

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 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 8/30/90 Aircraft 42R12 Flight ID 900830 H

A. Participants

HRD		OAO	
Function	Participant	Function	Participant
Lead Proj. Sci.	<u>Markus</u>	Flight Director	<u>Bogert</u>
Cloud Physics	<u>R. Black</u>	Pilots	<u>Tickam/Mckim</u>
Radar	<u>M. Black</u>	Navigator	<u>Henderson</u>
Workstation	<u>—</u>	Sys. Engr.	<u>Wade/Moore</u>
Photographer	<u>—</u>	Data Tech.	<u>Raines</u>
Omegasonde	<u>Willoughby</u>	El. Tech.	<u>Roles</u>
AXBT/AXCP	<u>—</u>	Other	<u>Gonzalez</u>

Take-Off Location SSU Landing Location Bermuda

B. Past and Forecast Storm Locations

Date/Time	Latitude	Longitude	MSLP	Max. Wind
<u>8/30 1501Z</u>	<u>27.1</u>	<u>57.8</u>	<u>971</u>	<u>91 kts</u>
<u>8/30 19Z</u>	<u>27.6</u>	<u>57.6</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

abbreviated eyewall evolution and ferry to Bermuda
3 legs across G

D. Equipment Status

Equipment	Pre-Flight	In-Flight	Post-Flight
Aircraft	✓	✓	
Radar/LF	✓	✓	
Radar/TA (Doppler)	✓	✓ * see remarks about TA	
Cloud physics	no 2D-P	no 2D-P	
Data system	✓	✓	
Omegasondes	✓	✓	
AXBT/AXCP	NA	NA	NA
Workstation	NA	NA	NA
Photography	✓		

tapes

3
8
1
5

REMARKS:

Radar

TA radar has a timing problem seems like we're only getting 2-3° resolution in azimuth. J. Roles checking it out (thinks data system should compromise data slightly. J. Roles thinks it's on the TA processor board, reseated board let it cool down it worked better. Check on this.

Cloud Physics -

2D-C voltages on end drodes low again.

ODW - 5 sondes all OK

one in 6 and 5 failed ↓ 850 mb.

Note: 4/8/91

ODW clock found to be 35 SEC slower than main DATA SYSTEM clock. This discrepancy was corrected during ODW post-processing by adding 35 S to all ODW times
John Kaplan

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

See attached sheet
42RF - 10000'

E. II. Actual Flight Pattern

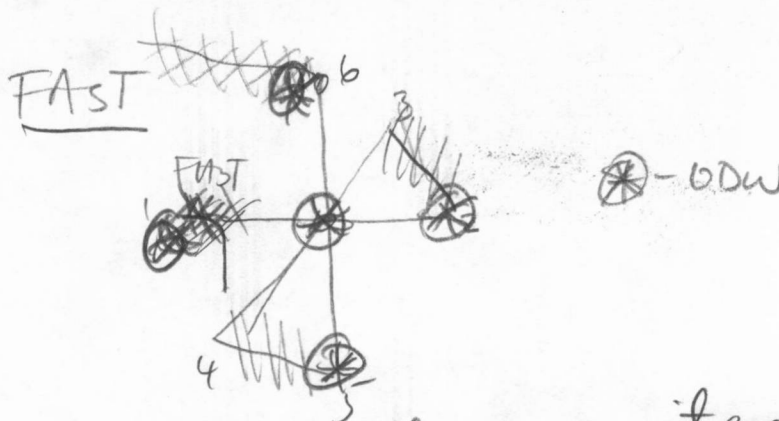
as planned

3 penetrations (legs)

