

19920922 HI.LPS

9/22/92 Tma

		lat	lon	kt ₃			
9/22	9Z	12.2	108.6	65	1745Z	ERS-1	over pass
	18Z	12.4	109.4	70			010°
9/23	06Z	12.6	110.4	70	12:2	107.9	10h 5000'
	18Z	12.7	111.6	75			MISSION
9/24	06Z	13.1	112.8	80			
9/25	06Z	13.5	114.5	80			

file
12.5 109
150 nmi circle

send asd | & vortex

E.2 Lead Project Scientist (On-Board)

920922H1

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 AOC 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 AOC 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 AOC flight director 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 AOC flight director.]
- ☐ 4. Obtain a copy of the 10-s flight listing from the AOC 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.

On-Board Lead Project Scientist Check List

Date 9/22/92 Aircraft 42RF Flight ID 920922H1

A. Participants

HRD		OAO	
Function	Participant	Function	Participant
Lead Proj. Sci.	<u>Markes</u>	Flight Director	<u>Bogert</u>
Cloud Physics	<u>—</u>	Pilots	<u>Ticknor/Kennedy</u>
Radar	<u>Burpee/Dodge</u>	Navigator	<u>Strong</u>
Workstation	<u>—</u>	Sys. Engr.	<u>Wade/Torrey</u>
Photographer	<u>Marvin Sullivan</u> (Falcon Ass)	Data Tech.	<u>Leno/Raines</u>
Omegasonde	<u>—</u>	El. Tech.	<u>Roles</u>
^{C-scat} AXBT/AXCP	<u>Carswell/Pailey</u>	Other Radio	<u>Arnason</u>
Take-Off	Location	Landing	Location
<u>1511</u>	<u>PUR</u>	<u>0058</u>	<u>PUR</u>

B. Past and Forecast Storm Locations

Date/Time (UTC)	Latitude	Longitude	MSLP	Max. Wind	
42RF 9/22 09Z	12.2 (12.2)	107.9 (108.6)	990	70 kts	2458 1511 9.47 min
Sat 9/22 18Z	12.4	109.4 (108.7)			9.75 h 6 penetrations

C. Mission Briefing

150 km legs
5000' - Vortex evolution (14-15) full duration
mission. - file for 12.5/109 150 mi circle
send ASDL and abbreviated Vortex
ERS-1 overpass 1748Z a little west of storm position.

D. Equipment Status

tapes⁴

Equipment	Pre-Flight	In-Flight	Post-Flight	
Aircraft	↑	↑	↑	
Radar/LF	↑	↑	↑	
Radar/TA (Doppler)	↑	↑	↑	10
Cloud physics	2D-C out	2DP ↑	2D-P ↑	1 DAT 2D-P
Data system	↑	↑	↑	
Omegasondes	—	↑	↑	2
C-scat AXBT/AXCP	↑	↑	↑	
Workstation	—	—	—	
Photography	Hasselblad Flakay	↑	↑	

REMARKS:

2D-C bad - left it off^{turned}
may have damaged interface board

radar data system - tried to fix range delay
problem (in trigger set up - trigger program)
on ferry out - not enough time. Did fix
it on ferry back - took two tapes to check
it out. (easier to fix than having Terry
play with receiver). Changed delay in
μsec from 17.5 → 2.25 or 15.25 μs
or ~ 2.3 km. May have been too much
tested 2.25 and 2.75. Also pulse width
may be critical (tried .5 and 2 μs)
Can copy file to 43 - Nancy will need
check.
Tape drive 2 wouldn't get BOT so stopped
using it.

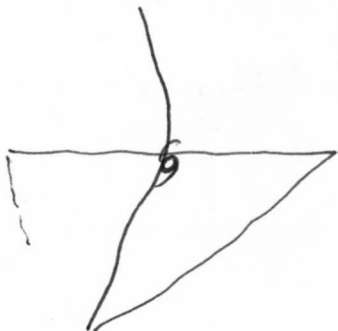
E. I. Proposed Flight Pattern (sketch or designate by number)

p 14-15 in ops plan 150 km legs
5000'

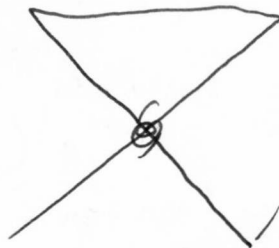


E. II. Actual Flight Pattern

Pattern #1 5000'



Pattern #2 1000'



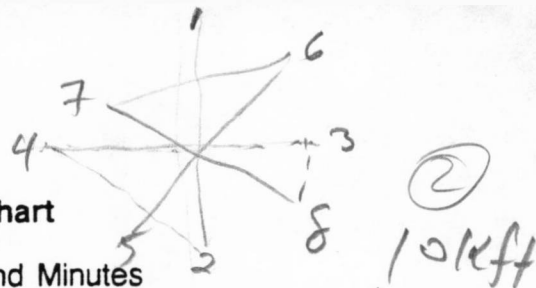
150 km legs

Pattern #3 10000'

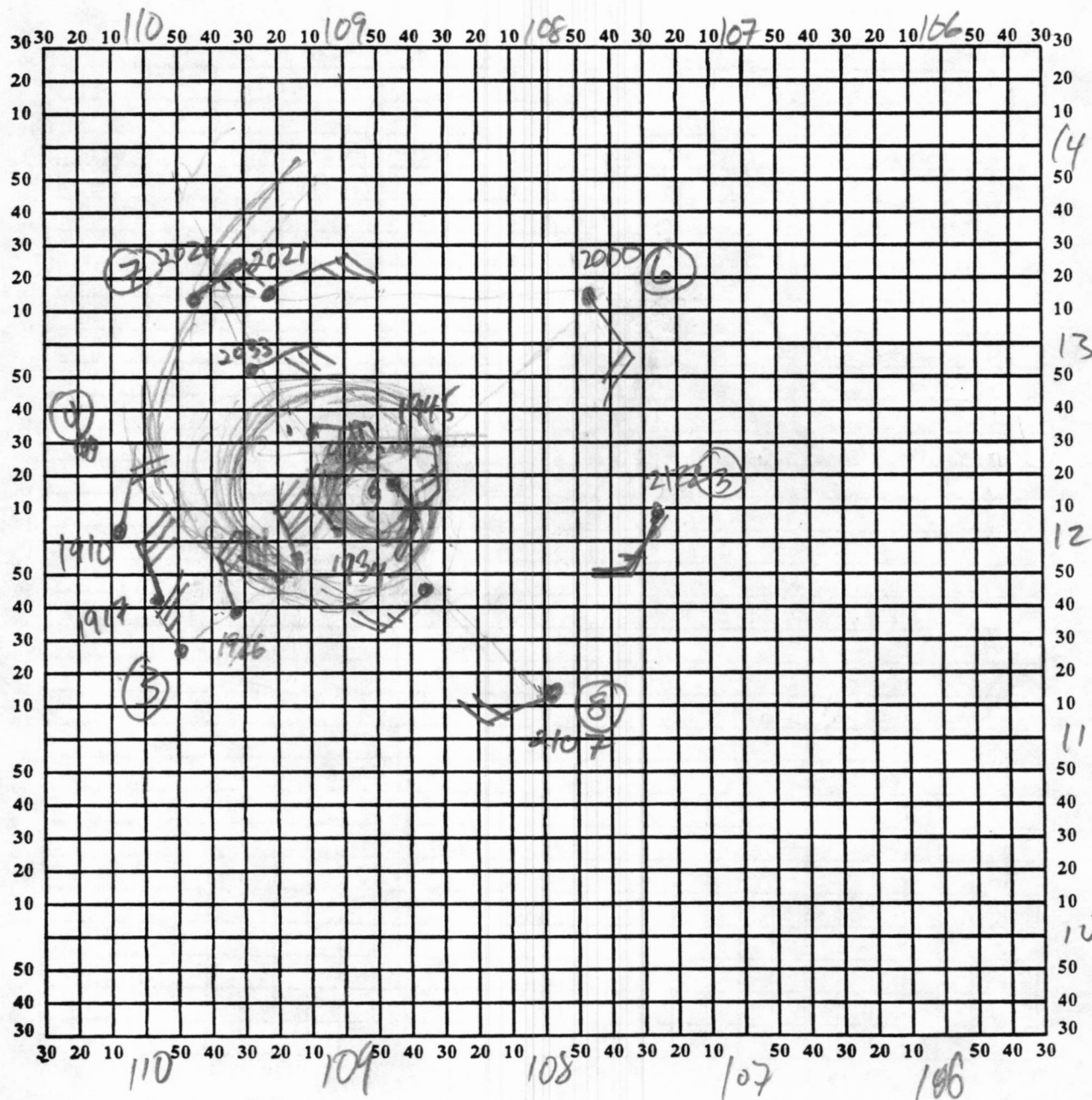


Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes



Date 920922H1 Aircraft 42 RF Observer Marles



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

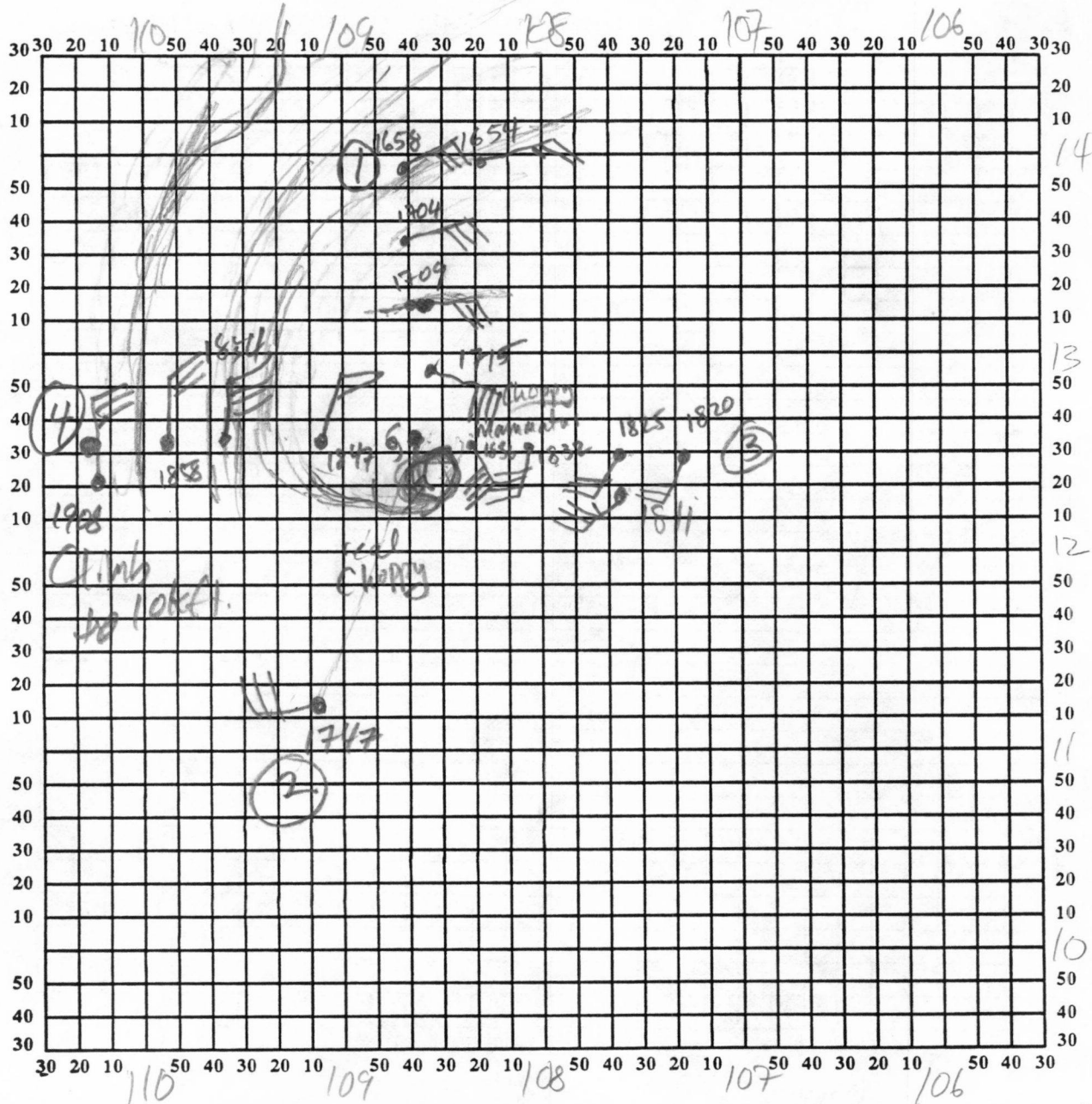
5000'

Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes

①
Pattern #1

Date 920922H1 Aircraft 42RF Observer Marks



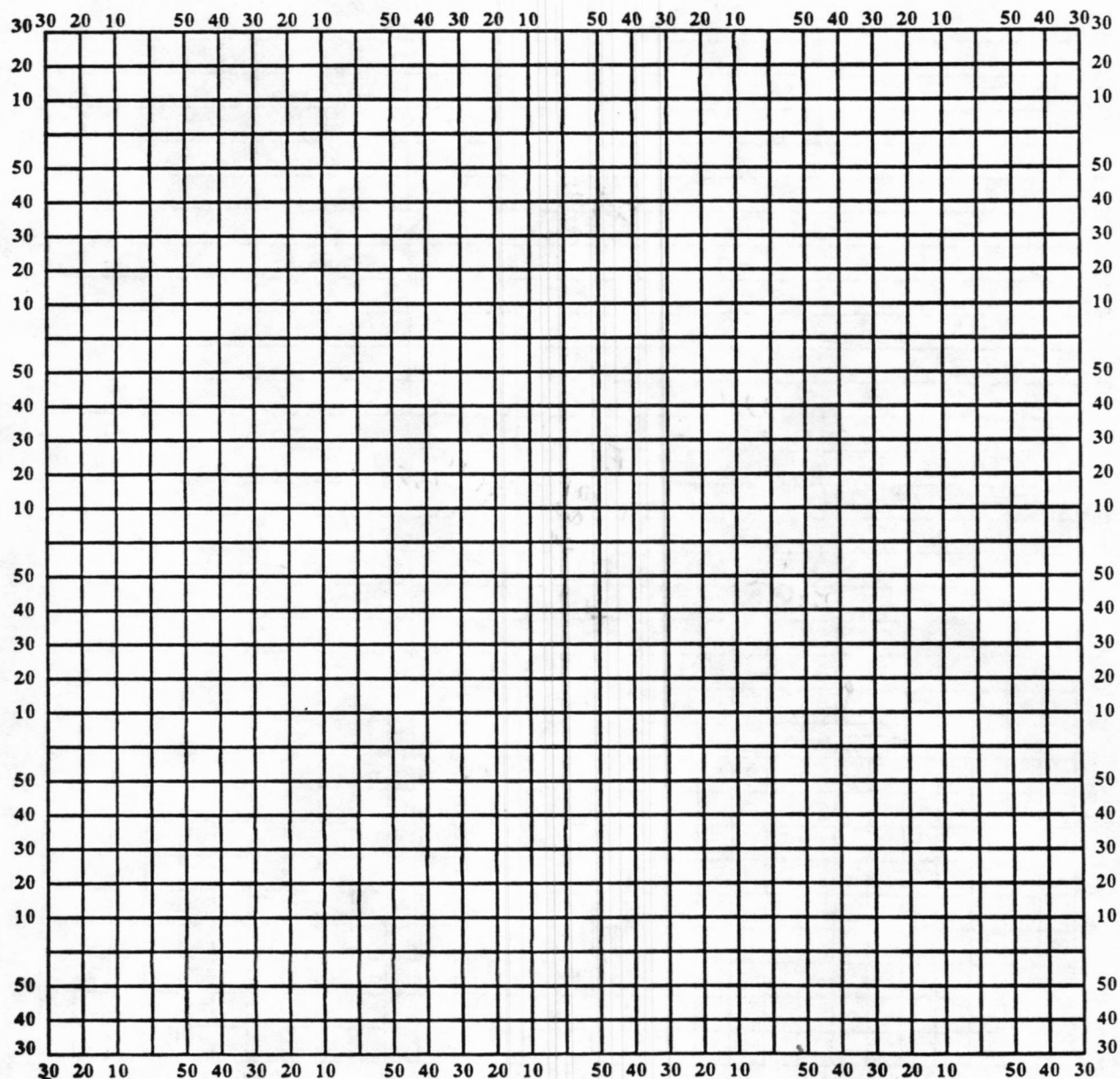
Note: Label full degrees according to location of flight area.



Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes

Date _____ Aircraft _____ Observer _____



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

Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes

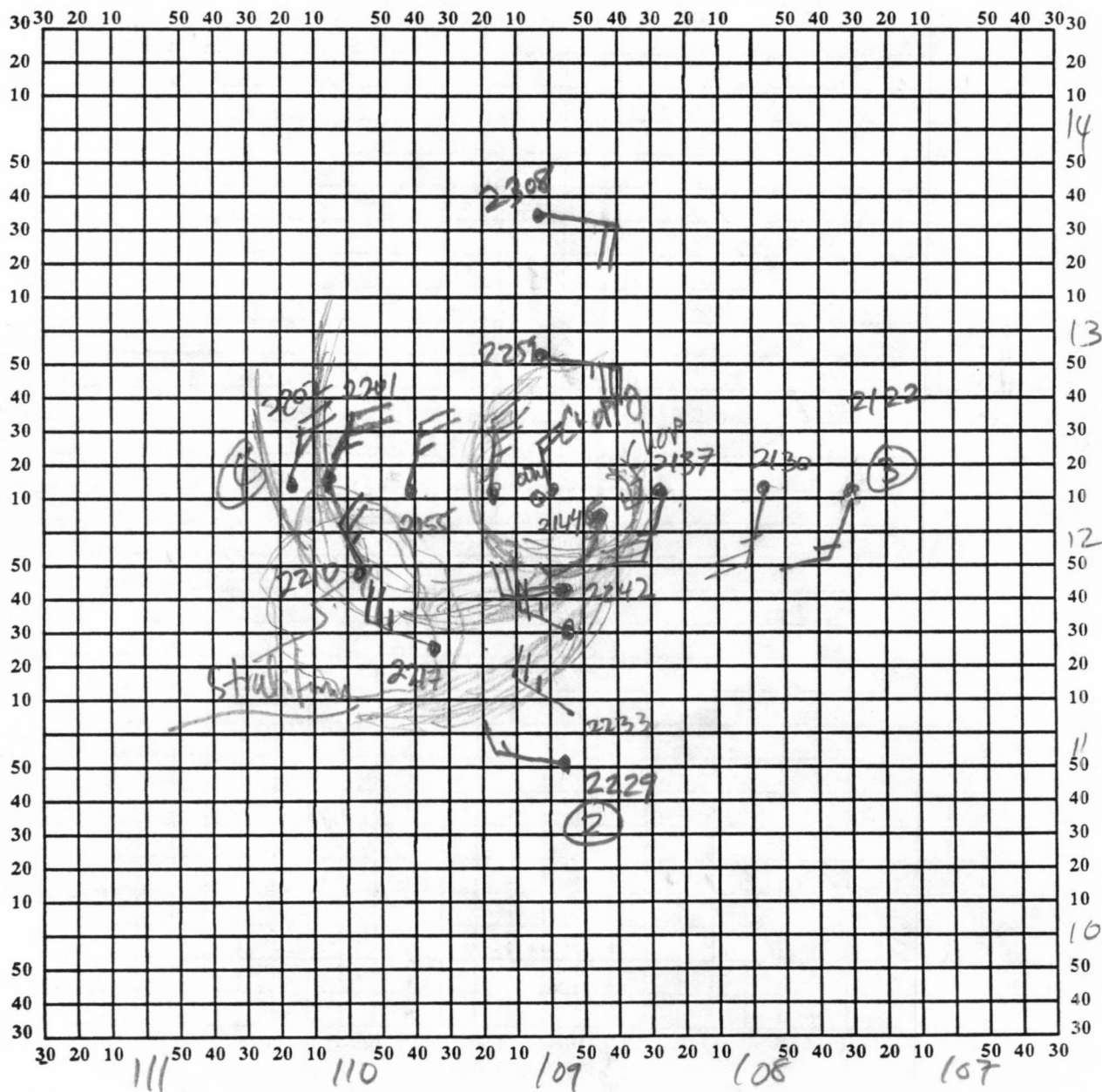
(3)

