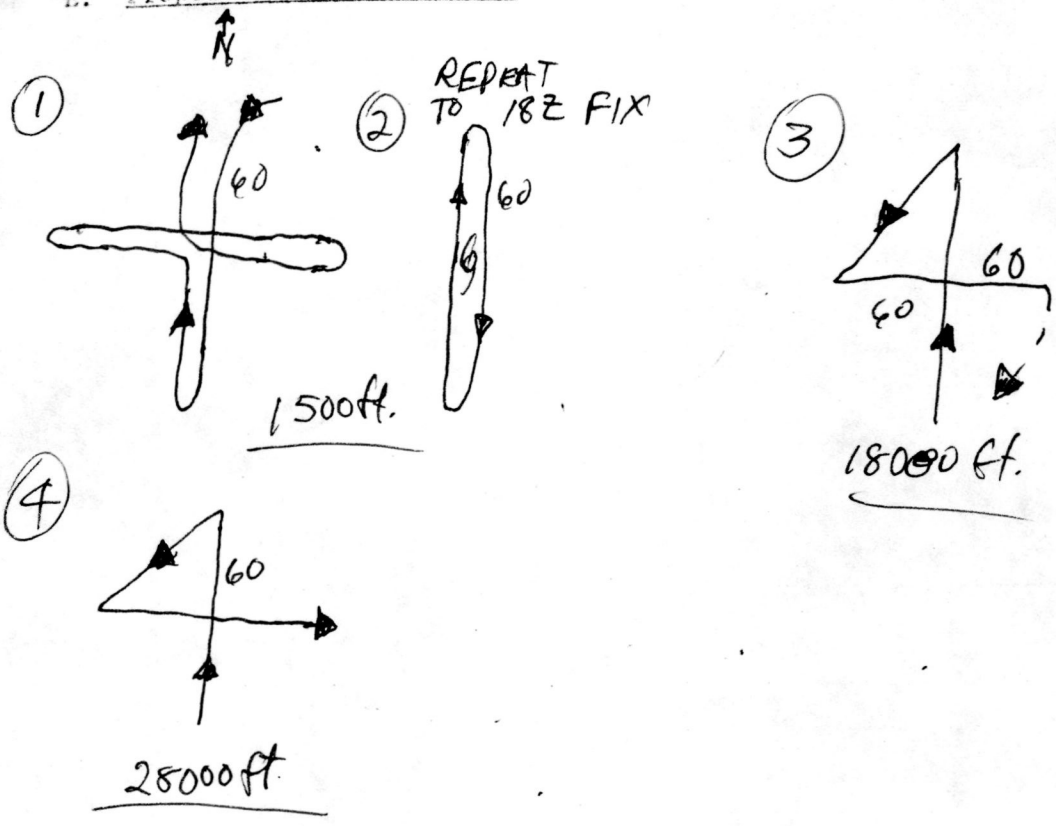
E. Proposed Flight Patterns

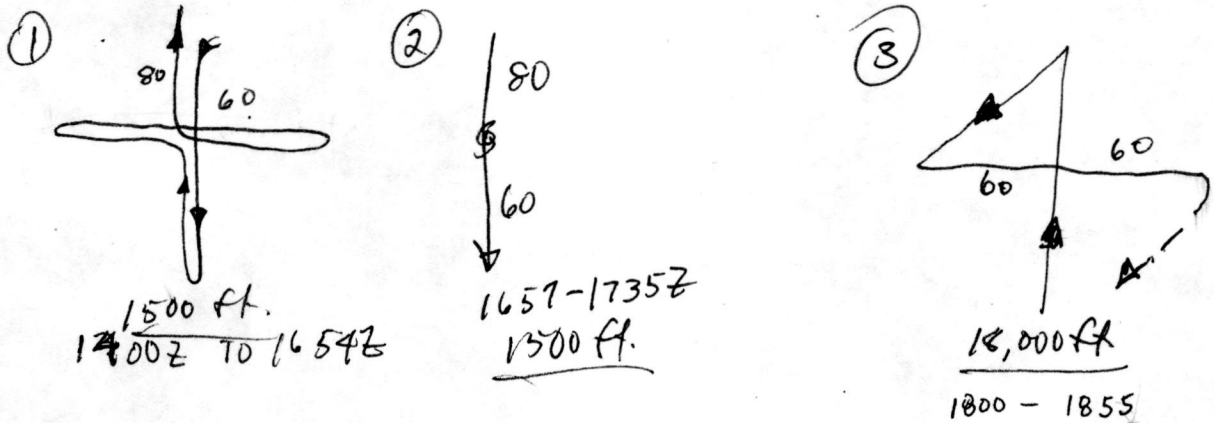


1500ft.

18000 ft.

28000ft

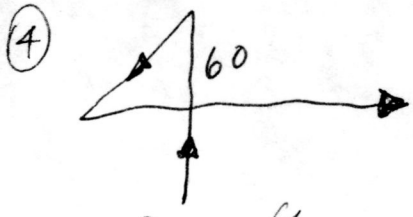
F. Actual Flight Patterns



1500 ft.
1400Z TO 1654Z

1657-1735Z
1500 ft.

18,000 ft
1800 - 1855



28,000 ft
1922 - 2022Z

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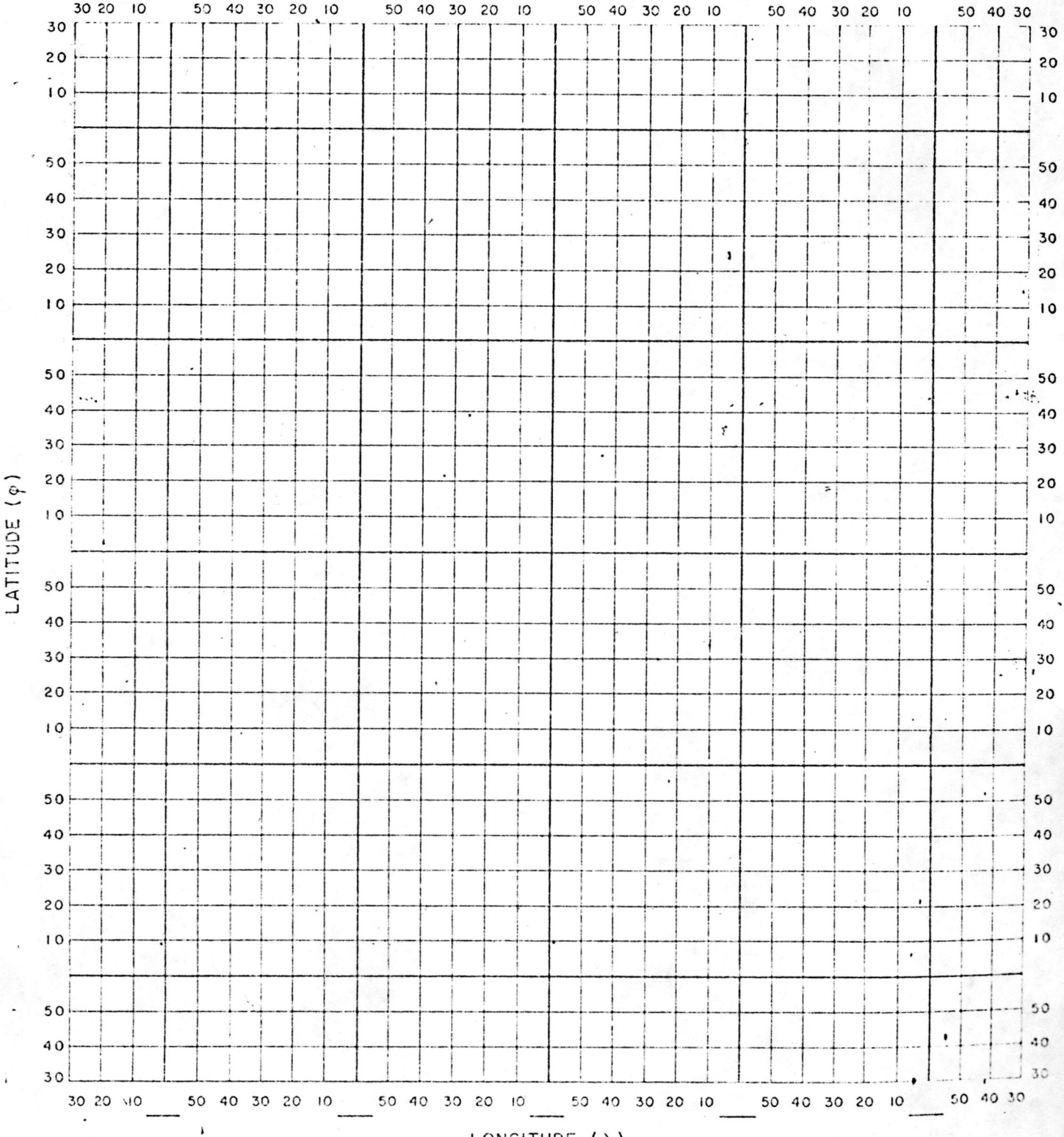
HURRICANE RECCO PLOTTING CHART

