

Lead Project Scientist

Preflight

- _____ 1. Participate in general mission briefing.
- _____ 2. Determine specific mission and flight requirements for assigned aircraft.
- _____ 3. Determine from field program director whether aircraft has operational fix responsibility and discuss with AOC flight director/meteorologist unless briefed otherwise by field program director.
- _____ 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.
- _____ 5. 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.
- _____ 6. Report status of aircraft, systems, necessary on-board supplies and crews to appropriate HRD operations center (MGOC in Miami).
- _____ 7. Before take-off, brief the on-board GPS dropsonde operator on times and positions of drop times.
- _____ 7. Make sure each HRD flight crew members have life vests
- _____ 7. Perform a headset operation check with all HRD flight crew members. Make sure everyone can hear and speak using the headset.
- _____ 8. Collect "mess" fee (\$2.00) from all on-board HRD flight crew members.

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. Report landing time, aircraft, crew, and mission status along with supplies (tapes, *etc.*) remaining aboard the aircraft to MGOC.
- _____ 3. Gather completed forms for mission and turn in at the appropriate operations center. [Note: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]
- _____ 4. Obtain a copy of the 10-s flight listing from the AOC flight director. Turn in with completed forms.
- _____ 5. Obtain a copy of the radar DAT tapes. Turn in with completed forms.
- _____ 6. Obtain a copy of the all VHS videos from aircraft cameras (3-4 approx.). Turn in with completed forms.
- _____ 7. Obtain a copy of CD with all flight data. Turn in with completed forms.
- _____ 8. Determine next mission status, if any, and brief crews as necessary.
- _____ 9. Notify MGOC as to where you can be contacted and arrange for any further coordination required.
- _____ 10. Prepare written mission summary using **Mission Summary** form (due to Field Program Director a week after the flight).

Lead Project Scientist Check List

Date 18 August Aircraft NOAA 42 Flight ID 080818H
NOAA 21806A FAY

A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>Atkinson</u>	Flight Director	<u>Dorman</u>
Radar	<u>Sellwood</u>	Pilots	<u>Nelson/Marramonte</u>
Workstation	<u>Sellwood</u>	Navigator	<u>Challenger</u>
Cloud Physics	<u>—</u>	Systems Engineer	<u>Bart</u>
Photographer/Observer	<u>—</u>	Data Technician	<u>Pack</u>
/Guests	<u>—</u>	Electronics Technician	<u>Gray/Khan/Brace/Darby</u>
Dropwindsonde	<u>Sellwood</u>	Other	<u>Jaggart/McFadden/Kho</u>
AXBT/AXCP	<u>—</u>		

B. Take-off and Landing Locations:

Take-Off: 150058 Location: KMCF

Landing: 2141 Location: KMSY

Number of Eye Penetrations: 0

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
18/1500	23.6	81.5	1003	50
19/0000	24.6	81.8		50
19/1200	26.2	82.1		65
20/0000	27.8	82.0	inland	50

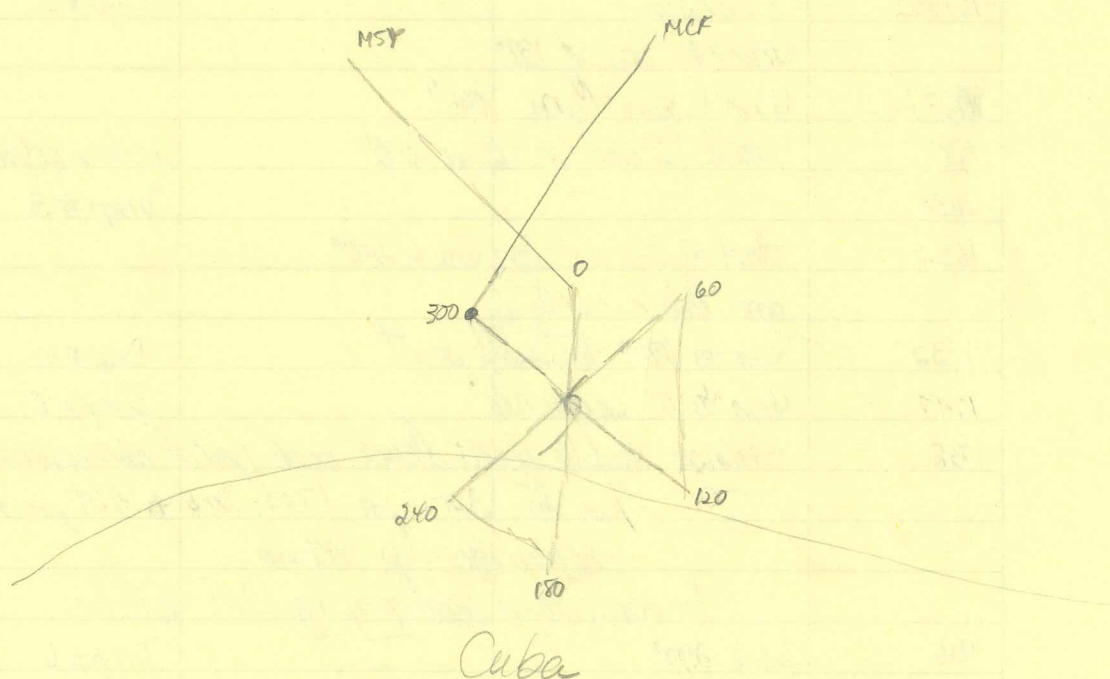
D. Mission Briefing: Fay emerging from Cuban coast, moving NW. Butterfly pattern cut for land (Cuba) and possibly FL

