

Lead Project Scientist

Storm or Project AL96 Experiment name GENEX
Flight ID 10070742 Mission ID WXWX A AL96

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

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A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>M. Black</u>	Flight Director	<u>Ign Sears, Parish</u>
Radar/Workstation	<u>Paul Ressor</u>	Pilots	
		Navigator	
Cloud Physics		Systems Engineer	
Photographer/Observer /Guests	<u>Patt's OMAO</u>	Data Technician	
Dropwindsonde	<u>J. Gamache</u>	Electronics Technician	
AXBT/AXCP		Other	

B. Take-off and Landing Times and Locations:

Take-Off: 1956 UTC Location: MacDill

Landing: _____ UTC Location: _____

Number of Eye Penetrations: _____

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
<u>08/00</u>	<u>24</u>	<u>96</u>	<u>1002</u>	<u>30 kt?</u>

wave
or
depression

D. Mission Briefing:

Square spiral centered on 24°N, 96°W, coming in from E



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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: No camera display
only a few graphs.
DAT drive on HARD WS not working

Lead Project Scientist Event Log

Date 7 Jul '10 Flight ID 10070742 LPS M. Black

Time	Event	Position	Comments
211013	Test drop #1	26°20' 98°	Curved band 120 mi SW
2118	rebooting radar system		
2121	radar back up		
2123	squall line visible on LF - 100 km away		
213349	Drop #2 leading edge of squall line		
2134	Squall line	25.7 90.3	45 kt SE @ 5 ft - 10 ft 35-40 kt surface on surface
2138	Drop #3 in stratiform behind squall line		
2145	IR + LF suggest convective minimum		
			with lots of stratiform
2149	25-30 kt sfc - 30-35 ft 10 ft		
220126	Drop #4	IP 25°31' 92.53' W	
221215	Drop #5	25°31' 93.47'	
222339	Drop #6	25°31' 94.46'	
2236	Drop 7	west point, turn to south	
224202	Drop 8	24°41' 95.53' W	
230112	Drop 9	23.3 95.52'	turn to east
231050	Drop 10	22.70 95.21	
231435	Drop 11	next to MCS	
231815	Drop 12	in center of MCS	
23200	Near center of circulation		
2321	hdg back to east on southern leg		
2323	out of MCS		
232710	Drop 13	22.75 94.25	
233850	Drop 14	22.7 93.2	
2340	cutting SE point to give us more time and to fly along stratiform		

Lead Project Scientist Event Log

Date _____ Flight ID _____ LPS _____

Bad
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Bad sonde

Time	Event	Position	Comments
2338	Drop ¹⁵ at new SE point - cut corner		
2354	Drop #16 - along S-N leg		
002048	Drop 17	24.6 93.6	
0022	Turn back to W	Drop 18	
003407	Turn back to South	Drop 19	
003916	Back up	Drop 20	
0051	Turn to east inner spiral		
	Drop 21	23.3 W 95° W	
010750	Turn to north	23° 23' 93" 11 W	
	Drop 21 inner spiral to North		
	South winds 20 kts		
0117	Turn to west - inner to ctr		
	with fly winds		
011832	Drop 23 last leg in to ctr		
	24.93.5		
012456	Drop 24 close to ctr		
0128	End of spiral - climb for		
	McK 111"		
	Landing about	0350	