

19940822II-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.

On-Board Lead Project Scientist Check List

Date 22 AUG 94 Aircraft N432F Flight ID 940822T

A. Participants

HRD		OAO	
Function	Participant	Function	Participant
Lead Proj. Sci.	<u>WILLOUGHBY</u>	Flight Director	<u>DAMIANO</u>
Cloud Physics	<u>ABERSON</u>	Pilots	<u>McKIM/KENNEDY</u>
Radar	<u>GRIFFIN</u>	Navigator	_____
Doppler	_____	Sys. Engr.	<u>LYNCH</u>
Photographer	_____	Data Tech.	_____
Omegasonde	_____	El. Tech.	_____
AXBT/AXCP	_____	Other	_____

Take-Off 22/1527 Location STU Landing _____ Location _____

B. Past and Forecast Storm Locations

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

C. Mission Briefing

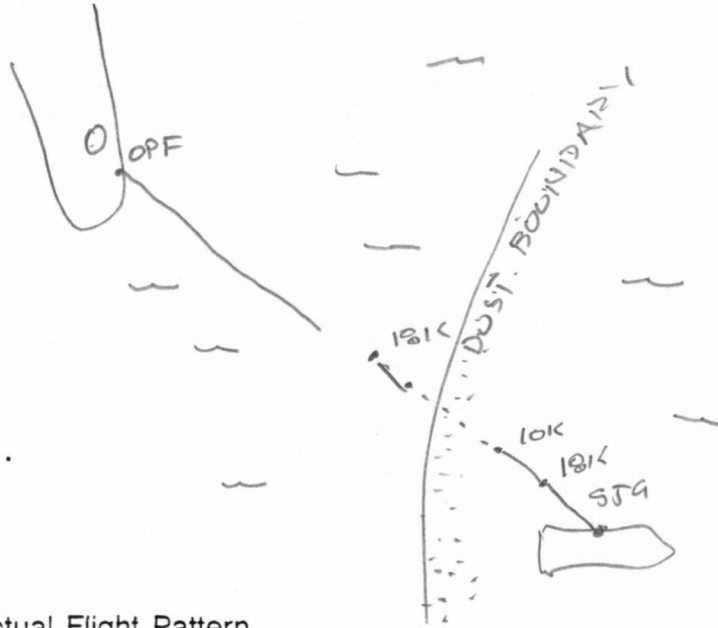
DEPART, CLIMB 18KF, DESCEND 10KF, CROSS
DUST BOUNDARY, CLIMB ON QUE TO 18KF
DECO

D. Equipment Status

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

REMARKS:

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

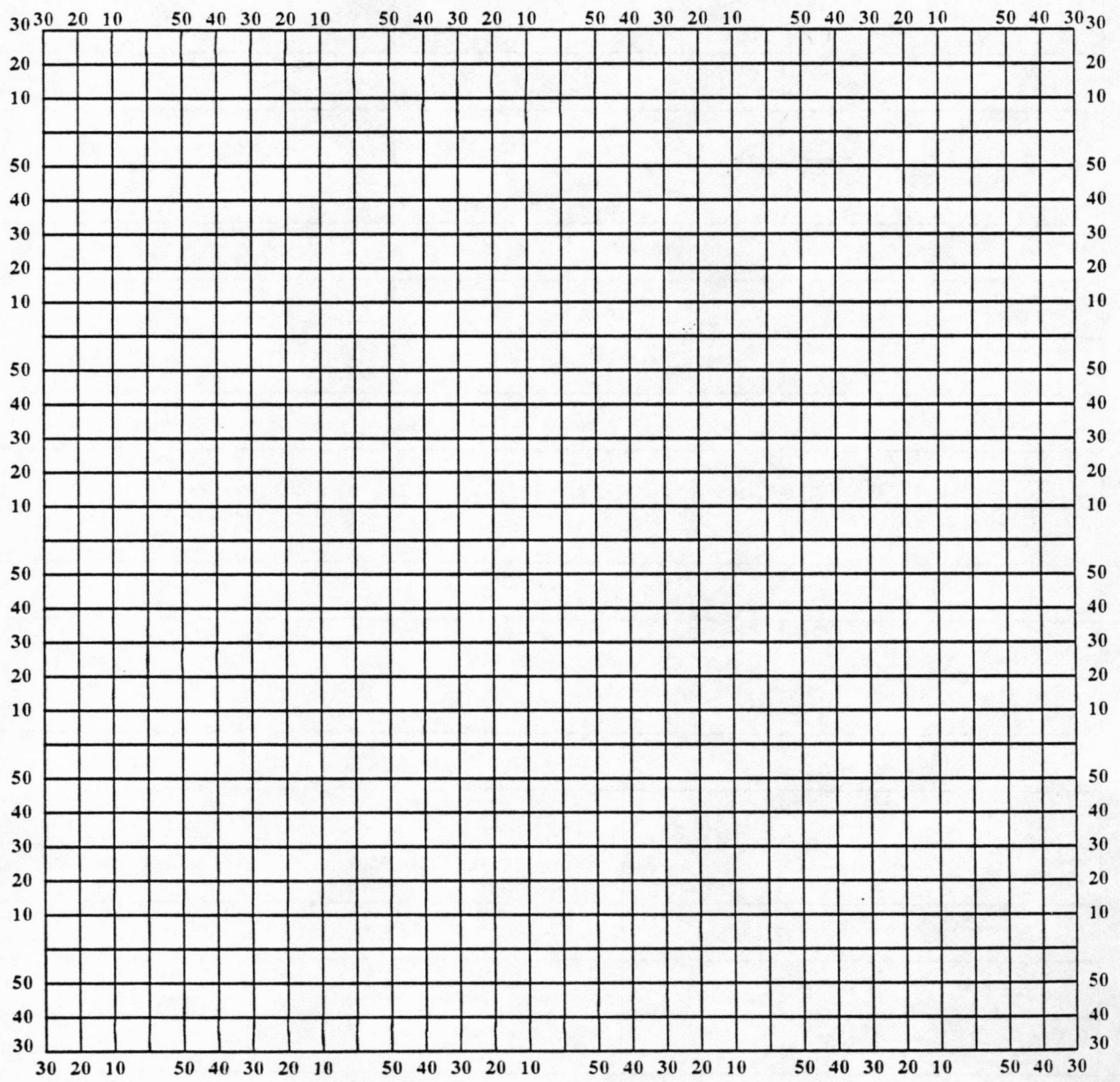


E. II. Actual Flight Pattern

Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes of ϕ and λ .

Date _____ Longitude _____ Observer _____

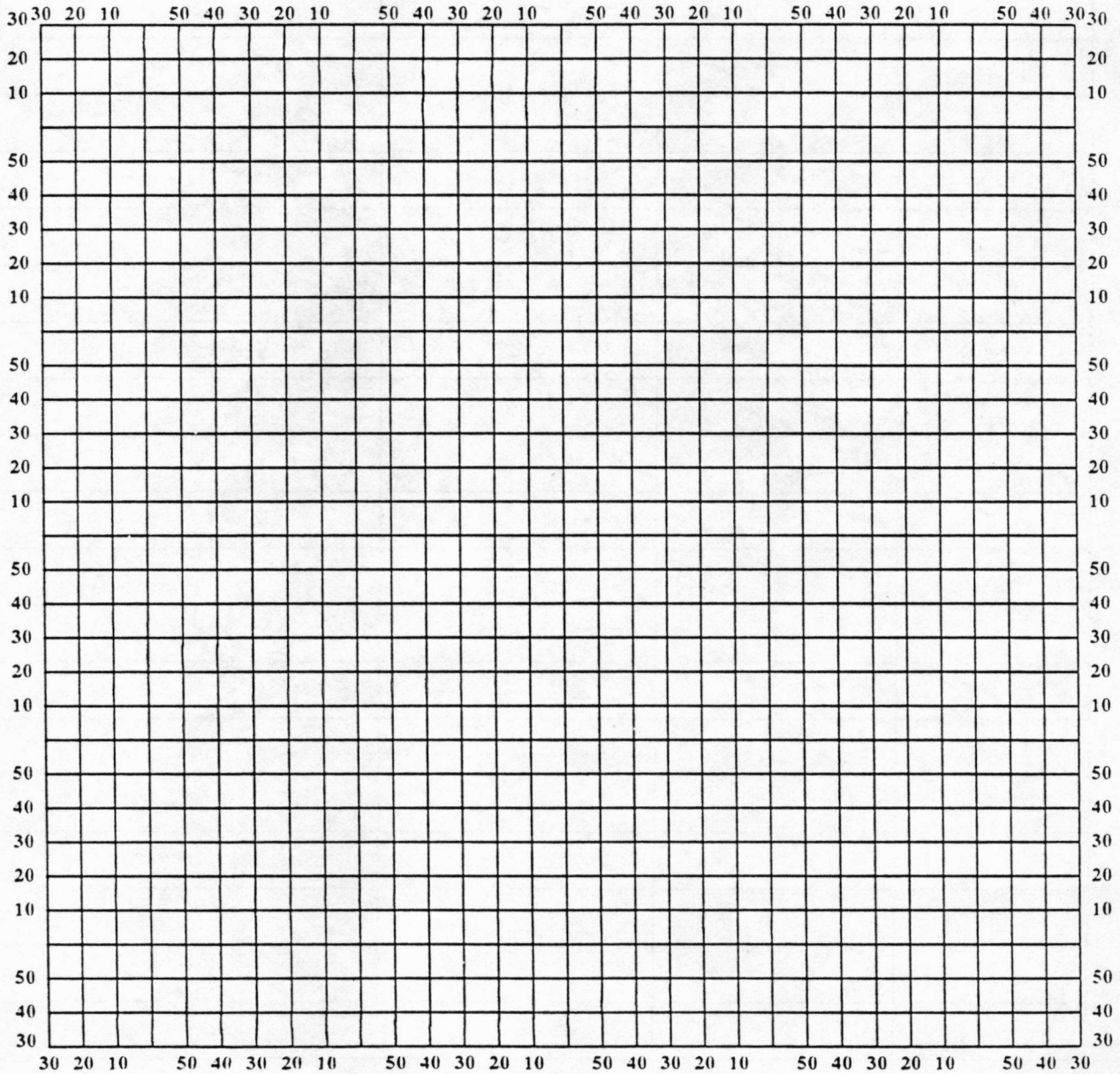


Note: Label full degrees according to location of flight area.

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.

Hurricane Research Division

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25 August 1994

To: F. D. Marks

From: H. E. Willoughby

Subject: Flight 940822I (Ferry/Dust)

Planning: By the morning of 22AUG94, TS Chris' northward motion and incorporation into a cold low drew the boundary of the Saharan air west of San Juan's longitude. We decided to exploit the situation by flying at different altitudes on the ferry to Miami. N43RF was to leave San Juan, climb to 500 mb then descend to 700 mb and remain at that altitude until 60-100 nmi past the dust boundary enroute to Opa-Loca.

Operations: We left SJU at 1527 UT, climbed to 500 mb at 19N 67W, and then descended, reaching 700 mb at 1600 UT near 19.8N 68.2W. When we first descended the temperature and dew point were 11.4 and 1.1° C. The temperature fell to 10° C and the dewpoint varied from 1-2° C to -7° C over spatial scales of 1-10 km as we continued enroute. We encountered an apparent air mass boundary and left the dust layer visible below flight level at 1654 bear 22N 72W, just east of the Caicos. We continued at 700 mb until we reached 75W at 1735 UT, when the aircraft was released to finish the ferry by the most expeditious route.

Equipment: No problems other than those noted on 20AUG94. We deployed no dropsondes.