

On-board Lead Project Scientist Checklist

DATE 24 Sept. 1984

AIRCRAFT 43RF

FLT 840924T1

A. Participants

Function	Participant	Function	Participant
Lead Proj. Sci.	<u>Marks</u>	Gust Probe	<u>NA</u>
Cloud Physics	<u>Griffin</u>	Omegasonde	<u>NA</u>
AXBT/ AXCP	<u>NA</u>	Sys Eng	<u>NA Goldstein</u>
Hot Film	<u>NA</u>	Data Tech	<u>Stone</u>
Radar	<u>Dodge</u>	El Tech	<u>Schnicker</u>
Flt Dir/Met	<u>Davis</u>	Observer Doppler	<u>Willoughby Lord</u>
Take Off 1814 <u>2143Z</u>	Location <u>San Diego</u> <u>NAS North Island</u>	Landing <u>071430Z</u>	Location <u>San Diego</u> <u>NAS North Island</u>

B. Past and Forecast Storm Position

Date	Time	Latitude	Longitude	MSLP
<u>9/24</u>	<u>1200Z</u>	<u>20.7°N</u>	<u>110.5°W</u>	
<u>9/24</u>	<u>0120Z</u>	<u>19.3°N</u>	<u>108.2°W</u>	
<u>9/23</u>	<u>1700Z</u>	<u>18.8°N</u>	<u>108.8°W</u>	
<u>Forecast 9/25</u>	<u>0000Z</u>	<u>22.0°N</u>	<u>112°W</u>	

C. Mission Briefing

Eyewall Water Budget Same as
on Saturday 9/22 except with 50 mi legs

D. Equipment Status

Equipment	Pre Flt	In Flt	Post Flt	Reports Collected
Aircraft	✓	✓	✓	
Radar	✓	✓	✓	7m
Cloud Physics	✓	✓	✓	7m
Data Sys	✓	* temp problem 4522	✓	
Omegasondes	NA	NA	—	
AXBT/AXCP	NA	NA 2345M	—	
Gust Probe	NA	NA 2345M	—	
Hot Film	NA	NA	—	
Photography	Standard 5 sec	✓	✓	
Doppler	✓	✓	✓	7m

E. Proposed and Actual Flight Patterns (Identify by number and type - give reason for modification)

proposed flight plan
descend to 10 kft 100 mi
from center on way in 0.50
both planes arrive at the same
time
Completed 2 whole patterns with an average of 13.5 mm
per leg. we did 22 in/or out legs in 5 h. Whew!

19840924I1-LPS

E.1 Lead Project Scientist (On-Board)

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

E.1.1 Preflight

- Jm 1. Participate in general mission briefing.
- Jm 2. Determine specific mission and flight requirements for assigned aircraft.
- Jm 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.
- Jm 4. Contact HRD members of crew to:
 - a. Assure availability for mission.
 - b. Arrange ground transportation schedule when deployed.
 - c. Determine equipment status.
- Jm 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.
- Jm 6. Report status of aircraft, systems, necessary on-board supplies and crews to appropriate HRD operations center.

E.1.2 In-Flight

- Jm 1. Confirm from OAO flight director/meteorologist that satellite data link is operative (information). *Our ASDL was having problems.*
- Jm 2. Confirm camera mode of operation.
- Jm 3. Confirm data recording rate.
- Jm 4. Complete form E-1.

