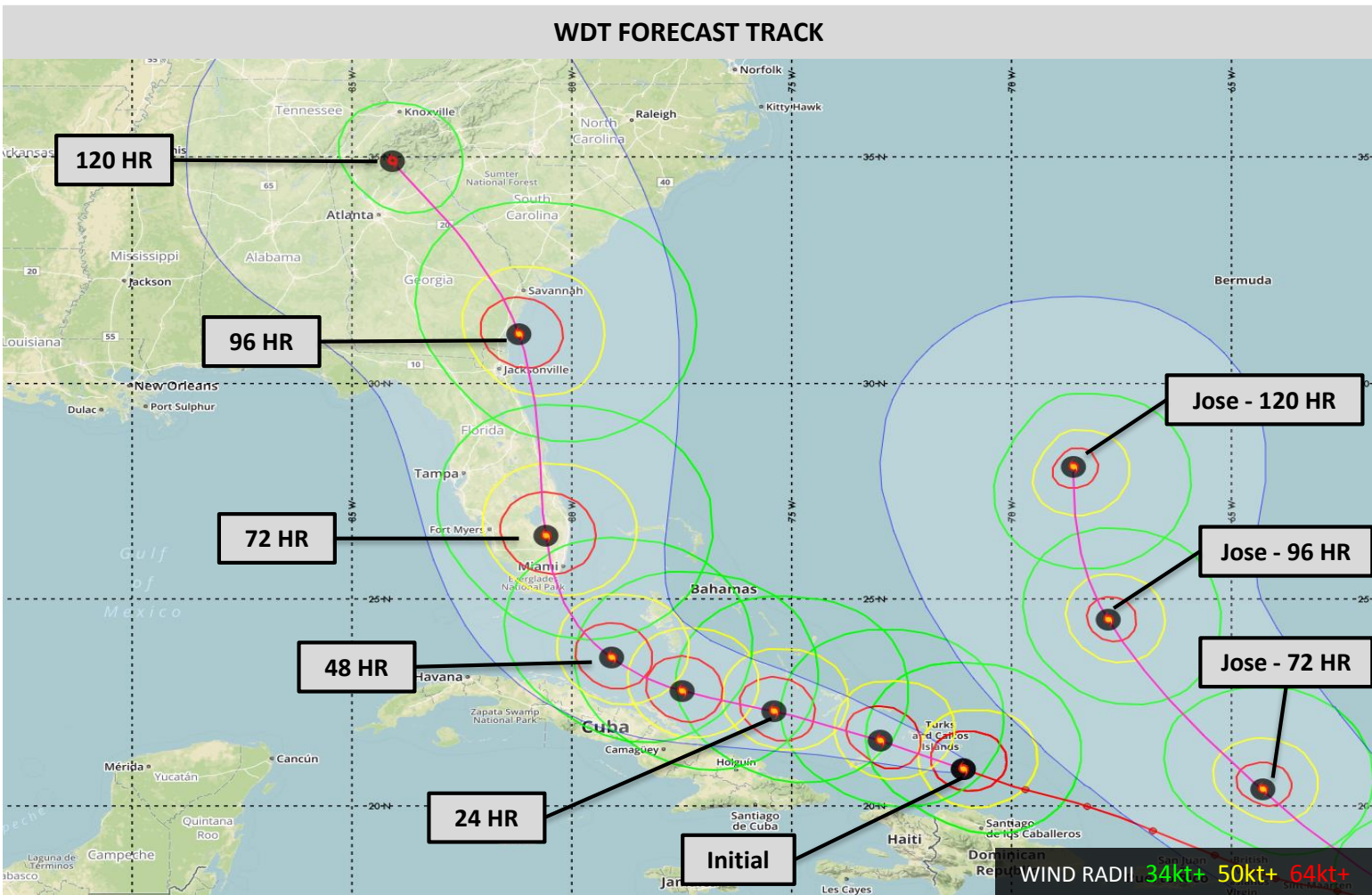


## Hurricane Irma #42

Effective: September 7, 2017 2100 UTC

<b>Storm Center</b>	20.9N 71.1W (570 nm SE of Miami, FL)			
<b>Current Movement</b>	West-Northwest at 15 knots			
<b>Sustained Winds/Gusts</b>	150 knots / 185 knots			
<b>34 kt Wind Radii</b>	160 NE	120 SE	80 SW	150 NW
<b>50 kt Wind Radii</b>	100 NE	70 SE	50 SW	70 NW
<b>64 kt Wind Radii</b>	60 NE	40 SE	30 SW	50 NW
<b>Forecast Trend</b>	Irma continues to the west-northwest as a powerful category five hurricane. Conditions favor Irma remaining a category four or five hurricane as it tracks toward South Florida.			



## WDT Forecast Positions and Max Winds

Track Forecast Confidence: Average				Intensity Forecast Confidence: Below Average			
Date	Forecast Time/Hour	Position	Sustained Winds	Saffir-Simpson Scale			
Thu Sep 7	2100 UTC	Initial	20.9N 71.1W	150 KT	170 MPH	CAT 5	
Fri Sep 8	0600 UTC	12 Hour	21.6N 73.0W	145 KT	165 MPH	CAT 5	
Fri Sep 8	1800 UTC	24 Hour	22.3N 75.4W	150 KT	170 MPH	CAT 5	
Sat Sep 9	0600 UTC	36 Hour	22.8N 77.5W	150 KT	170 MPH	CAT 5	
Sat Sep 9	1800 UTC	48 Hour	23.6N 79.1W	150 KT	170 MPH	CAT 5	
Sun Sep 10	1800 UTC	72 Hour	26.5N 80.6W	130 KT	150 MPH	CAT 4	
Mon Sep 11	1800 UTC	96 Hour	31.1N 81.2W	90 KT	105 MPH	CAT 2	
Tue Sep 12	1800 UTC	120 Hour	34.9N 84.1W	40 KT	45 MPH	TS	

### Changes from Previous Advisory

There are no significant changes to the previous forecast reasoning.

### Marine Weather Impacts

Tropical storm force winds currently extend outward 160 nm from the center and are forecast to expand to 180+ nm from center over the next few days. Hurricane force winds are occurring within 50 nm of the center, and may expand beyond 60 nm over the next few days.

Very rough seas currently extend 540+ nm from the center and will continue to expand. Phenomenal seas are expected within 90 nm of the center.

### Onshore Impacts

**\*\*Life-threatening wind and storm surge impacts continue across the Turks and Caicos Islands today and spread westward into the southern Bahamas tonight. Storm surge of 15 to 20 feet is possible in the Turks and Caicos.\*\***

**\*\*\*Confidence that catastrophic impacts will occur across south Florida this weekend continues to rise. Significant impacts will also extend northward into Georgia and the Carolinas.\*\*\*** The timing and magnitude of specific impacts is still somewhat uncertain but at present it appears very likely that most of the Florida peninsula will experience significant impacts from winds and considerable storm surge. South Florida is especially at risk for winds in excess of 150 mph and several feet of water level rise.



WDT's next advisory will be issued at 0000 UTC

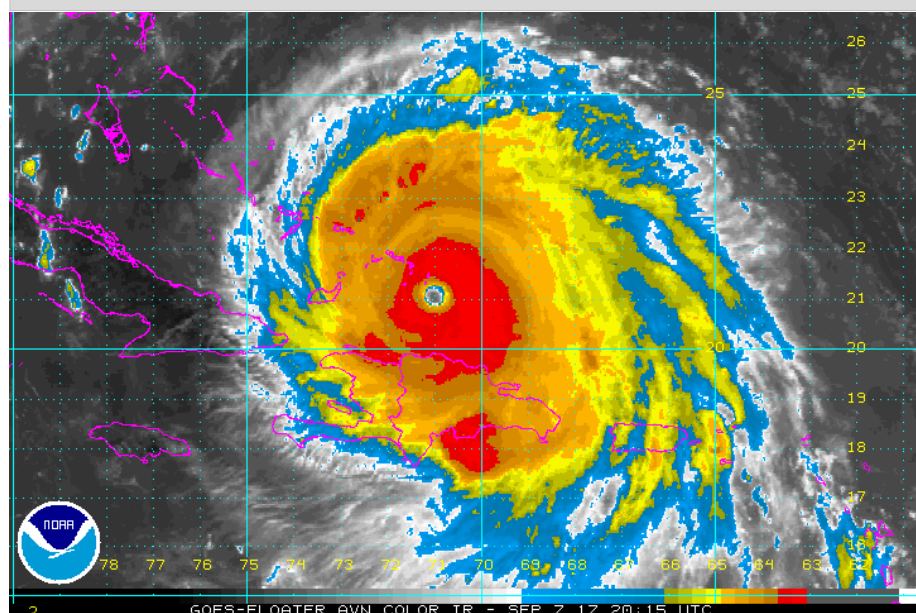
### WDT Forecast Discussion

**Observational Perspective:** Irma remains a powerful category five hurricane with a central pressure of around 922mb and sustained winds of 150 knots. A very minor decrease in intensity has occurred during the past 12 hours and may be a result of Irma's proximity to Hispaniola. Otherwise, wind shear remains low and SST's remain very warm along Irma's path.

