

Current Watches and Warnings

A **Tropical Storm Warning** is in effect from Edisto Beach to South Santee River, South Carolina

Current Details from the National Hurricane Center (NHC)

COORDINATES: 31.9° north, 78.3° west

LOCATION: 145 miles (235 kilometers) southeast of Beaufort, South Carolina

MOVEMENT: west-northwest at 16 mph (26 kph)

WINDS: 35 mph (55 kph) with gusts to 45 mph (75 kph)

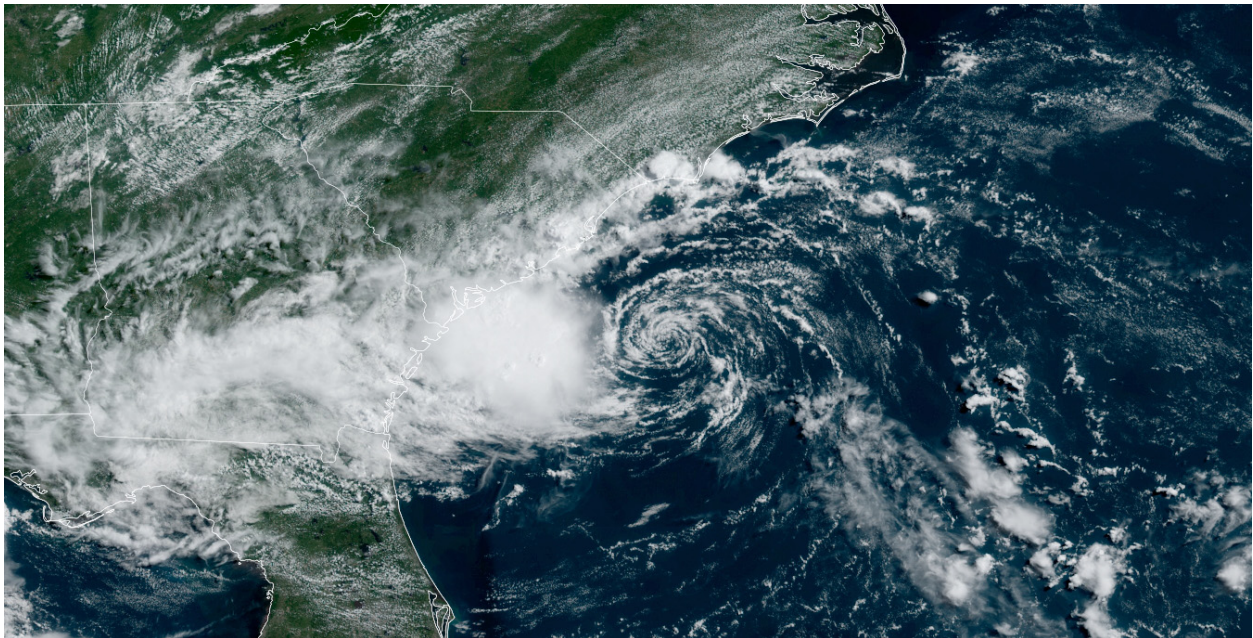
MINIMUM CENTRAL PRESSURE: 1013 millibars

SAFFIR-SIMPSON SCALE RANKING*: Tropical Depression

FORECAST LANDFALL LOCATION: South Carolina (USA)

FORECAST LANDFALL TIMEFRAME: Monday evening local time

Latest Satellite Picture



Source: NOAA / NASA / Colorado State University (RAAMB)

Discussion

Tropical Depression Four, located approximately 145 miles (235 kilometers) southeast of Beaufort, South Carolina, is currently tracking west-northwest at 16 mph (26 kph). The area of disturbed weather and associated low pressure system that the National Hurricane Center (NHC) has been tracking the past few days has developed into a tropical depression off the coast of South Carolina this morning. The inner-core cloud structure noted in high-resolution visible satellite imagery has continued to tighten up and deep convection has persisted northwest through southwest of the center. This has allowed for Dvorak intensity estimates to highlight a sustained wind estimate of 35 mph (55 kph). This intensity estimate is consistent with overnight surface wind data noted just north of the well-defined center.

The initial motion estimate remains towards the west-northwest. This is a small tropical cyclone and it is expected to maintain a west-northwestward to northwestward motion for the next couple of days, resulting in landfall along the south-central coast of South Carolina later this evening. The system is expected to dissipate within 48 hours when it traverses the southern Appalachian Mountains. The NHC track forecast lies close to the tightly packed GFS (U.S.)- and ECMWF (European)-based models due to the lack of any significant inner-core convection. This is allowing the cyclone to be steered more by the low-level flow rather than the deep-layer flow.

There is a narrow window of opportunity this afternoon for the depression to strengthen into a tropical storm before landfall occurs. Should this occur, it would become Tropical Storm Danny. During the next few hours, the small cyclone will be passing over the warmer Gulf Stream where sea surface temperatures are warm. Also, as the outer wind field begins to interact with land, low-level frictional convergence along and just offshore should help to generate deep convection just prior to landfall, helping to spin up the wind field. The NHC forecast shows the system becoming a tropical storm before landfall, and as a result a Tropical Storm Warning has been issued for a portion of the South Carolina coast.

An Air Force Reserve Unit reconnaissance aircraft will investigate the system this afternoon and help provide more detailed information on the cyclone's intensity.

Key Messages from the National Hurricane Center

1. Heavy rainfall is possible from coastal southern South Carolina and Georgia, inland across the Piedmont of Georgia into northeast Alabama. Isolated flooding is possible across urban areas of the southern South Carolina and Georgia coasts.
2. Tropical-storm-force winds are expected across portions of the South Carolina coast late this afternoon and tonight where a Tropical Storm Warning is in effect.
3. Swells generated by the depression are expected to affect portions of the South Carolina coast this afternoon and tonight. These swells could cause life-threatening surf and rip currents.

Additional Information

WIND: Tropical storm conditions are expected to first reach the coast within the warning area by late this afternoon, making outside preparations difficult or dangerous.

RAINFALL: The depression could produce 1 to 3 inches of rainfall with locally higher amounts along the immediate coasts of Georgia and southern South Carolina. This region has been dry, limiting potential widespread flooding impacts, however, local flooding impacts, especially in urban areas along the southern South Carolina and Georgia coasts, cannot be ruled out at this time.

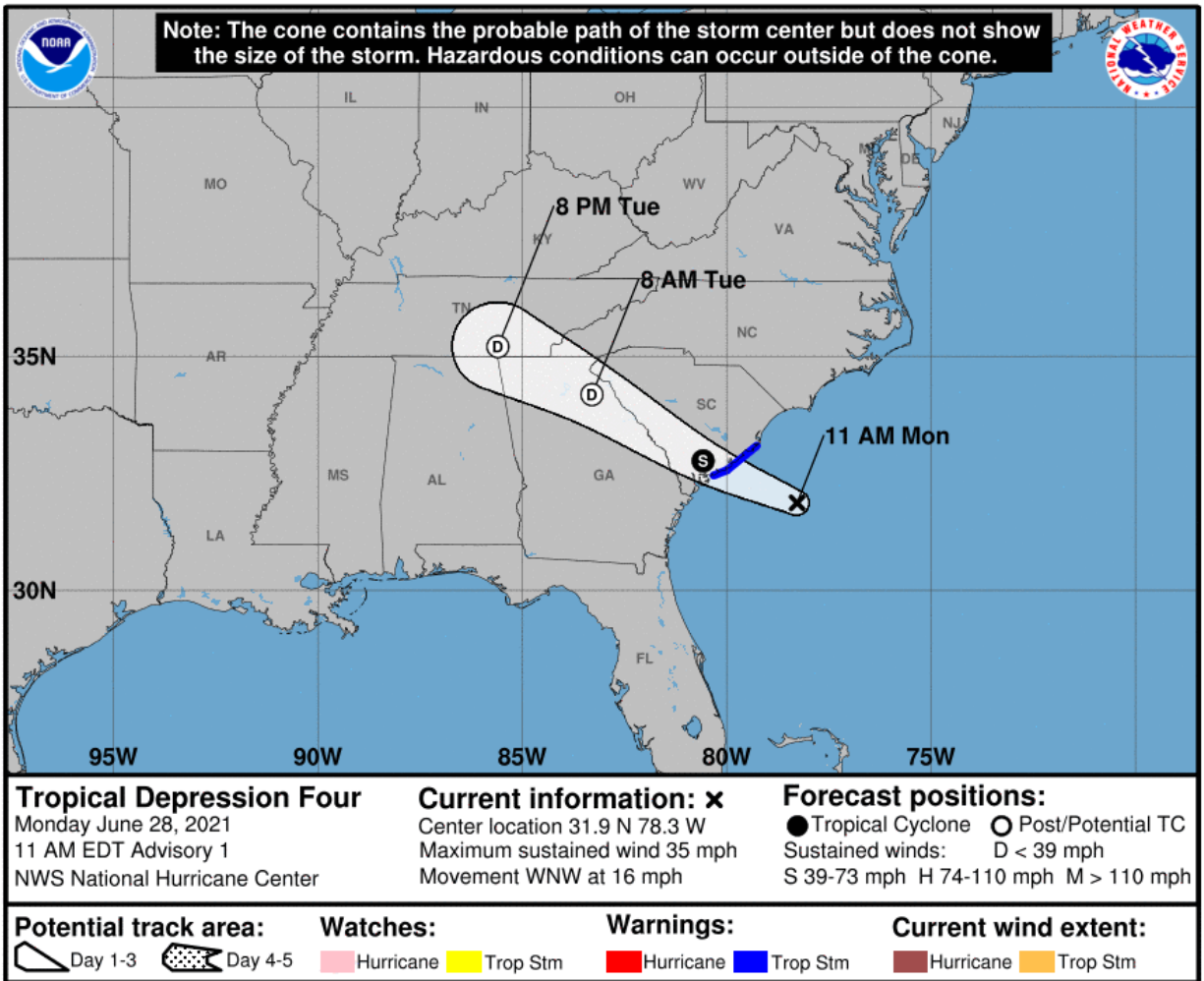
Farther inland, 1 to 2 inches of rainfall is possible across upstate South Carolina, the Piedmont of Georgia, and into northeastern Alabama.

STORM SURGE: The combination of storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water could reach the following heights above ground somewhere in the indicated areas if the peak surge occurs at the time of high tide:

Port Royal Sound, SC to South Santee River, SC: 1 to 3 feet

Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances.

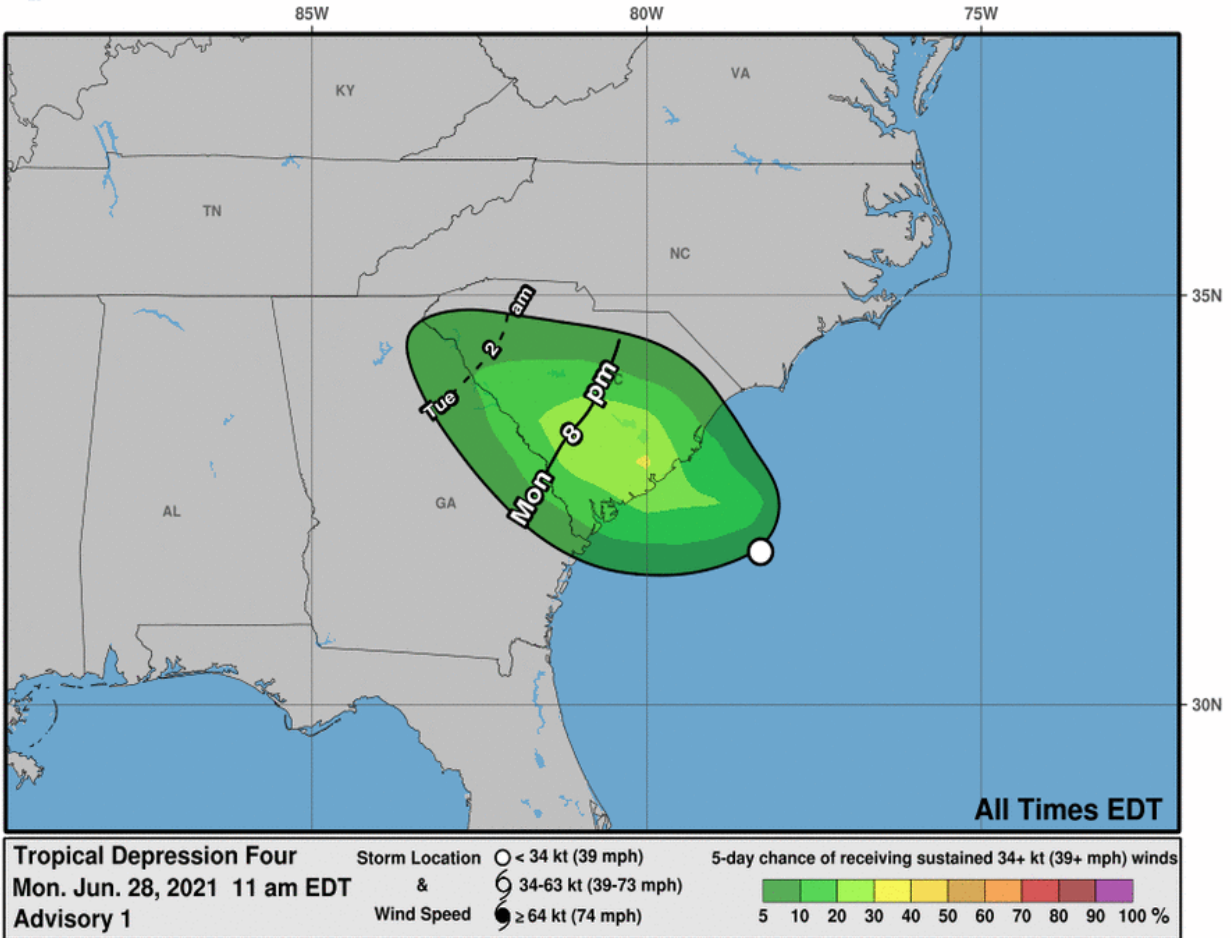
National Hurricane Center (NHC) Forecast



Most Likely Arrival Time of Tropical Storm-Force Winds

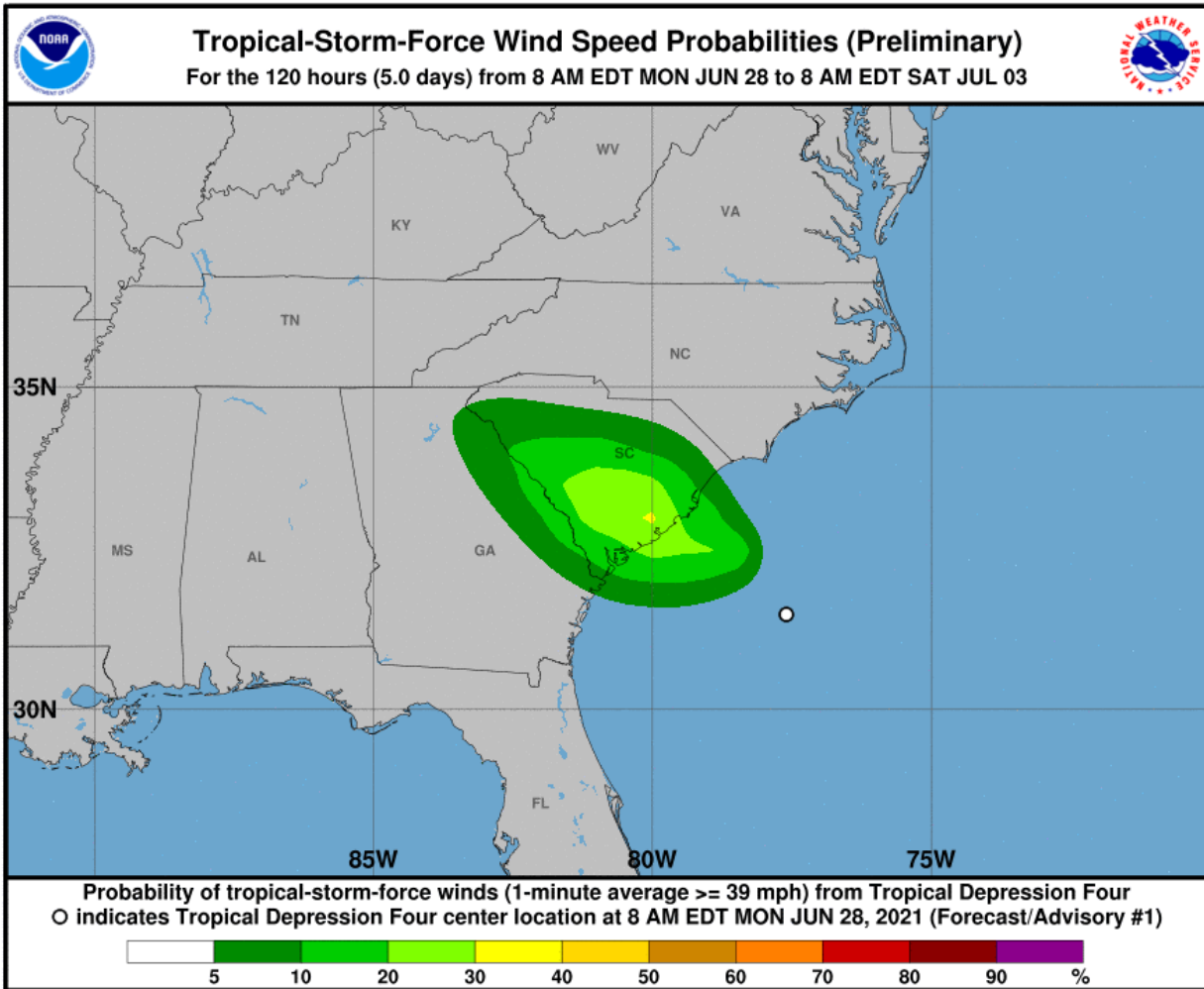


Most Likely Arrival Time of Tropical Storm-Force Winds

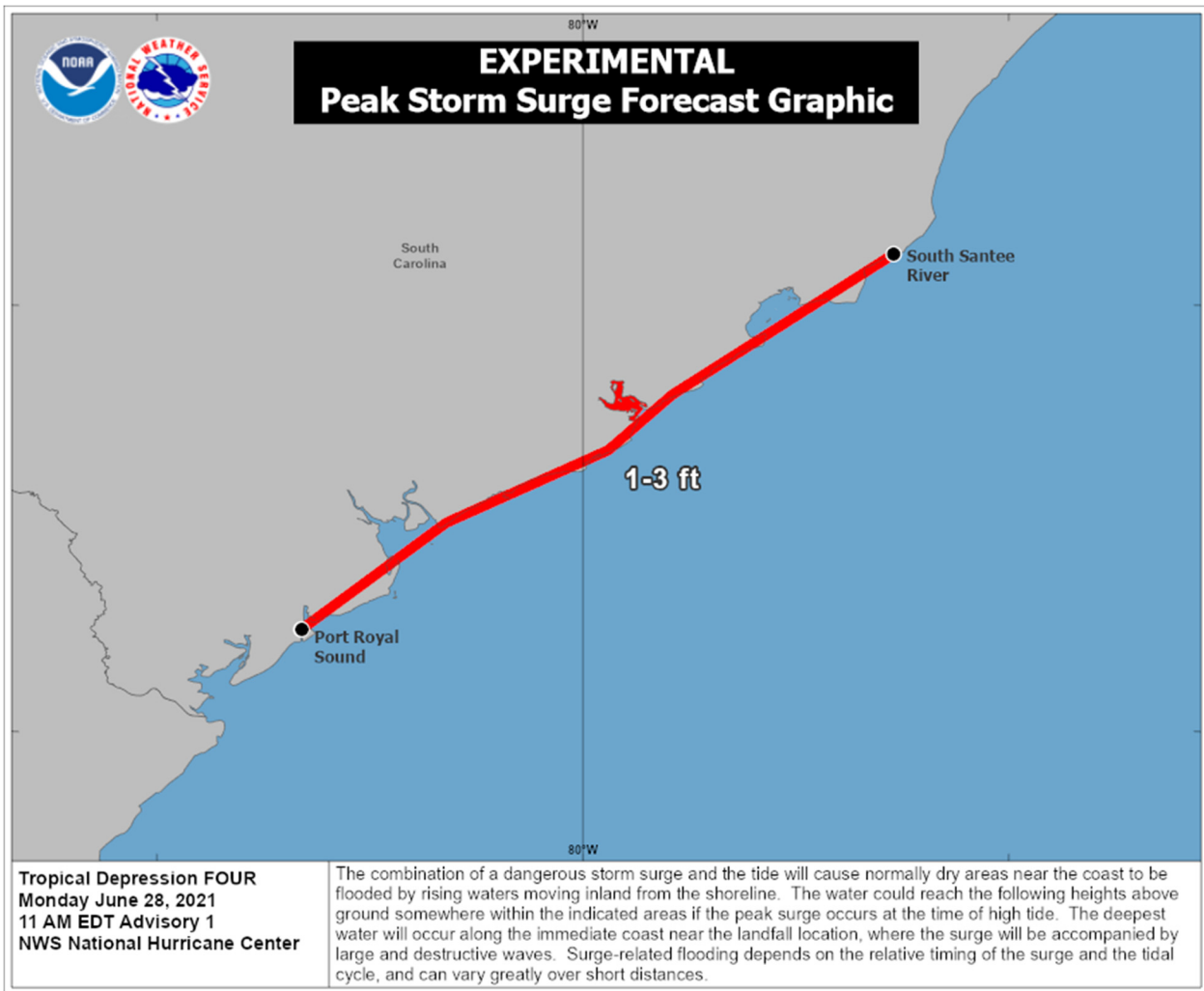


National Hurricane Center: Wind Speed Probabilities

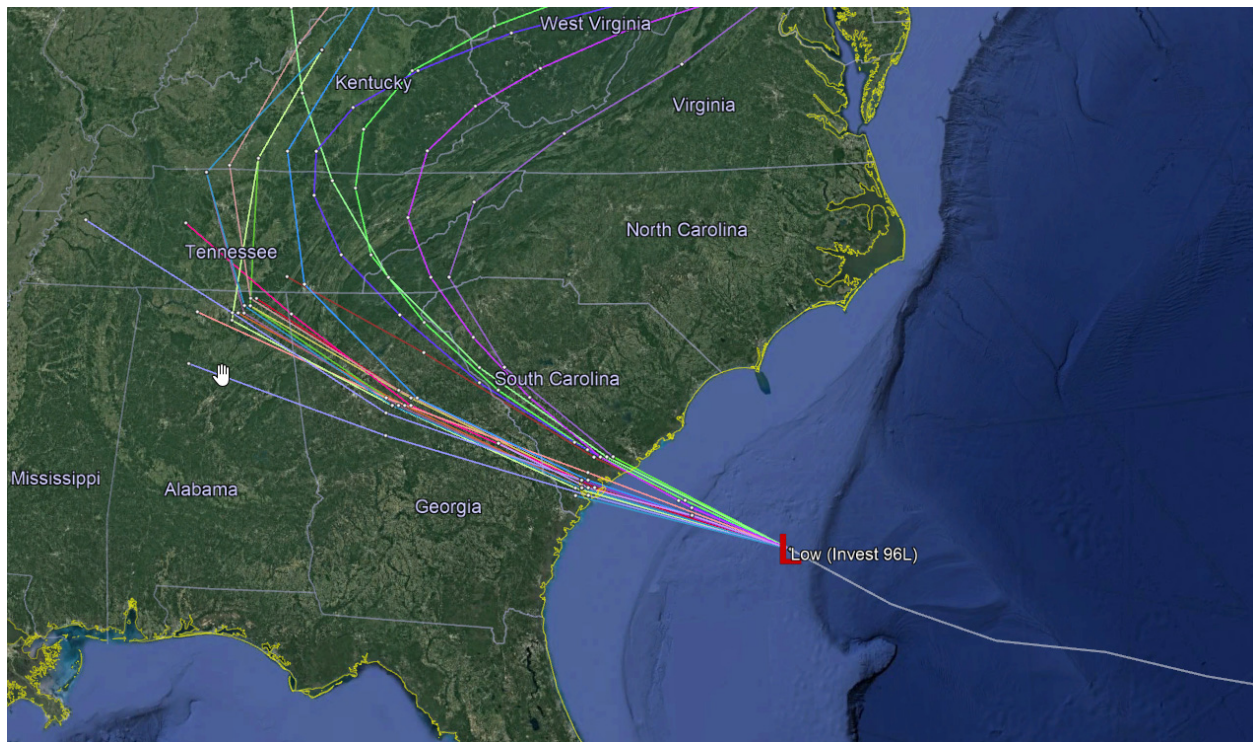
Tropical Storm-Force Wind Probabilities (≥ 40 mph (65 kph))



NHC: Storm Surge Inundation Graphic



Current 'Spaghetti' Model Output Data



Source: NHC

Additional Information and Update Schedule

Wind intensity forecasts and forecast track information can be found via the National Hurricane Center at www.nhc.noaa.gov

NEXT CAT ALERT: Since landfall is anticipated later today (June 28), this will be the final Cat Alert. Full details on the event will be found in this week's Weekly Cat Report.

*Tropical Cyclone Intensity Classifications for Global Basins

WIND SPEED			BASINS AND MONITORING BUREAU								
KTS ¹	MPH ¹	KPH ¹	NE Pacific, Atlantic	NW Pacific	NW Pacific	SW Pacific	Australia	SW Indian	North Indian		
			National Hurricane Center (NHC)	Joint Typhoon Warning Center (JTWC)	Japan Meteorological Agency (JMA)	Fiji Meteorological Service (FMS)	Bureau Of Meteorology (BOM)	Meteo-France (MF)	India Meteorological Department (IMD)		
30	35	55	Tropical Depression	Tropical Depression	Tropical Depression	Tropical Depression	Tropical Low	Tropical Depression	Deep Depression		
35	40	65	Tropical Storm	Tropical Storm	Tropical Storm	Cat. 1 Tropical Cyclone	Cat. 1 Tropical Cyclone	Moderate Tropical Storm	Cyclonic Storm		
40	45	75									
45	50	85									
50	60	95									
55	65	100									
60	70	110	Cat. 1 Hurricane	Typhoon	Typhoon	Cat. 3 Severe Tropical Cyclone	Cat. 3 Severe Tropical Cyclone	Tropical Cyclone	Very Severe Cyclonic Storm		
65	75	120									
70	80	130									
75	85	140									
80	90	150									
85	100	160	Cat. 2 Hurricane		Typhoon	Typhoon	Cat. 4 Severe Tropical Cyclone	Cat. 4 Severe Tropical Cyclone		Intense Tropical Cyclone	
90	105	170									
95	110	175									
100	115	185	Cat. 3 Major Hurricane		Super Typhoon	Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone		Very Intense Tropical Cyclone	Super Cyclonic Storm
105	120	195									
110	125	205									
115	130	210	Cat. 4 Major Hurricane	Super Typhoon	Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm		
120	140	220									
125	145	230									
130	150	240	Cat. 5 Major Hurricane	Super Typhoon	Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm		
135	155	250									
140	160	260									
>140	>160	>260	Cat. 5 Major Hurricane	Super Typhoon	Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm		

About Aon

Aon plc (NYSE:AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance.

© Aon plc 2021. All rights reserved.

The information contained herein and the statements expressed are of a general nature and are not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information and use sources we consider reliable, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

Copyright © by Impact Forecasting®

No claim to original government works. The text and graphics of this publication are provided for informational purposes only. While Impact Forecasting® has tried to provide accurate and timely information, inadvertent technical inaccuracies and typographical errors may exist, and Impact Forecasting® does not warrant that the information is accurate, complete or current. The data presented at this site is intended to convey only general information on current natural perils and must not be used to make life-or-death decisions or decisions relating to the protection of property, as the data may not be accurate. Please listen to official information sources for current storm information. This data has no official status and should not be used for emergency response decision-making under any circumstances.

Cat Alerts use publicly available data from the internet and other sources. Impact Forecasting® summarizes this publicly available information for the convenience of those individuals who have contacted Impact Forecasting® and expressed an interest in natural catastrophes of various types. To find out more about Impact Forecasting or to sign up for the Cat Reports, visit Impact Forecasting's webpage at impactforecasting.com.

Copyright © by Aon plc. All rights reserved. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise. Impact Forecasting® is a wholly owned subsidiary of Aon plc.