
HURRICANE IAN

Current Watches and Warnings

A **Hurricane Warning** is in effect for Chokoloskee to Anclote River, including Tampa Bay, Sebastian Inlet to Flagler/Volusia County Line

A **Storm Surge Warning** is in effect for Suwannee River southward to Flamingo, Tampa Bay, Flagler/Volusia Line to the mouth of the South Santee River, St. Johns River

A **Tropical Storm Warning** is in effect for Indian Pass to the Anclote River, Flamingo to Sebastian Inlet, Flagler/Volusia County Line to Surf City, Flamingo to Chokoloskee, Lake Okeechobee, Bimini and Grand Bahama Islands

A **Storm Surge Watch** is in effect for, North of South Santee River to Little River Inlet, Florida Bay

A **Hurricane Watch** is in effect for, Flagler/Volusia County Line to the South Santee River, Lake Okeechobee

A **Tropical Storm Watch** is in effect for North of Surf City to Cape Lookout

Current Details from the National Hurricane Center

COORDINATES: 26.9° north, 82.0° west

LOCATION: 5 miles (10 kilometers) east of Punta Gorda, Florida

MOVEMENT: North-northeast at 8 mph (13 kph)

WINDS: 140 mph (220 kph) with gusts to 180 mph (285 kph)

RADIUS OF TROPICAL STORM-FORCE WINDS: 170 miles (275 kilometers)

RADIUS OF HURRICANE-FORCE WINDS: 45 miles (75 kilometers)

MINIMUM CENTRAL PRESSURE: 945 millibars

SAFFIR-SIMPSON SCALE RANKING: Category 4

LANDFALL LOCATION: Cayo Costa, Florida (Lee County)

LANDFALL TIMEFRAME: 3:10 PM EDT (19:10 UTC) on September 28

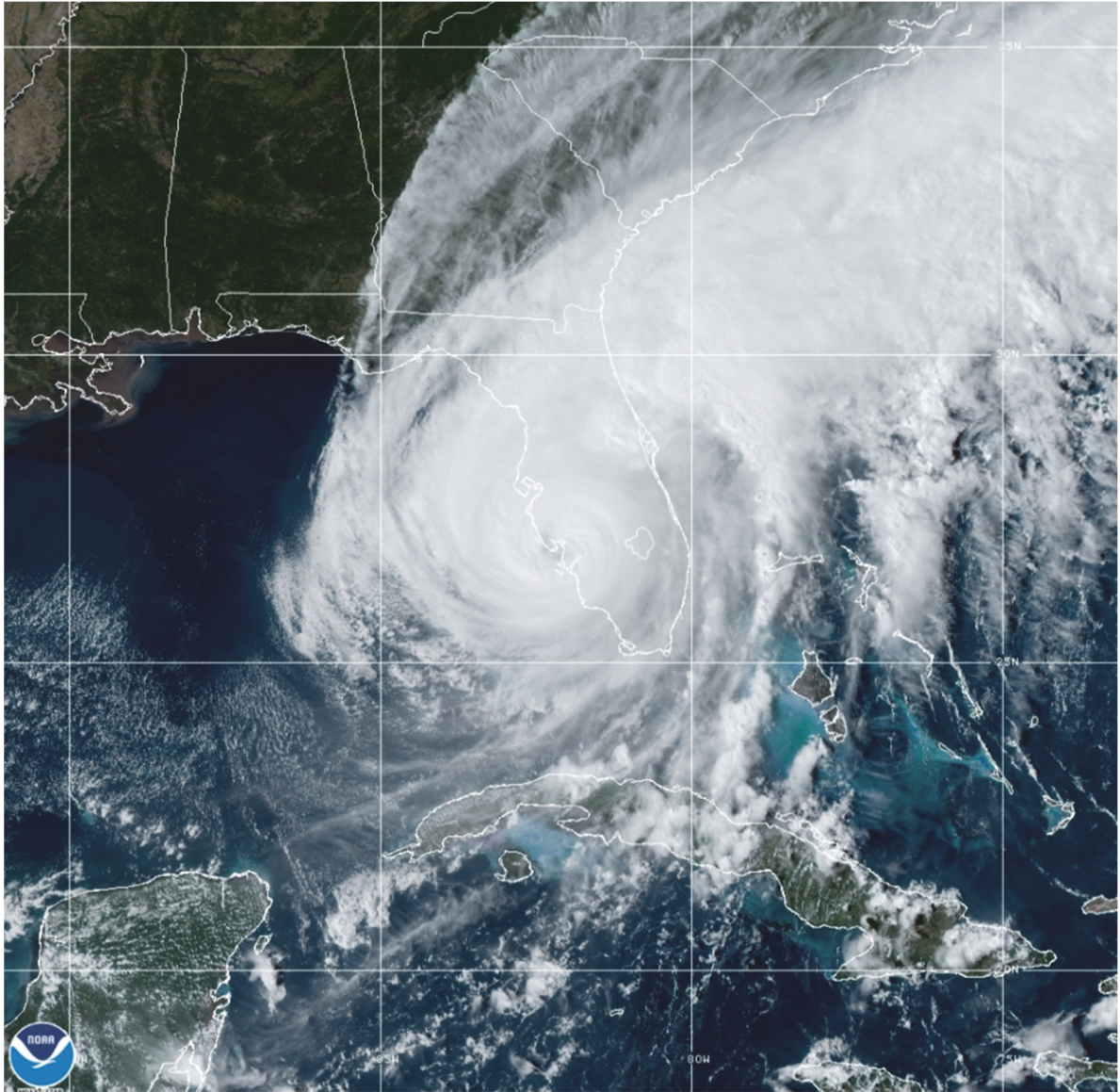
LANDFALL INTENSITY: 150 mph (240 kph); Saffir-Simpson Category 4