W-E
NE-SW
S-N

beautiful eye 2960 mb

EVAD 1 pattern NE of 6
2 full turns



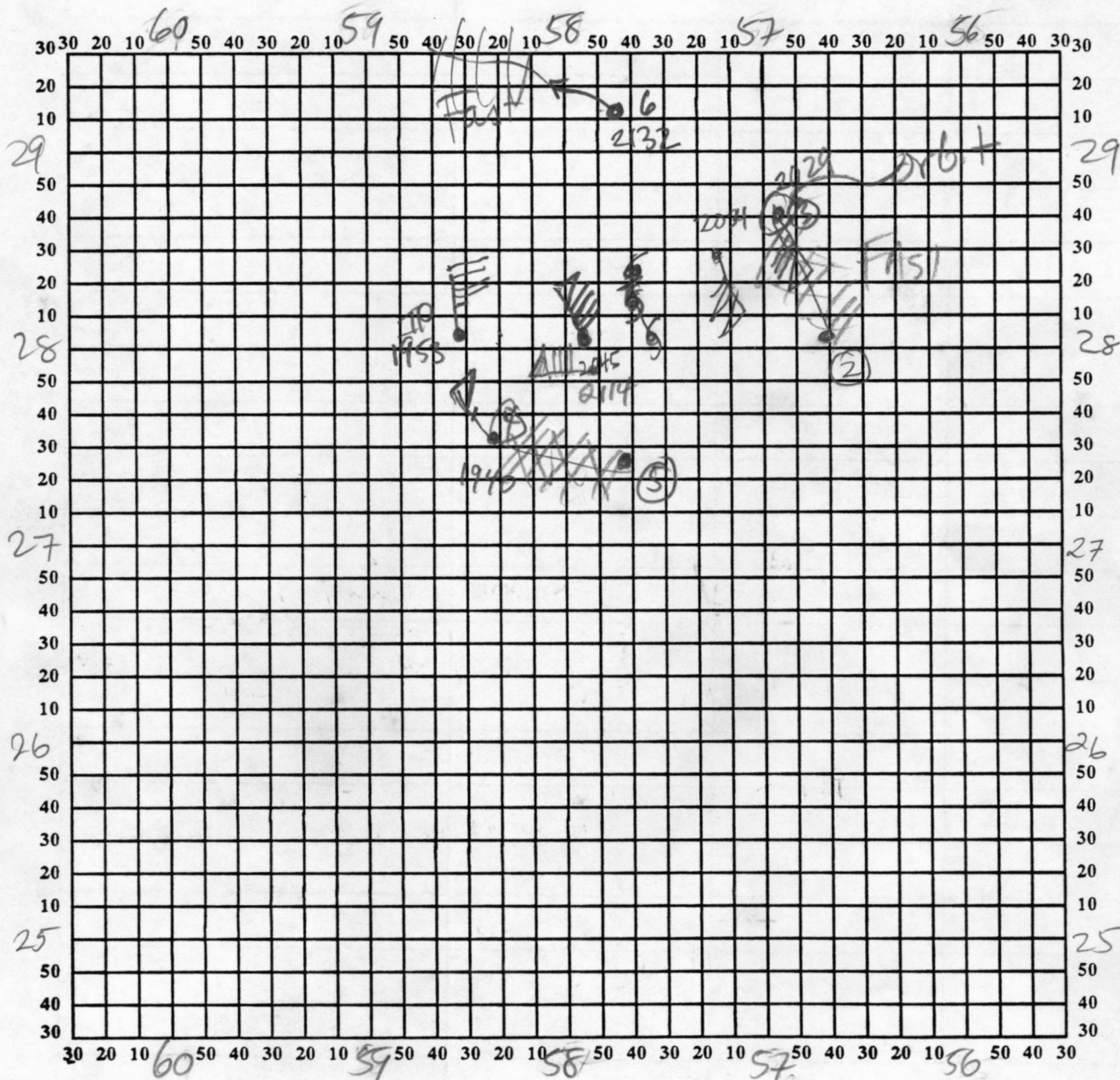
5 - ODW's all OK one at each cardinal point
one in eye and 506 failed below 850mb
(maybe P-static)

Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes

#1

Date 8/30/90 Aircraft Gustav Observer Marks
42RF



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

Lead Project Scientist Event Log

Date _____ Flight _____ LPS _____

[illegible]