335/11

E. — Equipment Status (Up ↑, Down ↓, Not Available —, Not Used O)

Equipment	Pre-Flight	In-Flight	Post-Flight	# DATs / Cds / Expendables / Printouts
Radar/LF				
Doppler Radar/TA				
Cloud Physics	—			
Data System				
GPS sondes				
AXBT/AXCP	—			
Workstation				
Videography				

REMARKS: *Proposed flight track*



Lead Project Scientist Event Log

Date 18 August Flight 080818H LPS Aberson

Time	Event	Position	Comments
150058		KMCF	takeoff
1513			turn toward IP
1554			turn to avoid overflown
1600	turn inbound 120°		Drop #1 IP @ 160046 Go to launch deck
1604	turn toward weather		
1607	restart radar		
1613	turn to 090° behind center		
1616	turn to 080°		
1616	turn to 090°		
1617	turn to 100°		
161902	center fix		Drop #2
	track outbound 130°		
1623	turn to avoid Cuba 095°		
1637	end outbound leg, turn to 0°		motion estimate ~350/12
1638			Drop #3
1652	start of inbound leg	track 240°	
	good radar analysis		
1732	turn to 080° to south point		Drop #4
1747	turn to 0° inbound		Drop #5
1758	strange double flight-level and speed maximum on 1st side		
	down to 3kt up to 17kt, back to 4kt, wind shift at second max		
	extrap down to 997 mb		
	formation band developing Key West to Cuba		
1816	track 240°		Drop #6 No GPS shallow
			Drop #7 backup
1800 UTC advisory	24.3N 81.6W	50kt 1002mb	
for	24.14 81.38 W	1001-mb 340/10	1817 UTC

EMC

AF NOAA
2361 23.7
81.59 81.59
1514 1619 } drops
EMC

Key West
in 3h
10h
EMC

EMC
EMC

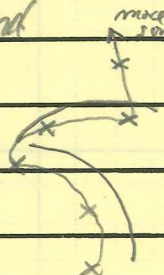
HRD
HRD

Lead Project Scientist Event Log

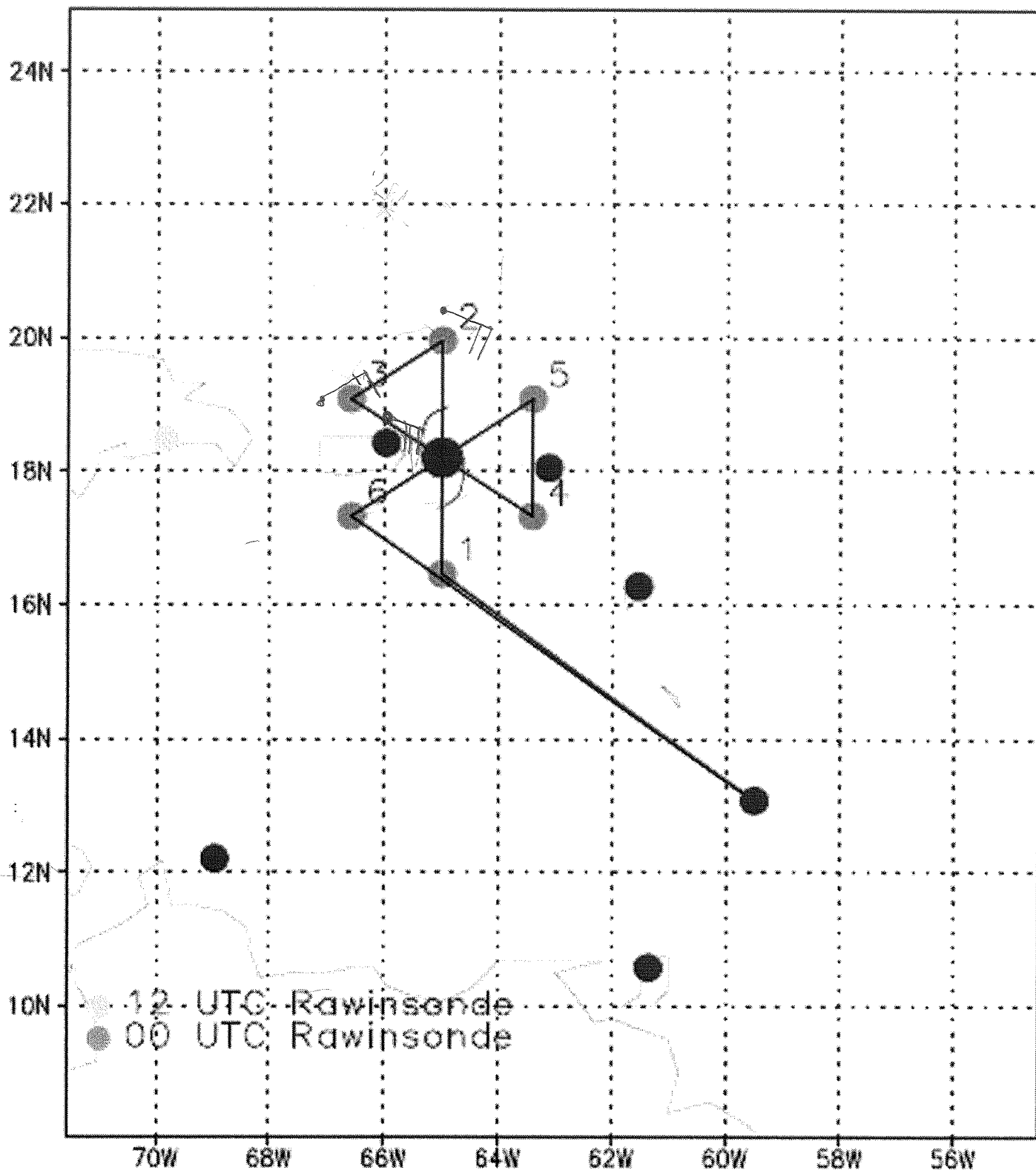
Date 18 August

Flight 080818H

LPS Olson

Time	Event	Position	Comments
1833	Inbound turn	to 1100	
1906	climb up rainband inside		
1907			Drop #8 HRD
	24° 18.8' 81° 53.3	185050 min p on left pass	
1913	mid part of band		Drop #9 HRD outside near surface
	polygonal shape up inside of rainband		
1922	None of eyewall, turn to right to cross band		Drop #10 HRD
1925	inside of band		Drop #11 HRD
1930	climb up coast		Drop #12 HRD @ 1931
1937	near band		Drop #13 HRD
1942	just outside band		Drop #14 HRD
1947	final shallow climb to MSY		Drop #15

EMC



Drop 4 ctr
119/31

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MISSION PLAN:

Prepared by the Hurricane Research Division File: current1.ftk

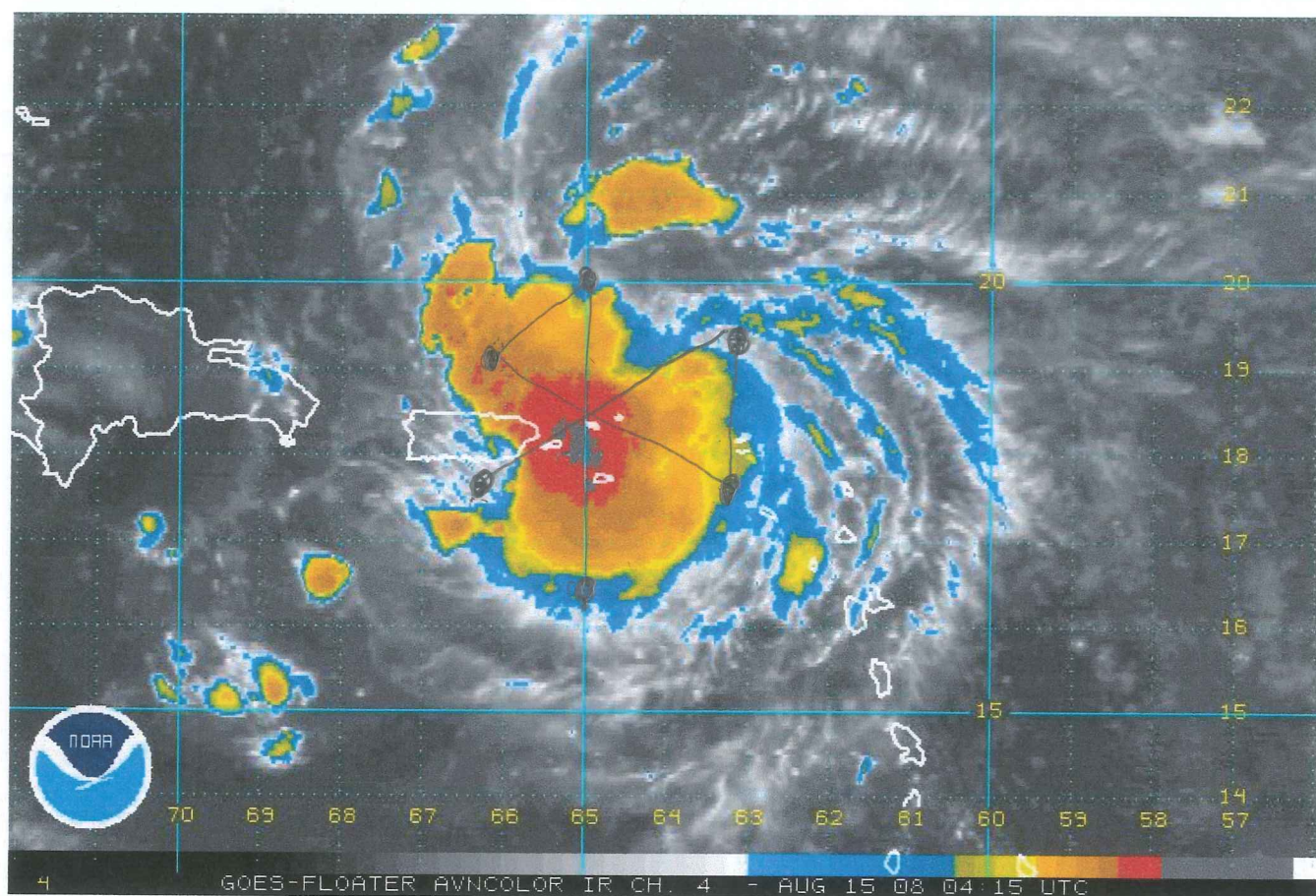
Aircraft: N43RF Altitude: FL180-250 Proposed takeoff: 15/0300Z

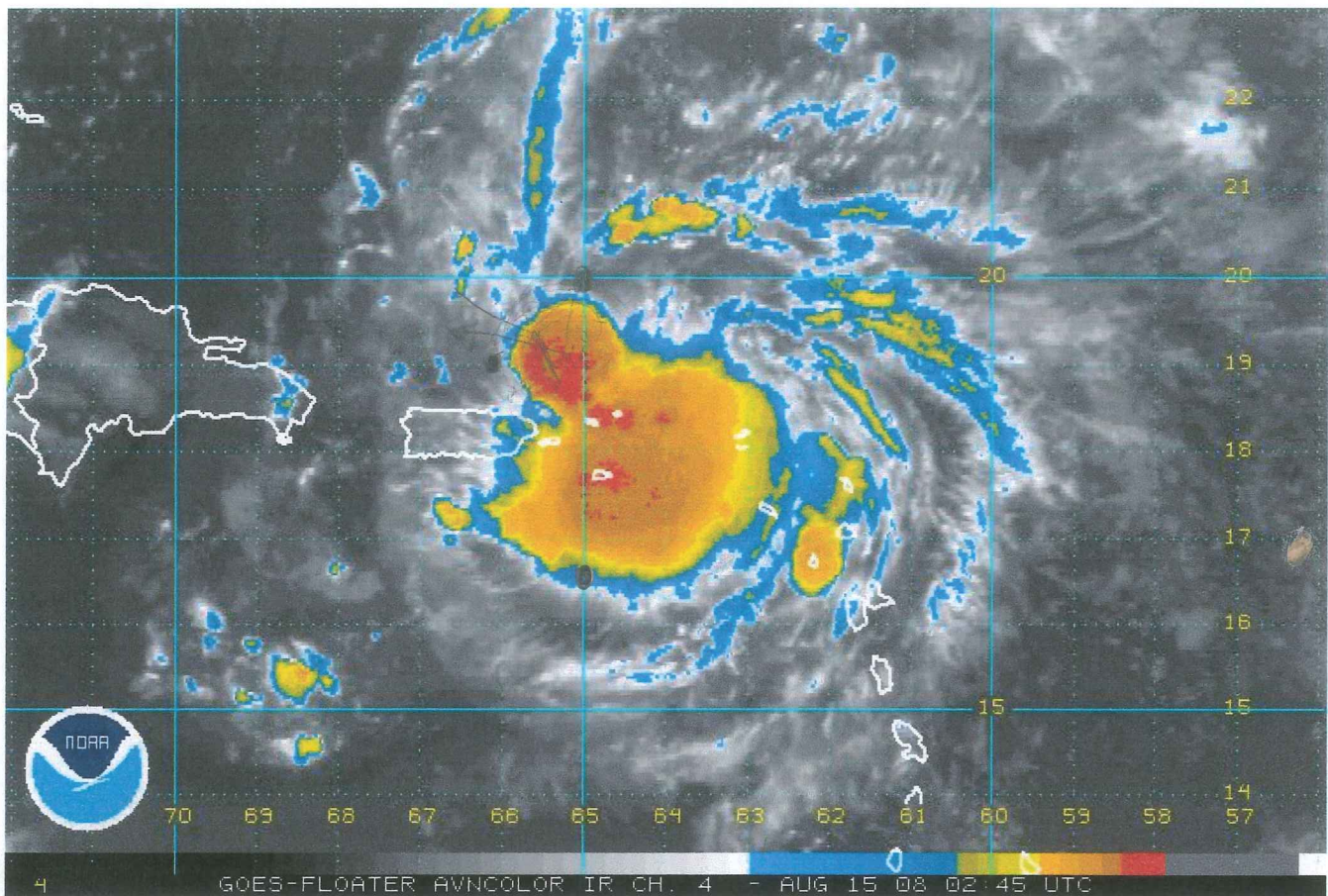
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TRACK DISTANCE TABLE

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#	LAT (d m)	LON (d/m)	RAD/AZM (nm/dg)	LEG (nm)	TOTAL (nm)	TIME (h:mm)
0	BARBADOS			0.	0.	0:00
1S	16 27	65 00	105/180	380.	380.	1:22
2S	19 57	65 00	105/000	210.	590.	2:13
3S	19 05	66 36	105/300	104.	694.	2:39
4S	17 20	63 25	105/120	210.	904.	3:30
5S	19 05	63 24	105/060	105.	1009.	3:56
6S	17 20	66 35	105/240	210.	1219.	4:47
7	BARBADOS			485.	1704.	6:26





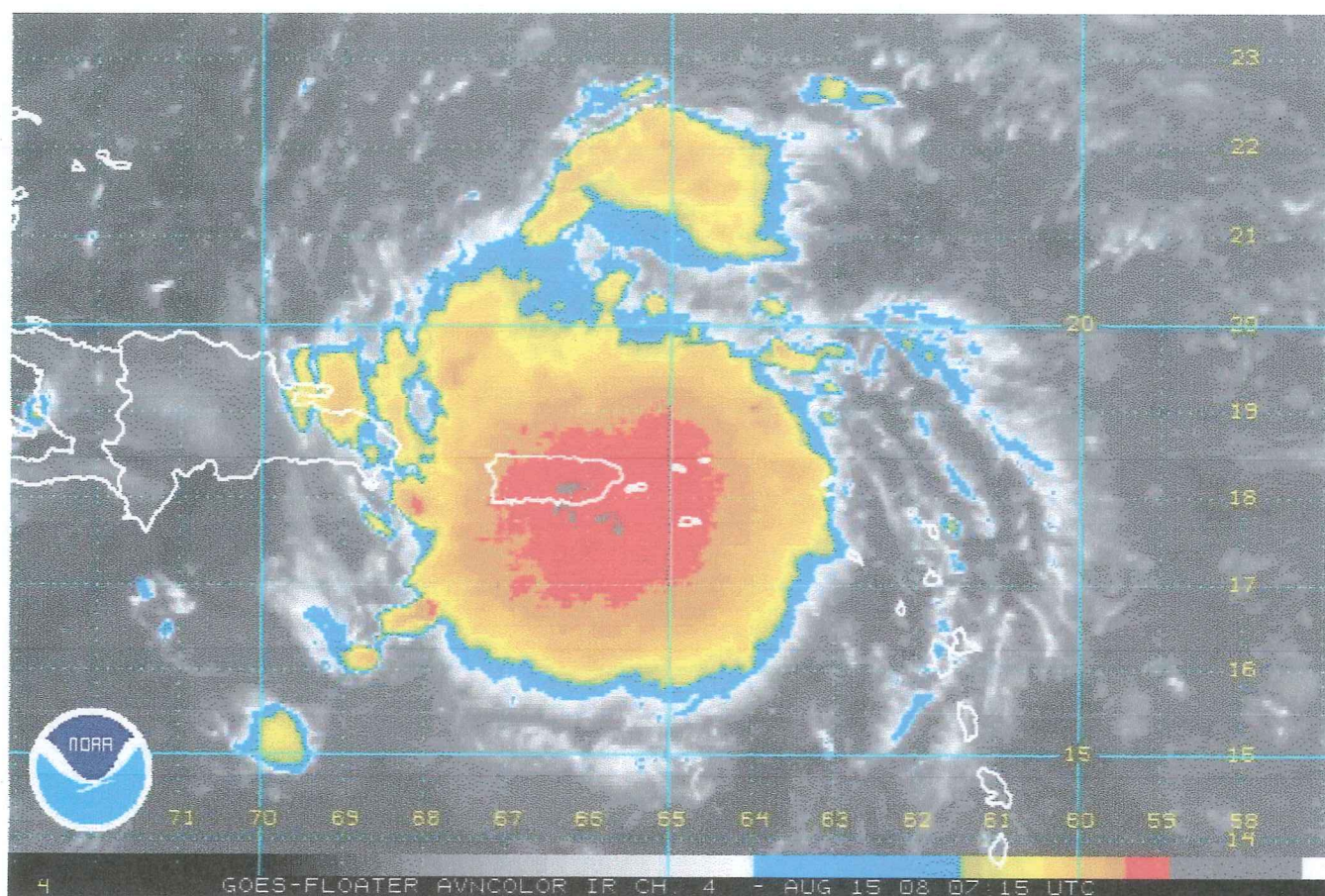
10-20km

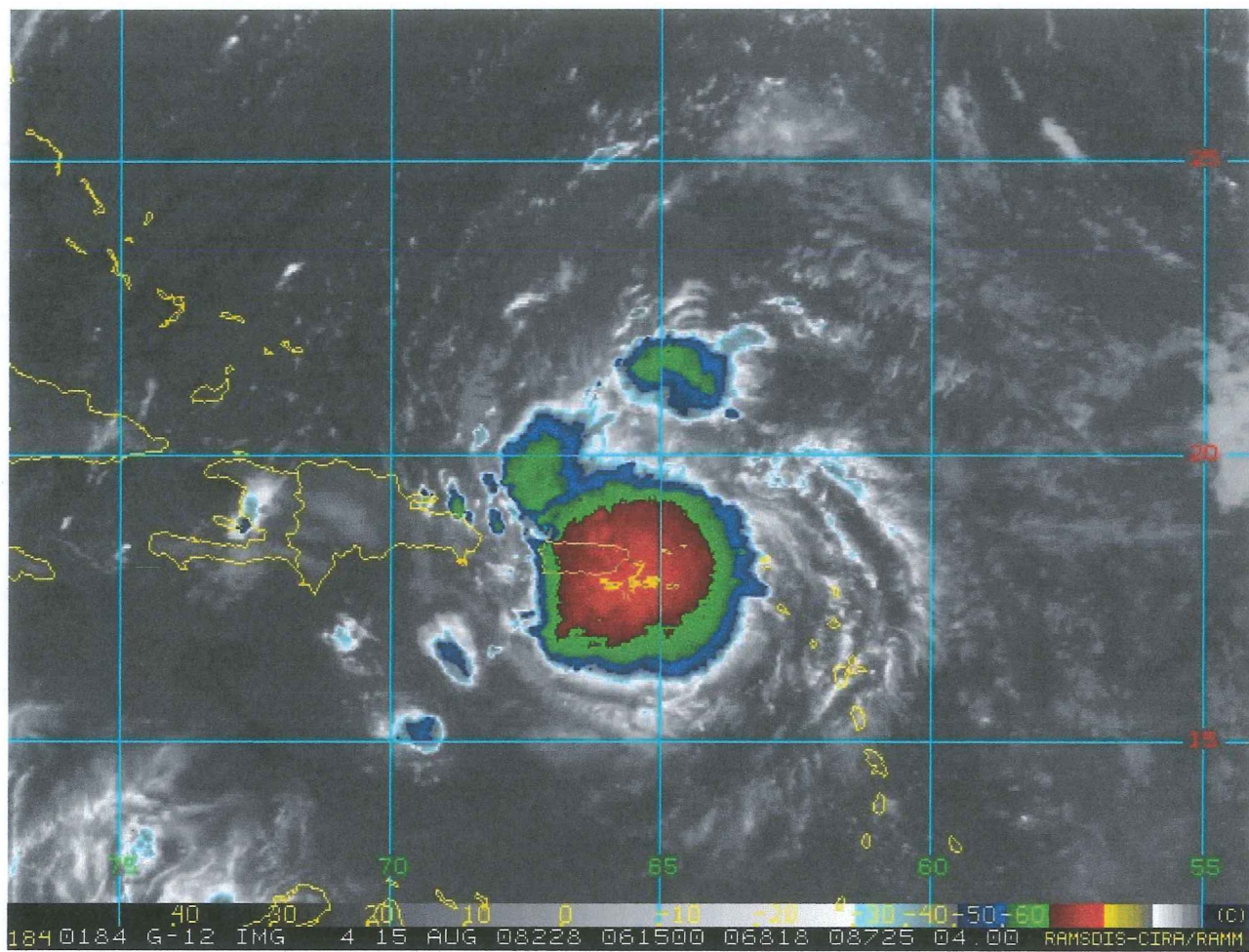
06Z 185 66.0W 275 12kt

73
60544.01
420
200

0253
~239
492

60/2010





weather.gov

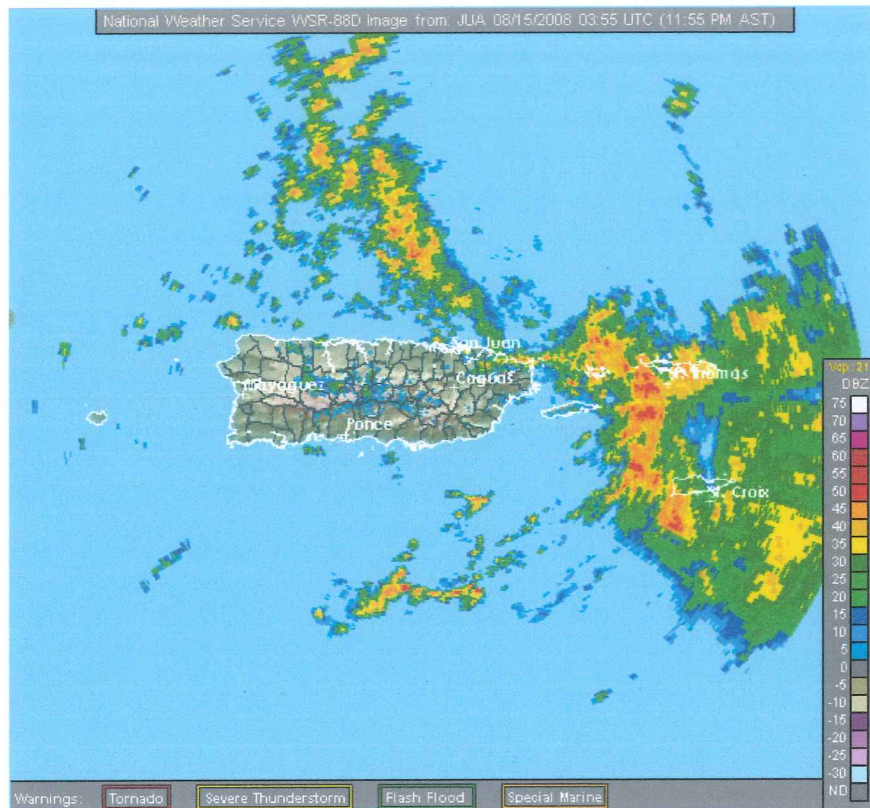
National Weather Service Enhanced Radar Image Puerto Rico/Virgin Islands Radar

Go to: [Standard Version](#)

Local weather forecast by "City, St"

[Radar Status Message](#)**Adjacent Radars:****Base Reflectivity**[NWS San Juan, PR](#)

11:44 PM AST Thu Aug 14 2008

☒ Topo ☒ Radar ☒ Counties ☐ Rivers ☒ Highways ☒ Cities ☒ Warnings ☒ LegendRange and Bearing Information (left click to select a location): [How does this work?](#)

Distance from Radar, Lat/Lon of selected location

Distance from Selected Location

12 Mi South (171 Deg)

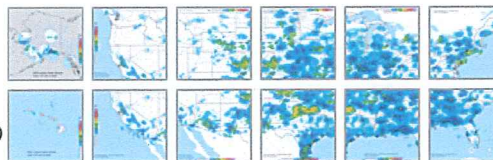
17.963 Deg Lat

-66.045 Deg Lon

Java is necessary for radar looping and is best optimized using Java version 1.4.2 or higher.
Go to www.java.com/en for more information regarding Java.

National
Radar
Mosaic
Sectors

(click image)



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National Weather Service Enhanced Radar Image Puerto Rico/Virgin Islands Radar

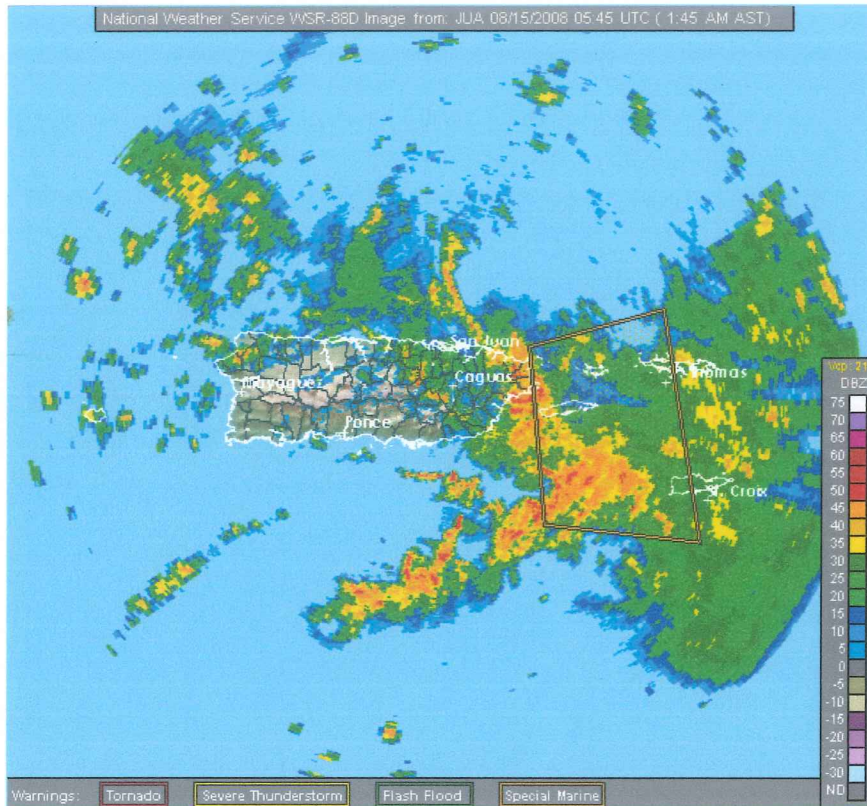
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Local weather forecast by "City, St"

City, St

[Radar Status Message](#)**Adjacent Radars:****Base Reflectivity**[NWS San Juan, PR](#)

01:50 AM AST Fri Aug 15 2008

Warnings: ☐ Tornado ☐ Severe Thunderstorm ☐ Flash Flood ☐ Special Marine☒ Topo ☒ Radar ☒ Counties ☐ Rivers ☒ Highways ☒ Cities ☒ Warnings ☒ LegendRange and Bearing Information (left click to select a location): [How does this work?](#)

Distance from Radar, Lat/Lon of selected location

Distance from Selected Location

0 Mi North (0 Deg)

18.114 Deg Lat

-66.075 Deg Lon

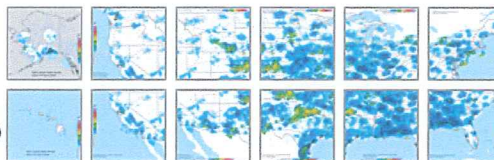
Latitude

Longitude

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Mosaic
Sectors

(click image)