MAINLAND LANDFALL LOCATION: Punta Gorda near Pirate Harbor, Florida

MAINLAND LANDFALL TIMEFRAME: 4:35 PM EDT (20:35 UTC) on September 28

MAINLAND LANDFALL INTENSITY: 145 mph (235 kph); Saffir-Simpson Category 4

Latest Satellite Imagery



Source: NOAA / NASA

Discussion

An Air Force Reserve Hurricane Hunter aircraft provided the last fix on Ian just before the hurricane made landfall at Cayo Costa, Florida, with the landfall time near at 3:05 pm EDT. The minimum pressure had risen to about 940 mb at landfall, suggesting that the winds had come down slightly, and the landfall intensity was estimated near 130 kt. While there hasn't been much in situ data recently, satellite images show that the eye has become more cloud filled, and Tampa Doppler radar data is indicating a gradual reduction in winds. The initial intensity is set to 120 kt on this advisory.

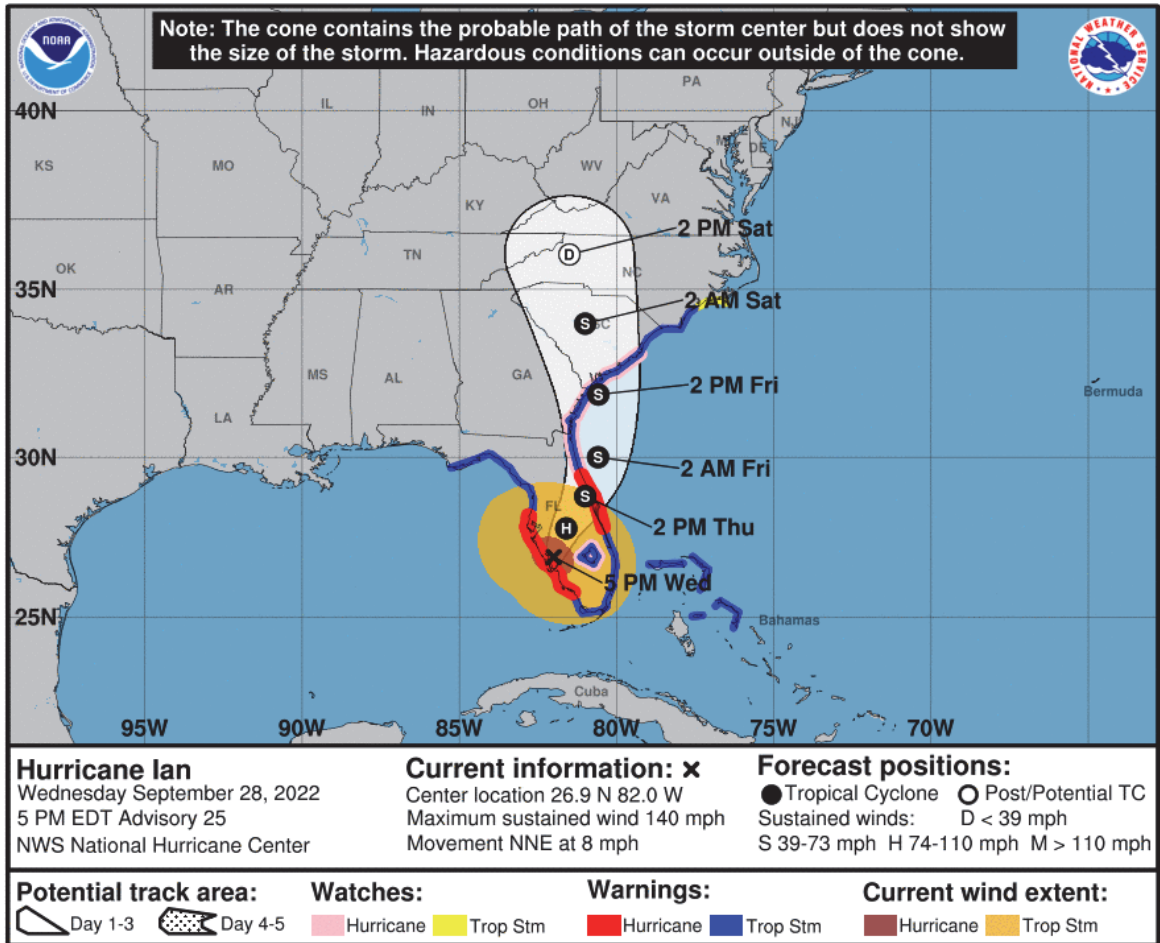
Further weakening is forecast while Ian moves over central Florida during the next day and emerges into the western Atlantic later on Thursday. While there is a lot of vertical wind shear in the environment there, a favorable trough interaction from a trough in the southern United States is expected to counteract the shear, resulting in Ian staying a strong tropical storm through landfall on the southeast U.S. coast. Little change was made to the intensity forecast, which is near or somewhat above the consensus guidance.