E.1.3 Postflight

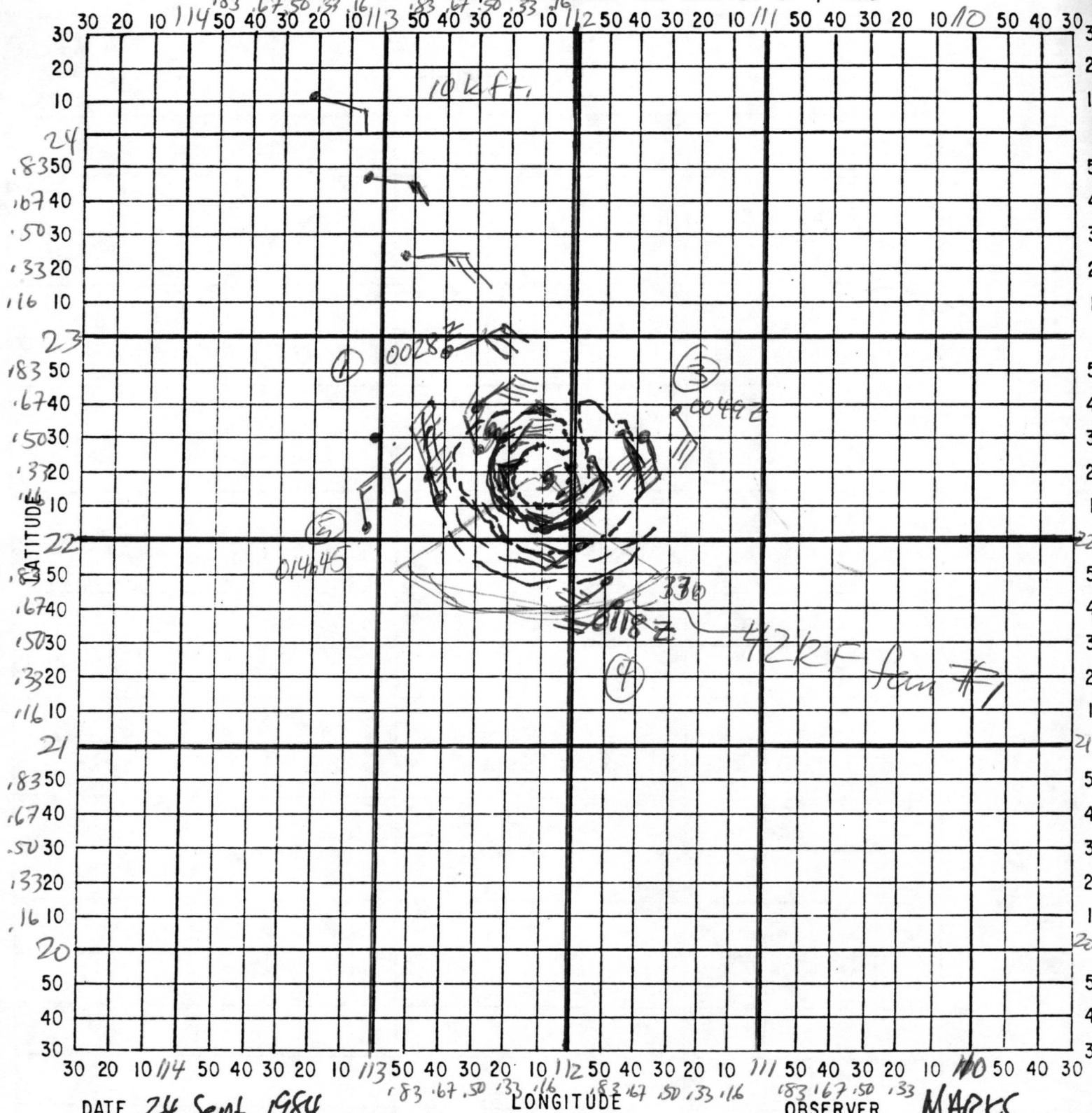
- FM 1. Debrief scientific crew.
2. Report landing time, aircraft, crew and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to HRD operations center.
3. Gather completed forms for mission and turn in at the operations center. *MS*
4. Determine next mission status, if any, and brief crews as necessary.
5. Notify operations center as to where you can be contacted and arrange for any further coordination required.

