

On-board Lead Project Scientist Checklist

DATE 22 Sept 1984

AIRCRAFT 43RF

FLT 840922I1

A. Participants

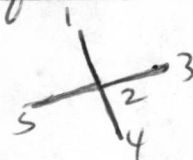
Function	Participant	Function	Participant
Lead Proj. Sci.	<u>MARKS</u>	Gust Probe	<u>NA</u>
Cloud Physics	<u>GRIFFIN</u>	Omegasonde	<u>NA</u>
AXBT/AXCP	<u>NA</u>	Sys Eng	<u>Goldstein</u>
Hot Film	<u>NA</u>	Data Tech	<u>Stone</u>
Radar	<u>Dodge</u>	EI Tech	<u>Schreier</u>
Flt Dir/Met	<u>DAVIS</u>	Observer	<u>Willoughby</u>
		Other	<u>Lord</u>
		Doppler	<u>32.66, 117.28</u>
Take Off <u>1744Z</u>	Location <u>San Diego</u>	Landing <u>0345Z</u>	Location <u>San Diego</u>
	<u>North Island</u>		<u>NAS</u>
	<u>NAS</u>		

B. Past and Forecast Storm Position

Date	Time	Latitude	Longitude	MSLP
<u>9/22/1984</u>	<u>~1800Z</u>	<u>17.1</u>	<u>108.7</u>	<u>~950 mb</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

appropriated eyewall water budget - Airborne
Doppler measurements of a mature hurricane eyewall
FL 10 kft. ~1-2 h in storm - sequence of "L"s with
rad. legs of 20-25 nmi, 90° turns in the eye.
1, 2, 3, 2, 4, 2, 5, 2, 1

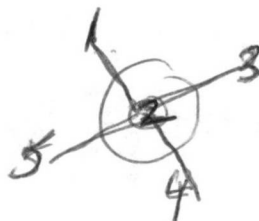


D. Equipment Status

Equipment	Pre Flt	In Flt	Post Flt	Reports Collected
Aircraft	✓	✓	✓	NA
Radar	✓	*tape drive 1 problem *computer problem	✓	✓ 4 tapes
Cloud Physics	✓	✓ cloud probe	✓	✓ 13 tapes
Data Sys	✓	✓	✓	NA
Omegasondes	NA			
AXBT/AXCP	NA			
Gust Probe	NA			
Hot Film	NA			
Photography	standard. 5 sec	standard started ~100nm out	✓	NA
Doppler	✓	✓	✓	✓ 8 tapes

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

modification of eyewall water budget 10 kft "L's"
in the eye with 20-25 nm legs
seep. 34 in 1984
ops plan.



1, 2, 3, 2, 4, 2, 5, 2, 1
repeat until
the end of flight.

Flight pattern proposed actually carried out.
Completed two whole patterns at 10 kft.
With legs of ~30 nm

*the radar computer was malfunctioning when storing the TH radar data on the tape - it was putting out only 1/2 as many radials as it should. Tape drive 1 was not used after the 1st case.

19840922I1-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).
- Jm 2. Confirm camera mode of operation. *start when we get BDP*
- Jm 3. Confirm data recording rate.
- Jm 4. Complete form E-1.

