Lead Project Scientist

Storm or Project NESDIS/JPSS VALIDATION **Experiment type**_____
Flight ID 20180920N1 **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 occasionaly 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 NESDIS/JPSS VALIDATION **Experiment name** __________

Flight ID 20180920N1 **Mission ID** WAWXA SAHARANAIR

A. Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	DUNION / ZAWISLAK	Flight Director	HENNING
Radar/Workstation		Pilots	
		Navigator	
Cloud Physics		Systems Engineer	
		Data Technician	
Dropwindsonde	ZAWISLAK	Electronics Technician	
AXBT/AXCP		Other	AVAPS: PATEL / WERNECKE
Photographer/Observers/Guests			

B. Take-off and Landing Times and Locations:

Take-Off: 1300 UTC Location: LAL

Landing: 2130 UTC Location: LAL

Number of Eye Penetrations: ______

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing:

SURVEY PATTERN OF DROPSONDES THAT WILL CROSS MULTIPLE MOISTURE GRADIENTS. INITIALLY WITH A FRONTAL BOUNDARY LEAVING THE EAST COAST, SOME MOIST TROPICAL COMING UP OUT OF THE CARIBBEAN, ASSOCIATED WAVE AND OF COURSE THE SAHARAN AIR LAYER RISING WESTWARD. GOAL IS TO VALIDATE THE NUCAPS PRODUCT, PARTICULARLY HOW IT HANDLES INVERSION WHEN AND REPRESENTS FINER SCALE REGIONS IN THE AREAS.

Lead Project Scientist Event Log

Date 9/20/18 **Flight ID** 20180920N1 **LPS** Dunion/Zawislak

Time	Event	Position	Comments
1300	TAKEOFF		LAL ENROUTE TO PATTERN
			INITIAL AIR MASS LOOKS TO BE NICE DRY MID-LATITUDE
1348			SAL CERTAINLY LOOKS LIKE IT HAS PUSHED MORE WEST THAN
			ANTICIPATED. [illegible]
			ALREADY CROSSED THE FRONTAL BOUNDARY
			NEXT UP SOME MORE MOIST AIR ASSOCIATED W/ THE UPPER LOW
1513			LOOKS LIKE CONVECTION AT THE SAL FRONT
			THESE DROPS ARE CAPTURING A TRANSITION INTO SAL
1625		57.72 / 18.78	BEEN DULL OVER THE SAL BUT NOW LOOKING A
			LITTLE CLEARER. MORE CLOUDS FOR SURE.
			NEARING OUR NORTH → SOUTH LINE
1633			RECENT [illegible] OUT LEG INTO SAL
			DEFINITELY CLEARER. SCATTERED CLOUD LINES
			SAL DEFINITELY FURTHER WEST THAN WHEN WE PLANNED IT
			1555Z DROP [illegible] UP THE EASTERLIES
1654	DOWN N→S LINE		AT FL, LOOKS WE CUT
			THROUGH THAT UPPER LOW/ FRONT. NORTH OF PUERTO RICO
1707			STILL LITTLE DUST ON THIS EASTERN PART OF PATTERN
			LOOKING DUSTIER AHEAD NOW
			AS WE HEAD TOWARDS THE ANTILLES
1719			DEFINITELY BACK TO DUST
			SCATTERED CLOUDS W/ DUST

1740 CROSSING ANTILLES SAL OUT.

Lead Project Scientist Event Log

Date 9/20/18 **Flight ID** 20180920N1 **LPS** Dunion / Zawislak

Time	Event	Position	Comments
1746		61.9 / 15.00	STILL IN SAL DUST BUT HEADING TOWARDS THE
			WAVE NOW. SHOULD SEE STRONGER EASTERLIES
			AND SAL FRONT AT SOME POINT
1812		65.0 / 15.0	NOW GETTING CLOSER TO
			THE WAVE, STRONGER EASTERLIES LOWER PRESSURE ~1013 mb
			COMPARED TO 1018 IN FURTHER EAST
1831Z		67.0 / 15.00	GETTING MORE INTO WAVE. NOT LOOKING AT DUST
1855		70.38 / 15.4	HEADING NW, STILL EAST OF THE WAVE AXIS
			NO DUST OUT HERE
1917		SOUTH OF HISPANIOLA LAST PT.	GETTING IN AND AROUND SOME CONVECTION
			AND BELOW US. MUST BE CONVECTION IN THE WAVE
			JASON REPORTED GOOD SOUNDINGS IN
			SAL, MID-LAT DRY INTRUSIONS,
			MOIST TROPICAL, AND TROPICAL WAVE IN THE EAST CARIBBEAN.
2046			SOUNDING UP IN BAHAMAS A LOT MORE MOIST