E.6 Dropsonde Scientist

The lead project scientist (LPS) on each aircraft is responsible for determining the distribution patterns for dropwindsonde releases. Predetermined desired data collection patterns are illustrated on the flight patterns. However, these patterns often are required to be altered because of clearance problems, etc. Operational procedures are contained in the operator's manual. The following list contains more general supplementary procedures to be followed. (Check off and initial.)

E.6.1 Preflight

____ 1. Determine the status of the AVAPS and HAPS. Report results to the LPS.

____ 2. Confirm the mission and pattern selection from the LPS and assure that enough dropsondes are on board the aircraft.

____ 3. Modify the flight pattern or drop locations if requested by AOC to accommodate changes in storm location or closeness to land.

____ 4. Complete the appropriate preflight set-up and checklists.

E.6.2 In-Flight

____ 1. Operate the system as specified in the operator's manual.

____ 2. Ensure the AOC flight director is aware of upcoming drops.

____ 3. Ensure the AVAPS operator has determined that the dropsonde is (or is not) transmitting a good signal. Recommend if a backup dropsonde should be launched in case of failure.

____ 4. Report the transmission of each drop and fill in the Dropwindsonde Scientist Log.

E.6.3 Post flight

____ 1. Complete Dropwindsonde Scientist Log.

____ 2. Brief the LPS on equipment status and turn in reports and completed forms.

____ 3. Hand-carry all dropwindsonde data tapes or CDs as follows:

a. Outside of Miami-to the LPS or PI.
b. In Miami-to AOML/HRD. [**Note**: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]

____ 4. Debrief at the MGOC or the hotel during a deployment.

____ 5. Determine the status of future missions and notify MGOC as to where you can be contacted.

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Lead Project Scientist Check List

Date 26 June 2010 **Aircraft** N42RF **Flight ID** 100628h1

A. —Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	Aberson	Flight Director	Heuring/Parrish
Radar	Lorsolo	Pilots	Nelson/Kibbey
Workstation	Sellwood	Navigator	Bishop/Sloan
Cloud Physics	—	Systems Engineer	Lynch (T)
Photographer/Observer /Guests	Ramos/Hagsett	Data Technician	Richards/Warnecke
Dropwindsonde	Sellwood	Electronics Technician	
AXBT/AXCP	—	Other Flight Engineer	Bast

B. Take-off and Landing Locations:

Take-Off: 2110 Location: MacDill

Landing: 0224 Location: MacDill

Number of Eye Penetrations: —

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing: Butterfly pattern in developing T.S. Alex for EMC. To send radar data

Lead Project Scientist Event Log

Date ________________ **Flight** ________________ **LPS** ______________________

Time	Event	Position	Comments
2303	Going through [illegible] of con-	vective band to NE of	center. little bit of icing
2316	descent to 12K		
	SFMR back up		
2326	Turn at IP,	drop #1	
2341	Turn 070. RTP	Engine #1 off	
0224	KMCF		

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Mission Summary
Storm name
YYMMDDA# Aircraft 4 2 RF

Scientific Crew (4 RF)

Lead Project Scientist Aberan
Radar Scientist Lorsolo
Cloud Physics Scientist –
Dropwindsonde Scientist Sellwood
Boundary-Layer Scientist –
Workstation Scientist Sellwood
Observers –

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

Mission Synopsis: (include plot of actual flight track)

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

Problems:(list all problems) 1. Need flight bag for each crew
2. Need printing capability to mitigate (1)
3. Track ball for workstation broken - borrowed one from AOC
4. SFMR down
5. Centrifugal switch on Engine # 4 problem. 2 hour delay at start
6. ASDL comms down but fixed

Expendables used in mission:
GPS sondes : 1
AXBTs :
Sonobuoys: