81 09 11 H 2

E.1 Lead Project Scientist (On-Board)

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

E.1.1 Preflight

____ 1. Participate in general mission briefing.

____ 2. Determine specific mission and flight pattern(s) for his aircraft.

____ 3. Determine operational fix responsibility, if any. Discuss with RFC flight director/meteorologist and CARCAH, unless briefed otherwise by field program director.

____ 4. Contact NHRL members of crew to:

a. Assure availability for mission.

b. Arrange ground transportation schedule when deployed.

c. Determine equipment status.

____ 5. Provide supplementary briefing to specific crew.

____ 6. Report status of aircraft, systems and crews to appropriate NHRL operations center.

E.1.2 In-Flight

____ 1. Confirm from RFC 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-1.

Form E-1
Page 1 of 5

16°C OUT 1586
~~55~~ 1KT SE

CALL DATE

On-board Lead Project Scientist Checklist

DATE 12 SEP 81 AIRCRAFT 42 FLT 810912 H2

A. Participants

Function	Participant	Function	Participant
Lead Proj. Sci.	① WILLOUGHBY	Gust Probe	
Cloud Physics	② WILLIS	Omegasonde	
AXBT		Sys Eng	
Hot Film		Data Tech	PARADIS
Radar	③④ GRIFFIN/MARKS	El Tech	GOLDSTEIN
Flt Dir/Met	HAYDU	Other PILOTS	GUNNOE/KENBLINKER
OBSERVERS ⑤⑥ ZIPSER & BARNES		NAV	NELSON

Take Off 122155 Location MIA Landing 130743 Location MIA

B. Past and Forecast Storm Position

	Date	Time	Latitude	Longitude	MSLP	
	11	0909	28° 10'	72° 35'	994/	
	11	1202	28° 50'	72° 07'	996/75	
	11	1515	29° 41'	71° 20	994/75	C25 OPT
	11	1806	30.25	70. 44	990/85	C25
FCST	12 / 12	00 / 12	30.8 / 32.5	69.8 / 65.5		

C. Mission Briefing

FLY LTM ~~X~~ THEN EITHER ~~X~~ OR + EET 00,03,06 FIXES

INITIAL 31, 69.5
FINAL 31.5, 67.5

1311 EERT

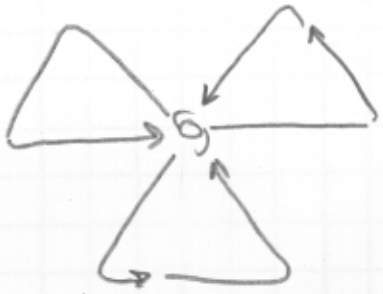
0451

D. Equipment Status

Equipment	Pre Flt	In Flt	Post Flt	Reports Collected
Aircraft	↑	↑		
Radar	↑ NOSE, LF, TAIL	↑		
Cloud Physics	↑	↑		
Data Sys	↑	↑		
Omegasondes	NOB			
AXBT	NOB			
Gust Probe	NOB			
Hot Film	NOB			
Photography	↑			

REMARKS

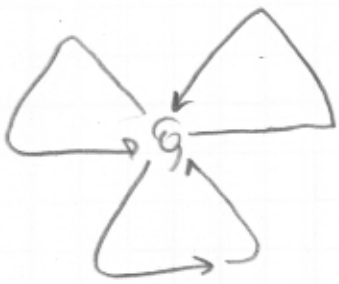
E. Proposed and Actual Flight Patterns



ENTER STORM AT PT 2
DO ONE COMPLETE PATTERN
THEN TRUNCATED AND
RTB.

