Lead Project Scientist

Storm or Project MATTHEW **Experiment type** TDR
Flight ID 20161005T1 **Mission ID** WC14A

Preflight

____ 1. Participate in general mission briefing.

____ 2. Determine specific mission and flight requirements for assigned aircraft from the Field Program Director.

____ 3. 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.

____ 4. Meet with AOC flight director and navigator at least 3 hours before take-off for initial briefing.

____ 5. Determine from AOC flight director the mission designation and whether aircraft has operational fix responsibility.

____ 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 Field Program Director.

____ 8. Before take-off, brief the on-board GPS dropsonde operator on times and positions of drops.

____ 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. Request AOC flight director to leave radar in non-sector mode for initial Figure 4.

____ 5. Once at IP, request AOC flight director adjust radar tilt to minimize sea clutter.

____ 6. Complete Lead Project Scientist Form.

____ 7. Check in occasionaly 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 Dropsonde raw and processed files from the AVAPS operator on thumb drive.

____ 4. Obtain a copy of the radar LF files from the radar technician on thumb drive.

____ 5. Obtain a copy of the tar'ed radar TA files from the radar scientist on thumb drive.

____ 6. Obtain a copy of serial flight data and raw NetCDF file on thumb drive from the data technician.

____ 7. Obtain a copy of SFMR data on thumb drive from the data technician.

____ 8. Obtain a copy of DMT data on thumb drive from the data technician.

____ 9. Report landing time, aircraft, crew, and mission status to the Field Program Director.

____ 10. Determine next mission status, if any, and brief crews as necessary.

____ 11. Prepare written mission summary using **Mission Summary** form.

Lead Project Scientist Check List

Storm or Project Matthew **Experiment name** TDR

Flight ID 20161005I1 **Mission ID** WC14A

A. Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	Bucci	Flight Director	Sears
Radar/Workstation	Christophersen	Pilots	Price, Abrtbol Dider, Rees
		Navigator	Siegel
Cloud Physics		Systems Engineer	Darby / Heyslek
		Data Technician	Mascaro
Dropwindsonde	Alaka	Electronics Technician	Richards
AXBT/AXCP		Other	Lyrich, sansaci, underwood, craig
Photographer/Observers/Guests	Komisarjevsk Shitko		

B. Take-off and Landing Times and Locations:

Take-Off: _____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: Alt: 7000 radar modules: ocean winds

Hurricane Matthew is a category 3 storm moving NNW at 7 kts It is just north of the SE tip of Cuba under 10-15 kts of NW shear. After it's interaction with mountains in Haiti and Cuba, the circulation has been disrupted and based on radar, the eastern eyewall remains intact. Pattern is a butterfly, w/ truncated southern legs. Drops @ end pts.

