Lead Project Scientist

Storm or Project Arthur **Experiment name** TDR

Flight ID 20140703I1 **Mission ID** 1301A ARTHUR

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.

NOAA 2306

Lead Project Scientist Check List

Storm or Project_____ **Experiment name**_____

Flight ID _____ **Mission ID**_____

A. Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	Aberson	Flight Director	Holmes / Sears
Radar/Workstation	J. Zhang / Patton	Pilots	Halverson, Martin, Didlake
		Flight Engr	Heystek
		Navigator	Sloan
Cloud Physics		Systems Engineer	Wadler
	Sellwood	Data Technician	Noel, Lynch (Tony)
Dropwindsonde		Electronics Technician	Lalonde
AXBT/AXCP	Nuñez	Other	
Photographer/Observers/Guests	Nikki Perrini Kyle Nolan		

B. Take-off and Landing Times and Locations:

Take-Off: 1840 UTC Location: MacDill

Landing: _____UTC Location: MacDill

Number of Eye Penetrations: _____

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
03/1700	32 42	78 24	980	63kt / 19nmi
03/1841	33 02	78 12	977	82kt / 14nmi
03/2031 48	33 21	77 59	977	61kt / 23nmi

D. Mission Briefing: Figure 4, circumnav, then Figure 4, all if safe and possible

Lead Project Scientist Event Log

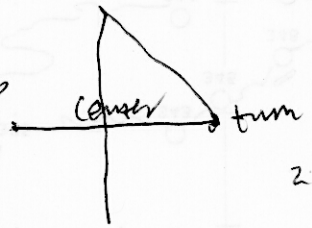
Date ________________ **Flight ID**________________ **LPS** ____________________

Time	Event	Position	Comments
2020	turn from W Pt	sonde 1	
2023	BT 1 out 45 nmi from center		26 C
2031	center	sonde 2, BT 2	26.8 C
	little mixing close on LF, flight saw swirl in clouds		
2036	E RMW sonde 3, dropped early due to miscommunication, but probably good		
2038	E RMW sonde 4 735 mb		
2044	mid point	BT 3	26.8 C
			203138 33 21 77 59 fix
2049	cutting E point short due to convection		don't want to cross [illegible]
2052	E point, turn NW	BT 4 sonde 5	27.1 C
2056	LF down, reset		
2101	turn 270 toward band		
2113	N point 20 nmi	sonde 6	missed RMW, data display locked
2117	center	sonde 7	2118 33 28 77 51
2131	mid point	BT 5	
~ 2140	FUO		
2207	mission aborted	shooting out BTs	
		Dropping every 30 nmi on way back	
2217		BT 6	

20140703I(

(Radar analysis) –

20:20:35 IP – sonde dropped



26.2° – BT ①

(20:08) – initial time

20:32:17. BT ②

20:38:24 – BT ③

20:44:55 BT ④

20:52 – eyewall E side

21:13 – about inbound Also end of first leg ~~outbound~~

First leg:

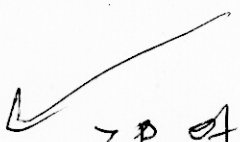
(center)

203/38 3321 7759

20:52 – end of turn

20:09:30 – end of the first leg

↩ sonde – 21:13:14 – end of downwind



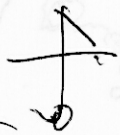
IP of next leg

Center 21800

N 3328

W 7759

21:03 – eyewall at outbound end of



2142 – ~~End of~~ turn point