

## Lead Project Scientist

Date 9/2/2019 Flight ID 20190902 H2  
Storm or Project Dorian Experiment name TDR  
Mission ID 3405A Dorian

### Pre-flight

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 Field Program Director.
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 Field Program Director
7. Determine next mission status, if any, and brief crews as necessary.
8. Notify Field Program Director 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 Dorian

Experiment name TDR

Flight ID 20190902H2

Mission ID 3405A Dorian

**A. Participants:**

Function	Participant	Function	Participant
Lead Project Scientist	<u>Marks</u>	Flight Director	<u>Parrish</u>
Radar	<u>X. Zhang</u>	Pilot	<u>Kibbey</u>
Workstation	<u>—</u>	Pilot	<u>Abitbol/Rossi</u>
Cloud Physics	<u>—</u>	Navigator	<u>Urato</u>
Dropsonde	<u>Sellwood</u>	Systems Engineer	<u>Clark/McAlister</u>
Dropsonde	<u>—</u>	Data Technician	<u>Mascaro</u>
AXBT/AXCP	<u>—</u>	Electronics Technicians	<u>Richards</u>
Observer/Guest	<u>Gallagher</u>	IWRAP	<u>Sapp</u>
Observer/Guest	<u>(Abraham) man</u>	Flight Engineer	<u>Darby/Taffnel</u>

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

Take-Off: 2003 UTC Location: Lake land

Landing: 0254 UTC Location: Lake land

Number of Eye Penetrations: 6

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

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
/				
/				
/				
/				
/				

**D. Mission Briefing:**

rotated Fig. 4 drops at end point/midpoint/eye  
potential IWRAP legs at the end

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

Equipment	Pre-Flight	In-Flight	Post-Flight	# DATs / CDs / Expendables / Printouts
Radar/LF	✓	✓	✓	
Doppler Radar/TA	✓	✓	✓	5 analyses
Cloud Physics	✓	✓	✓	
Data System	✓	✓	✓	
GPS sondes	✓	✓	✓	25/1 fast fall
AXBT/AXCP	—	—	—	—
Ozone instrument	—	—	—	
Workstation	—	—	—	
Cameras	✓	✓	—	

real time possible 6th

**REMARKS:**

executed rotated Fig. 4 then returned to G and semi 45 nm SE of G and performed semicircle pattern at 45 nm from G ending NW of G. Inbound <sup>TK135</sup> to and then exit FR 290 to



Lead Project Scientist Event

Date 9/2/19

Flight ID 20190902#2LPS Marks

Time	Event	Position	Comments
230151	mid pt	26.4 77.8	drop #10
		TK 315	
2315	6	26.86 78.39	ext trap 943 mb
2328	mid pt.	27.45 79.05	drop #11
2339	6	28 79.7	drop #12
		TK 180	TK 150 to 7
000350	7	26.2 79.3	shattered leg to 5 m
		TK 045	Drop = 13
001050	mid point	26.4 78.93	drop #14
002025	6	26.85 78.37	drop #15
		946 mb	NE layer wall very reflective
003245	mid pt	27.4 77.75	drop #16 fast fall
			drop #17
004356	8	27.9 77.15	drop #18 TK 225 to 6
010919	6	26.85 78.45	TK 135
011951	arc 1P	26.35 77.9	semicircle at 450m
			drop #19
0125			drop #20 in
0129			drop #21
0132			drop #22
013639			drop #23
014026			drop #24