TRUE AT 25° LATITUDE, IN DEGREES AND MINUTES OF φ AND λ



DATE _____ OBSERVER. _____

NOTE: LABEL FULL DEGREES ACCORDING TO LOCATION OF FLIGHT AREA

RADAR

Times of Tape Changes

Nose		Lower Fuselage		Tail		Video Recorder	

SEEDING

Times of Seeding Runs, etc.

Run	Begin	End	Pyros Fired	Magazine Changed

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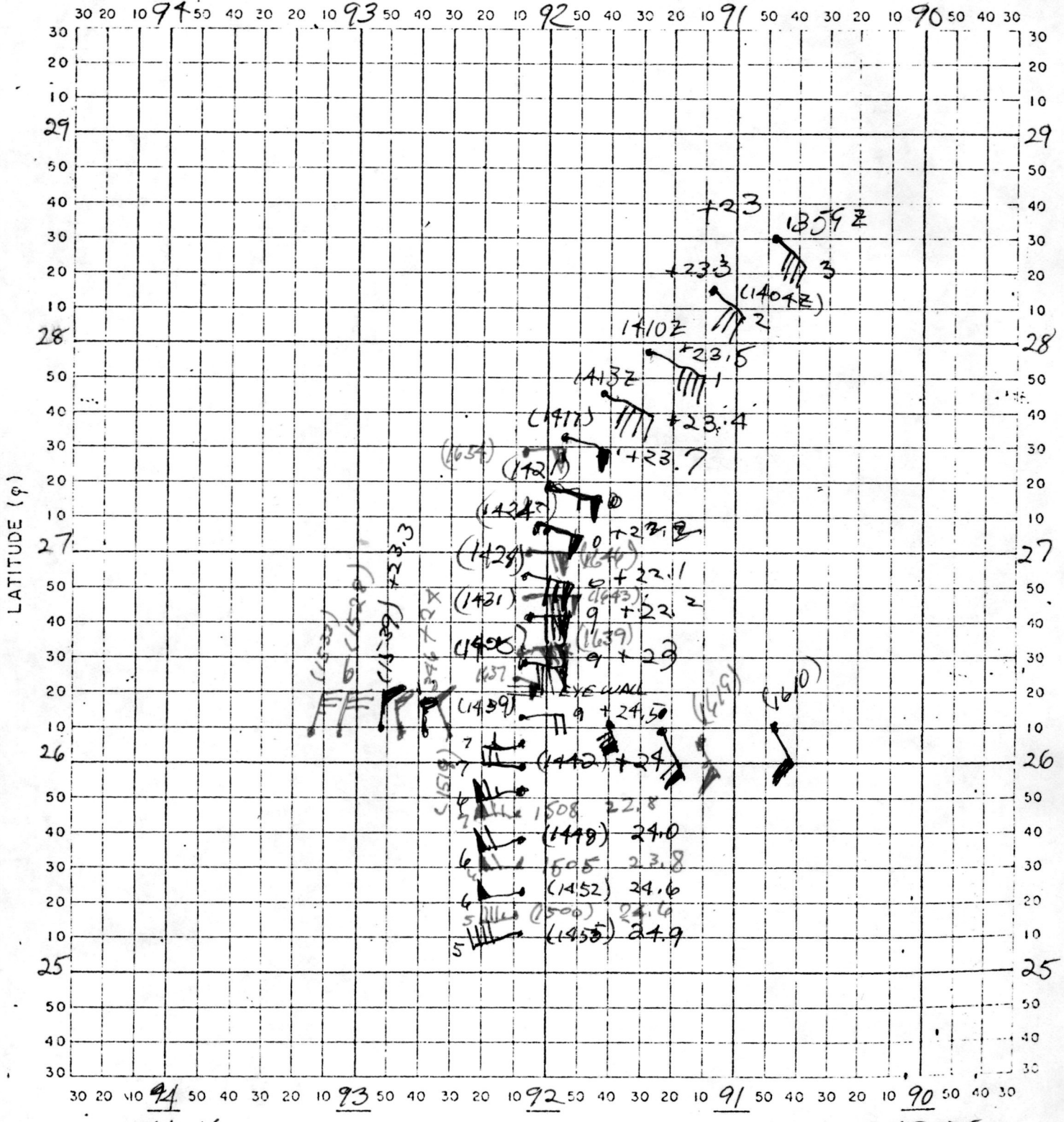
1500 ft.

