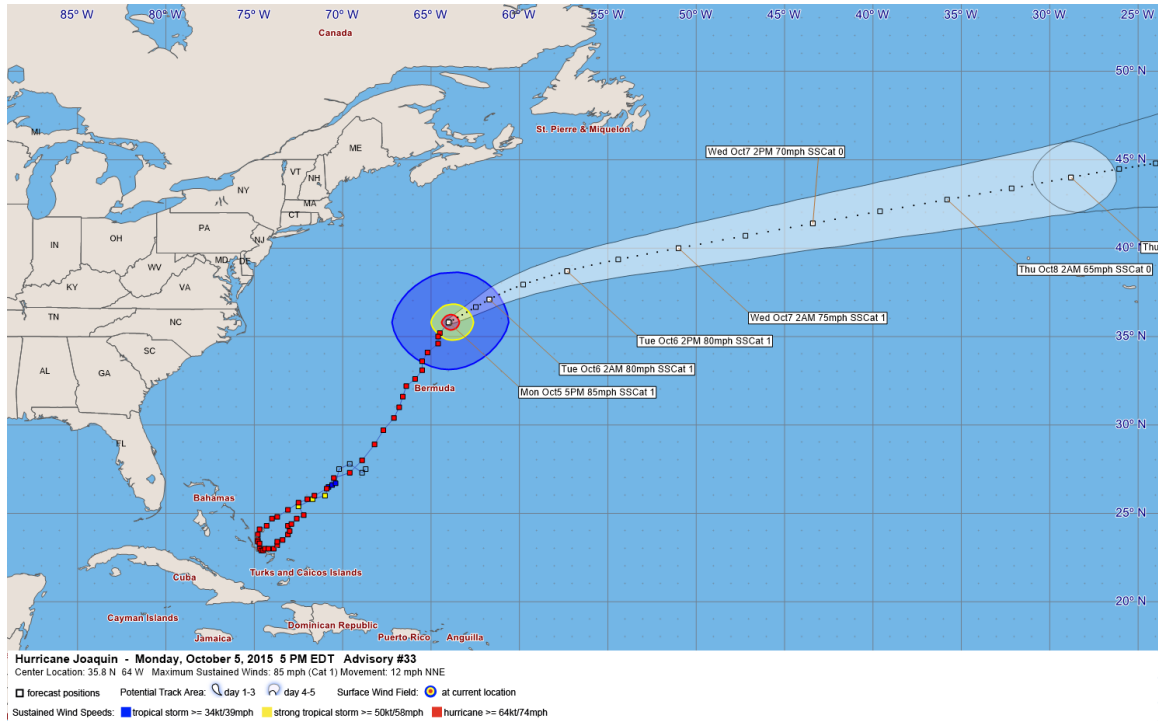


# Storm Summary for Hurricane Joaquin

Monday, October 5, 2015 at 5 PM EDT

(Output from Hurrevac, based on National Hurricane Center Forecast Advisory #33)

Joaquin is currently a Category 1 hurricane on the Saffir-Simpson Hurricane Wind Scale, with maximum sustained winds of 85 mph (75 kts), moving north-northeast at 12 mph. The estimated minimum central pressure is 964 mb. Hurricane-force winds extend outward up to 35 miles (55 km) from the storm center. Tropical storm-force winds extend outward up to 205 miles (335 km) from the storm center.



WTNT31 KNHC 052049

BULLETIN

HURRICANE JOAQUIN ADVISORY NUMBER 33  
NWS NATIONAL HURRICANE CENTER MIAMI FL AL112015  
500 PM AST MON OCT 05 2015

...JOAQUIN MOVING NORTH-NORTHEASTWARD AWAY FROM BERMUDA...

SUMMARY OF 500 PM AST...2100 UTC...INFORMATION

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LOCATION...35.8N 64.0W  
ABOUT 245 MI...395 KM N OF BERMUDA  
MAXIMUM SUSTAINED WINDS...85 MPH...140 KM/H  
PRESENT MOVEMENT...NNE OR 30 DEGREES AT 12 MPH...19 KM/H  
MINIMUM CENTRAL PRESSURE...964 MB...28.47 INCHES

WATCHES AND WARNINGS

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There are no coastal watches or warnings in effect.

DISCUSSION AND 48-HOUR OUTLOOK

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At 500 PM AST (2100 UTC), the center of Hurricane Joaquin was located near latitude 35.8 North, longitude 64.0 West. Joaquin is moving toward the north-northeast near 12 mph (19 km/h). A turn toward the northeast is expected tonight, followed by a turn toward the east-northeast by Tuesday evening. On the forecast track, the center of Joaquin will continue to move farther away from Bermuda.

Maximum sustained winds are near 85 mph (140 km/h) with higher gusts. Gradual weakening is forecast to begin by Tuesday morning, and Joaquin is expected to transition to a large extratropical low pressure system on Wednesday.

Hurricane-force winds extend outward up to 35 miles (55 km) from the center and tropical-storm-force winds extend outward up to 205 miles (335 km). A wind gust to 45 mph (72 km/h) was recently reported at the Bermuda International Airport.

The estimated minimum central pressure is 964 mb (28.47 inches).

HAZARDS AFFECTING LAND

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WIND: Tropical-storm-force wind gusts could affect Bermuda for a couple of more hours.

SURF: Swells generated by Joaquin will continue to affect Bermuda and portions of the Bahamas during the next day or so. Swells are affecting much of the east coast of the United States and will spread northward along the coast of Atlantic Canada during the next day or two. These swells are likely to cause life-threatening surf and rip current conditions. Even though Joaquin is located well to the east of the coast of the United States, a prolonged period of elevated water levels and large waves will affect the mid-Atlantic region, causing significant beach and dune erosion with moderate

coastal flooding likely. Please consult products from your local weather office.

NEXT ADVISORY

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Next complete advisory at 1100 PM AST.

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Forecaster Stewart

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WTNT41 KNHC 052050

HURRICANE JOAQUIN DISCUSSION NUMBER 33  
NWS NATIONAL HURRICANE CENTER MIAMI FL AL112015  
500 PM AST MON OCT 05 2015

Joaquin's cloud pattern has actually improved somewhat since the previous advisory with a cloud-filled eye having briefly appeared in visible satellite imagery. Also, the eye has remained distinct on the Bermuda radar at an altitude above 32,000 feet. Satellite intensity estimates are T4.5/77 kt from SAB, T4.3/72 kt from the NHC AODT technique, and T4.0/65 kt from TAFB. Based on the distinct eye feature noted in visible satellite imagery and radar data, the intensity is being maintained at 75 kt for this advisory. This intensity is also supported by dropsonde data from the NASA WB-57 aircraft, which has been conducting research in Joaquin for the Office of Naval Operation's Tropical Cyclone Intensity experiment.

The initial motion estimate is 030/10 kt. Joaquin is rounding the northwestern periphery of a weak ridge located to its southeast, and will be entering the faster mid-latitude westerlies by Tuesday morning. The result should be a gradual turn toward the northeast accompanied by a modest increase in forward speed tonight and Tuesday, followed by more significant acceleration toward the east-northeast at forward speeds of near 30 kt by Wednesday. The official forecast track is a tad to the left of the previous advisory track, and basically lies down the middle of the tightly packed guidance envelope through 36 hours. At 48-120 hours, the extratropical forecast track is based on guidance provided by the NOAA Ocean Prediction Center.

The deep-layer vertical wind shear is expected to remain at less than 20 kt for the next 24 hours or so, which should allow for Joaquin to only slightly weaken. By 36 hours and beyond, westerly vertical wind shear is forecast by the global and regional models to increase to more than 30 kt when Joaquin will be moving over sub-24C sea-surface temperatures. The expected result should be steady weakening and a transition to a large and expanding extratropical low pressure system over the much cooler waters of the north Atlantic by 48 hours. However, the GFS and ECMWF models are suggesting that Joaquin could get a baroclinic boost as it interacts with a frontal system and strong jetstream and, as a result, the intensity forecast does not show the typical rapid decay rate of a tropical cyclone moving over 17C-20C SSTs on days 3-5. The NHC intensity forecast is similar to the previous advisory and follows

the intensity consensus model IVCN through 36 hours, and then is based on guidance provided by the Ocean Prediction Center for the 48-120 hour period.

FORECAST POSITIONS AND MAX WINDS

INIT	05/2100Z	35.8N	64.0W	75 KT	85 MPH	
12H	06/0600Z	37.1N	61.7W	70 KT	80 MPH	
24H	06/1800Z	38.7N	57.3W	70 KT	80 MPH	
36H	07/0600Z	40.0N	51.0W	65 KT	75 MPH	
48H	07/1800Z	41.4N	43.4W	60 KT	70 MPH	...POST-TROP/EXTRATROP
72H	08/1800Z	44.0N	28.8W	55 KT	65 MPH	...POST-TROP/EXTRATROP
96H	09/1800Z	45.6N	20.7W	50 KT	60 MPH	...POST-TROP/EXTRATROP
120H	10/1800Z	48.0N	14.0W	45 KT	50 MPH	...POST-TROP/EXTRATROP

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