The hurricane is moving to the north-northeast at about 8 kt. The trough is likely to cause Ian to turn northward over the western Atlantic and to the north-northwest by the weekend. Model guidance is just a bit faster to the north-northeast than the last cycle, and the new forecast is nudged in that direction. The trough will probably cause Ian to transition to an extratropical cyclone in a few days over the southeastern United States, and this new forecast reflects this likelihood.

Key Messages from the National Hurricane Center

1. **Catastrophic storm surge** inundation of 12 to 18 feet above ground level along with destructive waves is ongoing along the southwest Florida coastline from Englewood to Bonita Beach, including Charlotte Harbor.
2. **Catastrophic wind damage** is occurring along the southwestern coast of Florida in areas near the eyewall of Ian. Hurricane-force winds, especially in gusts, are expected to spread inland to central Florida near the core of Ian through early Thursday. Hurricane conditions are expected along the east-central Florida coast overnight through early Thursday.
3. Heavy rainfall will spread across the Florida peninsula through Thursday and reach portions of the Southeast U.S. later this week and this weekend. Widespread, life-threatening catastrophic flooding, with major to record river flooding, are expected to continue across portions of central Florida with considerable flooding in northern Florida, southeastern Georgia and eastern South Carolina.
4. There is a danger of life-threatening storm surge on Thursday and Friday along the coasts of northeast Florida, Georgia, and South Carolina, with hurricane conditions possible. Residents in these areas should follow any advice given by local officials.

