

APPENDIX I.

OPERATIONAL CHECKLISTS

19780901FI-LPS

FORM I-1

Onboard Lead Project Scientist CHECKLIST

HURRICANE ELLA

DATE 1 SEPT. 1978

AIRCRAFT 41C

FLT _____

A. Participants

Function	Participant	Function	Participant
Lead Proj. Sci.	<u>BURPEE</u>	Gust Probe	_____
Cloud Physics	<u>WILLIS</u>	Omega Sonde	<u>DOUGLAS/CELA</u>
AXBT	_____	Sys Eng	<u>SCHRICHER</u>
Hot Film	_____	Data Tech	<u>BRANCH</u>
Radar	<u>PARRIS</u>	EI Tech (RADAR)	<u>GOLDSTEIN</u>
Flt DIR/MET	<u>MICHIE</u>	Other	_____

Time Off 1140 Z

Location MIAMI

Time On 1945 Z Location MIA

B. Past and Forecast Storm Position - Observed Positions

Date	Time	Lat	Lon		Date	Time	Lat	Lon	MSLP
<u>1/SEPT</u>	<u>0000 Z</u>	<u>29.5</u>	<u>70.0</u>	10,000 Ft	<u>1/SEPT</u>	<u>1745</u>	<u>31°5'</u>	<u>72°17'</u>	_____
<u>1/SEPT</u>	<u>0630 Z</u>	<u>30.2</u>	<u>71.2</u>		_____	_____	_____	_____	_____
<u>1/SEPT</u>	<u>18 Z</u>	<u>31.5</u>	<u>73.5</u>		_____	_____	_____	_____	_____

FORECAST

C. Mission Briefing

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D. Equipment Status

<u>Equipment</u>	<u>Pre Flt</u>	<u>In Flt</u>	<u>Post Flt</u>	<u>Reports Collected</u>
Aircraft	✓	✓	✓	
Radar	✓	PROBLEMS IN FLIGHT	SEE BELOW	
Cloud Physics	✓	✓	✓	✓
Data Sys	✓	✓	✓	
Omega Sondes	✓	FAILED IN FLIGHT	INOPERATIVE	
AXBT				
Gust Probe				
Hot Film				
Photography	FORWARD LOOKING ONLY	✓	✓	

* * * * *

REMARKS

FIRST DROPWINDSONDE FAILED
SECOND & 3RD SONDES QUESTIONABLE

GOLDSTEIN REPORTS LARGE
DRIFT IN RADAR FREQUENCY
AFTER 1530Z - DIGITAL VALUES
WILL BE SUSPECT

RADAR PROBLEM 1330-1340Z - CIRCLED OUTSIDE STORM
REPAIRED - MANUAL FREQUENCY
CONTROL

SUBSEQUENT RADAR PROBLEMS DURING FLIGHT APPARENTLY
RELATED TO OVERHEATING - FREQUENT MANUAL
CONTROL OF FREQUENCY REQUIRED DURING LAST HOUR
IN STORM.

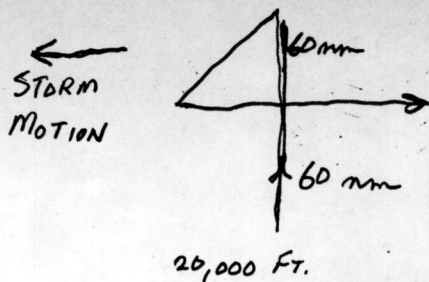
DROPWINDSONDE - TWO COMPLETE FAILURES - NO SUCCESSES
TWO SONDES WITH QUESTIONABLE RESULTS
DECIDED TO STOP FURTHER DROPS.

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E. Proposed Flight Patterns

3 DROPWINDSONDES ENROUTE

- ① CROSSING 27.5 N
- ② CROSSING 29.0 N
- ③ ~ 100 MILES FROM ELLA



20,000 Ft.

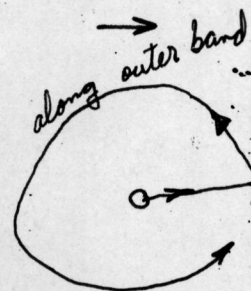
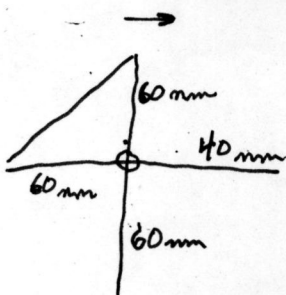
CLOUD PHYSICS
DOWN BAND
APPROX ~ 2 HRS



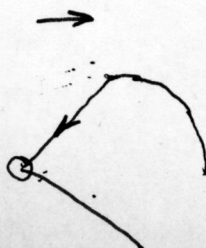
23000 - 24000

CLOUD PHYSICS
DOWN BAND
APPROX 1 HR

F. Actual Flight Patterns



climb to 23,000
while Paul
changes data.
tape

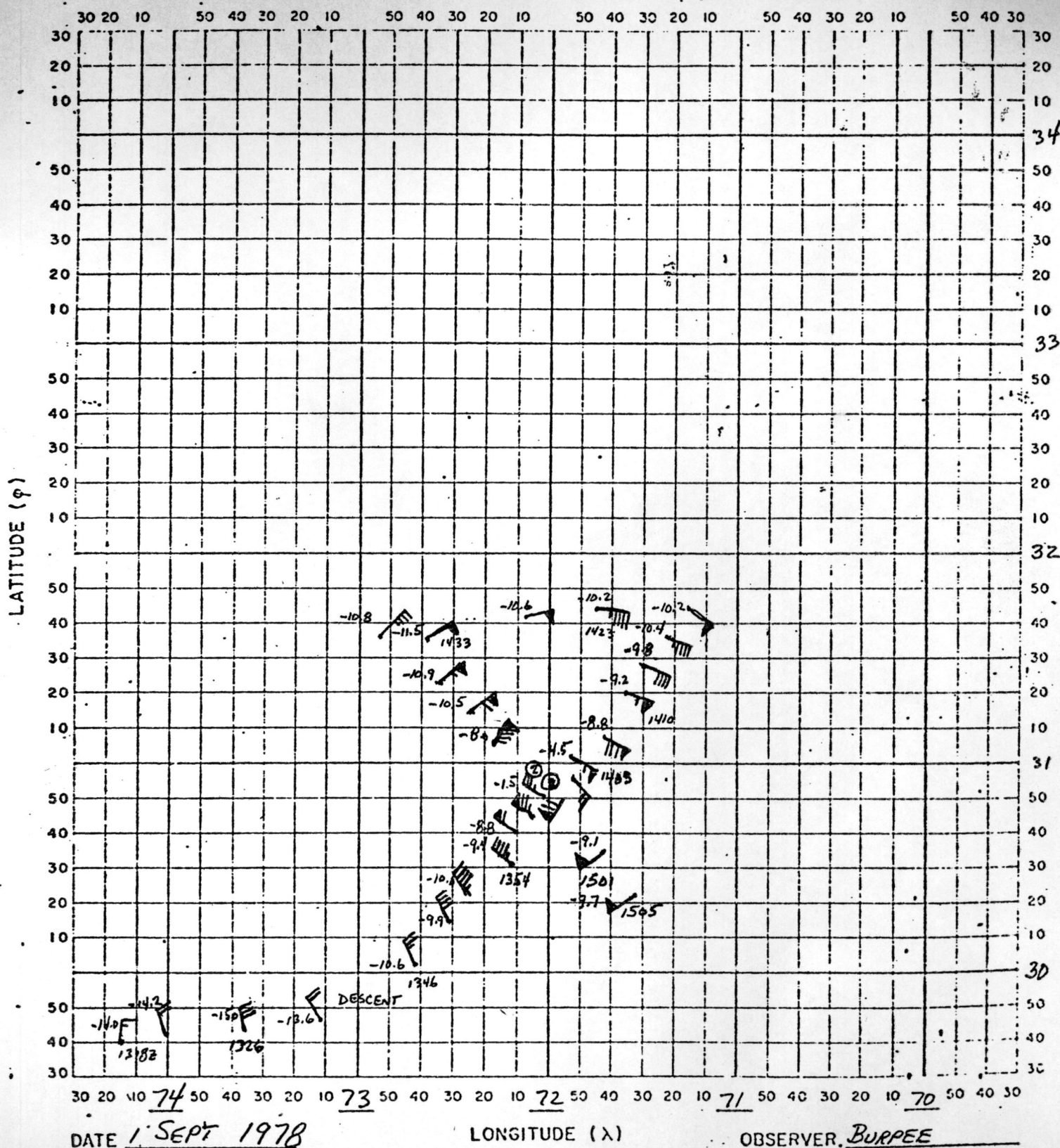


lack of convection at
23,000 so descend to 20,000

descend to 10,000
for 18.2 ft

radar showed good bands at
23,000 Ft. but apparently we were
just above the top of the convection

