

Lead Project Scientist

Preflight

- _____ 1. Participate in general mission briefing.
- _____ 2. Determine specific mission and flight requirements for assigned aircraft.
- _____ 3. Determine from field program director whether aircraft has operational fix responsibility and discuss with AOC flight director/meteorologist unless briefed otherwise by field program director.
- _____ 4. Contact HRD members of crew to:
 - a. Assure availability for mission.
 - b. Review field program safety checklist
 - c. Arrange ground transportation schedule when deployed.
 - d. Determine equipment status.
- _____ 5. Meet with AOC flight director and navigator at least 3 hours before take-off for initial briefing.
- _____ 5. Meet with AOC flight crew at least 2 hours before take-off for crew briefing. 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).
- _____ 7. Before take-off, brief the on-board GPS dropsonde operator on times and positions of drop times.
- _____ 7. Make sure each HRD flight crew members have life vests
- _____ 7. Perform a headset operation check with all HRD flight crew members. Make sure everyone can hear and speak using the headset.
- _____ 8. Collect "mess" fee (\$2.00) from all on-board HRD flight crew members.

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 Lead Project Scientist Form.
- _____ 5. Check in with the flight director to make sure the mission is going as planned (i.e. turns are made when they are supposed to be made).

Post flight

- _____ 1. Debrief scientific crew.
- _____ 2. Report landing time, aircraft, crew, and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to MGOC.
- _____ 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. Obtain a copy of the radar DAT tapes. Turn in with completed forms.
- _____ 6. Obtain a copy of the all VHS videos from aircraft cameras (3-4 approx.). Turn in with completed forms.
- _____ 7. Obtain a copy of CD with all flight data. Turn in with completed forms.
- _____ 8. Determine next mission status, if any, and brief crews as necessary.
- _____ 9. Notify MGOC as to where you can be contacted and arrange for any further coordination required.
- _____ 10. Prepare written mission summary using Mission Summary form (due to Field Program Director a week after the flight).

Lead Project Scientist Check List

Storm or Project Genesis II Experiment name IFEX/TCSP
 Date 7/16/05 Aircraft 43 Flight ID 050716J

A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>M. Black</u>	Flight Director	<u>Marty Maybank</u>
Radar	<u>Peter Dodge</u>	Pilots	<u>Randy Tebeast</u> <u>Mike Soto</u>
Workstation	<u>Willis</u>	Navigator	<u>Devin Drotob</u>
Cloud Physics	<u>Gerry Heymsfield</u>	Systems Engineer	<u>Doc Dewie</u>
Photographer/Observer	<u>Jeffrey Halverson</u>	Data Technician	<u>Jim Barr</u> <u>Damon Sansone</u>
/Guests	<u>Carlos Lopez</u>		
Dropwindsonde	<u>Trystan Valle</u>	Electronics Technician	
AXBT/AXCP	<u>Carlos Lopez</u>	Other	

B. Take-off and Landing Times and Locations:

Take-Off: 0523 UTC Location: San Jose

Landing: _____ UTC Location: _____

Number of Eye Penetrations: 0

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing: 14,000 ft Diamond pattern centered on 2.5N 89W, 30 sondes, 10 AXBTs
see attached map. May try a convective burst mode.

700 297 S1
850 261 0.2
SFC 230 7.3

E. —Equipment Status (Up ↑, Down ↓, Not Available —, Not Used O)

Equipment	Pre-Flight	In-Flight	Post-Flight	# DATs / Cds /Expendables/ Printouts
Radar/LF	✓	✓		
Doppler Radar/TA	✓	✓		
Cloud Physics	✓	✓		
Data System	✓	✓		
GPS sondes	✓	✓		
AXBT/AXCP	✓	✓		
Ozone instrument	✓			
Workstation	✓			
Videography	✓			

REMARKS:

Lead Project Scientist Event Log

Date 7/16/05 Flight 050716I LPS M Black

Time	Event	Position	Comments
0523	Takeoff	Santaro	only 20 minutes to IP
0545	at IP	Just entering rain shield	
054521	Drop #1	9.00N 85.0W	1/4g South
0548		Winds 180-190° 20-25 kts	
060021	Drop #2	8.0 85.0 200	15 kts
063610	Drop #3	5.5° 85.0W	WD 150 11 kts
063840	Turn to NE	southeast point	
0640	Coordinate w/ ER2	cut short at 600 to meet at 8N	
065539	Drop 4	6.72 85.60 WD 184	12 kts
0700	Vertical wind reading	back	
070750	Drop 5	4.9N 86.0W	CPA ER2 overhead - 1000 ft. In weak stratiform 180° 25 kts
071038	Continuous		
071724	Drop #6	8.28 88.13	177° 7 kts
0717	ER2-089	54 kts	never seen before
0710	vert wind ok		
0727	Drop #7	8.9 86.68	102° 8 kts
0730-0732			Wind speeds 4 in bar on screen
07334	Drop #8	10.0 87.0 W	SE wind 10 kts
073918	Drop #9	BT-28.2	25m MCD
0747			B. West wind??
075136	Drop #9	8.73 87.40	115° 13 kts
075320	ER2	12 nm to west	
080323	Drop #10	8 87.75	SE 12 kts
081922	Drop #11	7 88.25	W wind 5 kts
083809	Drop 12	27.8°C 40m MCD	60N 89W

BT#1
2770
MCD
40m

BT#2

BT#3

200 167 5 kts
850 181 W
54C 197 4.5

173 7.6 m/s - 8.75
225 11.5 87.27
54C 264 9 m/s

Lead Project Scientist Event Log

Date _____ Flight _____ LPS _____

Time	Event	Position	Comments
0842/8	Drop 13	6° 89.2° W	
0844	Changing track to exclude west and to east		
0858	7.2° N 89.7° W Drop 14		
090800	Drop 14	7.8° N 90.1° W	
091517	Drop 15	9.25 90.3	AXIST ake
092245	Drop 15	9.7 90.61	WNW winds
	ER2 to do an extra orbit		
0933	Northerly winds		
BT 4, 093253	Drop 16	10° N 91° W	
095009	Drop 17	8° 91° W	upst and 10kt
100054	ER2 overhead	7.6 91°	
BT 5 101018	Drop 18	6.8 91.0	2950 7kt
102426	Drop 19	8° 91° N	
103307	Change in track - go to 11° N, 88°		
103507	East wind been flying the ITCZ!		
104146	Drop 19	7° 90°	W-NW winds
1041-1045	Reiter Power		
1057	Drop 20	8.4 89.3	
1108	Drop 21	8.8 89.31	West winds
1110	Drop 21B	8.9 89.2 W	NW winds
1112	Winds nearly calm		
1113	WSW wind 12kt		
1117	E-W breeze 1 north 1 south		
11250	Drop 9.4	89° N	NE winds GK
1128	Data System Power		
114309	11 N 88° W		Turn back to south

200 24th - 5.9 m 1150 10° N 88° W
 850 25th 8.4 Hdy to San Jose
 800 252 9.2 Data System Power