.1 = 6 .5 = 30
.2 = 12 .6 = 36
.3 = 18 .7 = 42
.4 = 24 .8 = 48
.9 = 54

HURRICANE RECCO PLOTTING CHART

TRUE AT 25° LATITUDE, IN DEGREES AND MINUTES OF φ AND λ



DATE 8/31/77

OBSERVER. SHEETS

NOTE: LABEL FULL DEGREES ACCORDING TO LOCATION OF FLIGHT AREA

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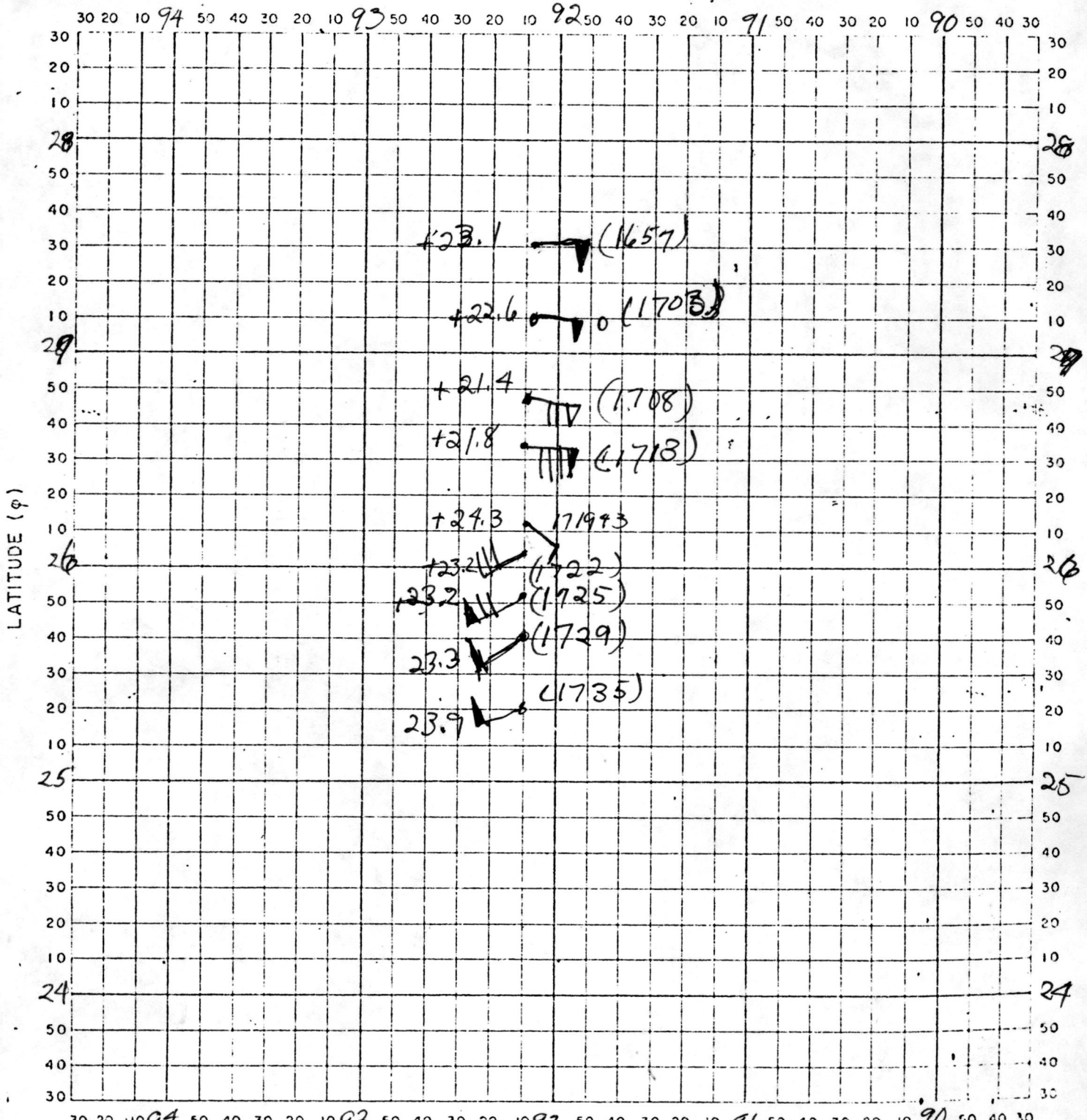
1500 ft.