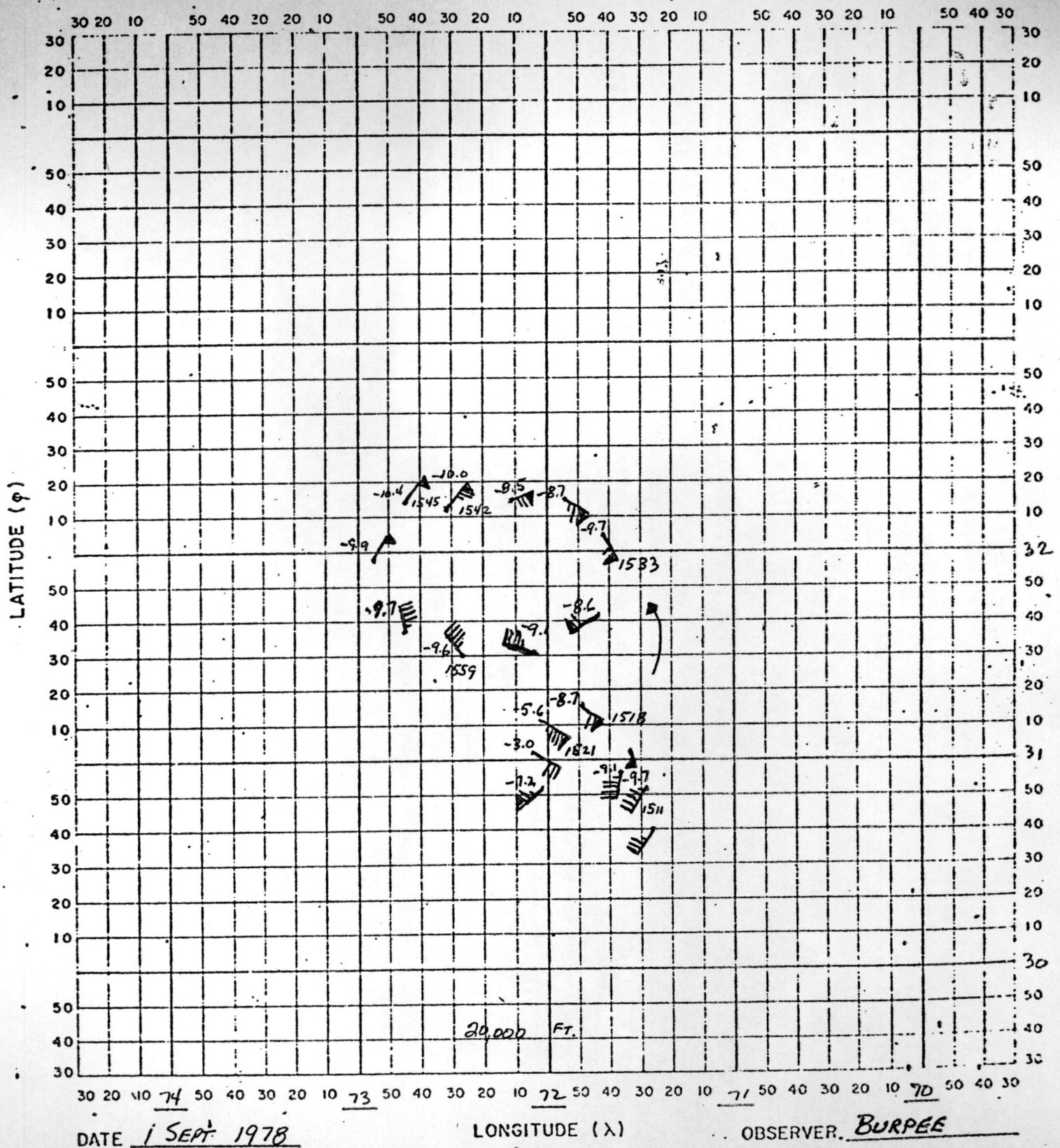
HURRICANE RECCO PLOTTING CHART

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

NOTE: LABEL FULL DEGREES ACCORDING TO LOCATION OF FLIGHT AREA

20,000 FT $30^{\circ}48'$ } 132 from 43
 $71^{\circ}48'$

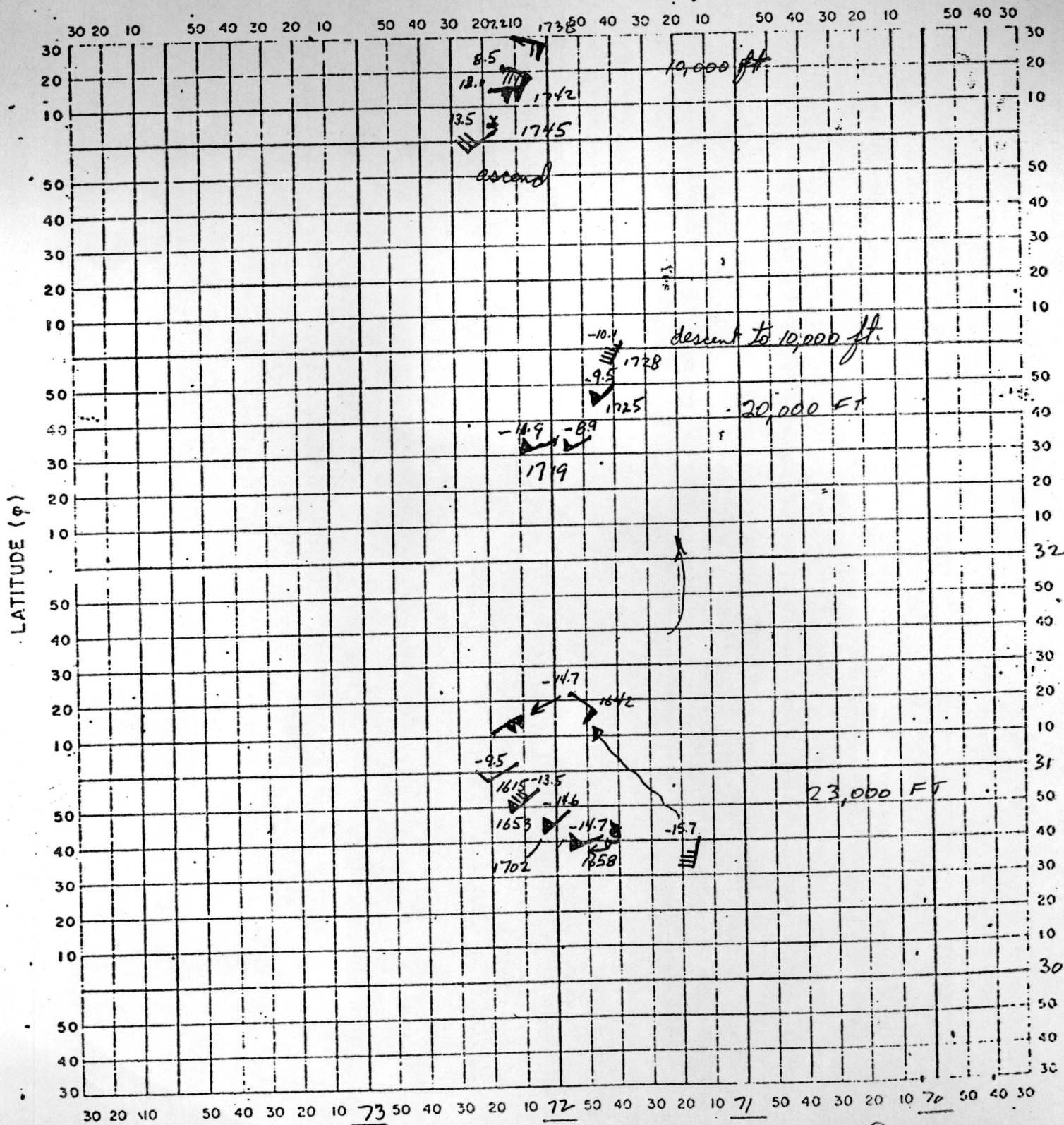
HURRICANE RECCO PLOTTING CHART

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

NOTE: LABEL FULL DEGREES ACCORDING TO LOCATION OF FLIGHT AREA

20,000 FT