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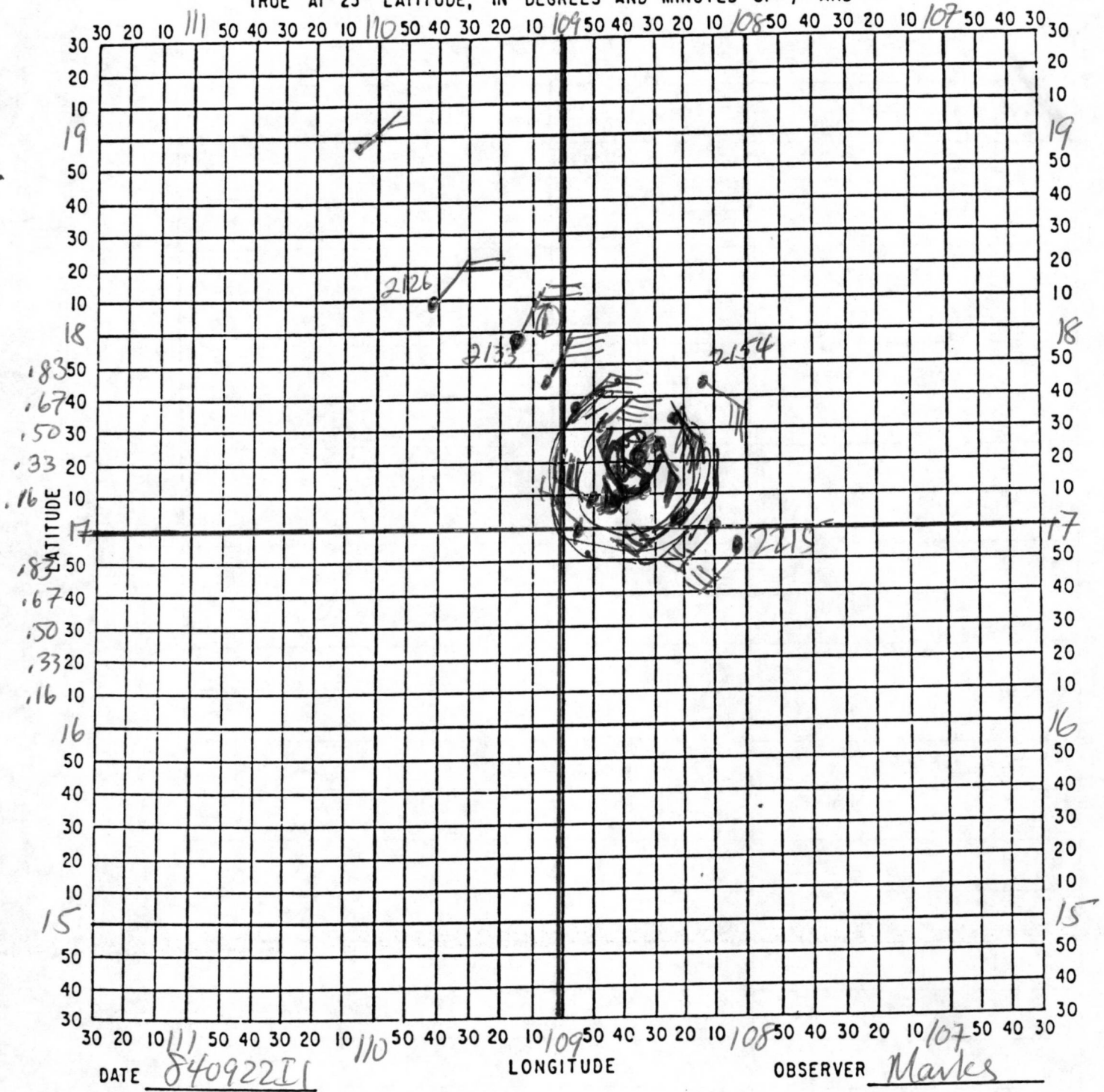
E.1.3 Postflight

1. Debrief scientific crew.
2. Report landing time, aircraft, crew and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to HRD operations center.
- Sm* 3. Gather completed forms for mission and turn in at the operations center.
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.

