

12 nm
30 nm

Lead Project Scientist

Storm or Project Post-Gabrielle **Experiment name** Genesis
Flight ID 130907II **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 Post-Gabrielle Experiment name Genesis

Flight ID 130907II Mission ID _____

A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>Rigels</u>	Flight Director	<u>Dumiano</u>
Radar/Workstation	<u>J. Zhang</u>	Pilots	<u>Nelson, Sweeney, Mort</u>
		Navigator	<u>Gallagher</u>
Cloud Physics	<u>_____</u>	Systems Engineer	<u>Reck, Neher</u>
		Data Technician	<u>Monahan</u>
Dropwindsonde	<u>Un/Un</u>	Electronics Technician	
AXBT/AXCP	<u>Un/Un</u>	Other	
Photographer/Observer s/Guests	<u>WRAP group</u>		

B. Take-off and Landing Times and Locations:

Take-Off: 1456 UTC Location: STX

Landing: 2233 UTC Location: STX

Number of Eye Penetrations: 0

C. Past and Forecast Storm Locations: _____

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing: Conduct module mission into remnants of Gabrielle. Fly a burst pattern around any convection seen. Fly a box pattern, 30 nm on a side, at 7000 ft. Drop sondes and BT at corner points of first box, sondes only at corner points of subsequent drops. Once done, find location in clear air on W side to fly box stepped descent, fly 12 nm leg boxes, alt 7000, 5500, 4000, 2500, 1000 ft. Drop sondes and BT at corner of highest leg, sonde after rising back. Also conduct banking maneuvers in precip for WRAP.

20 15
66 47

20.5 67.0

Lead Project Scientist Event Log

Date 9/7/13 Flight ID _____ LPS Rogers

Time	Event	Position	Comments
1456	takeoff	St. Croix	H/O from T15X
1552	pattern	20°15' 67°6'	preparing for burst module, plan
			is to set up SE corner of box at 20.5 67.0, fly 45 nm leg lengths, go N first, then W, then S, then E; repeat 2 more times
1604	pattern	20.5 67.0	beginning of first leg of box, GPS, BT
160630	obs	on first leg, heading N	echo tops up to 16 km on our west
1611	pattern	middle of 1st leg	flying track 45 instead of 0, to avoid connection
1613	pattern		turn to track 315 GPS, BT; no launch detect, launched 2nd GPS
1641	obs	on 4th leg	sampling good MCS, vigorous connection w/ BT → 18 km, wide spread strat.
1626	pattern		turn to track 225, GPS, BT
1638	pattern		turn to track 135, GPS, BT
1648	obs		
164822	pattern	end of 1st box	begin 2nd box; drops had problems, will try different box
1700	pattern	end of leg 1, box 2	GPS, fail, GPS

GPS, BT SE pt

2GPS, BT NE pt

GPS, BT NW pt
GPS, BT SW pt

GPS SE pt

2GPS NE pt

1604 - 1648 - box 1
1648 - 1733 - box 2
1743 - 1831 - box 3

22.5
70.5

Lead Project Scientist Event Log

Date 9/7/13 Flight ID _____ LPS Royers

GPS NW pt

Time	Event	Position	Comments
1710	pattern	21°30'67°0'	turn to track 225,
			GPS drop
1716	obs	21°17'67°13'	patches of weak returns off left side of plane; can see surface there
1722	pattern	20°59'67°30'	turn to track 135, GPS
1733	pattern		end of 2 nd box
1743	pattern		begin 3 rd box, GPS
1749	obs	20°47'66°39'	lightning off left wing
1800	pattern	21°5'66°28'	GPS
1809	pattern		GPS
1822	pattern	20°56'67°27'	GPS
1830	obs		on final leg
1831	pattern		end of third box, heading west to 22.5 70.5 for stair-step descent
1836	pattern		GPS
1944	pattern	22.5 70.5	beginning of box pattern, GPS, BT, track 180
1948	pattern		turn to track 90, GPS, BT
1951	pattern		turn to track 0, GPS, BT
1953	pattern		turn to track 270, GPS, BT
2000	pattern		down to 5500', begin 2 nd box, track 180
2007	" "		track 0
2010			track 270, wings

GPS SE pt
GPS SE pt

GPS NE pt
GPS NW pt
GPS SW pt

SE pt

GPS
GPS, BT

GPS, BT
GPS, BT
GPS, BT

very calm here, ~10 or
fewer kt