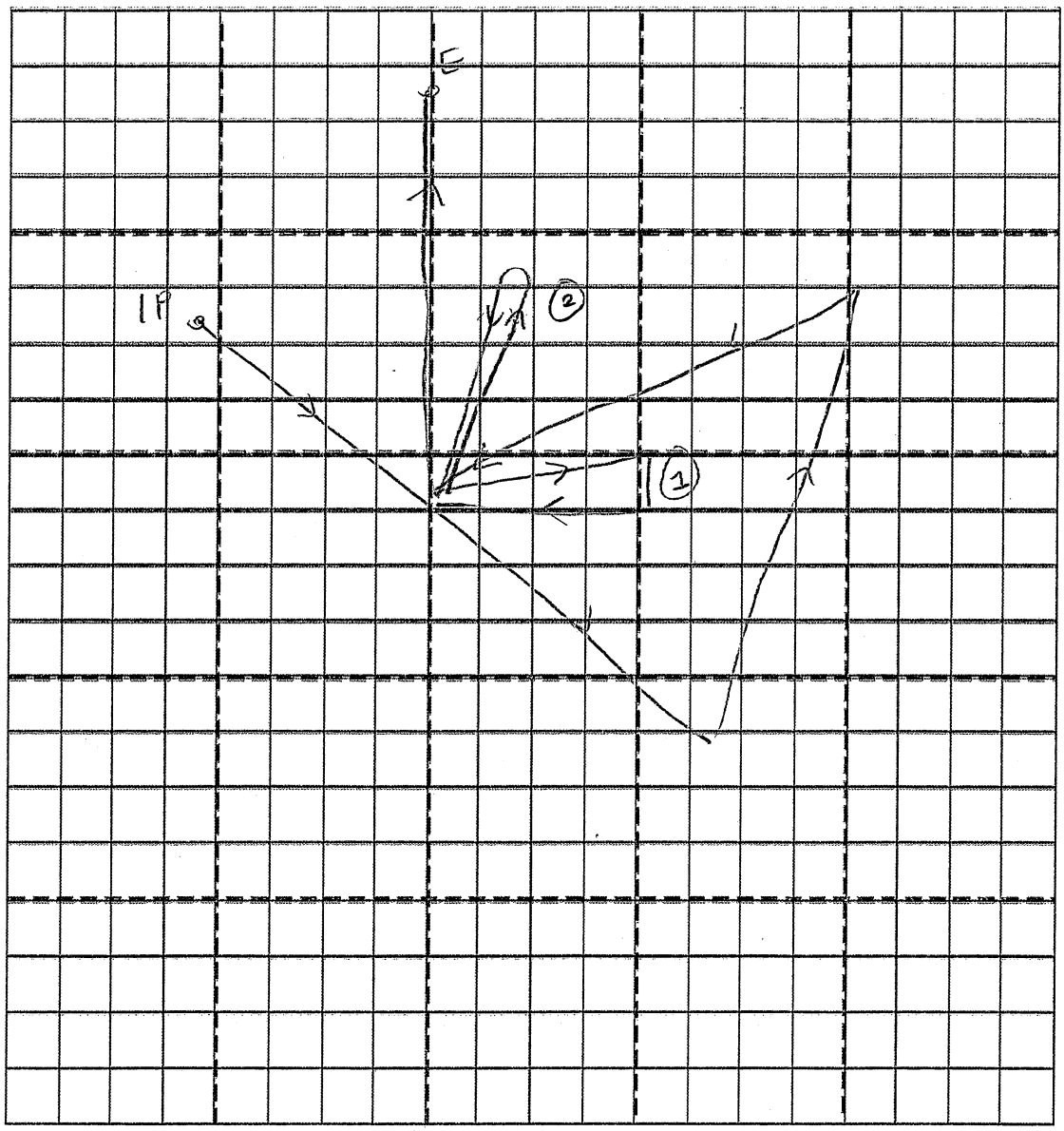
Lead Project Scientist Event Log

Date Oct. 5, 2016 **Flight ID** 20161005I1 **LPS** Bucci

Time	Event	Position	Comments
0603	engine 4 not start	MacDill	Late take off
0702	take off	MacDill	
0907	FOU 0	24°11'N 78°15'W	FD station dropt
0855	continue to IP		
0930	drop 1	IP	
0955	center drop 2	21°15' 74°37'	
1025	end drop 3	end pt 20°14' 73°15'	
1048	end drop 4	NW pt	
1113	max wind drop 5	inbound	50.3 m/s
1117	center 6	21°22' 74°46'	NHC
1123	max wind 7	outbound	Cheung
1143	Max wind 8	inband	chang
1200	max wind drop 9	outbound	chang
1304	end drop	N	
Radials			
1	1117 → 1147		
2	1158 → 1222		

Observer's Flight Track Worksheet

Date _____ Flight _____ Observer _____



Latitude (°)

Longitude (°)

Mission Summary

Storm name

YYMMDDA# Aircraft 4 3RF

Scientific Crew (43RF)

Lead Project Scientist Bucci

Radar Scientist CHRISTOPHERSON / GAMACHE

Cloud Physics Scientist_____

Dropwindsonde Scientist ALAKA

Boundary-Layer Scientist_____

Workstation Scientist_____

Observers (affiliation)_____

Mission Briefing: (include sketch of proposed flight track or page #)

Mission Synopsis: (include plot of actual flight track)

Center was not far enough off shore to have and southern extend. Completed XS, down, inbound, the did 2 Ocean wind radials. Out bound to north

Evaluation: (did the experiment meet the proposed objectives?)

Problems:(list all problems)

- Engine 4 didn't start
- FOUO (dew pt sensor)

Expendables used in mission:

GPS sondes : 10

AXBTs :_____

Sonobuoys: _____