

Lead Project Scientist

Storm or Project JS Don Experiment name TDR
Flight ID 20110728H1 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.

IP 10.10.16.15
 subnet 255.255.255.0
 default 10.42.16.1

Lead Project Scientist Check List

Storm or Project TS Don Experiment name TDR
 Flight ID 20110728H1 Mission ID 0304 A DON

A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>Rogers</u>	Flight Director	<u>Sears</u>
Radar/Workstation		Pilots	<u>Newman Martin</u>
	<u>Gamaache</u>	Navigator	<u>Kidder</u>
Cloud Physics	<u>_____</u>	Systems Engineer	<u>Bosco</u>
Photographer/Observer	<u>_____</u>	Data Technician	<u>Olvey</u>
/Guests	<u>_____</u>	Electronics Technician	<u>_____</u>
Dropwindsonde	<u>Rogers</u>	Other	<u>_____</u>
AXBT/AXCP	<u>_____</u>		

B. Take-off and Landing Times and Locations:

Take-Off: 1955 UTC Location: KMcF
 Landing: _____ UTC Location: _____

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Number of Eye Penetrations: _____

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing:

Fly TDR mission into TS Don. 105 km leg lengths, 8000 ft pressure. Drops at all end and mid points, plus at fuel on 1st and 3rd pass. Also center drops on first and third pass. Drop BT is at end, mid-, and fuel points on first and third pass. IP is 105 km at 60° azimuth. If present, drop sondes across arc cloud. Also if possible fly modified convective burst module near each a system. Fly 2nd passes within 5 km from convective system, leg length ~ 50 km.

Mission Summary

Storm name

YYMMDDA# Aircraft 4_RF

Scientific Crew (4 RF)

Lead Project Scientist Kuzers
Radar Scientist Gamaohe
Cloud Physics Scientist _____
Dropwindsonde Scientist Rogers
Boundary-Layer Scientist _____
Workstation Scientist Rogers/Gamaohe
Observers _____

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



See previous

Mission Synopsis: (include plot of actual flight track)

Flew first leg and half of second leg. System was still experiencing shear, and vortex clearly slowed tilt. Strong convection with much lightning at center and south of center (at PL). Storm is intensifying. Unfortunately, TDR ~~never~~ worked except for first part of first leg. With prospect for repair before next flight uncertain, missions were cancelled and this mission aborted after second pass.

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

Because of TDR failure mission was not accomplished. Probs worked reasonably well (9/12), BT's mostly worked well.

Problems: (list all problems)

TDR out, communication b/w ANAPS + workstation out until end of flight, so had to be compensated by using flash drives.

Expendables used in mission:

GPS sondes: 12
AXBTs: 12
Sonobuoys: —