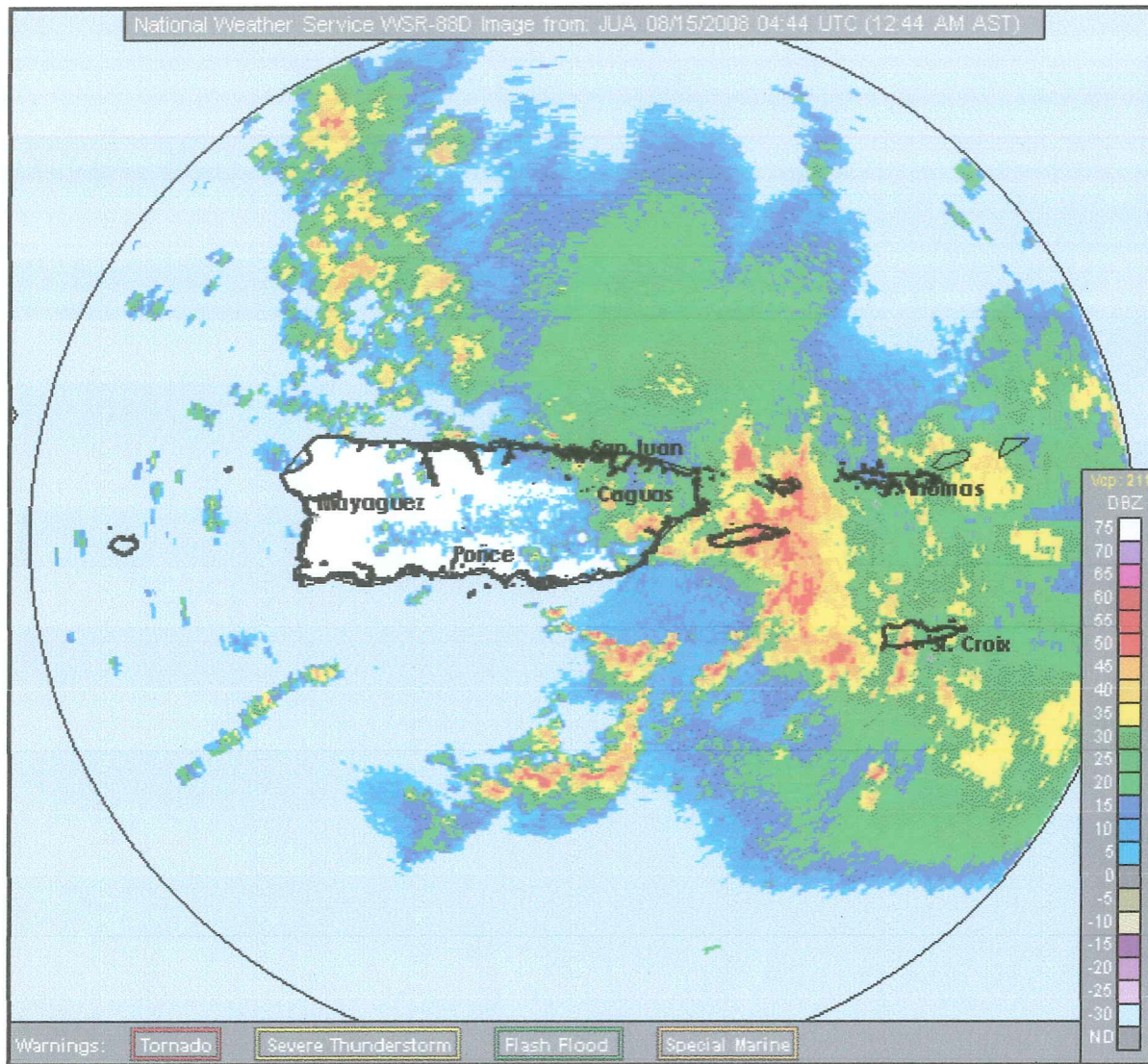


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National Weather Service Enhanced Radar Image

Puerto Rico/Virgin Islands Radar

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Local weather forecast by "City, St"

City, St

Go

Radar Status Message

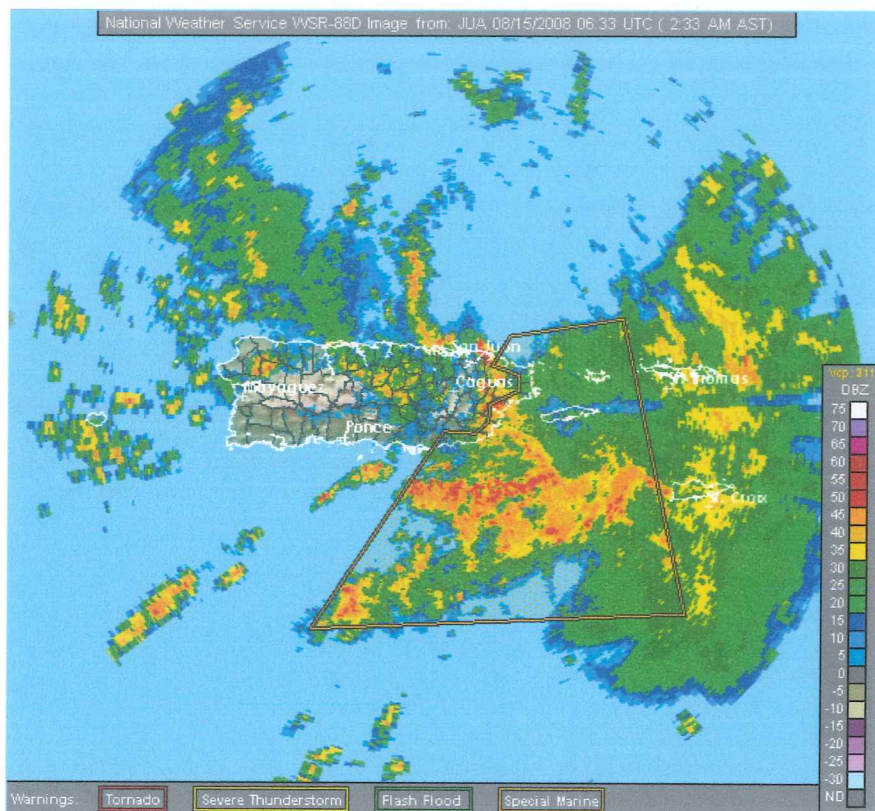
Adjacent Radars:



Base Reflectivity

NWS San Juan, PR

02:23 AM AST Fri Aug 15 2008


☒ Topo ☒ Radar ☒ Counties ☐ Rivers ☒ Highways ☒ Cities ☒ Warnings ☒ Legend
Range and Bearing Information (left click to select a location): [How does this work?](#)

Distance from Radar, Lat/Lon of selected location

Distance from Selected Location

106 Mi North Northeast (25 Deg)

Reset

19.363 Deg Lat

-65.379 Deg Lon

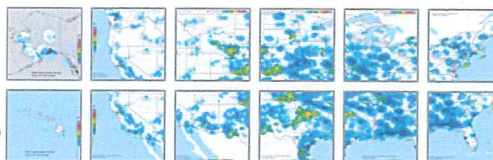
Latitude

Longitude

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