

19900828II-LPS

## E.2 Lead Project Scientist (On-Board)

### E.2.1 Preflight

1. Participate in general mission briefing.
2. Determine specific mission and flight requirements for assigned aircraft.
3. Determine from CARCAH or field program director whether aircraft has operational fix responsibility and discuss with OAO flight director/meteorologist and CARCAH unless briefed otherwise by field program director.
4. Contact HRD members of crew to:
  - a. Assure availability for mission.
  - b. Arrange ground transportation schedule when deployed.
  - c. Determine equipment status.
5. Meet with OAO flight crew at least 90 minutes before takeoff, provide copies of flight requirements and provide a formal briefing for the flight director, navigator, and pilots.
6. Report status of aircraft, systems, necessary on-board supplies and crews to appropriate HRD operations center (MGOC in Miami or FGOC at remote recovery location).

### E.2.2 In-Flight

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

### E.2.3 Postflight

1. Debrief scientific crew.
2. Report landing time, aircraft, crew, and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to the appropriate HRD operations center (MGOC or FGOC).
3. Gather completed forms for mission and turn in at the appropriate operations center. [Note: all data removed from the aircraft by HRD personnel should be cleared with the OAO flight director.]
4. Obtain a copy of the 10-s flight listing from the OAO flight director. Turn in with completed forms.
5. Determine next mission status, if any, and brief crews as necessary.
6. Notify the appropriate operations center (FGOC or MGOC) as to where you can be contacted and arrange for any further coordination required.

293-118580099

On-Board Lead Project Scientist Check List

Date 8/28/90 Aircraft N43RF Flight ID 900828I1

A. Participants

HRD		OAO	
Function	Participant	Function	Participant
Lead Proj. Sci.	<u>Camache</u>	Flight Director	<u>J. Parrish</u>
Cloud Physics	<u>Willis</u>	Pilots	<u>D. Turner, Ron</u>
Radar	<u>Dodge/Roux</u>	Navigator	<u>Shawn</u>
Doppler	<u>                    </u>	Sys. Engr.	<u>                    </u>
Photographer	<u>                    </u>	Data Tech.	<u>Goldstein</u>
Omegasonde	<u>                    </u>	El. Tech.	<u>Lynch</u>
AXBT/AXCP	<u>Don Lind -- A/C</u>	Other	<u>                    </u>

Take-Off	Location	Landing	Location
	<u>San Juan</u>		

B. Past and Forecast Storm Locations

Date/Time	Latitude	Longitude	MSLP	Max. Wind
<u>17Z</u>	<u>21°N</u>	<u>58°W</u>	<u>965</u>	<u>90 kts</u>
<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>

C. Mission Briefing

N43RF will be high plane at 10,000

D. Equipment Status

<u>Equipment</u>	<u>Pre-Flight</u>	<u>In-Flight</u>	<u>Post-Flight</u>
Aircraft	_____	_____	_____
Radar	_____	_____	_____
Cloud physics	<i>2DC gaertnerible</i> _____	_____	_____
Data system	_____	_____	_____
Omegasondes	_____	_____	_____
AXBT/AXCP	_____	_____	_____
Doppler	_____	_____	_____
Photography	_____	_____	_____

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REMARKS:

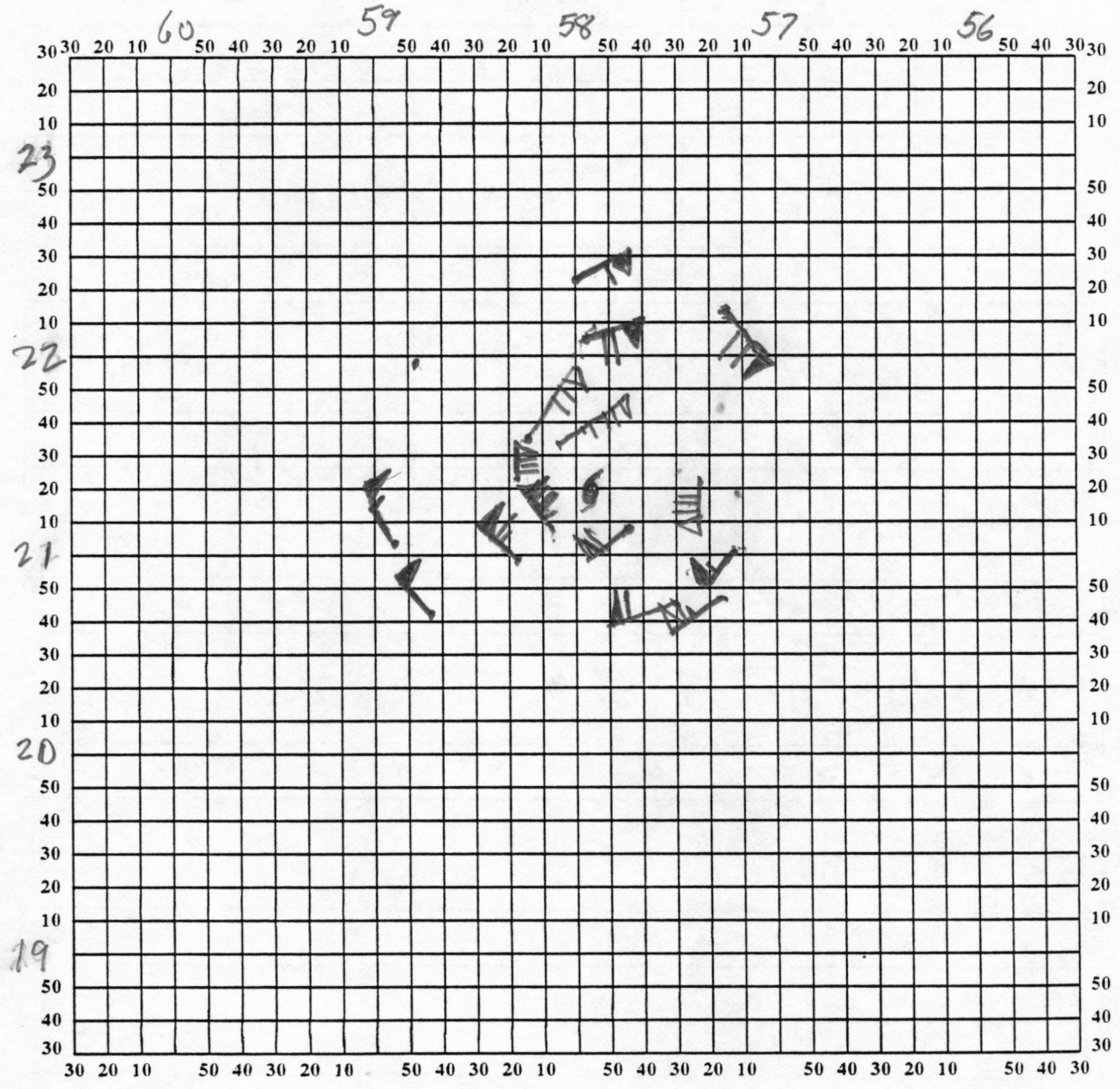
E. I. Proposed Flight Pattern (sketch or designate by number)

E. II. Actual Flight Pattern

### Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes of  $\phi$  and  $\lambda$ .

