

## Radar Scientist

Flight ID 20140824I1 Storm Cristobal Radar Scientist Aberson/Gamache

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.

# 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 (km)	Horz. Res Default = 5 (km)	Sent ? (Y/N)
				Time	Latitude	Longitude					
HHMMSS	HHMMSS	Degrees	Knots	HHMMSS	(Deg/Min)	(Deg/Min)	Degrees	Degrees	(km)	(km)	(Y/N)
				17:47:50	24 12	72 46					
				19:33:50	24 24	72 52	90	90	245	5	manual to 20m
1938 <sup>m</sup> 17	2031 <sup>out</sup> 20	340	06	20:07:59	24 23	72 50					
2031 <sup>downwind</sup> 20	205524			21:17:10	24 32	72 57					
2055 <sup>m</sup> 24	2221 <sup>out</sup> 00	275	02	21:53:46	24 24	72 56	210	210	245	5	Y
2221 <sup>downwind</sup> 00	225000			23:08:20	24 31	73 05					
2250 <sup>m</sup> 00	234925	230	07	23:19:43	24 17	73 05	330	330	245	5	

1001 mb  
AF: 42 kt SFMR  
39 kt FL

999 mb X  
AF: 24 kt SFMR  
44 kt FL

999 mb  
31 kt SFMR  
38 kt FL

AE 999 mb X  
31 kt SFMR  
44 kt FL

999 mb  
35 kt SFMR  
45 kt FL

AF 997 mb X  
35 kt SFMR  
51 kt FL

999 mb  
45 kt SFMR  
45 kt FL