

19870922H1-LPS

870922H

E.2 Lead Project Scientist (On-Board)
Emily

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. *AF out No later than 16 Z*
- ☒ 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. Determine next mission status, if any, and brief crews as necessary.
- _____ 5. 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 Checklist

Date 9/22/87 Aircraft 42RF Flight ID 870922H1

A. Participants

HRD		OAO	
Function	Participant	Function	Participant
Lead Proj Sci	<u>Wilhi</u>	Flight Direc	<u>Parrish/Dominis</u>
Cloud Physics	<u>Black/Giffin</u>	Pilots	<u>Turner/Eiler</u>
Radar	<u>Burpee</u>	Navigator	<u>Henderson</u>
Doppler	<u>NA</u>	Sys Engr	<u>Goldstein</u>
Photographer	<u>—</u>	Data Tech	<u>Leyva</u>
Omegasonde	<u>Willoughby</u>	El Tech	<u>Thompson</u>
AXBT/AXCP	<u>NA</u>	Other	<u>—</u>

Take-Off	Location	Landing	Location
<u>1500/48</u>	<u>SJN</u>	<u>2351/11</u>	<u>SJN</u>

B. Past and Forecast Storm Locations

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

C. Mission Briefing

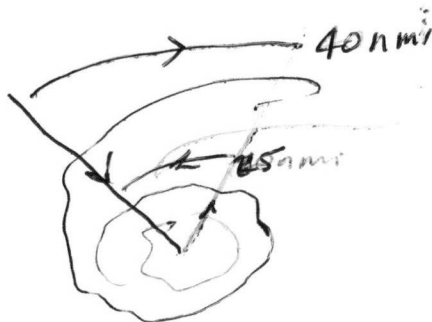
Eye wall Water Budget, closed Triangles
+ Spiral Descent + closed crescents

D. Equipment Status

<u>Equipment</u>	<u>Pre-Flt</u>	<u>In-Flt</u>	<u>Post-Flt</u>
Aircraft	<u>✓</u>	<u>✓</u>	<u>✓</u>
Radar	<u>✓</u>	<u>1 TAP DRIVE OPERATION OUT INT.</u>	<u>TAP DRIVE KIPPING</u>
Cloud Physics	<u>✓</u>	<u>✓ 2 runs, tape</u>	<u>slight some clear air updating</u>
Data System	<u>✓</u>	<u>✓</u>	<u>✓</u>
Omegasondes	<u>✓</u>	<u>✓</u>	<u>✓</u>
AXB T/AXCP	<u>NA</u>	<u>—</u>	<u>—</u>
Doppler	<u>NA</u>	<u>—</u>	<u>—</u>
Photography	<u>✓</u>	<u>✓</u>	<u>✓</u>
_____	_____	_____	_____
_____	_____	_____	_____

REMARKS:

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



E. II. Actual Flight Pattern

2 COMPLETE WEDGE SERIES
20-25 N.M. and 40 N.M. RADII
+ 1 SPIRAL

1827/30 16 54.5
69 7.3

135 knots ?

good updraft
check out

1900/45 IN 13/E 16 59.1 69 12.8

959.4 mb

HPG OUT 290 TO LOOK FOR STRATIFORM AREA

1902/35 LIGHTNING

1903/05

"

17.4.4 69/42.5 ?