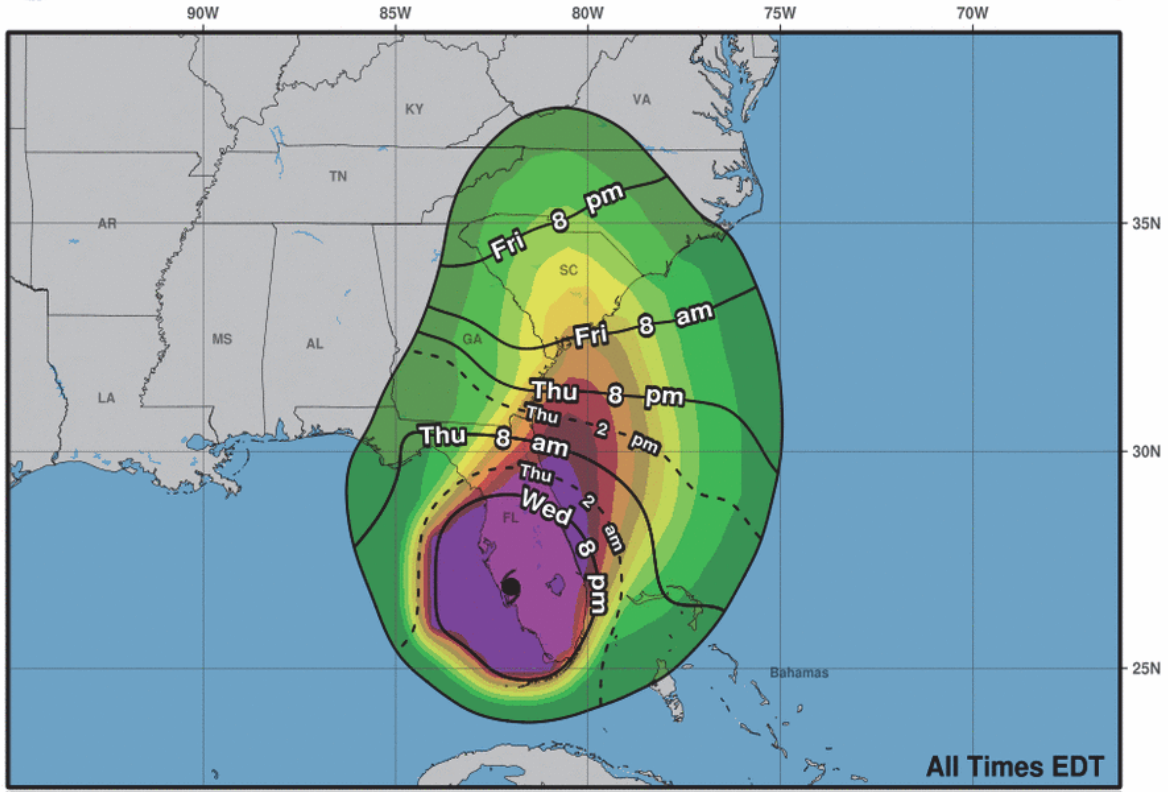
National Hurricane Center Forecast



Most Likely Arrival Time of Tropical Storm-Force Winds



Most Likely Arrival Time of Tropical Storm-Force Winds



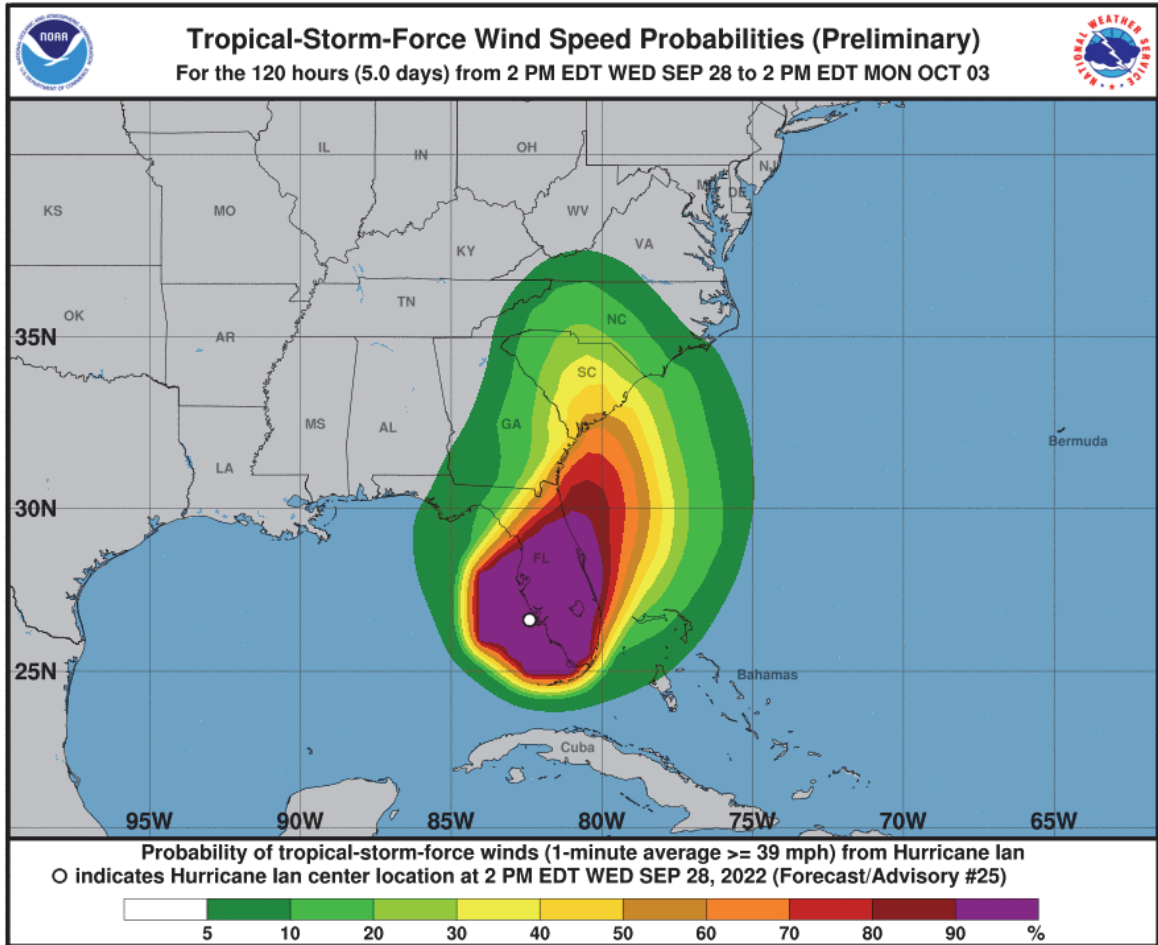
Hurricane Ian
Wed. Sep. 28, 2022 5 pm EDT
Advisory 25

Storm Location	○ < 34 kt (39 mph)	5-day chance of receiving sustained 34+ kt (39+ mph) winds
&	○ 34-63 kt (39-73 mph)	
Wind Speed	● ≥ 64 kt (74 mph)	

