

050912H

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 IFEX/OPHELIA Experiment name Ocean Winds
 Date 9/12/05 Aircraft 42RF Flight ID 050912 H

A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>M. Black</u>	Flight Director	<u>Jack Parrish</u>
Radar	<u>P. Chang</u>	Pilots	<u>Kennedy, Mark</u> <u>Welson</u>
Workstation	<u>P. Dodge</u>	Navigator	<u>Tim Gallagher</u>
Cloud Physics	<u>—</u>	Systems Engineer	<u>Wade Best</u>
Photographer/Observer	<u>—</u>	Data Technician	<u>Sean McMillan</u> <u>Bill Olson</u>
/Guests	<u>—</u>	Electronics Technician	<u>Bill Kerr</u>
Dropwindsonde	<u>M. Black</u>	Other	<u>P. Chang + 3 Nees</u>
AXBT/AXCP	<u>M. Black</u>		

B. Take-off and Landing Times and Locations:

Take-Off: 1827 UTC Location: MacDill

Landing: — UTC Location: —

Number of Eye Penetrations: 3

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
<u>12/20 Z</u>	<u>31.7</u>	<u>72.1</u>	<u>~990</u>	<u>60 kt</u>
<u>Moving slowly NW @ 2-3 kts</u>				

D. Mission Briefing:

4 kt, 1P at Buoy 42009,
42010, SW of eye - thru eye - then
Make work rain/wind area for P. Chang in core
Buoy 21 Z fix for Carcass - ~10-15 swades
41002 6 AXBTs, TS ~ 76 kt R/T - 60 kt SRK
41003 SFMR mapping - watch closely
Pass overpass near 6:30 pm local

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 9/12/05 Flight 050912H LPS M, Black
TS Ophelia

Time	Event	Position	Comments
1827	Takeoff	MacDill	Hdg w to Atlanta
1854	Over water		
1904	Over Buoy	28.80 80.18	20Kts Fill
~1859-1905	Radar Power		
1927	Over Buoy	28.95 78.47	Drop #1 25Kts
2008	Outer RB/eyewall south	~120 mile from ctr	
2009	SFMR-28 m/s	Drop #2	outer band 53Kts
2022	main rainband/eyewall	100 mi across	
2023	Trackers NNE thru eye		Drop 3
202539	eye	31.75 77.43	988.2 mb Sonde
203840	N. eyewall/RM	70Kts Ht-101	55Kts SFMR, 45 Sonde
	Drop #4		
2053	105 nmi NNW of ctr		
	Turn to W		
211615	Drop #5	BT 280 mi W of ctr	27.0°C Deep ML
2125	NNW of ctr turn	SE to eye	
2150	eye	31.8 77.4	turn to north
	Drop RB		
	Drop BT	27.1°C	
223304	Drop BT #5	27.0°C	
	Drop RB inner edge		
2240	inside edge of band	turn around	
	sonde for satellite overpass		
224316	Sonde inside edge of RB		
2246	outside edge of band	turn to port	
2305	31.84 77.55	(Eye)	

41003 160m NE
 41002 160 E

Track to SSW toward
 MacDill

Lead Project Scientist Event Log

Date _____

9/12/05

Flight

050912H

LPS

M. Black

Time	Event	Position	Comments
23046	6,000 ft run		
23049	8 end 6,000 ft run		
2319	End of 6,000 ft run - SSW eye		
	climb to 8,000 ft		
23215	8,000 ft run		
23223	1 strong RB 60 m/sec south		
	60 Kts SFC, - 50 Kts 100 ft		
232856	BT #6 Prop #2 outside edge		127, 0 ft south - RB ~ 40 Kts - SFC wind.
233040	End of 8,000 ft run climb to 10		
233304	Start 10 K ft run		
233806	End 10 K ft run, climb to 12,000 ft		
	12 K ft run		
24037	Landing		