①

HURRICANE RECCO PLOTTING CHART

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



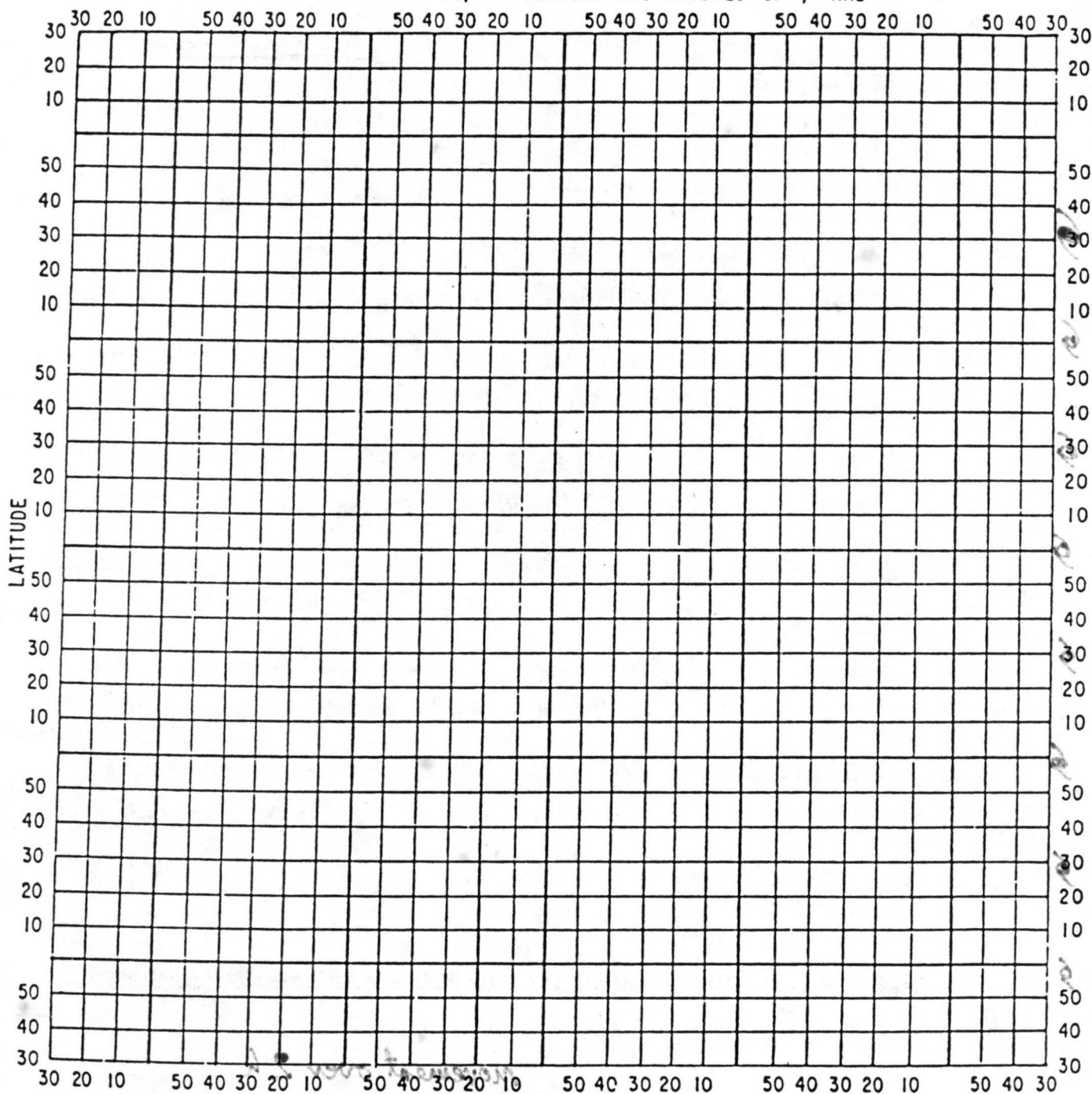
NOTE: Label full degrees according to location of flight area

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



HURRICANE RECCO PLOTTING CHART

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



DATE _____

LONGITUDE _____

OBSERVER _____

NOTE: Label full degrees according to location of flight area

DATE 22 September 84 FLIGHT 840922E1

LPS Marks

Lead Project Scientist Event Log

t.o. 174351 Z

Norbert

track

140

030

210

120

300

210

ck.

EVENT	TIME*	POSITION	COMMENTS**
①	212125 213142	18.45N, 109.72W	start descent to 10kft 211510 end descent 213142 ~110 kmi
②	214500	17.35, 108.6	concentric eyewall waiting for 42RF from eye
③	215441	17.77, 108.125	very weak side of storm 52ms ⁻¹
②	2202	17.35, 108.16	eye not totally clear 942mb
④	2215	16.97, 108.10	strong S eye lots of graupel! 60ms ⁻¹
②	222430	17.35, 108.58	Saw 42RF in the eye 22242
⑤	223130	16.97, 108.90	more graupel briefly 52ms ⁻¹
②	223900	17.35, 108.58	942mb
①	224840	17.74, 109.09	expanding leg while we check radar readings 58ms ⁻¹
②	230830	17.39, 108.58	942mb
③	230959	17.76, 108.17	still weak on this side
②	231800	17.47, 108.50	270 in the eye 943mb
④	232719	17.20, 108.02W	49ms ⁻¹ 2324 data
②	233600	17.43N, 108.50W	system out
⑤	234230	17.05, 108.84	52ms ⁻¹ lots of rain
②	235130	17.45, 108.10	no reflectivity on the way 946mb
①	235920	17.78, 108.93	no P. Dodge 13 fired
			movement over 2h
			~ 048/5knts

2314
mammatus
visible
in
615 cell

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

DATE _____

FLIGHT _____

LPS _____

Lead Project Scientist Event Log

[illegible]

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

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

DATE _____ FLIGHT _____ LPS _____

Lead Project Scientist Event Log

[illegible]

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