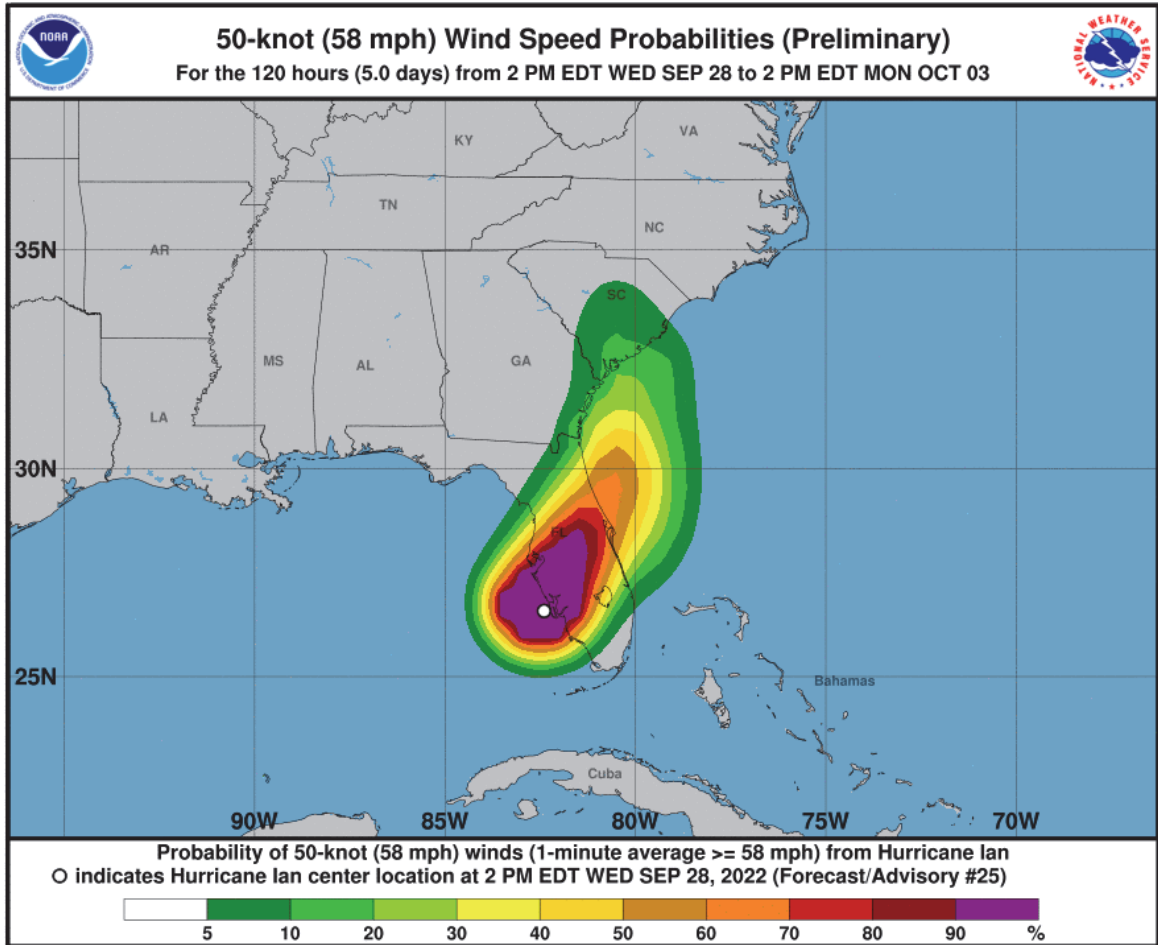
5 10 20 30 40 50 60 70 80 90 100 %

National Hurricane Center: Wind Speed Probabilities

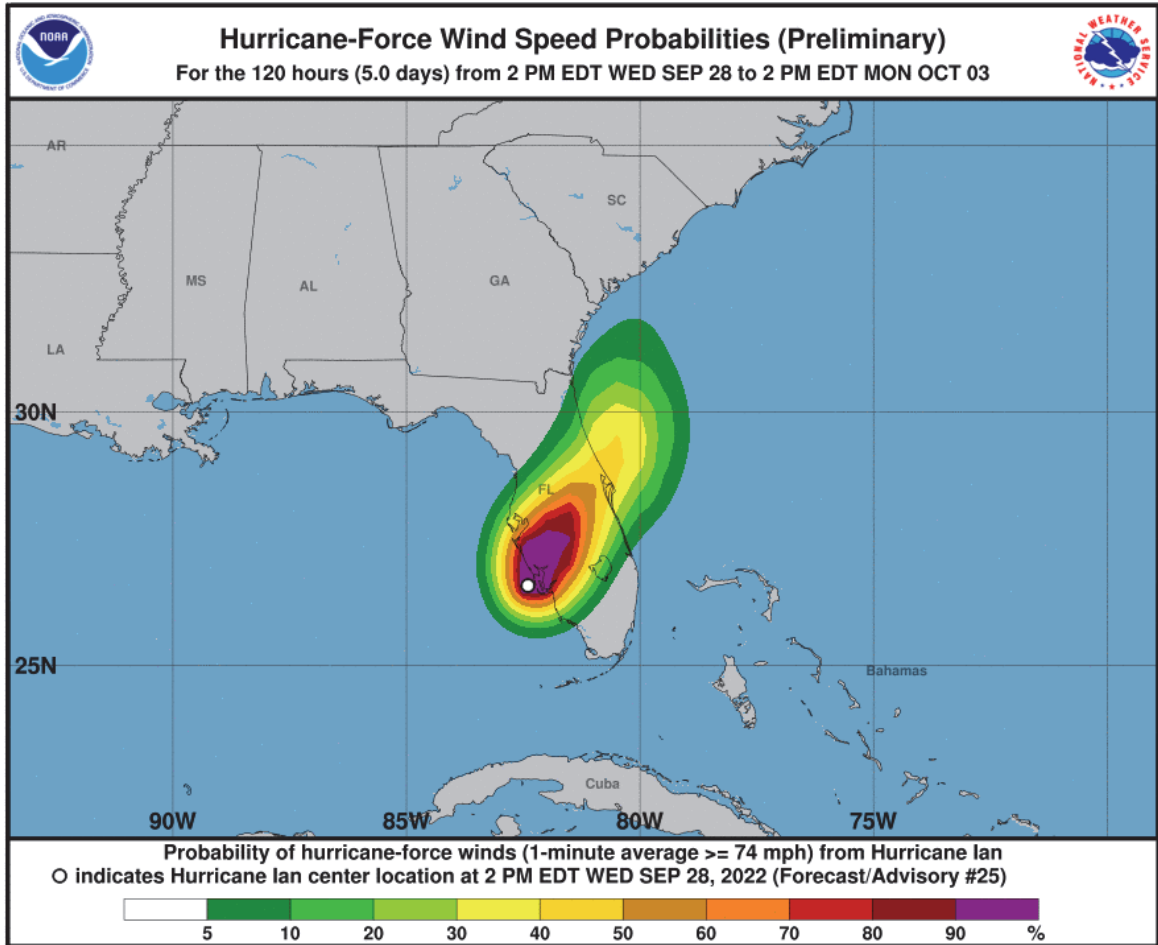
Tropical Storm-Force Wind Probabilities (≥ 40 mph (65 kph))