014415 end of arc 26.7 = 78.4 drop #25 TK 135

0146 6 ← TK 290 to Lakeland

0210 climb out

0251 Land



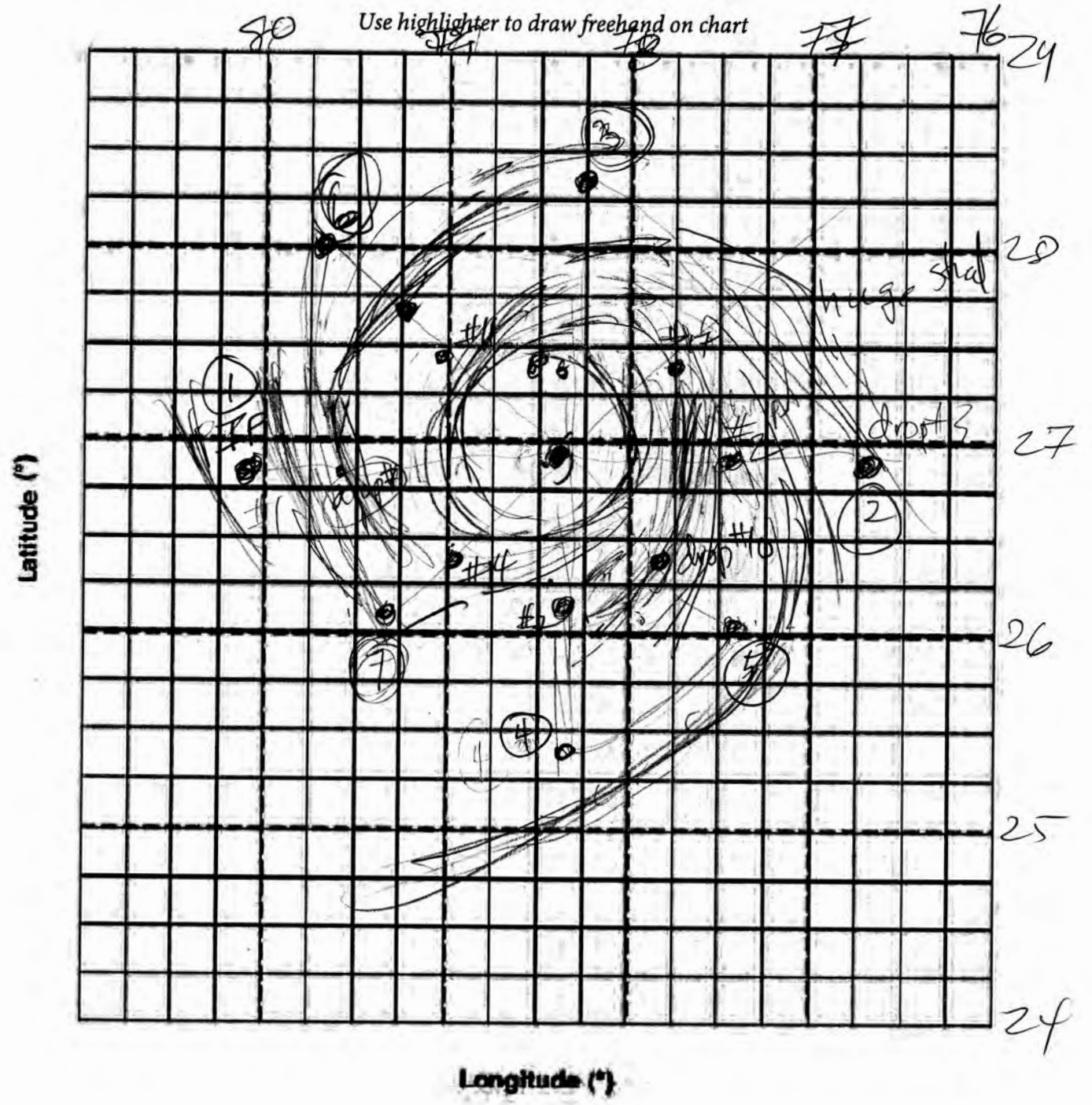
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# Observer's Flight Track Worksheet

Date 9/2/19

Flight 20190902H2 Observer Marks

Use highlighter to draw freehand on chart



## Mission Summary

20190902H2

### Scientific Crew (42RF)

Lead Project Scientist Mark

Radar Scientist X. Zhang

Cloud Physics Scientist

Dropwindsonde Scientist Sellwood

Boundary-Layer Scientist

Workstation Scientist

Observers (affiliation) Sapp (NESDIS)

*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)*

*Expendables used in mission:*

Deployed

Good

Bad

GPS sondes :

AXBTs :

Sonobuoys:

UAVs

