Lead Project Scientist

Storm or Project Alex (Cristobal) **Experiment name** TDR
Flight ID 20140825I1 **Mission ID** 130A Cristobal

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 AL04 Cristobal **Experiment name** TDR

Flight ID 20140825I1 **Mission ID** _____

A. Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	Sellwood	Flight Director	Homan/Sears
Radar/Workstation	Abersm	Pilots	Kirby/Price
	—	Navigator	Steigerwald
Cloud Physics	—	Systems Engineer	Klippel
	—	Data Technician	Nachor
Dropwindsonde	Chen	Electronics Technician	Smith/Greene
AXBT/AXCP		Other	
Photographer/Observers/Guests	Holbrook		

B. Take-off and Landing Times and Locations:

Take-Off: 1753 UTC Location: MacDill

Landing: 0143 UTC Location: MacDill

Number of Eye Penetrations: 1

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
1734	24.59	72.38	995	65 kt
1847	25.02	72.39	993	65 kts
2010	25.02	72.30	992	36 kts
215932	2457	7215	992	54 kts
232816	2501	7157	990	73 kts

AF

045 2kts N43

085 2kts N43

104 9kts

087 10kts

Vortex

D. Mission Briefing:

Storm or Project_____ **Experiment name**_____

Flight ID _____ **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	↑			
Data System	↑			
GPS sondes	↑			
AXBT/AXCP	↑			
Ozone instrument	?			
Workstation	↑			
Cameras	↑			

REMARKS:

got SFMR high incidence due on 1st pass. Concern about not getting first analysis to EMC for 18Z cycle. It was suggested that no modules should be run on 1st figure 4 as a rule. GIV sampling near center convection ahead of P3 and dropping - effectively a convective burst module. 2 Extra sondes with IR test held midpoint drop to catch RMW. 40 m/s at flight level on SE inside of midpoint. Slow steady pressure fall. Crosshair upgraded to hurricane based on SE quadrant observations. Special advisory after 800pm EDT. frequent lightning on final pass

Lead Project Scientist Event Log

Date 8/25/14 **Flight ID** 20140825I1 **LPS** Sellwood / Anderson

Time	Event	Position	Comments
1939	IP		
1950	LF reset		
1954	mid Drop		
2008	center drop	2459 7238	early drop
2009	bkup center	252 7239	
2019	drop	252 7249	start circles
2053	mid drop	2516 7129	
210718	turn		end radar cal 1
212900	turn		
	mid drop		
215936	center	2457 7214	
2214	mid	2451 7214	
223018	turn	2313 7321	end radar cal 2
230000	turn	2317 7110	
2317	RMW		IR test
2317	RMW 2	2432 7155	RMW
232728	center	2459 7157	
2343	mid	2553 7231	
2355	turn	2472 7337	end of pattern

Mission Summary

Storm name

YYMMDDA# Aircraft 4_RF

Scientific Crew (4 RF)

Lead Project Scientist Sellwood / Aberson

Radar Scientist Aberson

Cloud Physics Scientist —

Dropwindsonde Scientist Hua Chen

Boundary-Layer Scientist —

Workstation Scientist —

Observers (affiliation) —

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

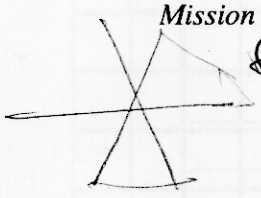

figure 4 w/ the extra leg
120 nm legs

Mission Synopsis: (include plot of actual flight track)

TDR to EMC main objective will insert convective burst module SE of center if anything is there on final leg. Also IR drop test and non-inductive SFMR test if possible

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

Problems:(list all problems)

Expendables used in mission:

GPS sondes : _____

AXBTs :_____

Sonobuoys: _____