INTEND TO PENETRATE AT 10000' THEN SPIRAL
DOWN TO 5000' AND BEGIN PATTERN

ACTUAL



Form E-1
Page 5 of 5

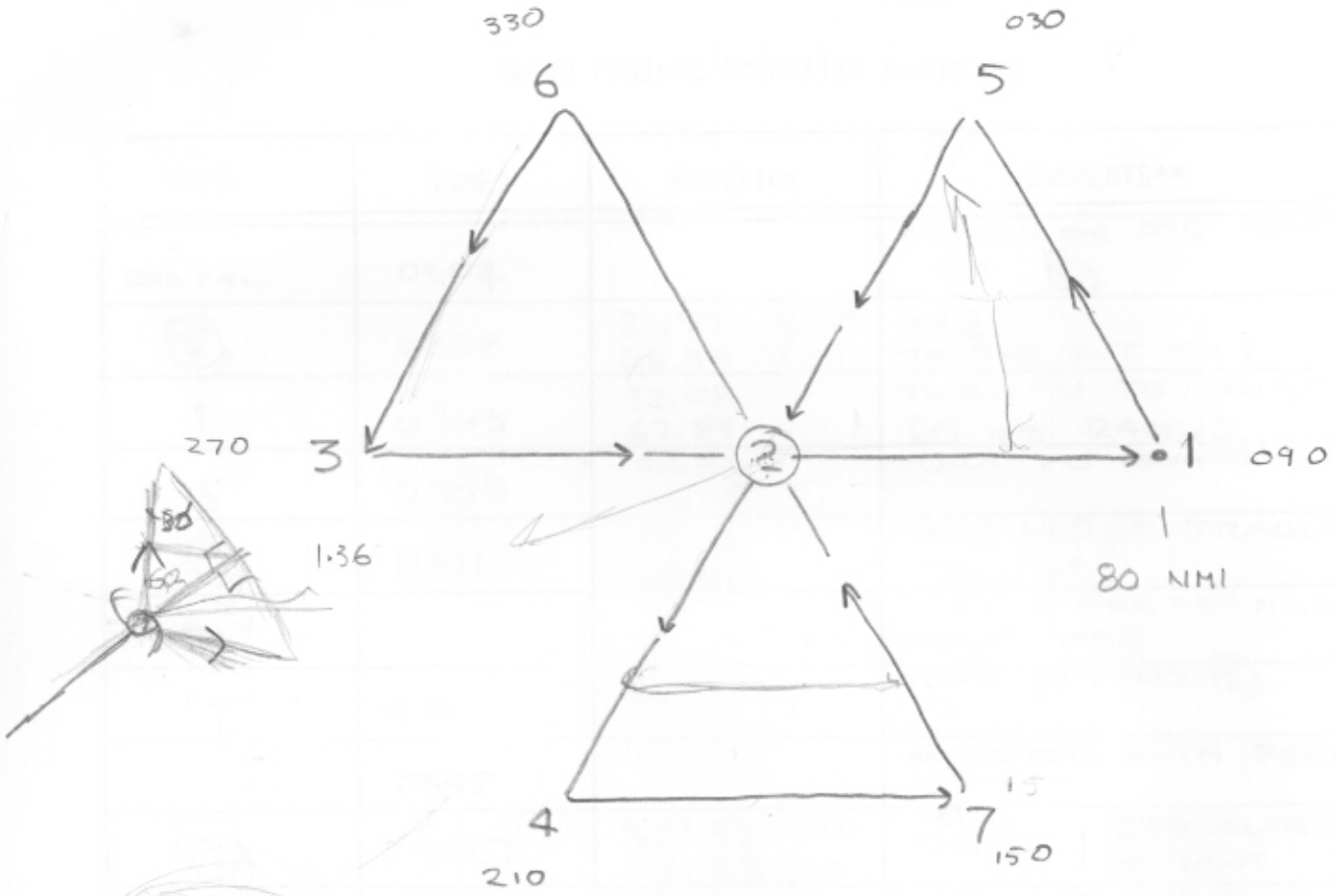
DATE 12 SEP 81 FLIGHT 810912H2 LPS WILLOUGHBY

Lead Project Scientist Event Log

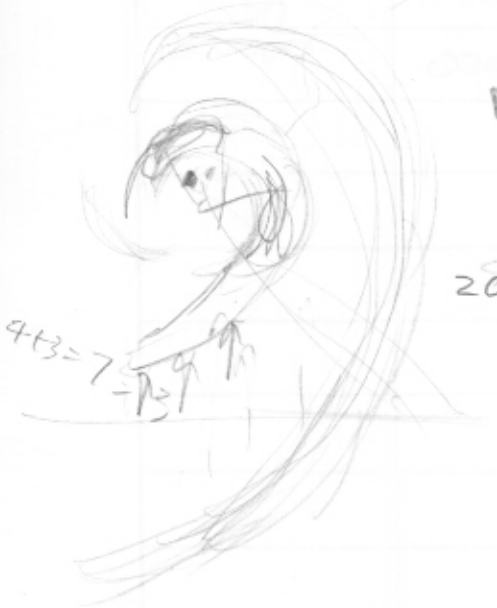
EVENT	TIME*	POSITION	COMMENTS**
122155	TAKEOF	MIAMI	
2349	EYE ON RADAR		
2359	START DESC. TO 5000'	30.67 71.02	EYE 70 nm AHEAD
130005		30.94 70.46	LEVEL 1500m
0020	(2)	31.40 24.9 69.53 28.9	989 m TRACK 090 FOR ⊥
0025	1		90 KT INSIDE EYE
00425	1	31-42 67.69	TURN NW TO 5
0102	5	32.73 68.50	TURN SW TO (2)
0123	(2)	31.56 69.97	989 MIN SLP HEAD FOR 4
0144	POINT 4	30.37 70.11	HEAD FOR 7 WIND 279/15.6, TK 090
0147	START CAL		TRACK 135 WIND 274/14.6 TK 135
0150			TK 045 WIND 270/13.6
0154			TK 135 WIND 266/15.2
0157	END CAL		TK 090 WIND 253/15.4
0207	POINT 5	30.38 68-47	TURN BACK TO 2
0230	POINT (2)	31.75 69.19	991 MIN SLP HEAD FOR 6
0249	POINT 3		TURN FOR 3
0254	START CAL		78/7.4 TK 260
0256			50.5/8.2 TK 170
0301			23.4/8.1 TK 260

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

LONG-TERM MONITORING EXP



FOR P-3 REQUIRES 3 HR



NW

2015 30.68 70.35 988, 40 E/S

40 − 15 = 35 32

9 × 6 = 56

DATE 12 SEP 81 FLIGHT 810912H2 LPS WILLOUGHBY

Lead Project Scientist Event Log

EVENT	TIME*	POSITION	COMMENTS**
END CAL	0307		STEADY ON 090 BACK TO (2)
(2)	0328	31.99 (03) 68.99 (99)	992 TK 090 OUT TO 1
1	0343	32.02 67.84	TURN N TO POINT "5" 60 nmi RADIUS
"5"	0354	32.84 68.05	TURN SW TOWARD 2
(2)	0411	32.16 68.91	992 / 90 kt TRACK SW TO "4"
"4"			TURN E FOR "7" MILL ABOUT SOME
"7"	0441	—	TURN 323 FOR (2)
	0455		CONFERED WITH PETS
(2)	0500	32°33 (25.1) 68.83 (34.7)	992 | RTB CLIMB TO 20KFT
LANDED	0743	MIA 25.7° 80.60	LAT 1.2 1.-6.8 LON -19.2 7.9

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