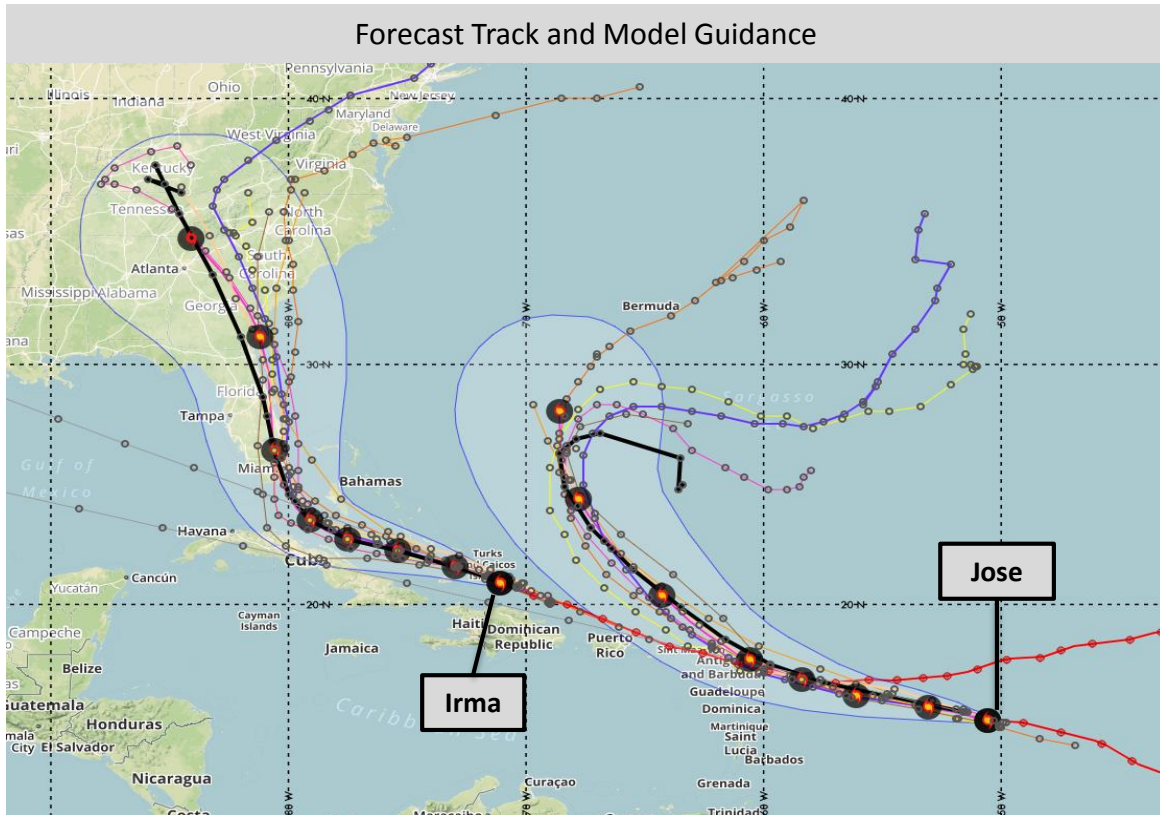
**Intensity Forecast:** There is no significant change to the previous forecast reasoning. Minor weakening is possible during the next 12 hours as Irma passes north of Hispaniola. Irma will then move into an area of more favorable conditions through landfall over South Florida. We expect that Irma may intensify somewhat during that period and expand in size. Irma is expected to be an extremely large and powerful category four or five hurricane when it reaches South Florida Saturday night into Sunday. Gradual weakening is then forecast on Monday and Tuesday as Irma moves northward and eventually inland. It should be noted that Irma is forecast to remain a significant hurricane through it's final landfall along the southeast US coastline. Subtle variations in the track of Irma will have a significant impact on how much time it spends over land on Sunday and Monday and as a result the intensity forecast has below average confidence during that period.

**Track Forecast:** A steady west-northwest track is expected through Saturday. Irma is then forecast to turn northward in response to a trough over the northeastern US. The timing and magnitude of the northward turn will be critical in determining the specific impacts for Florida, the Bahamas, and the southeastern US. Forecast confidence remains below average beyond 72 hours.

### Infrared Satellite Image







Comparison 12 UTC ECMWF (left) vs. 12 UTC GFS (right) at 18 UTC Sunday (9/10)