HURRICANE RECCO PLOTTING CHART

TRUE AT 25° LATITUDE, IN DEGREES AND MINUTES OF φ AND λ



DATE 8/31/77 LONGITUDE (λ) OBSERVER. 9 HEELS

NOTE: LABEL FULL DEGREES ACCORDING TO LOCATION OF FLIGHT AREA

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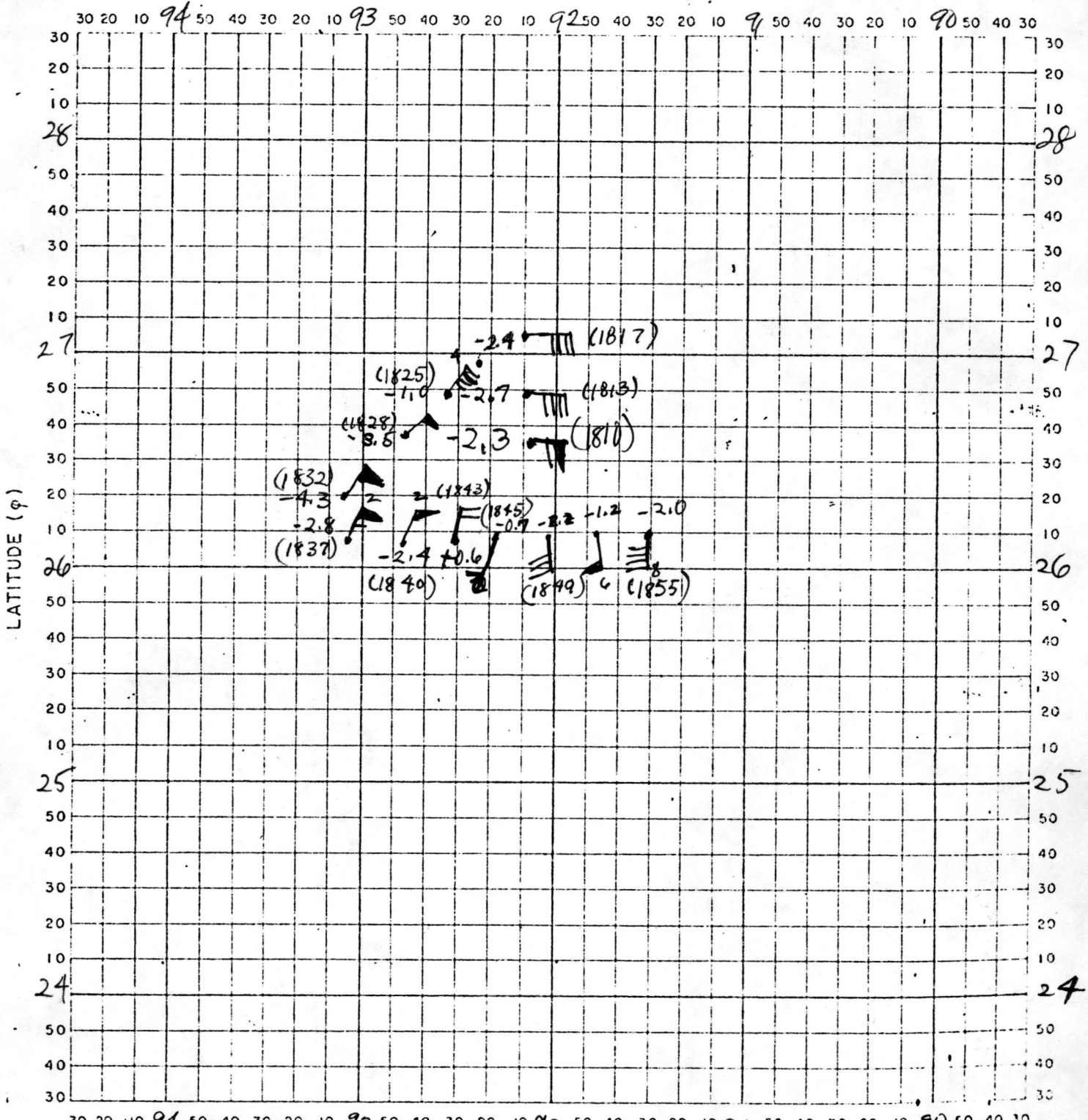
18000 ft.

HURRICANE RECCO PLOTTING CHART

TRUE AT 25° LATITUDE, IN DEGREES AND MINUTES OF φ AND λ



DATE 8/31/77 LONGITUDE (λ) OBSERVER. Shats

NOTE: LABEL FULL DEGREES ACCORDING TO LOCATION OF FLIGHT AREA

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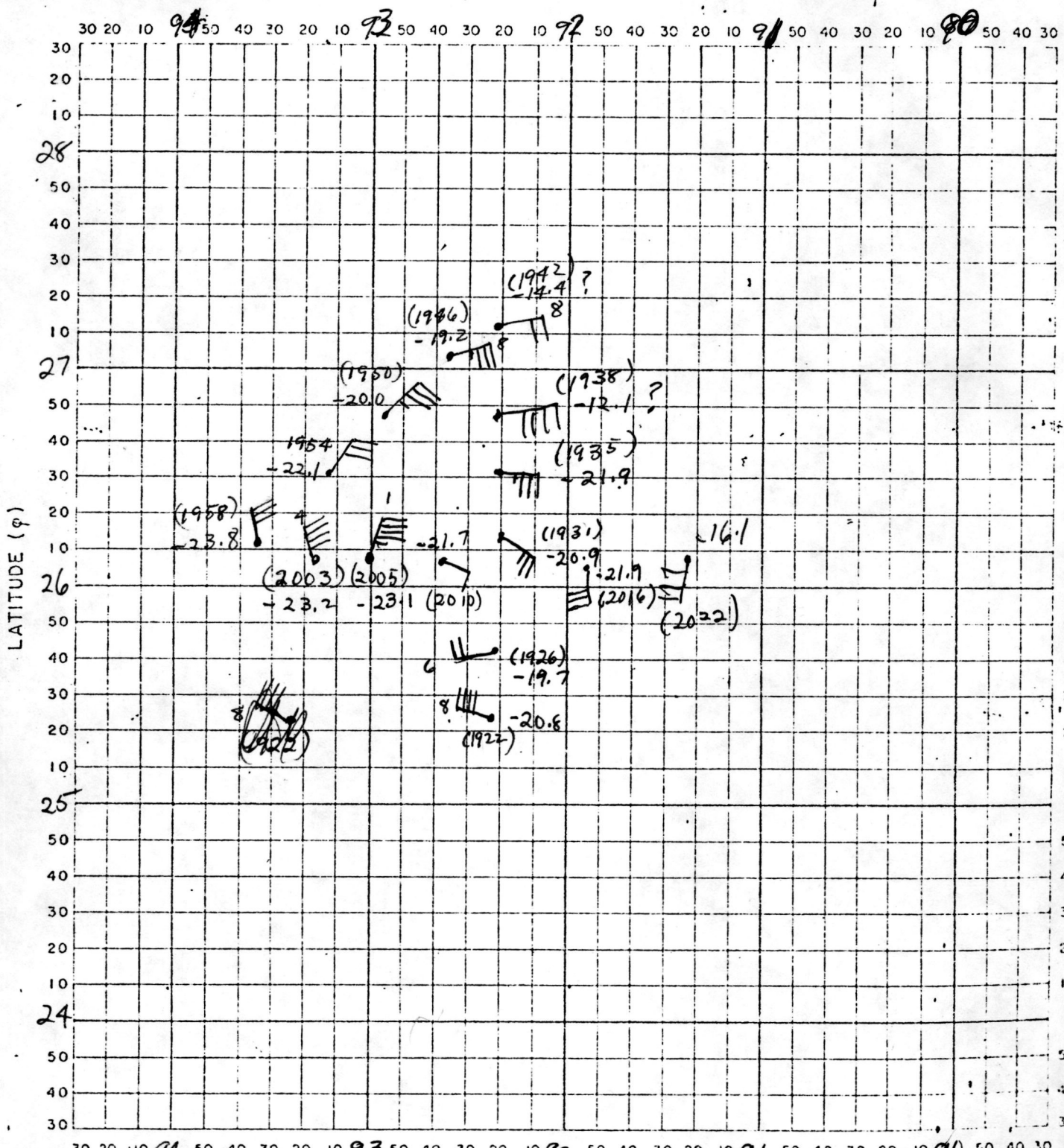
28000 ft

HURRICANE RECCO PLOTTING CHART

TRUE AT 25° LATITUDE, IN DEGREES AND MINUTES OF φ AND λ



DATE 8/31/77 LONGITUDE (λ) OBSERVER. Sheets

NOTE: LABEL FULL DEGREES ACCORDING TO LOCATION OF FLIGHT AREA

Form I-2 Cloud Physics Project Scientist Operational CHECKLIST

DATE 770831H AIRCRAFT 42 FLIGHT ATWLTA

A. INSTRUMENT STATUS AND PERFORMANCE

	PreFlight	InFlight	PostFlight	Remarks	Data Units Collected
Johnson Williams	✓	✓	✓	270	
Nimbiometer	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
Lyman Alpha	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
U. V.	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
dewpoint	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
Foil Impactor	✓	✓	✓	See below	✓
Formvar	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
Knollenberg		✓			12 TAPES
Raindrop	✓	✓			
Cloud Droplet	✓	✓			
FSSP	✓	✓			
Data System	✓	✓			
& Displays	✓	✓			
Ice Particle Counter	✓	✓	✓		✓
Mee					✓
ERT					
CO_2 Radiometer	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
Microwave Radiometer	✓	✓	✓	✓	✓
Aerosol	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
Filters	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
Bulk Water	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
INC	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
CCN	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~

B. REMARKS

1) Johnson Williams was not turned on until late (1615) when it was noticed that it was always zero.

2) Foil impactor jammed at 2940 inches late in flight (~1937) (Shutter never opened) (Foil was blank)

3) a) Knollenberg data system tape recorder has a problem R+C personnel know about it.
b) Cloud ~~probe~~ probe has a problem R+C know about it. (This showed up late in flight.)