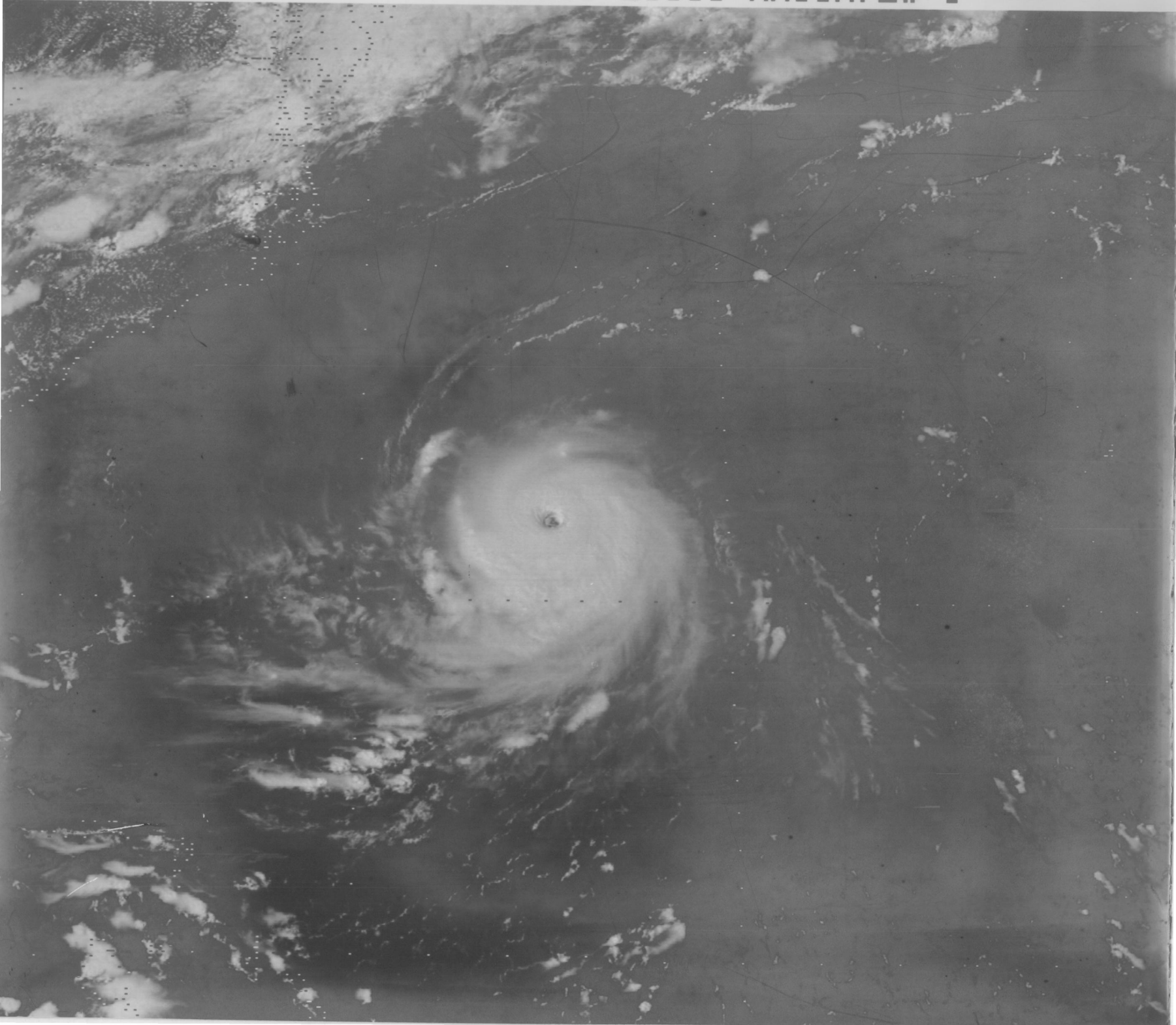
HURRICANE RECCO PLOTTING CHART

TRUE AT 25° LATITUDE, IN DEGREES AND MINUTES OF ϕ AND λ DATE 1 SEPT 1978LONGITUDE (λ)OBSERVER BURPEE

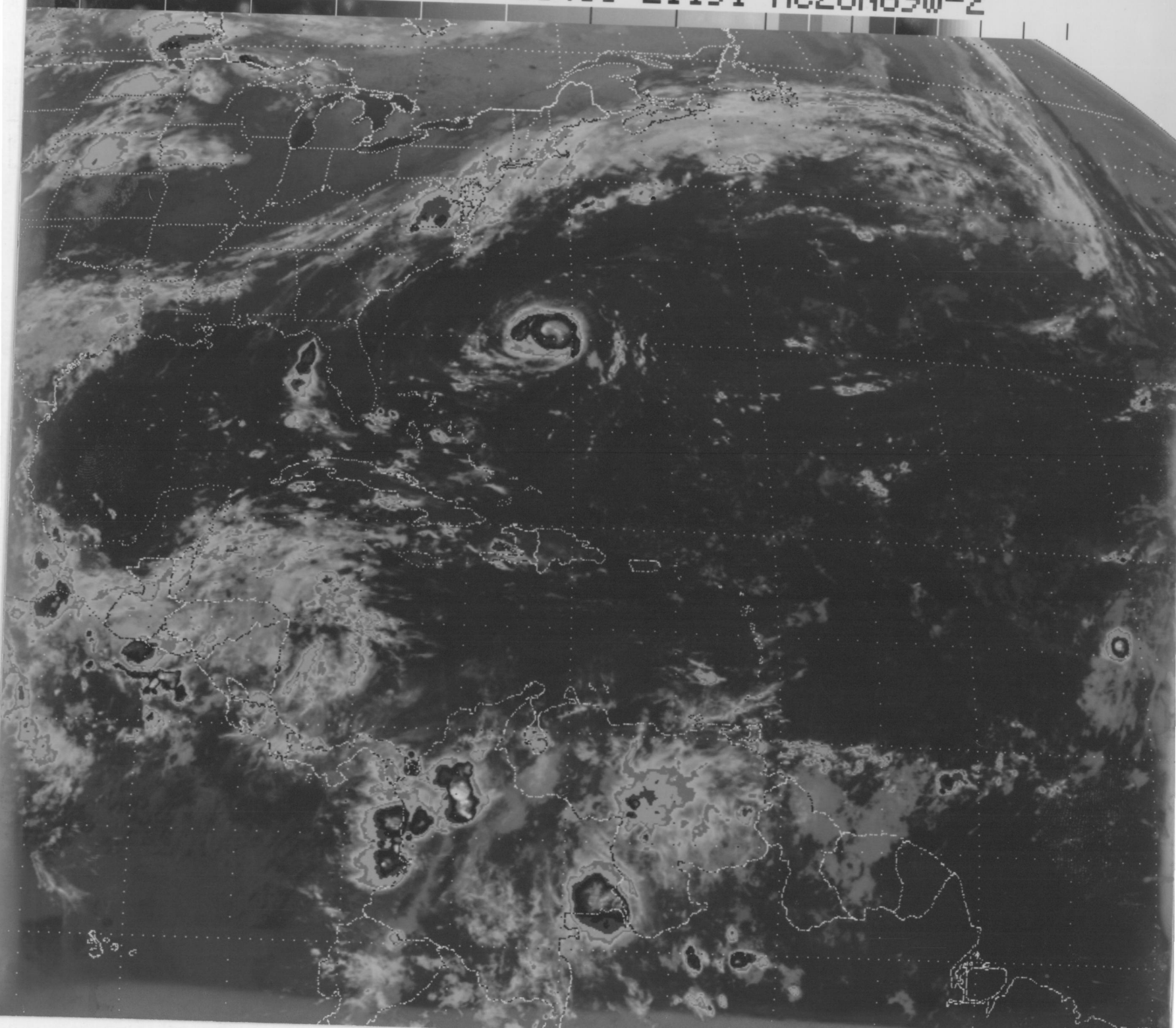
NOTE: LABEL FULL DEGREES ACCORDING TO LOCATION OF FLIGHT AREA

1831 01SE78 14A-H

02811 20011 MA31N72W-1



0701 01SE78 14E-2MB 01461 21191 MC20N69W-2



0731 019E78 14E-HBD 02941 20391 MA30N71W-1



0531 01SE78 14E-HBD 02941 20371 MA30N71W-1

