

new stick - to Ian

- to radar operator

- from Sylvie

> same stick

## Lead Project Scientist

Storm or Project Hurricane Irene Experiment name TOP

Flight ID 110823K1 Mission ID \_\_\_\_\_

### Preflight

1. Participate in general mission briefing.
2. Determine specific mission and flight requirements for assigned aircraft.
3. Determine from AOC flight director/meteorologist whether aircraft has operational fix responsibility and the mission designation.
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.
6. 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.
7. Report status of aircraft, systems, necessary on-board supplies and crews to MGOC in Miami.
8. Before take-off, brief the on-board GPS dropsonde operator on times and positions of drop times.
9. Make sure each HRD flight crew member has a life vest.
10. Perform a headset operation check with all HRD flight crew members. Make sure everyone can hear and speak using the headset.

### 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. Gather completed forms for mission and turn in to data manager at HRD.
3. Obtain a copy of the 10-s flight listing from the AOC flight director. Turn in with completed forms.
4. Obtain a copy of the radar DAT tapes. Turn in with completed forms.
5. Obtain a copy of serial flight data on thumb drive. Turn in with completed forms.

[Note: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]

6. Report landing time, aircraft, crew, and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to MGOC.
7. Determine next mission status, if any, and brief crews as necessary.
8. Notify MGOC as to where you can be contacted and arrange for any further coordination required.
9. Prepare written mission summary using **Mission Summary** form.

### Lead Project Scientist Check List

Storm or Project Irene Experiment name TDR

Flight ID 110823A1 Mission ID \_\_\_\_\_

**A. Participants:**

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>Rogers</u>	Flight Director	<u>Lois</u>
Radar/Workstation		Pilots	<u>Newman</u>
	<u>Lorsdo/Klotz</u>	Navigator	<u>Gratch</u>
Cloud Physics		Systems Engineer	<u>Bosko</u>
Photographer/Observer /Guests	<u>Roybert</u>	Data Technician	<u>Olney</u>
Dropwindsonde	<u>Klotz</u>	Electronics Technician	<u>Paelc</u>
AXBT/AXCP		Other	

**B. Take-off and Landing Times and Locations:**

Take-Off: 1952 UTC Location: MacDill

Landing: \_\_\_\_\_ UTC Location: \_\_\_\_\_

Number of Eye Penetrations: \_\_\_\_\_

**C. Past and Forecast Storm Locations:**

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

**D. Mission Briefing:**

Perform TDR mission into H. Irene. e. Cat 2 storm tracking WNW N of Hispaniola. First of a series of flights. Fly butterfly pattern 21P at 300 azimuth, 105 nm leg length, except for on S+SW side where legs will be shortened b/c of Cuba + Hispaniola. Perform 3 radar analyses for 50 transmission. Drop sondes at turn, mid points, RMW and 1<sup>st</sup> + 3<sup>rd</sup> center pass. Fly at 8000 ft pressure. Storm is trying to organize, but is being limited by proximity to Hispaniola & dry air on N side. Visible imagery shows eye trying to develop, and large-scale environment generally favorable for intensification, except for possible dry air.

Storm or Project Trene Experiment name TDR

Flight ID 110823H1 Mission ID \_\_\_\_\_

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

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

REMARKS:

### Lead Project Scientist Event Log

Date 8/23/11 Flight ID 110823H1 LPS Rogers

	Time	Event	Position	Comments
	<del>1952</del>	takeoff	MacDill AFB	T/O
1	2205	pattern, drop 1		at 1P, drop 1 FL 36 SF 40
2	2206	drop <del>1</del> backup		drop 2 (backup) FL 40, SF 40
	2209	obs	~100 nm NW center	eye clear on LF, storm moving a little slower than thought
3	2220	drop 3	~50 nm NW center	FL 40, SF 45
	2224	obs	~40 nm NW	no precip on NW side, just anvil here, some stratiform below anvil
	2235	obs		
4	2236	drop 3	NW eyewall	FL peak 85, SF 65 kt
5	2242	drop 4	center 21 (271.75)	SF still W 15 kt, FC 0, tilted (?)
6	2246	drop 5	SE eyewall	FL peak 80, SF 60-65
7	2254	drop 6	mid pt SE leg	in spiral band, FL 50 kt, SF ~ 50 kt
8	2257	drop 6b	" "	
	2300	obs	80 nm SE	pretty soupy here, lot bumpy but some precip & stratiform precip.
	2305	obs	~100 nm SE	good bumps on SE side, several +4/-8 m/s couplets; definitely more convective on SE side, all non-precip. anvil on NW side; interesting b/c this is inflow from off Hispania; is back of convection on NW b/c of dry air?
9	2311	drop 7	105 nm SE	

204/8

1000 x 111 km  
60 nm

### Lead Project Scientist Event Log

Date \_\_\_\_\_ Flight ID \_\_\_\_\_ LPS- \_\_\_\_\_

	Time	Event	Position	Comments
	2325	obs	on downwind leg on E side	eye sounding showed some drying down to ~800 mb, then near-sat. w. bt. adiabat below that, winds ~0 at FL, then became weak SE below that; profile suggests posbl tilt to NE w/ height; will be curious to see drop on last center pass to see if subsidence inversion is stronger
10	2340	drop 8	105 nm NE	
11	2349	drop 9	~50 nm NE	in rainband. SF winds ~45 kt, FL 60 kt
12	0002	drop 10	NE eyewall	peak FL ~100 ft, no SF lde of land
21 71.95	0010	drop 11	SW eyewall	peak FL ~65 kt, SF ~60-65 highly asymmetric b/w NE + SW, more so than NW to SE
	0015	obs	~40 nm <del>from</del> SW of center	CF looks pretty clear SW of center
14	0020	drop 12	55 nm SW	no lake view
15	0021	drop 12b	50 nm SW	back up
16	0029	drop 13	~100 nm SW	
17	0047	drop 14	~30 nm S just N of Kaiti	FL 40, SF 40 kt
	0051	obs	on inbound leg	0015 IRd SWIR images show eye clearly now
	0057	obs	near S eyewall	CF more filled in around eye