#1

Lead Project Scientist Event Log

Date 8/30/90 Flight 900830H LPS Murphy
Gustav

Time	Event	Position	Comments
1714	T.O.	SSU 18°26.4' 66°0.9'	
1930	start descent to IP	50 nm W of eye	
IP	FAST while tracking	well defined eye 30 nm diameter	
1951	IP ①	28°8" 58°34"	fly 1000' clearly visible at 200 nm
			195235 43 starting m
			195355 ODW at ① PTH looks good
		slowed antenna to 9 RPM	TA antenna speeding up doing funny things TK 090
2004	6	28°05" 57°36"	
			43 28°10" 57°42" 962 mb
201540	2	28°3' 56°40.6"	TK 337
			2017 ODW at ② FAST
2023	3	28°40" 56°55"	EVAD orbit at ③
			+22° turn 2 turns
			202517 43 heading inbound
2041	6	28°16" 57°40"W	2031 TA back 10 rpm
			Talked to Burpee 43 Tail radar has funny spikes
		28°16" 57°44" 961 mb	
		2040 ODW in 6	
2053	4	27°51" 58°28"	TK 112
			FAST

Lead Project Scientist Event Log

Date _____

Flight _____

LPS _____

[illegible]

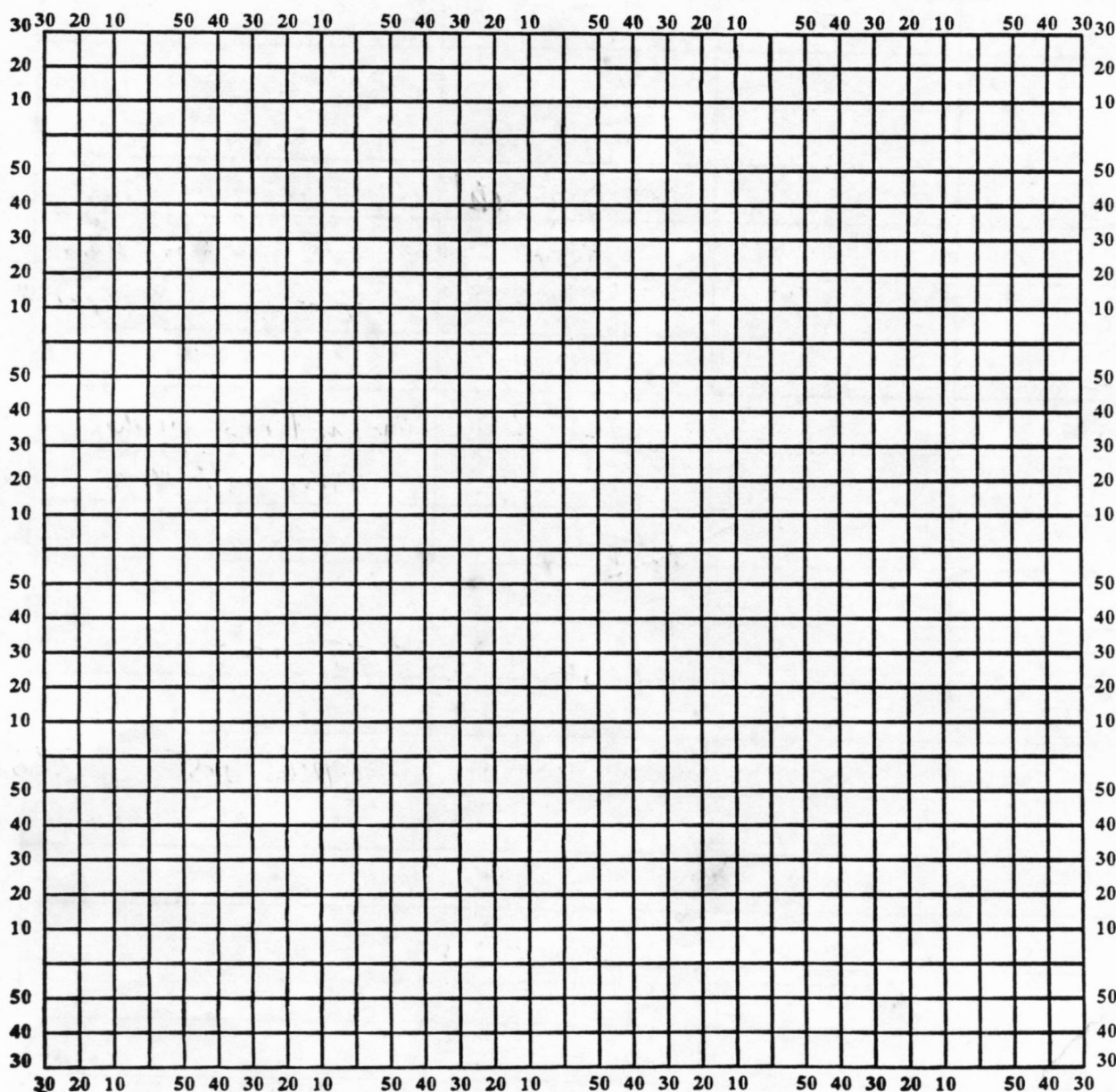
Date 8/30/90 Flight 900830 H LPS Mauro

Time	Event	Position	Comments
210446	5	27°27' 57°48"	
			ODW 2107
212043	6	28°20' 57°42"	
		43RF	345°/11 kts move
	2119	28°20' 53°38"	958mb 117-10
2132	6	29°12' 57°44"	
		2136 ODW	run FAST on the way out of the storm
			2145 start climb
			stopped FAST at 21

Hurricane Recco Plotting Chart

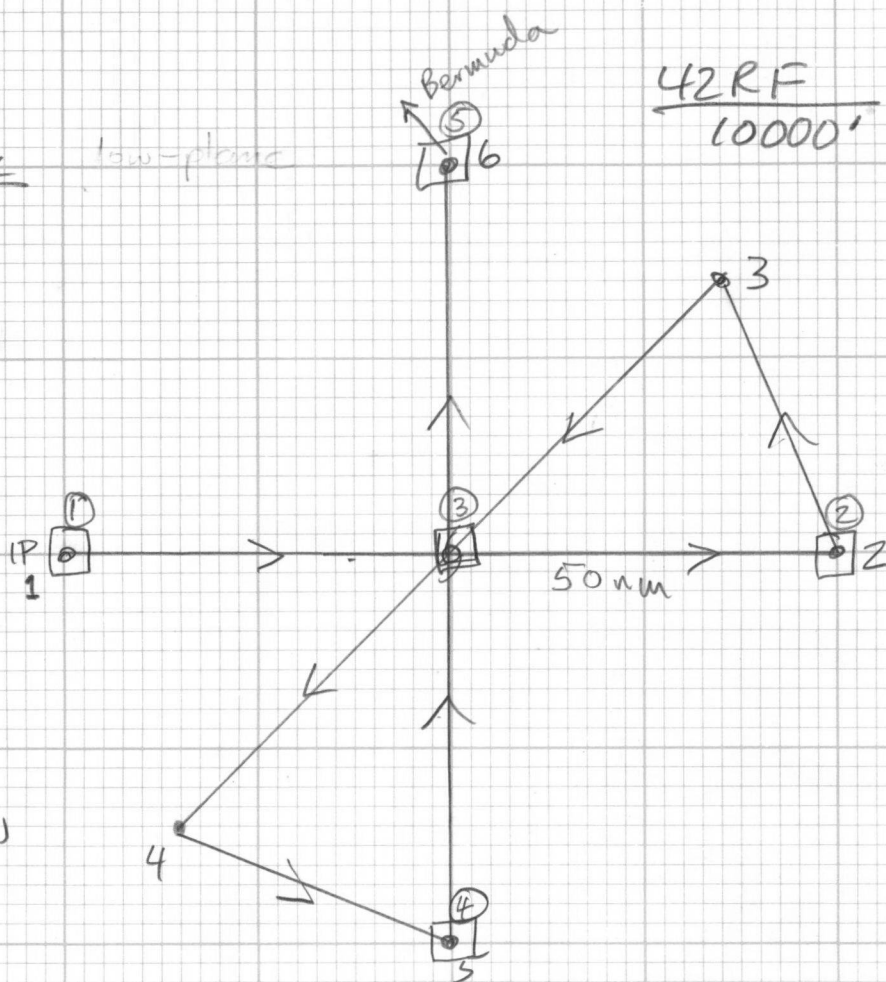
True at 25° Latitude, in Degrees and Minutes