Pattern #1

(1)

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

radar echoes

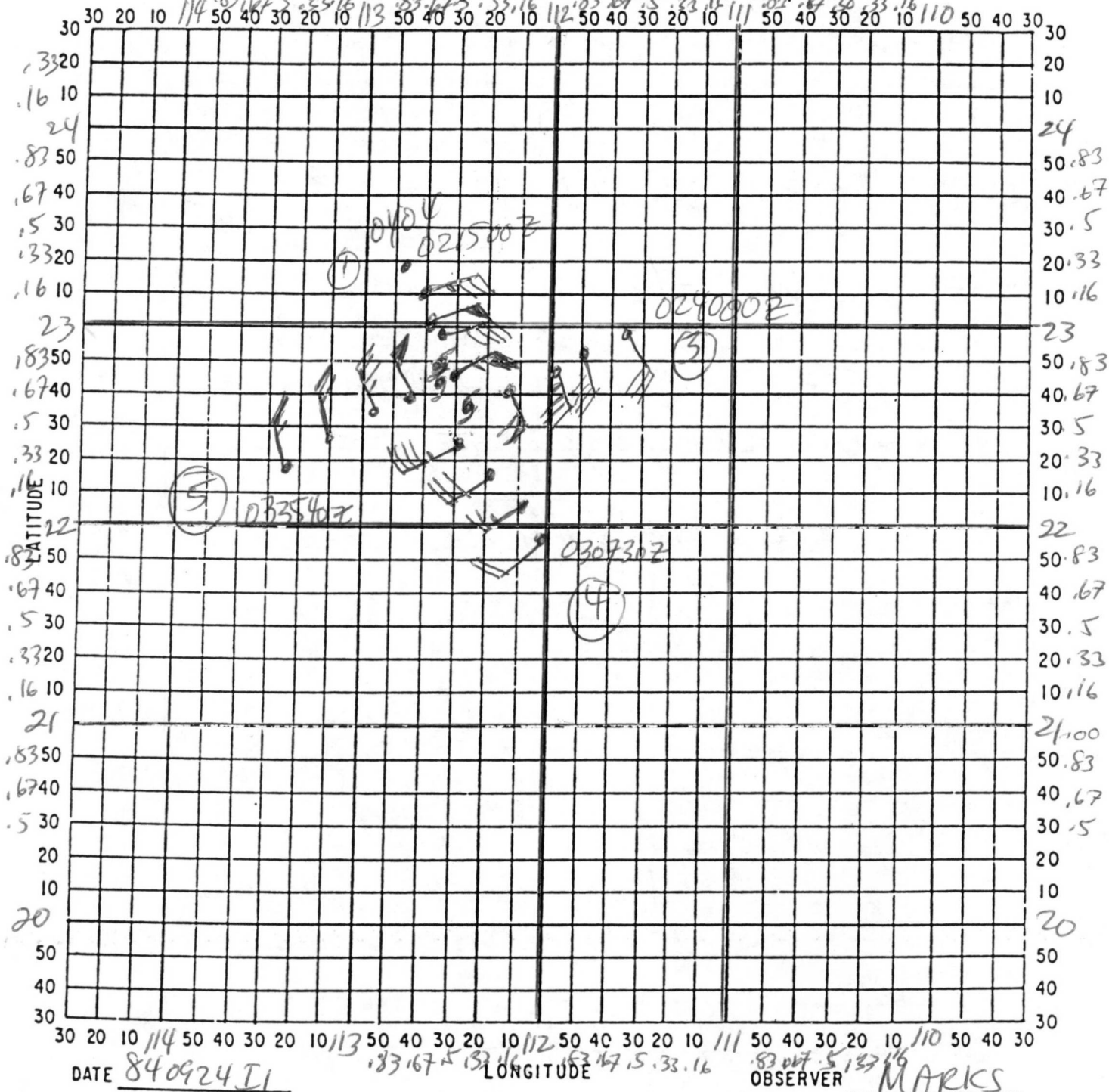
Nobley
tracking
320° 10 kts.