10 kft

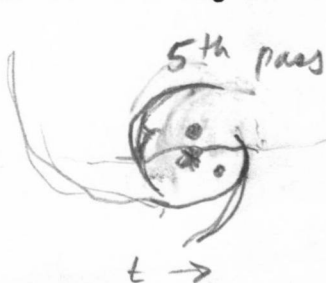
Date 920922H1

Aircraft 42RF

Observer Marks



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



12 10
11 50

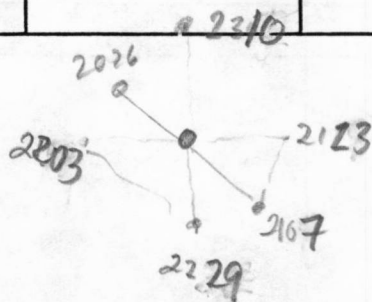
1° 20"
80 nm

2

Lead Project Scientist Event Log

Date 9/22/92 Flight 920922H1 LPS Marks

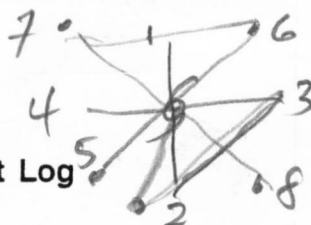
Time	Event	Position	Comments
1935	⑤	12°16" 108°50"	10 Kft
			under maputson NE leg
			real choppy
195941	⑥	13°10" 107°45" TK 270	
			set up ODW in ⑥ next leg.
202606	⑦	13°14" 109°44.4" TK 135 to ⑨	
2047	⑨	12°13" 108°55"	two eyes next to each other
			need to leave 2300
210635	⑧	11°11.2" 108°03"	Turn TK 027
2122	③	12°13" 107°31"	Turn TK 270°
2143	⑨	12°13" 108°55"	lightning 2140 SE ⑥
			lots of down here ⑥ ab ⑥
	④		2142 nice TA of SE ⑥
			ODW 2144JS
2202	④	12°12" 110°164"	TK 135°
			in big stratiform
222800	②	10°51" 108°58.6"	TK 360° to ⑨



2216 GPS SWS real close

lots of
6m
data
2D-P
looks
good

Lead Project Scientist Event Log



Date 9/22/92

Flight 920922H1

LPS Marks

Time	Event	(GPS) Position	Comments
151118	TO	20°41.3' 105°14.5'	Puerto Vallarta (PUR)
1653		18°00" 108°18"	at 5000' moving to a point N of 6
165840	(1)	13°55.9" 108°41.2"	Turn TK 180°
	6		1715 lots of turbulence no precip 1717 mammatus underneath of NE 1718 lightning SE of 6, sided The Hook!!
1722	6	12°29" 108°42"	TK 208 out of the eye to miss 06PS → little hook south of our fix shot
1744	(2)	11°10.4" 109°13.8"	roll up to a point east of 6
181711	(3)	12°25" 107°12.1"	skirt just north of mesovortex TK 270
~1843	6	12°29" 108°44"	part just N of 6 mammatus overhead on E see radar 1830-1831 1841 lightning in eye wall S of 6
1907	(4)	12°38" 110°18"	climb to 10kft TK 1550
192021	(5)	11°29" 109°51"	Turn TK 045 to 6

Windy
went
east
then
NE, NW
as we
skirted
the mesovortex

Lead Project Scientist Event Log

Date _____ Flight _____ LPS _____

[illegible]

Lead Project Scientist Event Log

Date 9/22/92 Flight 92092241 LPS Marks

(3)

(3)

Time	Event	Position	Comments
2249	6	12°13" 109°01"	224410 ice on wind
			shield
			downwind
2308	①	13°37" 109°01"	climb out
			2249
			eye forming
			lots of
			down
			at the
			center
			5-6°
0058	land		temp
			excess
			25 km
			radi.

Now - the eye formed
before our eyes!!
2250-5F sweep
show nice
ring of precip.

2249
0110 2249

eye
forming
lots
of
down
at the
center
5-6°
temp
excess
25 km
radi.

110

109

22 Sept 92

~~SEP 21 1992~~

108

107

SEP 22 1992

14

+

+

+

42-381 50 SHEETS 1 SQUARE
42-382 100 SHEETS 4 SQUARE
42-389 200 SHEETS 9 SQUARE
MADE IN U.S.A.

FIAT off 2027

17:06
17:3

FIAT

FIAT on
2002FIAT ON 190556
climb to 10,000'

+

+

+

13

FIAT

18-3

2250

1841

1722

1942555

2047

2135

18-4

12

+

+

12

FIAT on
066
1921

16-3

2237

FIAT ON
1746

+

+

+

TURN 2107
FIAT ON 2107 22

11

11

10

+

+

+

10

110

109

108

107