Date _____ Aircraft _____ Observer _____



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

PTS	Track
1-2	090
2-3	337
3-4	225
4-5	112
5-6	000

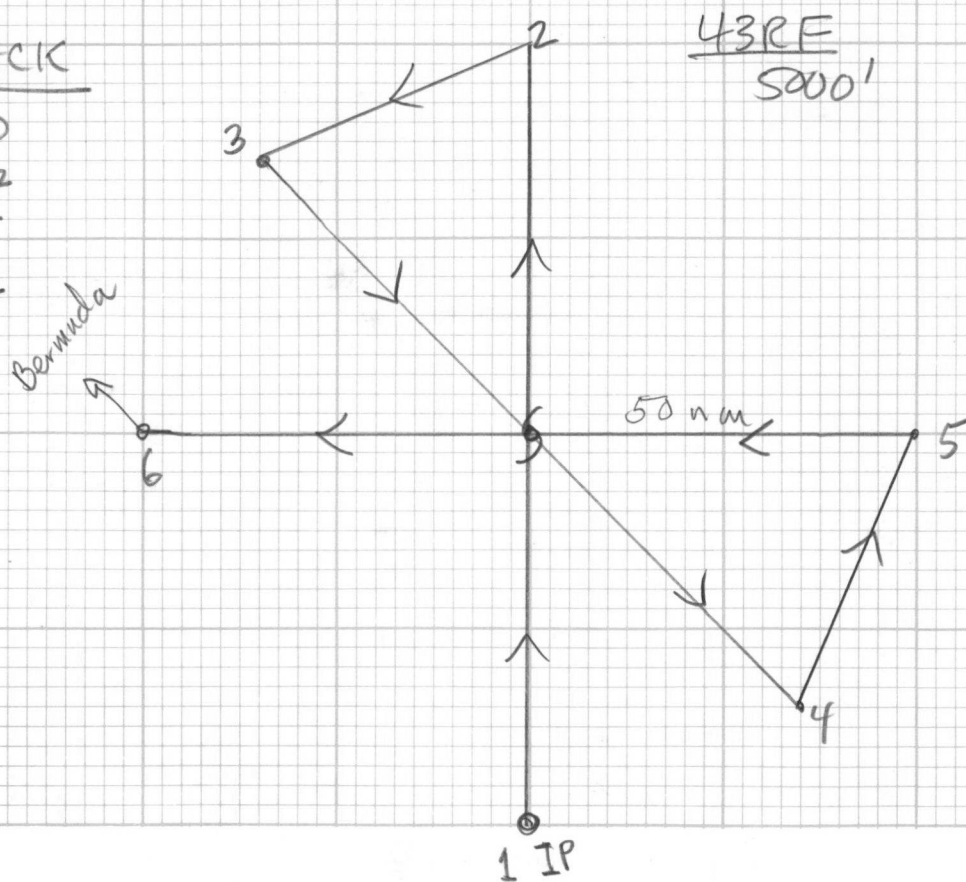


total
376nm

~1.6h

① - ODW

PTS	TRACK
1-2	000
2-3	247
3-4	135
4-5	022
5-6	270



total
376nm

~1.75h