Pattern #2

(2)

HURRICANE RECCO PLOTTING CHART

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



DATE 840924 I

LONGITUDE

OBSERVER

MARKS

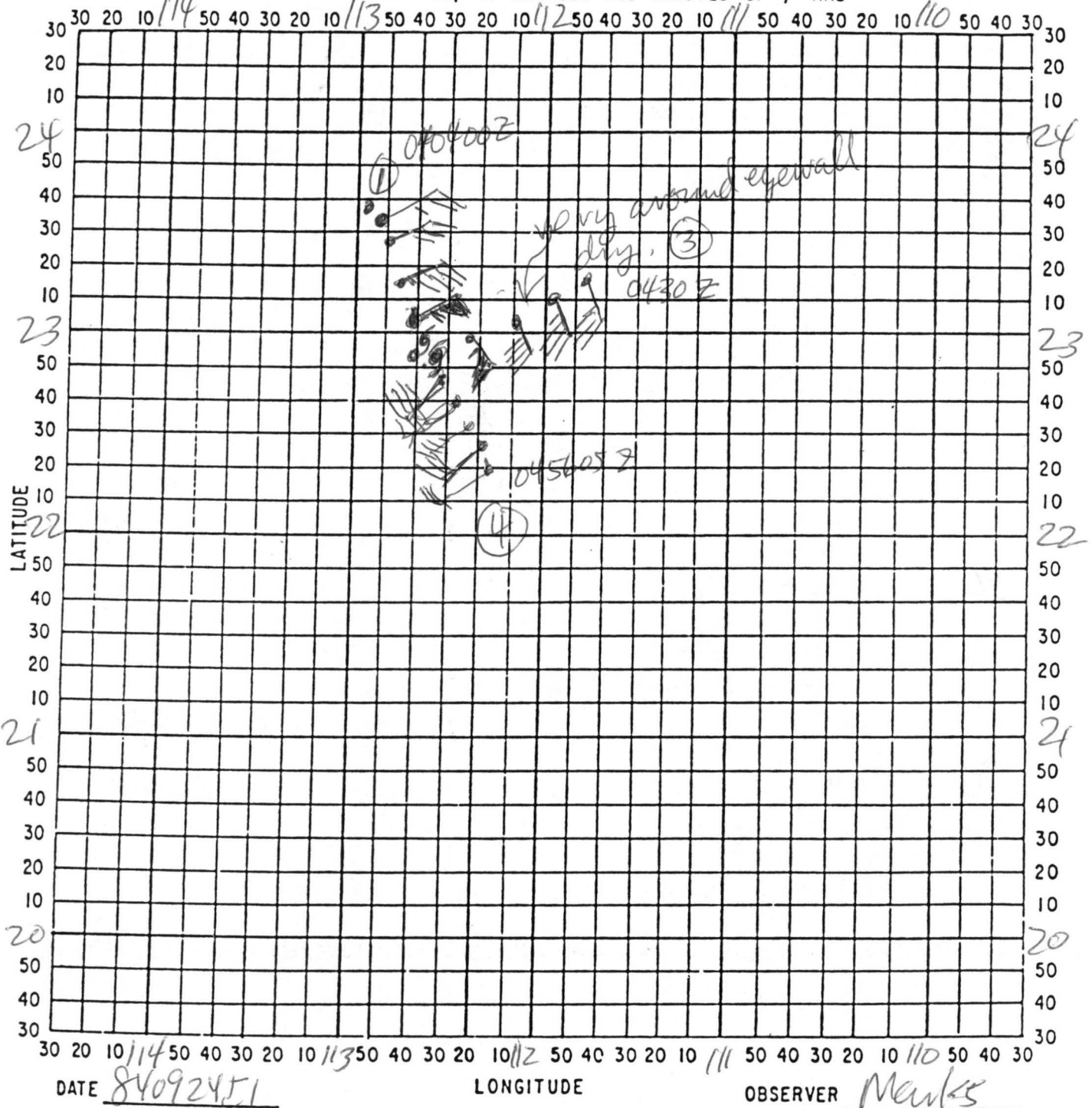
NOTE: Label full degrees according to location of flight area

Pattern #3

3

HURRICANE RECCO PLOTTING CHART

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



NOTE: Lobe: full degrees according to location of flight area

HURRICANE RECCO PLOTTING CHART

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

LATITUDE

30 20 10 50 40 30 20 10 50 40 30 20 10 50 40 30 20 10 50 40 30

DATE _____ LONGITUDE _____ OBSERVER _____

NOTE: Label full degrees according to location of flight area

N 23, W 16
60

(1)