Date 8/28/90 Longitude \_\_\_\_\_ Observer Gamache



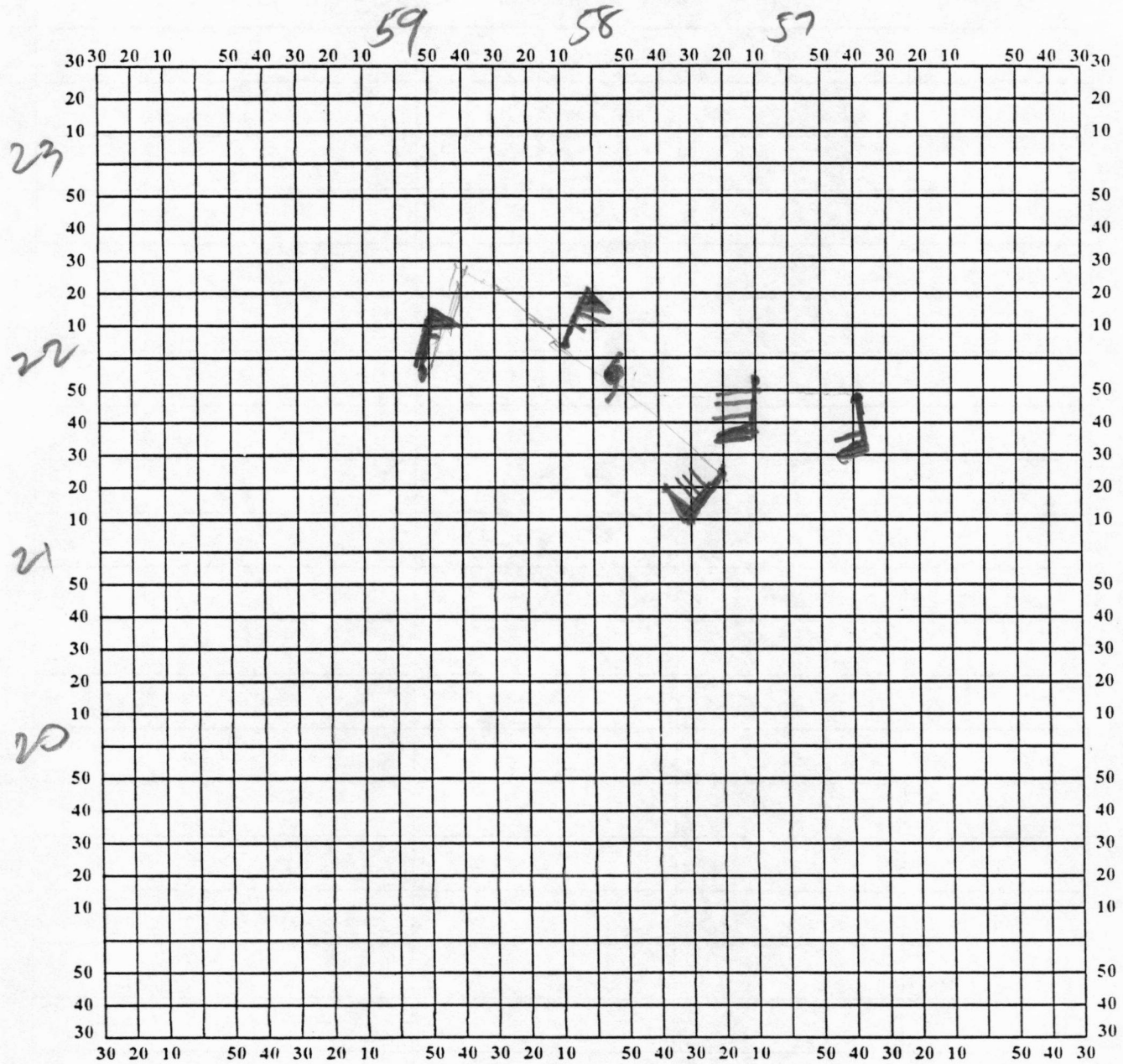
Note: Label full degrees according to location of flight area.



### Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes of  $\phi$  and  $\lambda$ .

Date \_\_\_\_\_ Longitude \_\_\_\_\_ Observer \_\_\_\_\_



Note: Label full degrees according to location of flight area.





