Radar Scientist

Flight ID 20140824I1 **Storm** TD #4 **Radar Scientist** Jun Zhang

The on-board radar scientist is responsible for data collection from all radar systems on his/her assigned aircraft. Detailed operational procedures and checklists are contained in the operator's manual. General supplementary procedures follow. (Check off or initial.)

Preflight

_____ 1. Determine status of equipment and report results to lead project scientist (LPS).

_____ 2. Confirm mission and pattern selection from the LPS.

_____ 3. Select the operational mode for radar system(s) after consultation with the LPS.

_____ 4. Complete the appropriate preflight check list.

In-Flight

_____ 1. Monitor the Tail Doppler Radar function regularly, using the realtime TDR display, to make sure the Doppler radar is scanning and working normally.

_____ 2. Maintain the Doppler Wind Parameter form as well as a written commentary in the Radar Event Log of event times, such as ending and restarting of radar recording. Also document any equipment problems or changes in R/T, INE, or signal status.

Post flight

_____ 1. Complete the summary checklist and all other appropriate forms.

_____ 2. Download all Tail (TA) radar data files to thumb drive.

_____ 3. Brief the LPS on equipment status and turn in completed forms and thumb drives to the LPS.

_____ 4. Debrief at the base of operations.

_____ 5. Determine the status of future missions and notify HFP Director as to where you can be contacted.

HRD Radar Scientist Check List

Flight ID: 20140824H1

Aircraft Number: 42

Radar Scientist: Jun Zhang

Radar Technician: Terry Lynch

Component Systems Status (Up ↑, Down ↓, Not Available **N/A**, Not Used **O**):

Radar Computer _____

Lower Fuselage (LF) Antenna _____

Tail (TA) Antenna _____

Time correction between LF radar time and digital time: ___

TA Radar Parameters:

(Single/Dual) PRF _____ F/AST (Y/N) Rotation Rate ____ RPM

Sweeps/File _____ Record 2nd Trip (Y/N) (Circle appropriate status)

Radar Post flight Summary

Significant down time:

Radar LF _____

Radar TA _____

Other Problems:

HRD Radar Event Log

Flight ID_____ **Aircraft** _____
Radar Scientist _____**Radar Technician**_____

(Include down time and times of when recording ended and was restarted)

Time (HHMMSS)	Event
0[illegible]	7542 2254 IP
0819	7735 2256 midpoint drop
0838	trying to find a center
0843	2247 7254 center drop
0859	drop midpoint
0854	seeing radar reflectivity echo going up to [illegible]
	going through the convective region
9:11	Sonde end point or trying find the high winds
	released within convection
	- ground person couldn't get on xchan likely
	because the ftp server is off, the primary
	ftp
0936	Sonde - end of downwind leg
	domain size 300 km
0943	Sonde second IX - radar second figure
	↓ mid pass drop
10:03	center 2254 7238
	drop - SWP center
1019	Sonde midpoint
1032	drops - end of cross section
11:01	drop - end of down wind leg
11:17	Sonde mid point
	going through convection - convective area
11:30	Sonde - center - find high winds

11:50 - Sonde - midpoint

12:01 - sond - 2457, 7346 -

Doppler Wind parameters

Flight ID:	Doppler flight-leg notes (for use in automatic QC and analysis)	Scientist:

	Leg Start Time	Leg End Time	Storm Motion		Center Fix			Inbound track	Outbound track	Max Radius Default = 245	Horz. Res Default = 5	Sent ?
					Time	Latitude	Longitude					
	HHMMSS	HHMMSS	Degrees	Knots	HHMMSS	(Deg/Min)	(Deg/Min)	Degrees	Degrees	(km)	(km)	(Y/N)
1	080416	0915	325	8	0843	2247	7254	90	90			
	0824	0937						90	90			
2	0937	1033	325	8	1003	2254	7238	210	210			
	0937	1201						210	210			
3	1101	12:02	325	8	1135	2314	7238	330				
	10	10						330				