

## Lead Project Scientist

Storm or Project Gordon Experiment type NHC Tasking  
Flight ID 20180904H2 Mission ID \_\_\_\_\_

### Preflight

1. Participate in general mission briefing.
2. Determine specific mission and flight requirements for assigned aircraft from the Field Program Director.
3. 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.
4. Meet with AOC flight director and navigator at least 3 hours before take-off for initial briefing.
5. Determine from AOC flight director the mission designation and whether aircraft has operational fix responsibility
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 Field Program Director.
8. Before take-off, brief the on-board GPS dropsonde operator on times and positions of drops.
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. Request AOC flight director to leave radar in non-sector mode for initial Figure 4.
5. Once at IP, request AOC flight director adjust radar tilt to minimize sea clutter.
6. Complete Lead Project Scientist Form.
7. Check in occasionally 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 Dropsonde raw and processed files from the AVAPS operator on thumb drive.
4. Obtain a copy of the radar LF files from the radar technician on thumb drive.
5. Obtain a copy of the tar'ed radar TA files from the radar scientist on thumb drive.
6. Obtain a copy of serial flight data and raw NetCDF file on thumb drive from the data technician.
7. Obtain a copy of SFMR data on thumb drive from the data technician.
8. Obtain a copy of DMT data on thumb drive from the data technician.
9. Report landing time, aircraft, crew, and mission status to the Field Program Director.
10. Determine next mission status, if any, and brief crews as necessary
11. Prepare written mission summary using **Mission Summary** form.

### Lead Project Scientist Check List

Storm or Project Gordon Experiment name NHC Tasking  
 Flight ID 20180904HZ Mission ID 0607A, Gordon

**A. Participants:**

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>Christophersen</u>	Flight Director	<u>Ian Sears</u>
Radar/Workstation	<u>Rogers</u>	Pilots	<u>Price</u> <u>Abitbol</u>
Cloud Physics	_____	Navigator	<u>Richards</u>
Dropwindsonde	_____	Systems Engineer	<u>Heystek/Sanchez</u>
AXBT/AXCP	_____	Data Technician	<u>Mascaro</u>
Photographer/Observer	_____	Electronics Technician	_____
s/Guests	<u>Chang, Sapp, Zawislak, De solo</u>	Other Avaps Operator:	<u>Underwood</u>

**B. Take-off and Landing Times and Locations:**

Take-Off: 2211 UTC Location: LAL

Landing: 0505 UTC Location: LAL

Number of Eye Penetrations: \_\_\_\_\_

**C. Past and Forecast Storm Locations:**

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

**D. Mission Briefing:**

NHC Tasking, mainly target for 2300 UTC fixes, along with an alpha pattern (aka figure-4 pattern). If NHC releases us from the mission, potentially perform "offshore Intense convection" module and SFMR circles

Storm or Project Gordon Experiment name NHC Tasting

Flight ID 20180904 H2 Mission ID \_\_\_\_\_

E. — Equipment Status (Up ↑, Down ↓, Not Available N/A, Not Used O)

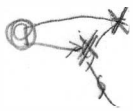
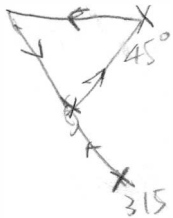
Equipment	Pre-Flight	In-Flight	Post-Flight	# DATs / CDs / Expendables / Printouts
Radar/LF	↑			
Doppler Radar/TA	↑			
Cloud Physics				
Data System	↑			
GPS sondes	↑			
AXBT/AXCP				
Ozone instrument				
Workstation	↑			
Cameras	↑			

REMARKS:

### Lead Project Scientist Event Log

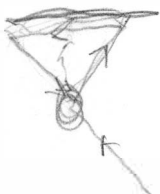
Date \_\_\_\_\_ Flight ID 20180404H2 LPS Christophersen

Time	Event	Position	Comments
21:50	Some crack on the outside of the plane, easy fix		
22:11	Take off		
22:20	Gordon on WSR88D radar shown a broadening of the convection close to center.		
23:00	T.D. descend to 10kft		
23:11	Drop 1. SE end pnt. track 315°		
23:36	29°42' 87°52' center drop		
23:47	NE track 45°. Drop 3		
00:29	29°51' 87°53' Drop 4 center drop.		
	Storm center has moved NE a bit from the previous pass		
	SFMR not <del>recording</del> getting surface winds bc close to land??		
	Mike said it still records brightness temperature		
00:34	Drop 5 end pnt		
01:00	Drop 6, center drop, 29°59' 88°03'		
01:03	Drop 7, max wind band drop		
01:10	Some bumps in NE side of the storm just south of Pensacola		
01:14	18kt from the last drop (From Jan)		
01:18	max wind sonde. Drop 8		
01:22	center drop, 30°1' 88°07' Drop 9		
01:49	loitering for 3 circles, now head back in, track 90°		
01:54	30°7' 88°14' center drop. Drop 10		
02:17	some 16km echos to the NE side of storm. flight level winds 50kt		
02:19	30°7' 88°21' center drop. Drop 10		
02:48	Track 77°, 8th passes		
02:50	Track 90°, 9th passes now		



Drop #4

Surface pressure 1000, winds 23kt @ 145° tilted storm







## Mission Summary

### Storm name

YYMMDDA# Aircraft 4\_RF

### Scientific Crew (4 RF)

Lead Project Scientist Christophersen

Radar Scientist Rogers

Cloud Physics Scientist \_\_\_\_\_

Dropwindsonde Scientist Hazelton

Boundary-Layer Scientist \_\_\_\_\_

Workstation Scientist \_\_\_\_\_

Observers (affiliation) Chang (NESDIS) Sapp (NESDIS)

De Solo (Emery)

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



left was the plan after debrief, MFC adjusted pattern.  
SE after IP. track in 330 to center, then NE out,  
Track west to the NW side of the storm, head back in  
center, then repeat NE → W → SE → center → NE

Mission Synopsis. (include plot of actual flight track)



Actual track is SE side of the storm → center → NE out  
Then many W → E → W passes for the center fixes  
Then prop 3 more sondes for offshore intense convection module

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

It is MFC tasking. I believe all objects are met,  
We got some chance to do a module!

Problems: (list all problems)

None

Expendables used in mission.

GPS sondes 14

AXBTs 0

Sonobuoys: \_\_\_\_\_