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On-Board Lead Project Scientist Check List

Date \_\_\_\_\_ Aircraft \_\_\_\_\_ Flight ID \_\_\_\_\_

A. Participants

HRD		OAO	
<u>Function</u>	<u>Participant</u>	<u>Function</u>	<u>Participant</u>
Lead Proj: Sci.	_____	Flight Director	_____
Cloud Physics	_____	Pilots	_____
Radar	_____	Navigator	_____
Doppler	_____	Sys. Engr.	_____
Photographer	_____	Data Tech.	_____
Omegasonde	_____	El. Tech.	_____
AXBT/AXCP	_____	Other	_____

<u>Take-Off</u>	<u>Location</u>	<u>Landing</u>	<u>Location</u>
1629 UTC	San Juan	0109 UTC	San Juan

B. Past and Forecast Storm Locations

<u>Date/Time</u>	<u>Latitude</u>	<u>Longitude</u>	<u>MSLP</u>	<u>Max. Wind</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

C. Mission Briefing

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

D. Equipment Status

<u>Equipment</u>	<u>Pre-Flight</u>	<u>In-Flight</u>	<u>Post-Flight</u>
Aircraft	<u>OK</u>	<u>                    </u>	<u>                    </u>
Radar	<u>OK</u>	<u>                    </u>	<u>                    </u>
Cloud physics	<u>OK</u>	<u>                    </u>	<u>                    </u>
Data system	<u>OK</u>	<u>                    </u>	<u>                    </u>
Omegasondes	<u>                    </u>	<u>                    </u>	<u>                    </u>
AXBT/AXCP	<u>OK</u>	<u>Trouble on first pass</u>	<u>                    </u>
Doppler	<u>OK</u>	<u>                    </u>	<u>                    </u>
Photography	<u>                    </u>	<u>                    </u>	<u>                    </u>

REMARKS:

9 r adar tapes  
AXBT'S didn't work  
After changing antenna they worked.  
Peter thinks about 9 tapes on plane  
Precip probe looked good 15  
could use 2 boxes 600 ft. if we do  
another mission. We have about 20

E. I. Proposed Flight Pattern (sketch or designate by number)

Eyewall evolution  
Starting from south

E. II. Actual Flight Pattern

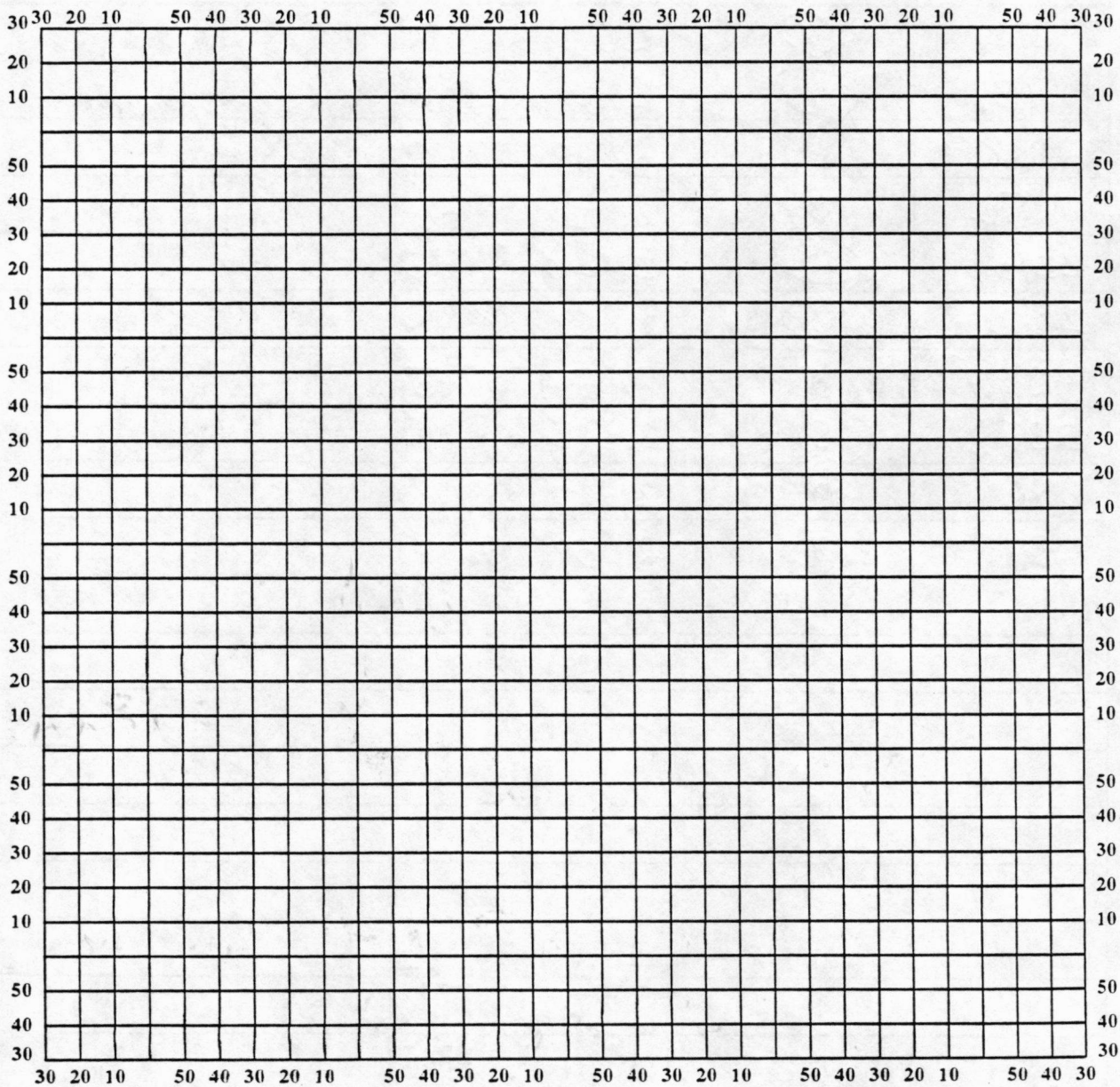
Did one complete pattern  
Then 1/2 more -- heading east  
we reversed track and went through  
center one more time.

60 nm legs instead of 50 nm due  
to size of eye

### Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes of  $\phi$  and  $\lambda$ .

Date \_\_\_\_\_ Longitude \_\_\_\_\_ Observer \_\_\_\_\_



Note: Label full degrees according to location of flight area.

Lead Project Scientist Event Log

Date 8/28/90 Flight 900828I1 LPS Gamaache

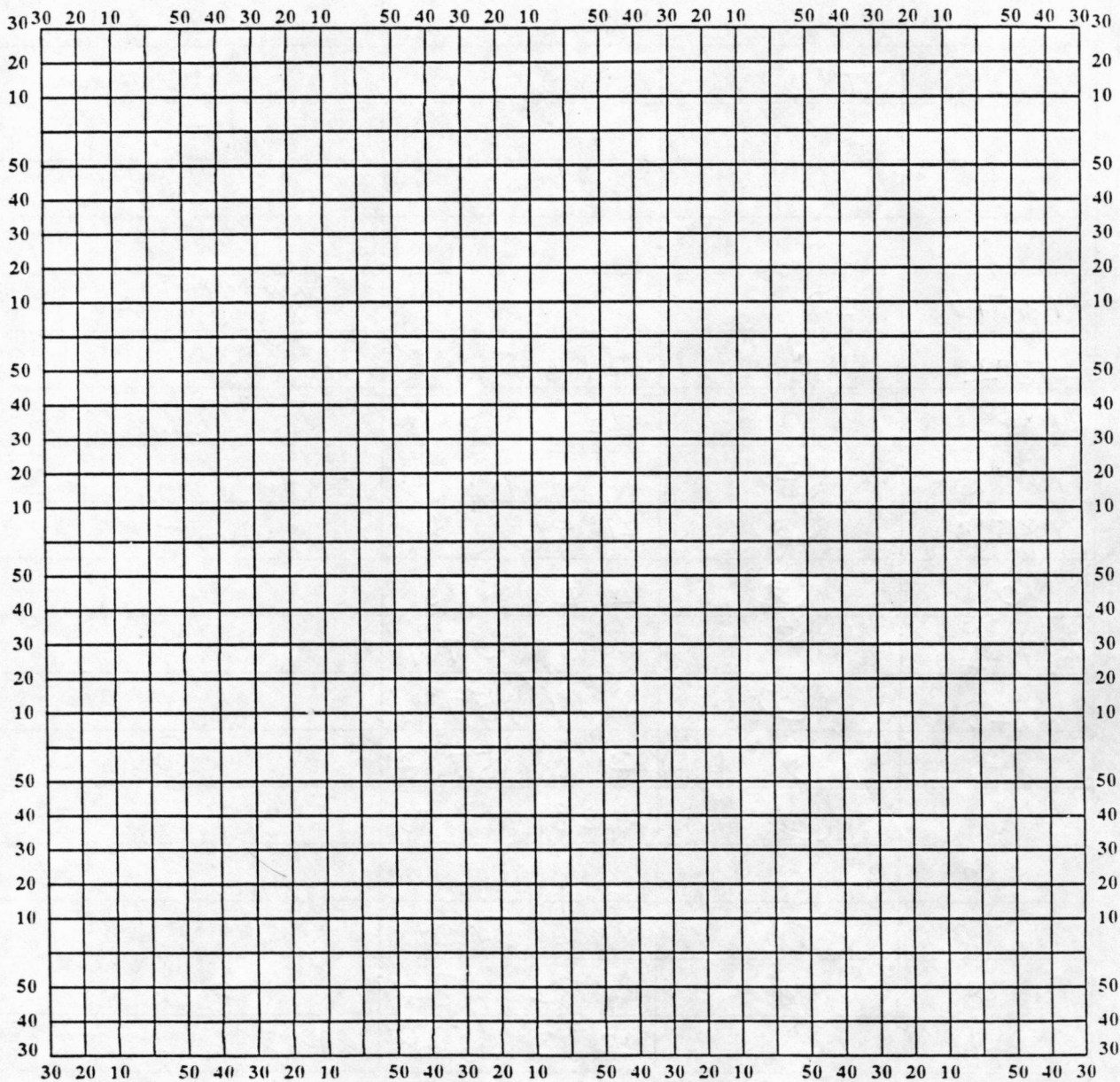
Time	Event	Position	Comments
2121	①	20°39'57"47"	Trying FAST Scan
2131	④	20°56' 57"5"	standing to orbit to
2138		21°05' 57"03"	end orbit
2153	5	21°43' 57"47"	
2210	③	22°28' 58"33"	
2220	⑥	21°49' 58"50"	
2237	5	21°54' 57"45"	
2252	⑤	21°52' 56"39"	Fast-scanning on way back.
2311	5	21°57' 57"44"	
2328	END	21°59' 58"55"	

wait for  
42RF

### Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes of  $\phi$  and  $\lambda$ .

Date \_\_\_\_\_ Longitude \_\_\_\_\_ Observer \_\_\_\_\_



Note: Label full degrees according to location of flight area.

037 DBZ \* 1.16

Lead Project Scientist Event Log

Date 8/28/90 Flight 910828I1 LPS Garnache

Time	Event	Position	Comments
1620	Engine Start	S.J.	
1629	T/O	S.J.	
1645		9° 8' 6" 32° 16'	Data system problems
1653		18 14 64 14	System up
1807	Descenting <sup>at 2500m</sup>		Difficult to see eyewall
18540	IP		Drop ABT (1)
1832	9	21° 18' 57" 55'	Drop AXBT (2)
1845		22° 6' 57" 55'	slight turn to 850 for turbulence
1846	(2)		turn going to (3) AXBT suspect
1853	(3)	21° 57' 58" 31'	Drop AXBT
1906	(4)	21 20 57 55	977 mb
<del>1920</del> <del>1922</del>	<del>(4)</del>	<del>20 54 57 11</del>	
1928	(5)	21 19' 57° 1'	
1941	9	21 23' 57 54'	
1955	(6)	21 23 58 50	
<del>2002</del>			
2007	(7)	20 40 58 40	
2028	9	21 32 57 47	978 mb
2041	(8)	22° 12' 57" 8'	BT looks like 7-8 mi at 0200
2051	(2)	22 28 57 55	BT
2106	9	21 38 57 47	20° Div form track