DATE 24 Sept. 1984

FLIGHT 840924J1

LPS MARKS

Lead Project Scientist Event Log

EVENT	TIME*	POSITION	COMMENTS**
TD.	2143Z	32.7, 117.21	
JP.	0018	23.47, 112.89	descending at 10 kft. 100 mi from center
(1)	0028Z	22.9, 112.67	① track 150° to eye
6 (2)	0037Z	22.30, 112.14	outside turn 56 ms ⁻¹ 950 mb
(3)	0049Z	22.68, 111.33	② track 060° outbound 59 ms ⁻¹ on E
		(3)	track 240 inbound 56 ms ⁻¹
6 (2)	0103	22.41, 112.22	outside turn 950 mb
		(4)	track 150° outbound 50 ms ⁻¹
(4)	011830	21.66, 111.79	
		(5)	track 335 inbound 50 ms ⁻¹
6 (2)	013200	22.48, 112.27	outside turn 950 mb
		(6)	track 240° outbound. 48 ms ⁻¹
(5)	014645	22.05, 113.08	
		(7)	track 060° inbound 50 ms ⁻¹
6 (2)	020000	22.53, 112.32	outside turn 952 mb
		(8)	track 330° outbound 53 ms ⁻¹
(1)	021500	23.30, 112.74	end pattern #1
		(4)	track 150° inbound
6 (2)	022730	22.59, 112.46	inside turn 953 mb
		(10)	track 060° outbound 60 ms ⁻¹

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

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

DATE 25 Sept. 1984

FLIGHT 840924I1

LPS Marks

Lead Project Scientist Event Log

EVENT	TIME*	POSITION	COMMENTS**
(3)	024000Z	22.99, 111.56	60 ms ⁻¹ peak wind
(11)			track 240° inbound. 62 ms ⁻¹
9 (2)	025415	22.62, 112.43	958 mb. (outside turn)
(12)			track 150° outbound. 43 ms ⁻¹
(4)	030730	21.96, 112.01	43 ms ⁻¹
(13)			track 330° inbound. 44 ms ⁻¹
9 (2)	032405	22.72, 112.53	(outside turn) 954 mb
(14)			track 240° outbound 47 ms ⁻¹
(5)	033540	22.29, 113.38	
(15)			track 060° inbound 48 ms ⁻¹
9 (2)	035008	22.78, 112.55	(inside turn) 956 mb
(16)			track 330° outbound 47 ms ⁻¹
(1)	040400	23.60, 112.93	end pattern end pattern #2
(17)			track 150° inbound 53 ms ⁻¹
9 (2)	041730	22.86, 112.58	(inside turn) 957 mb
(18)			track 060° outbound 55 ms ⁻¹
(3)	043000	23.23, 111.79	55 ms⁻¹
(19)			track 240° inbound. 55 ms ⁻¹
9 (2)	044345	22.90, 112.65	(outside turn) 958 mb
(20)			track 150° outbound. 40 ms ⁻¹

*Log times of all significant altitude changes, turns, and eye fixes
**New altitude, heading, center position, etc.

3

DATE 28 Sept. 1984

FLIGHT 840924II

LPS Marks

Lead Project Scientist Event Log

EVENT	TIME*	POSITION	COMMENTS**
(4)	043605	22.35, 112.27	#
		(21)	inbound at 3300 (48ms)
9 (2)	050800	22.78, 112.70	temp problem screws w/ wind screws pressed
		(22)	outbound at 330
(1)	051700	23.56, 113.07	etc doppler tape ran out
			Climbing on our way home - yeah!!!
			looked like on the last pass
			TA took a jump of about
			20°C
			about 0452 Z
			screwed up press and winds
			5h total in storm pattern

end
pattern
#3
Straight
shot
thru
to New

*Log times of all significant altitude changes, turns, and eye fixes
**New altitude, heading, center position, etc.

4112

22:23: 1 840924 112 0A0 FTRK 5:31:45

