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/Lilla,
Radar/Workstation	Alaka	Pilots	Kerns Abtol
		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

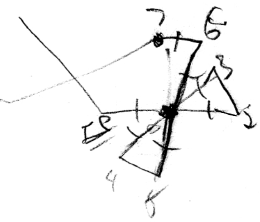
Storm or Project AL99 **Experiment name** Genesis/RI

Flight ID 20160805I2 **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 082516 **Flight ID** 20160825I1 **LPS** Cione

Time	Event	Position	Comments
1806	Takeoff	MacDill	
1940	"NHC Drop"	23°51"N; 75°47"W	N+W of Storm "dry air?" model com
2011:15	IP (see pattern above)	2125N; 7432W	IR/BT Combo
			① BTSST = 27.8 IR SST = 29.8
2024	Midpt to Center	2123 7339	Regular Sonde
2033	Center	2121 7258	" "
2045	Midpt (C to 2)	2122 7204	" "
	pt 2 (east end)		BTSST = IRSST =
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 Black

Cloud Physics Scientist

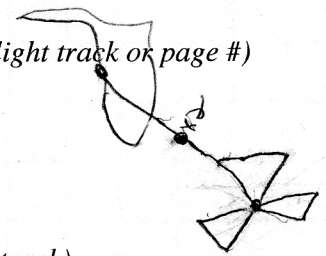
Dropwindsonde Scientist Sellwood

Boundary-Layer Scientist Clark

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 @ end pts + 1 center. Plus reg drops @ Mid Pt + 2 Ctr

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

Also... per NHC request 1 drop @ ~ 35 N 77 W (Presumably to sample center ahead)

Problems:(list all problems)

Fuel leak on Engine 4... Ended mission 3h prematurely

Expendables used in mission:

Normal

GPS sondes : _____

AXBTs : 7

~~Sonobuoys~~: 7

If Sonds

IR/BT combo is to see how well new IR Sonds compare w/ "known" BTs.