1998.09.23 N43 - RADAR Hurricane Georges

E.5 Doppler Radar Scientist (On-Board)

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

E.5.1 Preflight

MB 1. Determine the status of equipment and report results to the on-board lead project scientist (LPS).

MB 2. Confirm mission and pattern selection from the on-board LPS.

MB 3. Select the operational mode for radar system(s) after consultation with the on-board LPS.

MB 4. Complete the appropriate preflight calibrations and check lists as specified in the radar operator's manual.

E.5.2 In-Flight

_____ 1. Operate the system(s) as specified in the operator's manual and as directed by the on-board LPS or as required for aircraft safety as determined by the AOC flight director or aircraft commander.

_____ 2. Maintain a written commentary in the radar logbook of tape and event times, such as the start and end times of F/AST legs. Also document any equipment problems or changes in R/T, INE, or signal status.

E.5.3 Postflight

_____ 1. Complete the summary check lists and all other appropriate check lists and forms.

_____ 2. Brief the on-board LPS on equipment status and turn in completed forms to the LPS.

_____ 3. Hand-carry all radar tapes and arrange delivery as follows:

a. Outside of Miami - to the HRD Field Ground Operations Center (FGOC).
b. In Miami - to MGOC or to AOML/HRD. [Note: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]

_____ 4. Debrief at the appropriate operations center (FGOC or MGOC).

_____ 5. Determine the status of future missions and notify the appropriate operations center (FGOC or MGOC) as to where you can be contacted.

Doppler Radar Scientist Check List

Flight ID: _____

Aircraft Number: _____

Doppler Radar Operators: _____

Radar Technician: _____

Number of digital magnetic tapes on board: _____

Component Systems Status:

MARS _____ Computer _____

DAT1 _____ DAT2 _____

LF _____ R/T Serial # _____

TA _____ R/T Serial # _____

Time correction between radar time and digital time: _____

Radar Postflight Summary

Number of digital tapes used: DAT1 _____

DAT2 _____

Significant down time:

DAT1 _____ Radar LF _____

DAT2 _____ Radar TA _____

Other Problems:

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HRD Radar Tape Log

Flight 980923H1 Aircraft 42 Operator M. Black Sheet 1 of 1

LF RPM 2 TA RPM 10

(Include start and end times of DATs, as well as times of F/AST legs and any changes of radar equipment status)

Tape #	F/AST On?	Event Time (HHMMSS)	Event
D1	Yes	1004	Started recording
D1	Yes	1010	Dual PPF
S	Yes	120414	eye 19°7' 73°17' 996mb
D S 1257		120431	drop 9818200886 is eye
D S		133449	drop 9818200286 → north of Haiti
		1348	Radar Down
D2		1403	Radar Up → no winds
D	Yes	141330	Drop #3 9818 10006 NE of Cuba
SD	Yes	1435	Drop #4 996 mb low center
D2	Yes	143554	LF cmp #2 sent #29
D2		1505	Flying south of Haiti along coast west along lower peninsular
P	Yes	150940	Rainband, Drop #5 along South Haiti peninsula
D S	Yes	1638	19:21' 75.05' Drop
D2	Yes	1818	End recording

60 kts ~20

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HRD Radar Tape Log

Flight ______________ Aircraft ______________ Operator ______________ Sheet ____ of ____

LF RPM ______________________ TA RPM ______________________

(Include start and end times of DATs, as well as times of F/AST legs and any changes of radar equipment status)

Tape #	F/AST On?	Event Time (HHMMSS)	Event

HRD Radar Tape Log

Flight _____ Aircraft _____ Operator _____ Sheet ____ of ____

LF RPM _____ TA RPM _____

(Include start and end times of DATs, as well as times of F/AST legs and any changes of radar equipment status)

Tape #	F/AST On?	Event Time (HHMMSS)	Event

HRD Radar Down-Time Log

Operator M. Black Flight ID _____ Sheet ____ of ____

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem

Item List: DAT1, DAT2, COMP, MARS, LF, TA.

Include serial numbers of any new R/Ts.

1994 | 95 | 96 | 1997 | 1998

~1828 17°50.3′ 64°58.5′

183455 East of ... ~30 nm. We've been seeing some ~~[illegible]~~ very turbulent stuff near echo top on some of these bands.

184332 17°56′ 64°0′ sonde

185423 18°3′ 64°51′ sonde

passed under some turbulent upper tropospheric return

1903 #3 17°58′ 65°04.5′

190830 17°33′ 65°22′ sonde

191742 17°4′ 65°42′ sonde

193853 17°55′ 65°11′ eye sonde

1939 9 17°54.8′ 65°09.0′

1945 13 18°23′ 65°11′

980923H Hurricane Georges Reconnaissance

LPS - Eric Uhlhorn

Radar/Sondes M. Black

Workstation P. Leighton

10Z - takeoff ~9 h from Aguadilla

Georges emerging from west coast of Haiti after transversing length

Should be a minimal hurricane or strong tropical storm

1137 Flying through strong convective rainband NW of center

1204 - eye? center? 998 mb

poor radar presentation

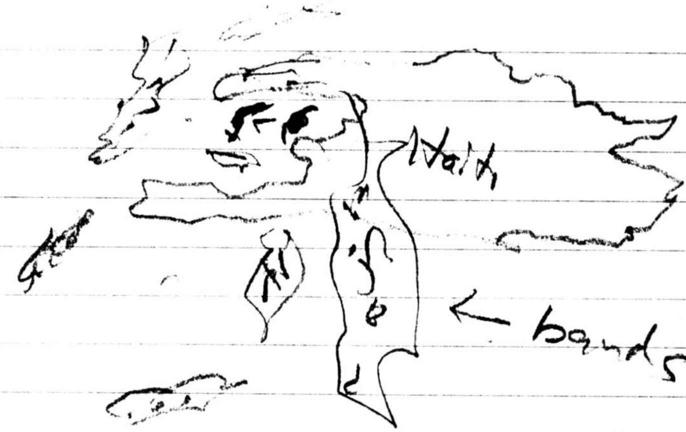
some banding north

strong bands on east, south sides converging on coast

Max flight-level winds ~60 kts

SFC - 40 kts from sondes

Storm moving WNW at 12 kts



995 mb last pass
at 1702
1818 – Stopped recording
Landing 19:07 Opa-locka

42 scheduled for
07 Z takeoff
tomorrow morning

ugh!

980924H1 Georges Recco.

LPS M. Black
Radar M. Black
Drops M. Black / Paul Leighton
Workstation Paul Leighton
Observer Paul Hungerford
VSDR – Ivans
Flight Director – Stan Czenck

Takeoff Opa-locka 075948
scheduled to land at TPA

Storm forecast to be over
east central Cuba during
flight, in which case
we will fly a coastal
patrol

Forecast to be at

20.6 76.8 @15Z

0840 Outer spiral band

0900 cells popping up
near our flight-level
[illegible]