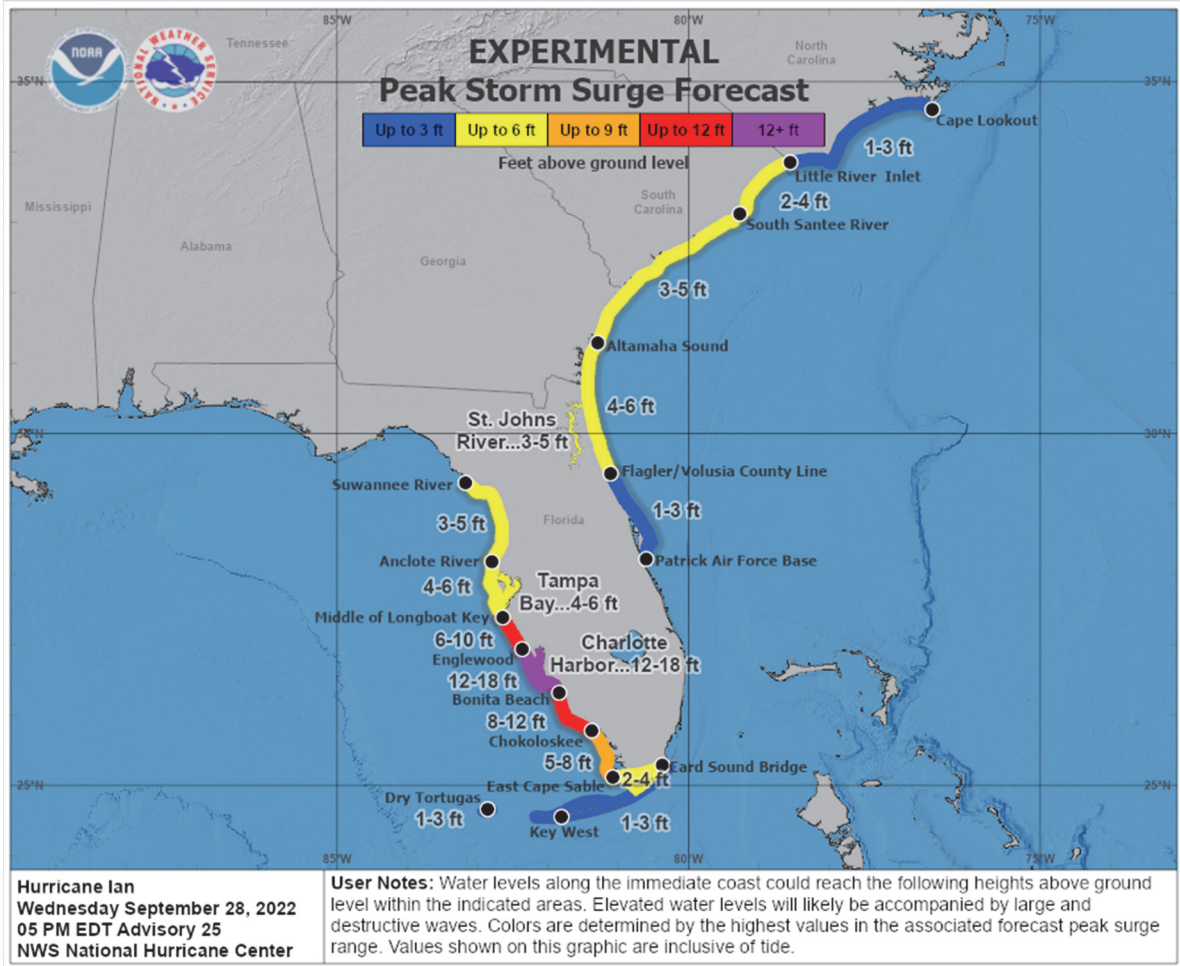
Wind Probabilities (≥ 60 mph (95 kph))



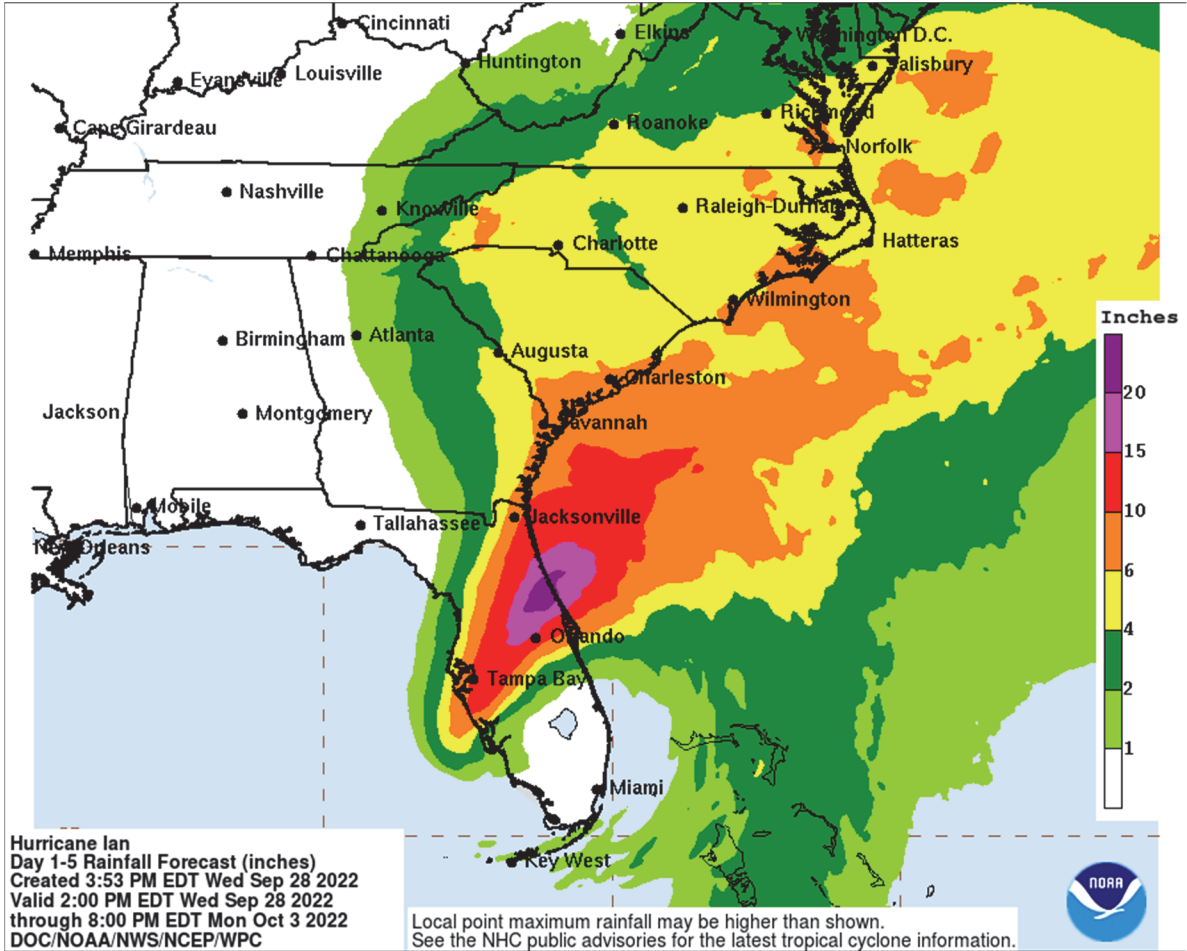
Hurricane-Force Wind Probabilities (≥ 75 mph (120 kph))



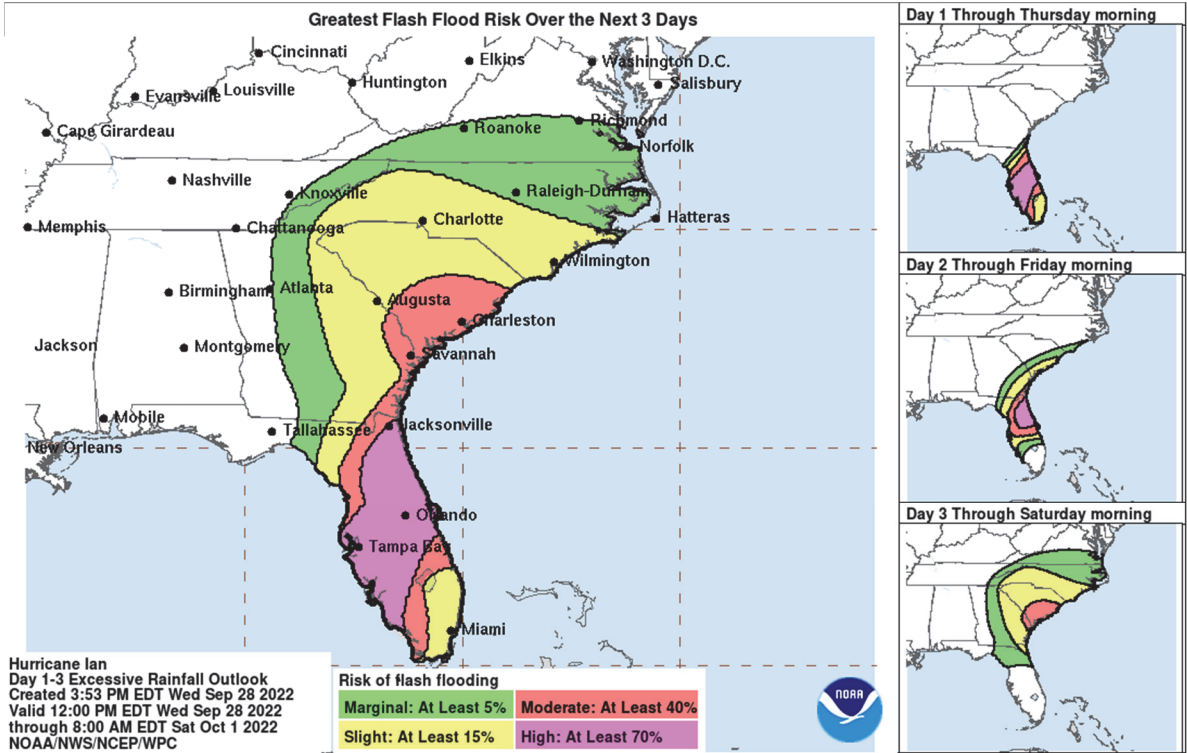
National Hurricane Center: Storm Surge Inundation Graphic



