Lead Project Scientist

Storm or Project AL99 **Experiment name** genesis/RI
Flight ID 20160825I2 **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 Al99 **Experiment name** Genesis RI

Flight ID 20160825I2 **Mission ID** _____

A. Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	Cione	Flight Director	Sears/Willa,
Radar/Workstation	Alaka	Pilots	Kerns Abtal
		Navigator	Gallagher
Cloud Physics		Systems Engineer	Lynch
		Data Technician	
Dropwindsonde	Sellwood	Electronics Technician	
AXBT/AXCP	Nguyen	Other	
Photographer/Observers/Guests			

B. Take-off and Landing Times and Locations:

Take-Off: 1806 UTC Location: MacDill

Landing: 2340 UTC Location: MacDill

Number of "Eye" Penetrations: 3

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing:

1940
2351
7547

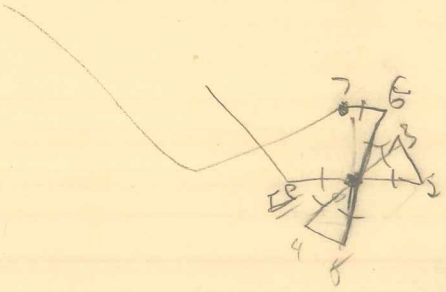
Storm or Project A99 **Experiment name** Genesis/RI

Flight ID 20160825I2 **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:



Lead Project Scientist Event Log

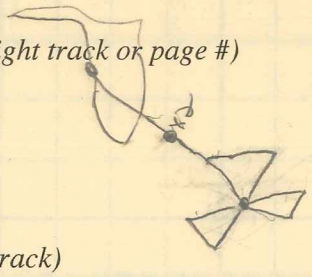
Date 08/25/16 **Flight ID** 20160825(60) **LPS** Ciro

Time	Event	Position	Comments
1806	Takeoff	MacDill	
1940	"NHC Drop"	23°51'N 75°47'W	N+W of Storm "dry air?" model comp.
2011:15	IP (see pattern above)	21.25N; 74.32W	IR/BT Combo
			BT SST = 27.8 IR SST = 29.8
2024	Mid Pt to Center	21.23 73.39	Regular Sonde
2033	Center	21.21 72.58	" "
2045	Mid Pt (Ctr to 2)	21.20 72.04	" "
	Pt 2 (eastend)		BT SST= IR SST=
2101	Engine 4 shut down - visible fuel leak... Coming back		
23:32	Land	MacDill	

Mission Summary
Storm name
YYMMDDA# Aircraft 4_RF

Scientific Crew (4 RF)
Lead Project Scientist Clark
Radar Scientist Alaka
Cloud Physics Scientist
Dropwindsonde Scientist Sellwood
Boundary-Layer Scientist Cione
Workstation Scientist
Observers (affiliation)

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



Mission Synopsis: (include plot of actual flight track)

Butterfly Pattern. 9h duration flight. 7 IR/7 BT Combos @ center pts + 1 center. Plus rey drops @ Mid Pt + 2 Outer. Also... per NHC request 1 drop @ ~ 25 N 77 W (presumably to sample environment ahead)

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

Problems:(list all problems)
Fuel leak on Engine 4... Ended mission 3h premature. IR/BT Combo is to see how well new IR Sonde Compares w/ "known" BTs.

Expendables used in mission:
GPS sondes : Normal
AXBTs : 7
~~Sonobuoys~~: 7
If Sonde