1914/45

STAND SPIRAL

17 15.3N 69 45.7 W

~~17.37 14.24~~

1923.10

17 15.4 69.51W

1925/32

T = 11.2°C

1927/33

PICKING UP DESCENT RATE

1928/15

4.4 2.7°C

1935/26

CLIMBING TO GO STRATIFORM DROP

1944/07

STRATIFORM DROP - SONOE NO SL T OK WAT.
100% RH

1949/46

WAITING FOR 43

1952/45

LIGHTNING HEADING IN ON 124° TRACK

1954/08

" STRIKE

CRAVREL

1956/30

DYE 17 8.5N 69 22.3 958.4 957 mb
17/08 69/25 125 KNOTS

2010/05

17 32.8 TURNING SOUTH
69 44.2

2015/34

TURNED TO 090 EARLY

2025/38

good updraft

2023/30

17 17.1 69 27.6W 135 KNOTS

Date 9/22/87 Flight 870922H1 LPS Willis

Lead Project Scientist Event Log

Time	Event	Position	Comments
1500/48	T/O	50N	
1515/30		18.29.5 66 55.8	3995 111/37 +2.9/0.2
1520/00	OFF TIP OF RUGGED RIDGE	1825/00 N 67 16.5W	4450 108/39 -0.4/-0.4
1548/30	Approaching eye	16.44.8 68 29.9	4857 121/70 -1.4 0.3
1552/00	IN EYE	1630.3 N 68.36 W	1571/01 in eye W 0/1
1605/59	5	16 22.7 68 44.2	IP
1613/02	TURN TO 290	16 46.6 68 23.7	#1
1617/15	16 52.5 68 5.3		#2 Turning back in ¹⁵⁰
1623/27	16 34.5 68 49.3	#6+7 PIX IN EYE	1622/31 LIGHTNING
1646			GRAPPEL RADAR BACK UP AND RECORDING
1649/58	TURNING 135	16 51.7 69.12.8W	059/58 ^{NOW} pretty good st SWH
1658/31	HEADING OUT 315	16 39.5 68 51.2	5.5 / 1.5
1700/45	TURNING ON PIE		
1702	Radar Down again		Formvar film broken
1706/06	TURNING IN		
1709/20	HEADING OUT	16 48.2 68 49.9	10.6
1726	TURNING BACK IN		
1731/40	IN EYE	16 35.8 68 58.6	5.2/1.5
1742/15	TURNING IN	16 34.5 68 44.5	190/90
1745/53	16 40.7 69 0.7	958.3 mb.	good up & downwind *
1807/39	TURNING IN FROM SE	16 30.2 68 43.0	197/59 EYE MUCH LARGER NOW PROBES UPDATING SOME
1816/30	PIX 14x16	SEA JRC AND TQ OIC WALL	RANTEX
1816/30	TURNING SOUTH	LEG ON E SIDE	

2035/16 in eyewall 17 10.6 / 69 38.2
 2037/53 17 16.7 69 29.2W HDB OUT 270°
 2102/45 17 16.7 69 35.6 § EYE LEFT TO SHORT PATTERAN
 956.8
 2105/53 LIGHTNING GRAPPLE -1.9
 2130/42 17 18.7 68 55.9 TURNING TO 225 IN SE QUAD
 2153/39 17 23.5 69 45.5W 959.8 WILL FINISH
 2209/45 17 26.7 69 49.6 § 964 m SE QUAD SHORT Δ
 HDB OUT TO EAST
 2217/32 GULL 15 20 mi from EYE DO
 2236/40 LIGHTNING ON OUTER EDGE OF EYEWALL
 2239/20 17 35.5N 69 53.4W 965.9 -0.7/-3.3
 WILL TRACK OUT EAST
 2244/24 17 30.6 69/28.8 TURN NW
 2 BIG CELLS IN N EYEWALL
 2253/18 18 00.6 69 45.7 HDB IN FROM N AFTER ORBIT
 2257/23 LIGHTNING
 2258/25 GOOD UPDRAFT CHANGED UNITS?
 2259/40 17 39.8 69 57.3 § 960.5
 HDB OUT EAST THEN TO SW
 2308/54 HI-VOLT ON
 2307/00 ORR HI V. ^{left body}
 2317/10 LIGHTNING AHEAD IN VERY CELLULAR BANK

EL MUNDO

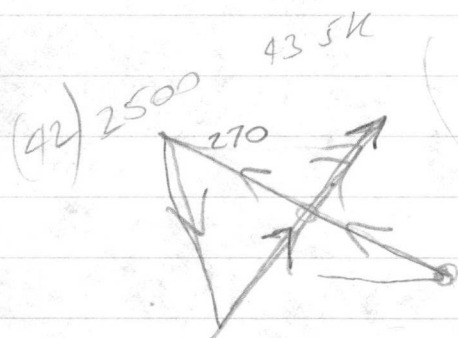


142 20.8N 109.0W

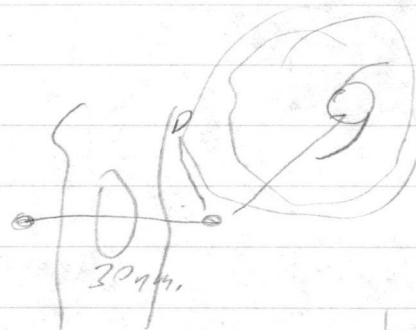
21.5 109.0

suggested SP

21 107.5



500
1500
2500



1817 21.3 108.8 first radar

1820 21.6 108.7

1825 21.4 109.0

1838 21.32 109.0
RADAR BY
32 MI DIA EYE

2132.3 109/10.8

20.5 108.6

21.16 109.0 possible band
20.2 108.9 " "

20 09 109 41.3 maybe 1948Z

20.42 109.40 1958Z

20.993 109.3

21.56 110.05



21.55N 109/54' Picked by 43^{eyeball}