Lead Project Scientist

Storm or Project _Karl_   **Experiment name** _RAPX_

Flight ID _20160923 1 1_   **Mission ID** _W61 2A Karl_

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 Event Log

Date **04/23** Flight ID **20160923I1** LPS **Jun Zhang**

Time	Event	Position	Comments
05:48	take off	STK	
0754	IP		
082y	center	27°46, 64°54	
0842	2. End pass 1		
0912	3. start pass 2		
0934	center	27.54, 65.08	
0957	4 end pass 2		
10:16	5 start pass 3		
10:42	center		
10:58	6 end pass 3		
11:18	7 start pass 4		
11:36	center		
1157	8 End pass 4		
~0840	seeing echo top up to 16km		
1120	G-IV meets P3 — doing inbound leg together		
	HWRAP vs IWRAP calibration		
E-W	pass		
1105	stepped down to 5k altitude for 25 nm		
	then come back — purpose say if there is flux		
	at 1.7km, maybe near the top of the inflow layer		
11±11:3	computer screen stuck		
	↳ flight director computer also had problem		

no
wedge mode at center

Observer's Flight Track Worksheet

Date 09/23   Flight 20160923 1/   Observer _____

Latitude (°)
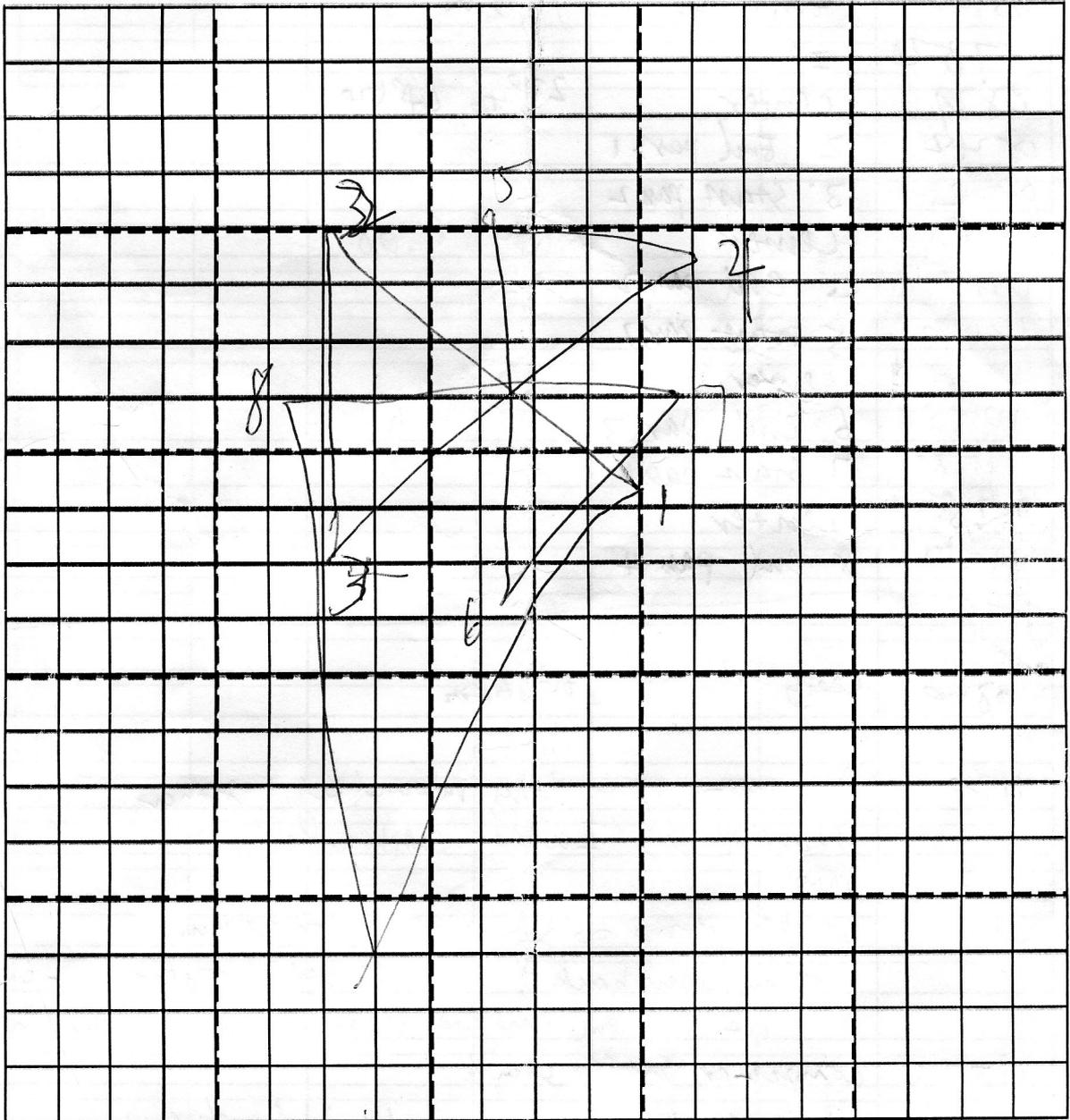
Longitude (°)

Mission Summary
Storm name
YYMMDDA# Aircraft 4_RF

Scientific Crew (4 RF)
Lead Project Scientist _Jun Zhang_
Radar Scientist _Paul Reasor_
Cloud Physics Scientist_____
Dropwindsonde Scientist _Brittany Dahl_
Boundary-Layer Scientist_____
Workstation Scientist_____
Observers (affiliation)_____

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

Rotated Figure 4
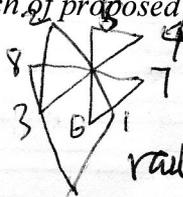
9:45 hr flights   z = 8K ft

radial pass 95 nm per leg from center

Mission Synopsis: (include plot of actual flight track)

sleepy echo tg
up to 10 km

RR and PC and JD
worked together
to match
Global H and
P3 at tass point
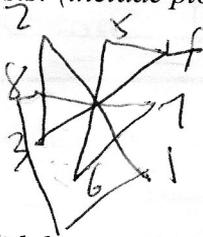
6-7 — stepped descent to 5K ft

Trying to coordinate with GH to get overp

Jason D. GH LPS — for Paul C. thinking abou

E-W leg ~10:45

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

Step descent to 5k in leg 6-7
(20 nm) — MBUG

GH and P3 standby 1/30 —

Problems: (list all problems)

Computer screen got struck for 10 min at 11:11

Expendables used in mission:
   GPS sondes : _____
   AXBTs :_____

   Sonobuoys: _____