

Current Watches and Warnings

A **Hurricane Warning** is in effect from South Santee River, South Carolina (SC) to Surf City, North Carolina (NC)

A **Storm Surge Warning** is in effect from Edisto Beach, SC, to Cape Fear, NC; Pamlico and Albemarle Sounds, including the Neuse and Pamlico Rivers; Oregon Inlet, NC to the North Carolina/Virginia border

A **Storm Surge Watch** is in effect from Cape Fear to Oregon Inlet, NC

A **Tropical Storm Warning** is in effect from Altamaha Sound, Georgia (GA) to South Santee River, SC; north of Surf City, NC to the Mouth of the Merrimack River; Pamlico and Albemarle Sounds; Chesapeake Bay; Tidal Potomac River; Delaware Bay; Long Island and Long Island Sound; Martha's Vineyard, Nantucket, and Block Island

A **Tropical Storm Watch** is in effect from the mouth of the Merrimack River to Eastport, Maine (ME)

Current Details from the National Hurricane Center (NHC)

COORDINATES: 30.7° north, 80.1° west

LOCATION: 220 miles (350 kilometers) south-southwest of Myrtle Beach, South Carolina

MOVEMENT: north at 13 mph (20 kph)

WINDS: 70 mph (110 kph) with gusts to 85 mph (140 kph)

RADIUS OF TROPICAL STORM-FORCE WINDS: 125 miles (205 kilometers)

MINIMUM CENTRAL PRESSURE: 998 millibars

SAFFIR-SIMPSON SCALE RANKING*: Tropical Storm

FORECAST LANDFALL LOCATION: near the South Carolina & North Carolina border

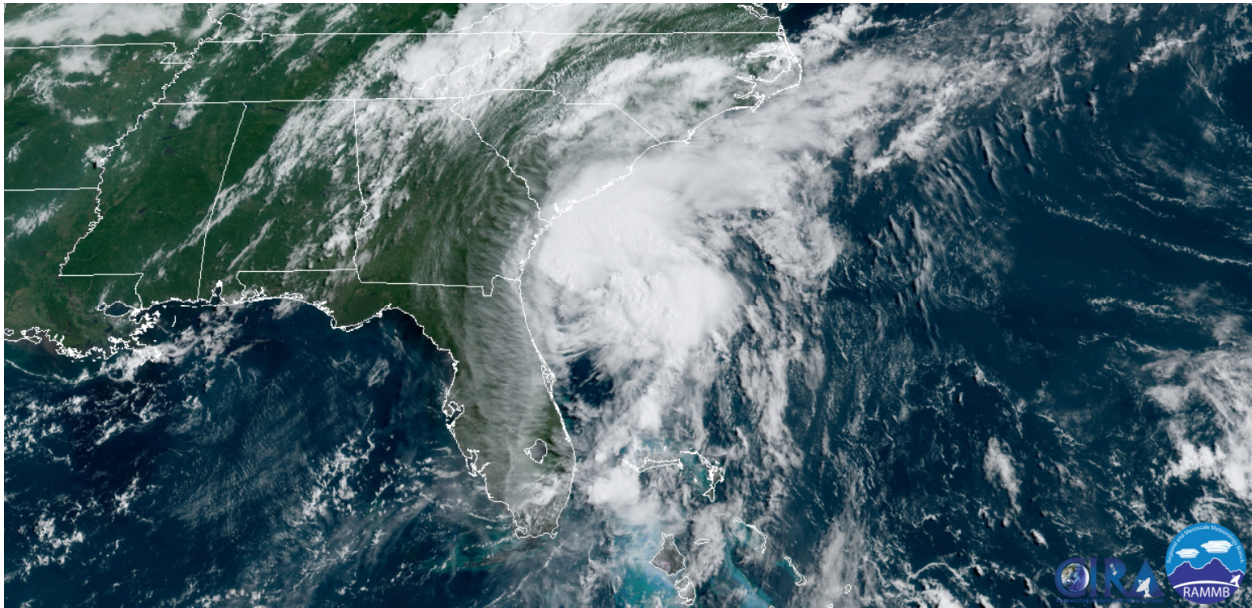
FORECAST LANDFALL TIMEFRAME: Monday evening or early Tuesday morning local time

1st LANDFALL LOCATION: Northern Andros Island, Bahamas

1st LANDFALL INTENSITY: 80 mph (130 kph) – Category 1

1st LANDFALL TIMEFRAME: approximately 11:00 AM local time (15:00 UTC) August 1

Latest Satellite Picture



Source: NOAA; NASA; Colorado State University (RAMMB)

Discussion

Tropical Storm Isaias, located approximately 220 miles (350 kilometers) south-southwest of Myrtle Beach, South Carolina, is currently tracking north at 13 mph (20 kph). Isaias continues to go through bursts of convective phases before them quickly weakening, and the storm is currently in a period of thunderstorm weakening. Satellite and radar data indicate that Isaias' convective organization has become a bit more disorganized since the previous advisory, but this is generally expected since the storm has gone through these storm “pulses” roughly every eight hours. Given this pattern, the system would potentially be due for another re-organization phase shortly. That may already be underway based on recent radar and aircraft data showing a slight eastward shift in the center position. The highest flight-level winds were still below hurricane intensity, with surface-adjusted winds noted between 60 and 70 mph (95 and 110 kph). Jacksonville Doppler radar wind velocities north and north-northwest of the center have suggested winds around 65 mph (100 kph). Thus, the NHC has kept the initial intensity at 70 mph (110 kph) – which is perhaps generous – for this advisory despite the recent rise in minimum central pressure to 998 millibars.

Isaias is still moving northward, but starting to show some acceleration. The track forecast reasoning remains essentially the same as the previous recent advisories, with Isaias expected to gradually turn toward the north-northeast later today and begin to further accelerate by this evening. The latest NHC model guidance is remains in generally excellent agreement and the track is similar to the previous advisory.

Current moderate westerly vertical wind shear is expected to decrease somewhat during the next 12 hours, and also become more southwesterly. This would be in better alignment with Isaías' forward trajectory. Such an alignment and decrease in shear should result in a more favorable environment and lead to opportunity for Isaías to strengthen and regain hurricane status just before making landfall. Most of the intensity guidance shows wind speeds ranging from 70 to 75 mph (110 to 120 kph) at that time. After landfall, Isaías is forecast to only slowly weaken due to interaction with an unusually strong winter-type jet stream. Expected strong baroclinic forcing – differences in temperature and pressure which can result in intensification of areas of low pressure given tighter gradients – will keep Isaías' circulation intact and also produce very strong wind gusts along the Mid-Atlantic states tomorrow. The cyclone is forecast to be absorbed by a larger extratropical low over Canada in the next three to four days.

Key Messages from the National Hurricane Center

1. There is the danger of life-threatening storm surge inundation along portions of the immediate coastline and adjacent waterways of northeastern South Carolina and the North Carolina coast in the Storm Surge Warning area. Residents in these areas should follow advice given by local emergency officials.
2. Isaías is forecast to regain hurricane strength before it reaches the coast of northeastern South Carolina and southern North Carolina, and hurricane conditions are expected in the Hurricane Warning area by this evening. Preparations should be rushed to completion.
3. Isaías is expected to bring widespread sustained tropical storm force winds and wind gusts to hurricane force to the Mid-Atlantic coast Tuesday, which could cause tree damage and power outages. Tropical storm conditions are expected to reach southern New England on late Tuesday and are possible along the northern New England coast Tuesday night and early Wednesday.
4. Heavy rainfall will result in flash and urban flooding, some of which may be significant in the eastern Carolinas and the Mid-Atlantic, through Tuesday night near the path of Isaías up the East Coast of the United States. Widespread minor to moderate river flooding is possible across portions of the Carolinas and the Mid-Atlantic.

Additional Information

STORM SURGE: The combination of a dangerous 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:

South Santee River, SC to Cape Fear, NC: 3-5 feet

Edisto Beach, SC to South Santee River, SC: 2-4 feet

Cape Fear, NC to the North Carolina/Virginia border including Pamlico Sound, Albemarle Sound, Neuse and Pamlico Rivers: 2-4 feet

Altamaha Sound, GA to Edisto Beach, SC: 1-3 feet

North of the North Carolina/Virginia border to Martha's Vineyard including the Chesapeake Bay, the Tidal Potomac River, and Delaware Bay: 1-3 feet

The deepest water will occur along the immediate coast in areas of onshore winds, where the surge will be accompanied by large waves.

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

WIND: Hurricane conditions are expected within the Hurricane Warning area in South and North Carolina this evening through tonight, with tropical storm conditions beginning later today.

Widespread tropical-storm-conditions are expected in the Tropical Storm Warning area from coastal North Carolina to the Mid-Atlantic states tonight and Tuesday, with wind gusts to hurricane force possible. These winds could cause tree damage and power outages.

Tropical storm conditions are expected to reach southern New England late Tuesday and are possible along the northern New England coast Tuesday night and early Wednesday.

RAINFALL: The following rainfall accumulations are expected along and near the track of Isaias:

Carolinas and the Mid-Atlantic: 3 to 6 inches, isolated maximum totals 8 inches

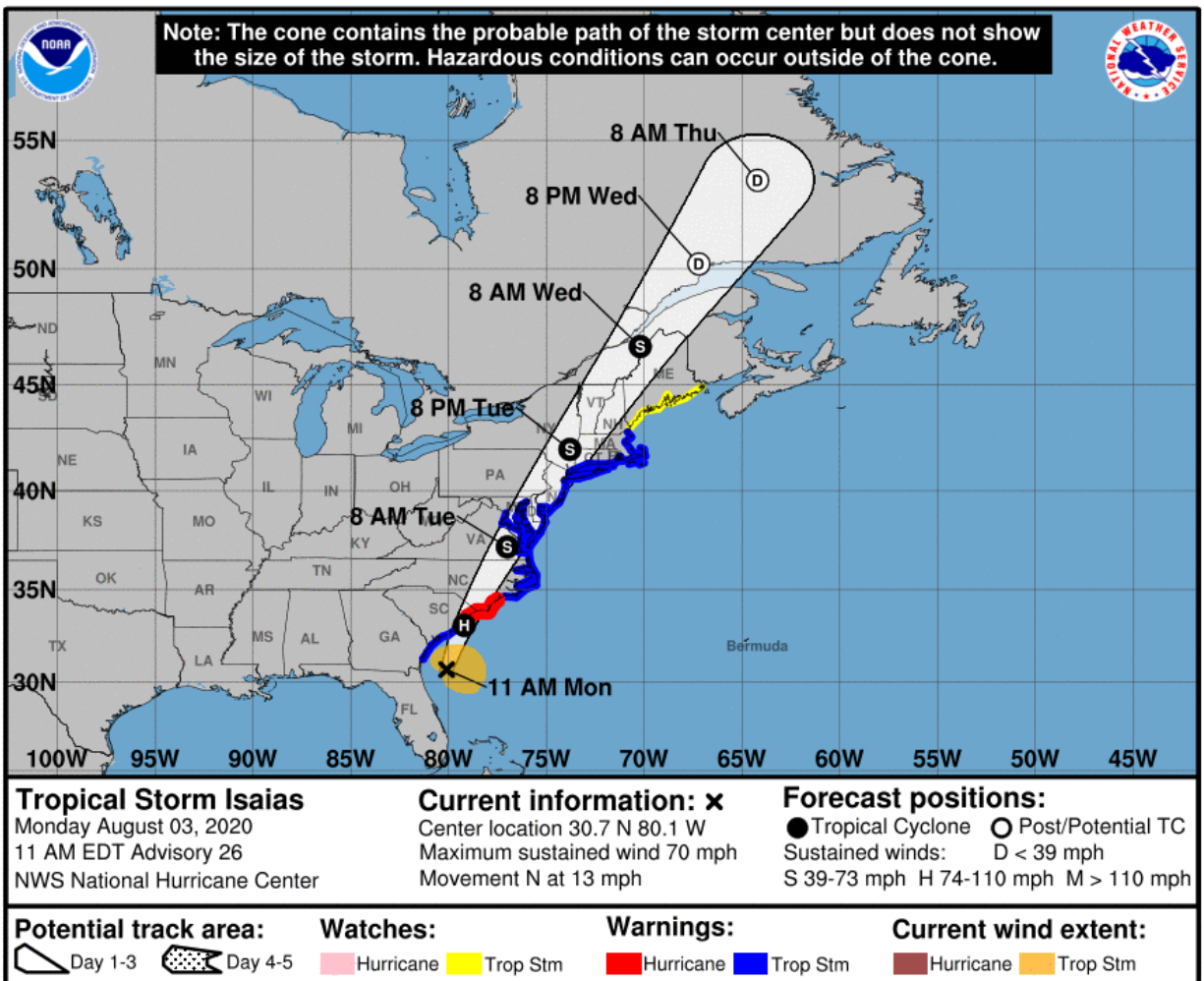
Southeast New York and much of New England: 2 to 4 inches, isolated maximum totals 6 inches

Heavy rainfall from Isaias will result in flash and urban flooding, some of which may be significant in the eastern Carolinas and the Mid-Atlantic, through Tuesday night near the path of Isaias up the East Coast of the United States. Widespread minor to moderate river flooding is possible across portions of the Carolinas and the Mid-Atlantic. Additionally, quick-responding rivers in the southern Appalachians and Northeast will be susceptible to minor river flooding.

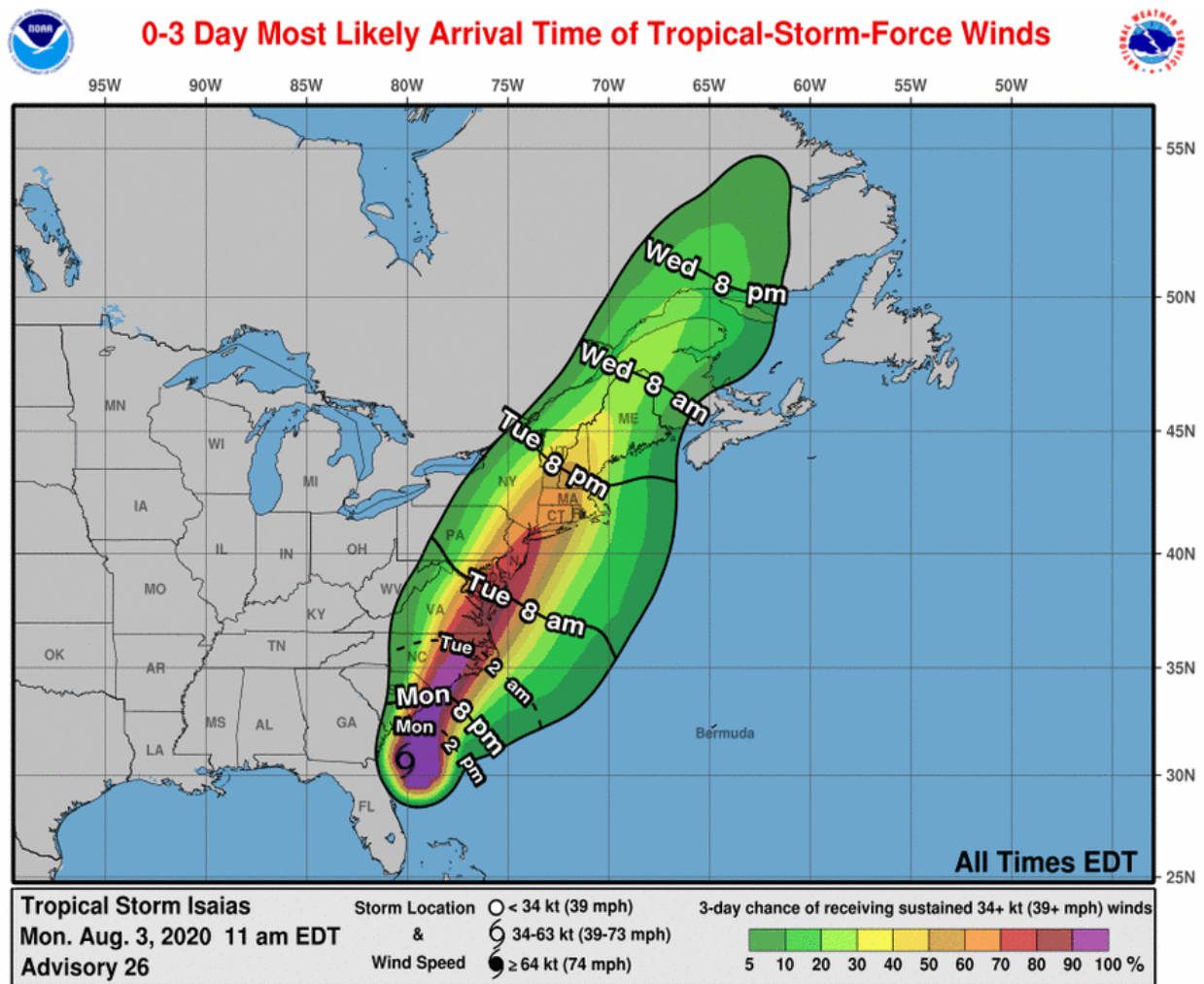
SURF: Swells generated by Isaias are affecting portions of the Bahamas and the southeast coast of the United States and will spread northward along the U.S. east coast during the next couple of days. These swells are likely to cause life-threatening surf and rip current conditions.

TORNADOES: A few tornadoes will be possible over coastal South Carolina beginning this evening, spreading across eastern North Carolina tonight into Tuesday morning. A couple tornadoes will be possible on Tuesday from eastern Virginia northeastward into southern New England.

National Hurricane Center (NHC) Forecast

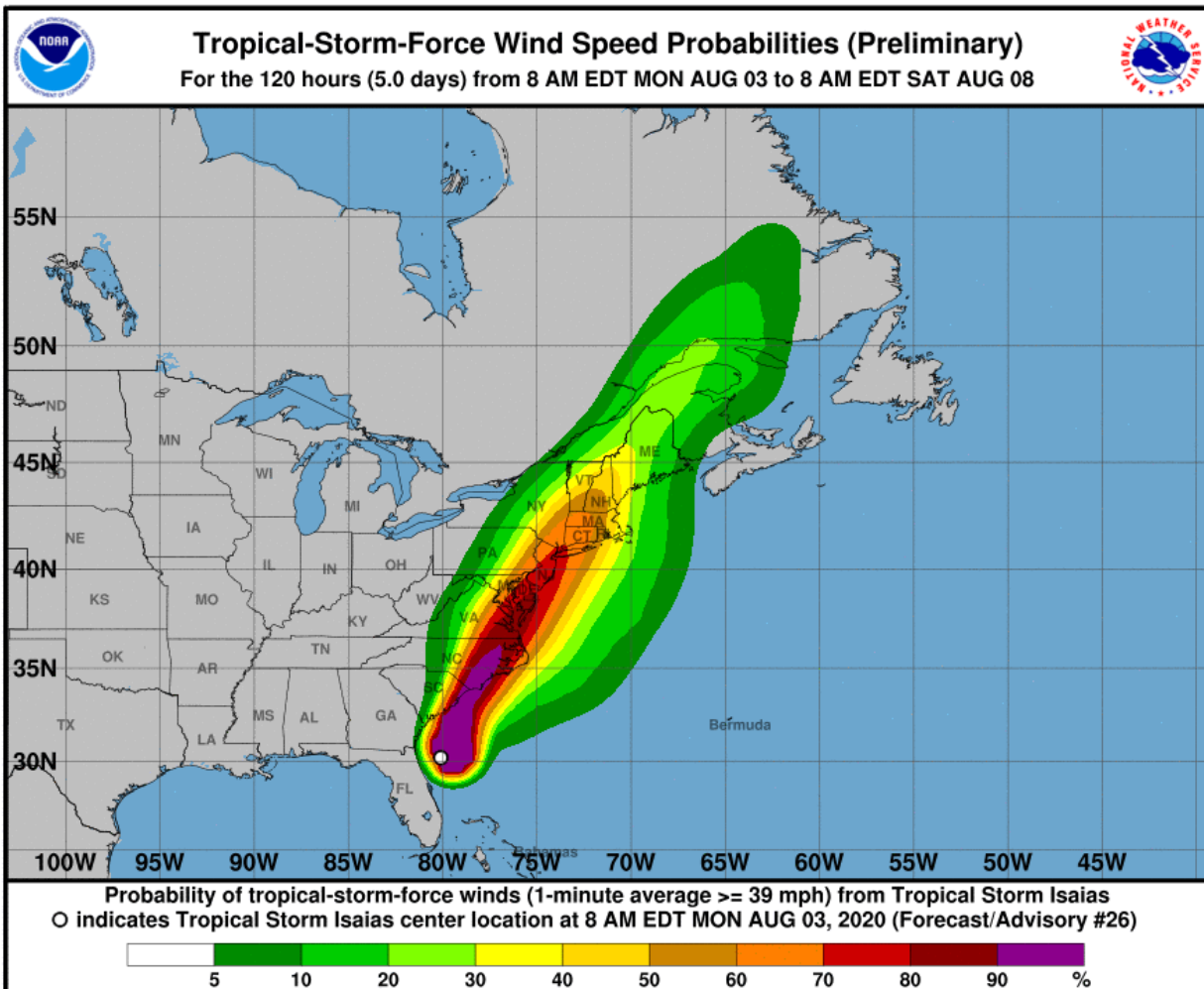


Most Likely Arrival Time of Tropical Storm-Force Winds

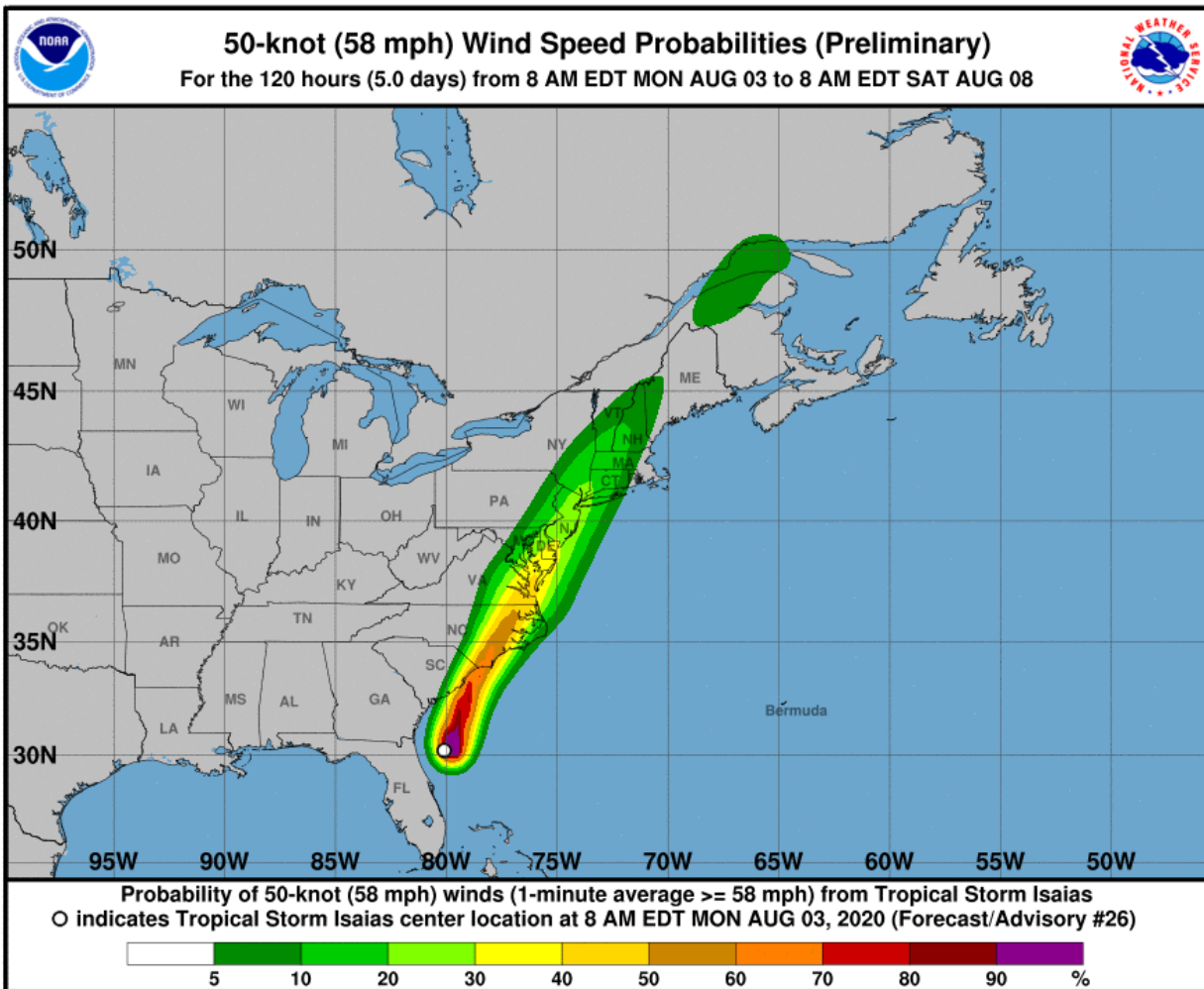


National Hurricane Center: Wind Speed Probabilities

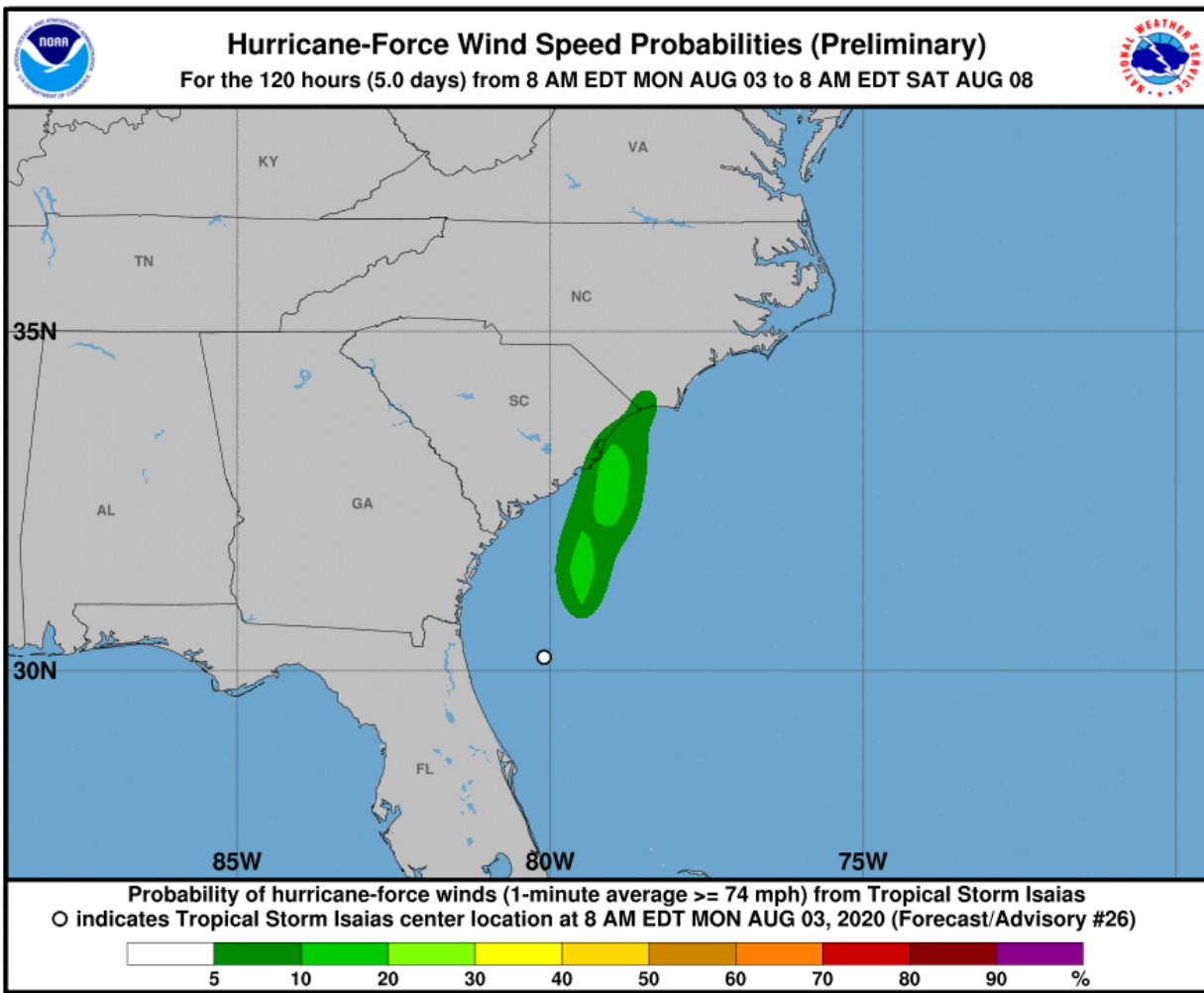
Tropical Storm-Force Wind Probabilities (≥ 40 mph (65 kph))



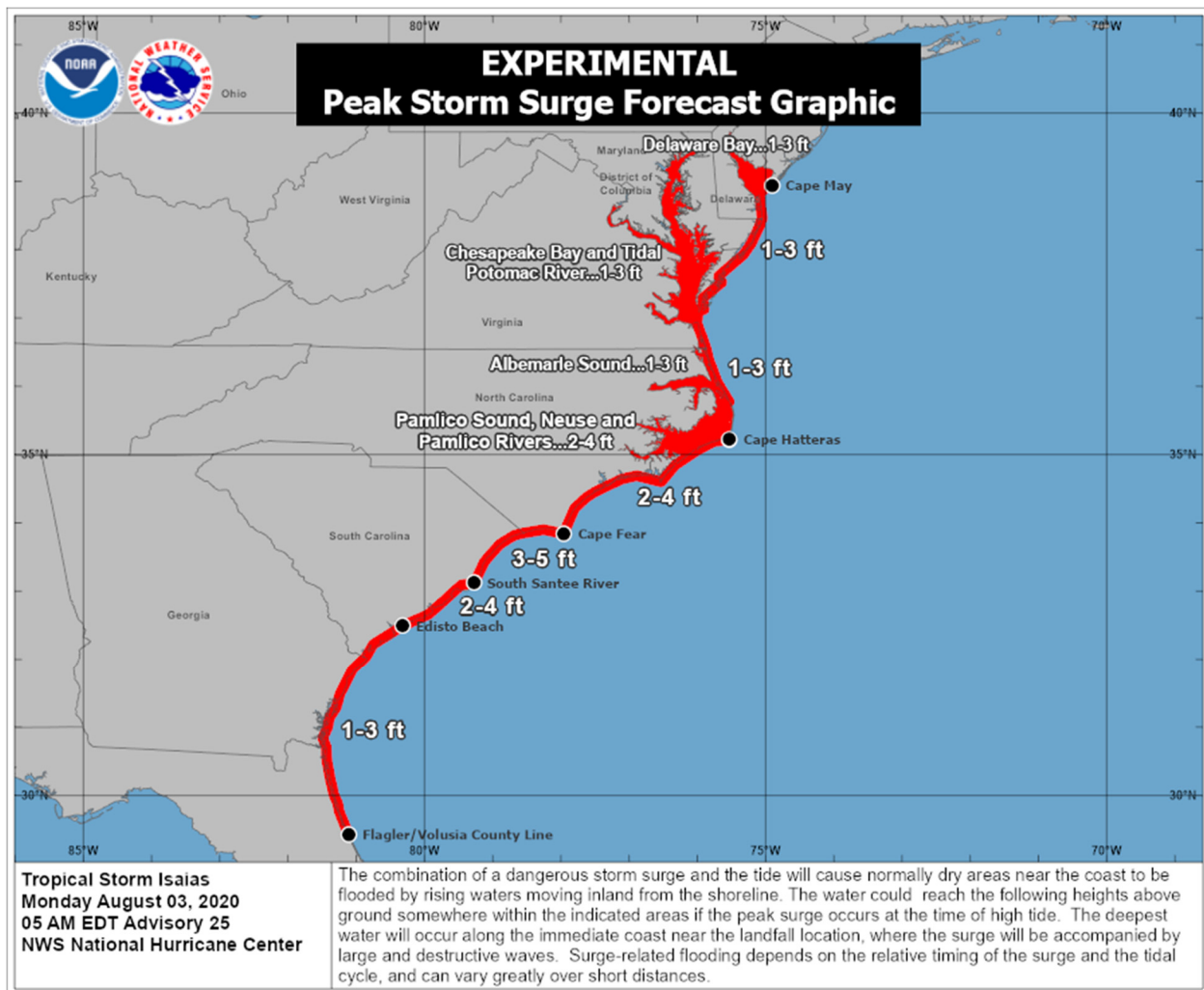
Wind Probabilities (≥ 60 mph (95 kph))



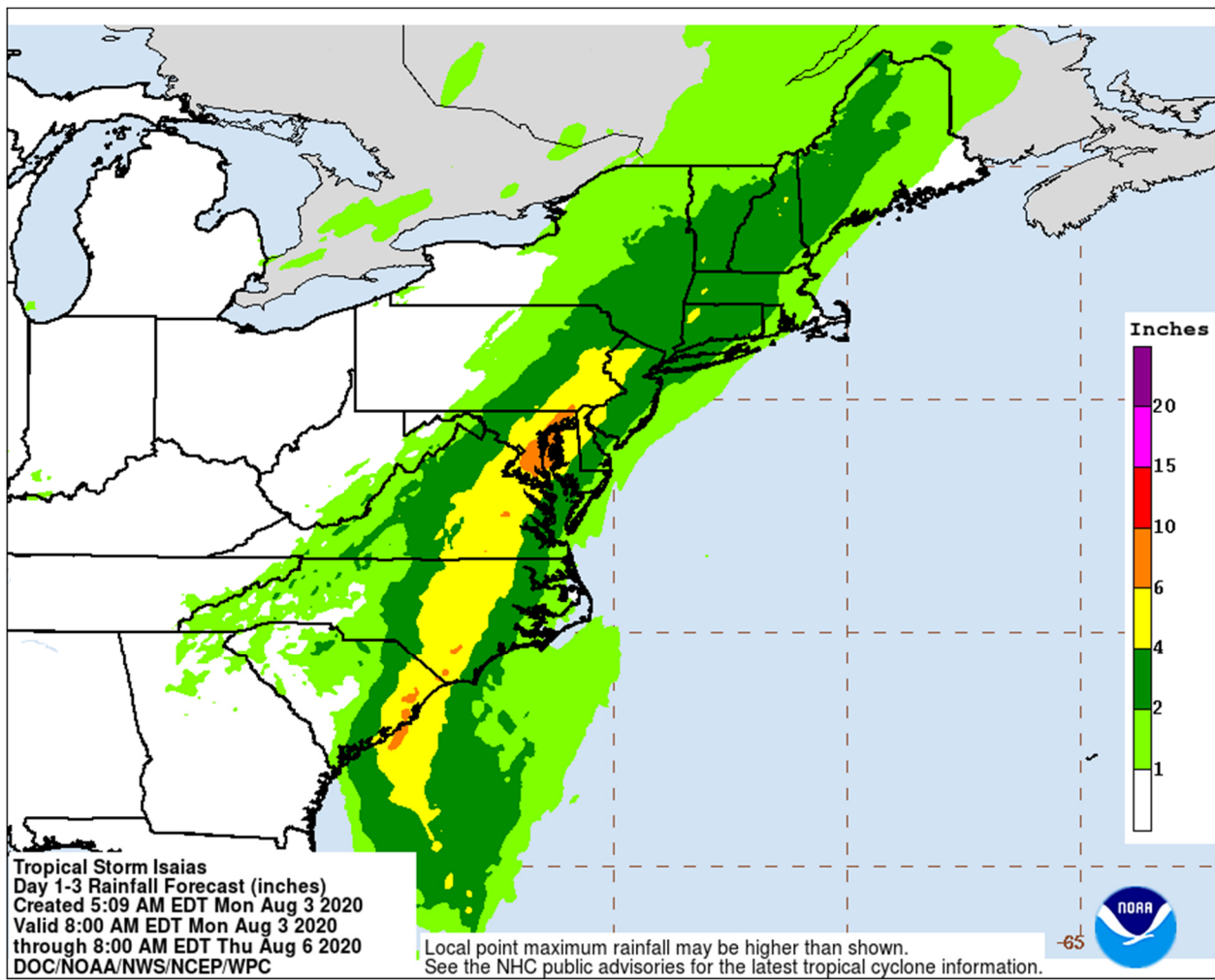
Hurricane-Force Wind Probabilities (≥ 75 mph (120 kph))



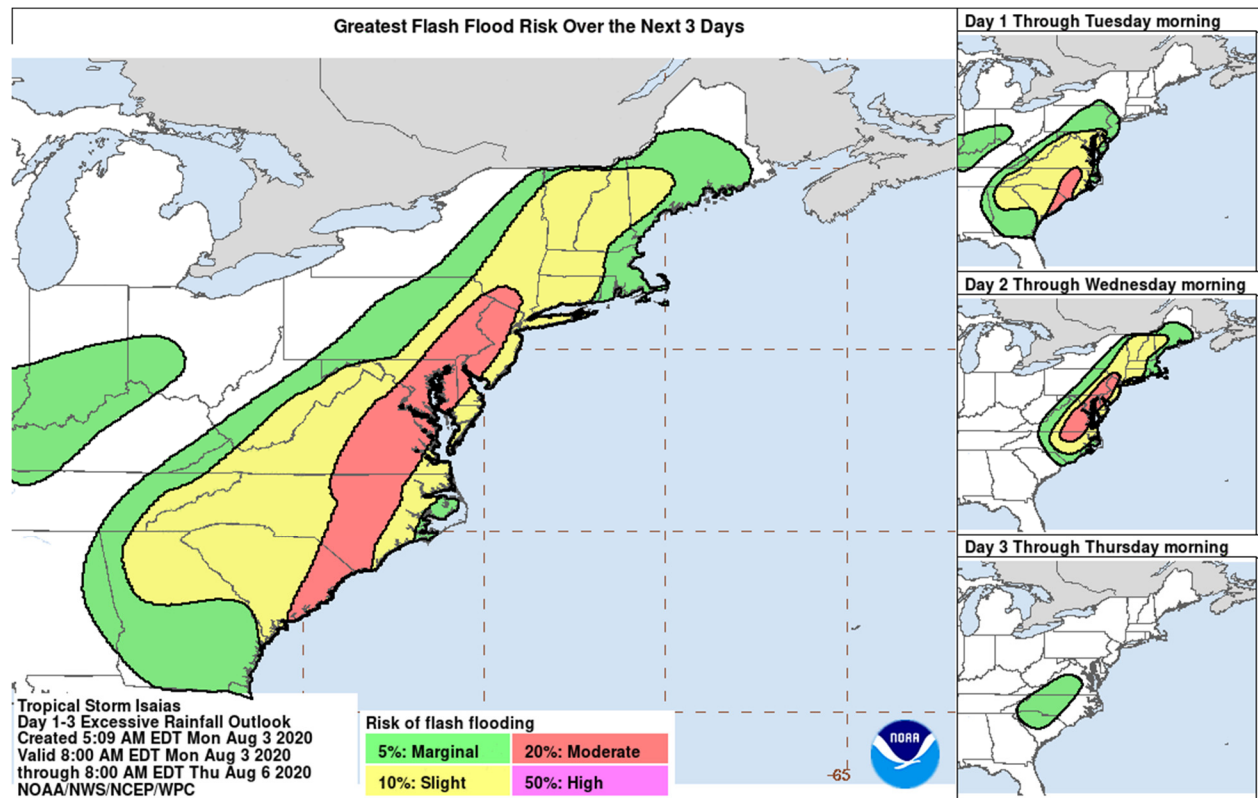
National Hurricane Center: Storm Surge Forecast



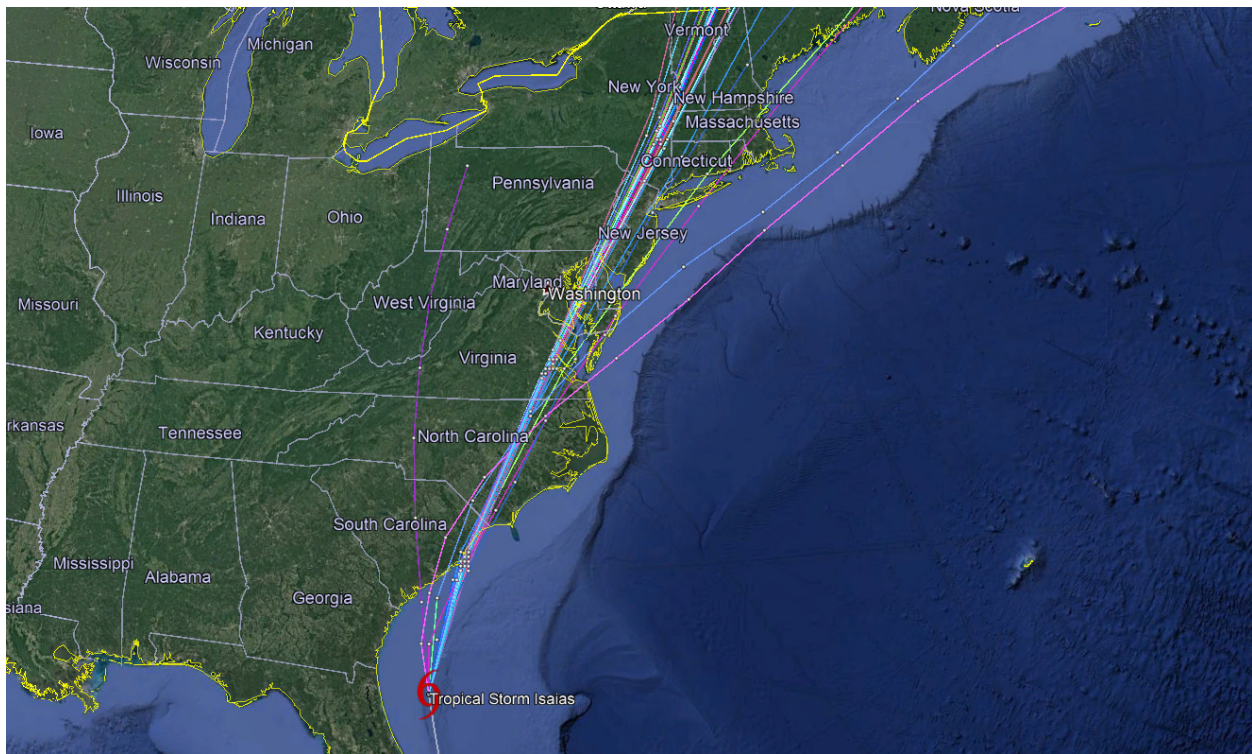
Weather Prediction Center: Rainfall Forecast



Weather Prediction Center: Flash Flood Potential



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: Tuesday morning after 10:00 AM Central Time (15:00 UTC).

*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			Severe Tropical Storm	Cat. 2 Tropical Cyclone	Cat. 2 Tropical Cyclone	Severe Tropical Storm	Severe Cyclonic Storm	
50	60	95								
55	65	100								
60	70	110								
65	75	120	Cat. 1 Hurricane	Typhoon	Typhoon	Cat. 3 Severe Tropical Cyclone	Cat. 3 Severe Tropical Cyclone	Tropical Cyclone	Very Severe Cyclonic Storm	
70	80	130								
75	85	140								
80	90	150	Cat. 2 Hurricane			Cat. 4 Severe Tropical Cyclone	Cat. 4 Severe Tropical Cyclone	Intense Tropical Cyclone		
85	100	160								
90	105	170								
95	110	175	Cat. 3 Major Hurricane			Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm
100	115	185								
105	120	195								
110	125	205	Cat. 4 Major Hurricane							
115	130	210								
120	140	220								
125	145	230								
130	150	240	Cat. 5 Major Hurricane							
135	155	250								
140	160	260								
>140	>160	>260								

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