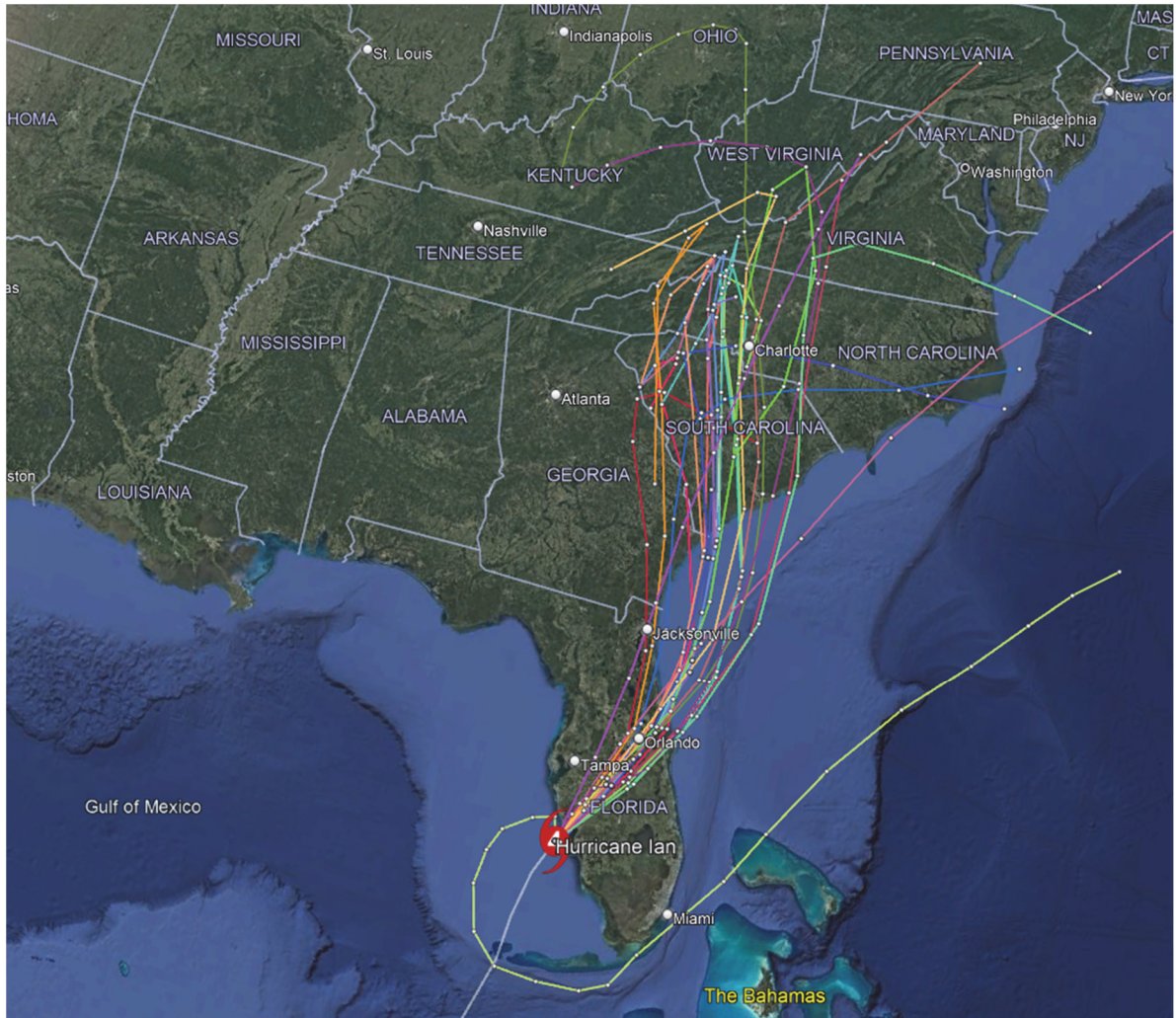
Weather Prediction Center: Rainfall Potential



Weather Prediction Center: Flash Flood Potential



Current 'Spaghetti' Model Output Data



Source: NOAA

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 Hurricane Ian made landfall in Lee County Florida earlier this afternoon, additional Cat Alerts will only be issued if warranted. Further details will be found in this week's Weekly Cat Report.

Appendix: Tropical Cyclone Intensity Classifications for Global Basins

WIND SPEED			BASINS AND MONITORING BUREAU						
KT	MPH	KPH	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							
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							
85	100	160							
90	105	170							
95	110	175							
100	115	185							
105	120	195							
110	125	205							
115	130	210	Cat. 2 Hurricane	Super Typhoon	Cat. 4 Severe Tropical Cyclone	Cat. 4 Severe Tropical Cyclone	Intense Tropical Cyclone	Super Cyclonic Storm	
120	140	220							
125	145	230							
130	150	240							
135	155	250	Cat. 3 Major Hurricane	Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm	
140	160	260							
>140	>160	>260							
			Cat. 4 Major Hurricane						
			Cat. 5 Major Hurricane						

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