

HURRICANE IAN

Current Watches and Warnings

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

A **Storm Surge Warning** is in effect for Suwannee River southward to Flamingo, Tampa Bay, Lower Florida Keys from Big Pine Key westward to Key West, Dry Tortugas, Flagler/Volusia Line to the mouth of the South Santee River, St. Johns River

A **Tropical Storm Warning** is in effect for the Cuban provinces of La Habana, Mayabeque, and Matanzas, Indian Pass to the Anclote River, All of the Florida Keys, Flamingo to Sebastian Inlet, Flagler/Volusia County Line to Little River Inlet, Flamingo to Chokoloskee, Lake Okeechobee, Florida Bay, Bimini and Grand Bahama Islands

A **Storm Surge Watch** is in effect for the Florida Keys from the Card Sound Bridge westward to east of Big Pine Key, Florida Bay

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

Current Details from the National Hurricane Center

COORDINATES: 26.3° north, 82.5° west

LOCATION: 45 miles (75 kilometers) west-northwest of Naples, Florida

MOVEMENT: North-northeast at 9 mph (15 kph)

WINDS: 155 mph (250 kph) with gusts to 190 mph (305 kph)

RADIUS OF TROPICAL STORM-FORCE WINDS: 150 miles (240 kilometers)

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

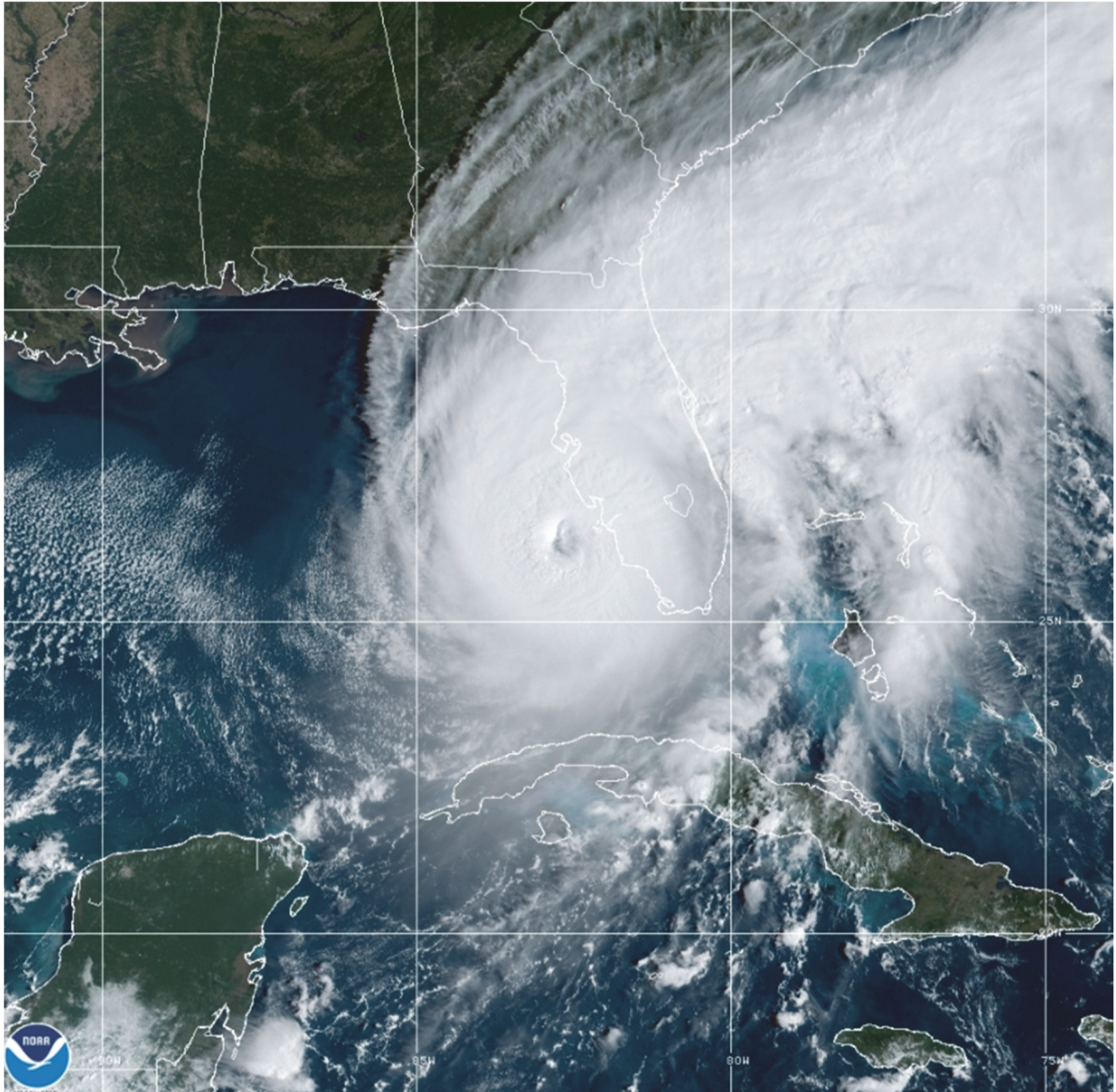
MINIMUM CENTRAL PRESSURE: 937 millibars

SAFFIR-SIMPSON SCALE RANKING: Category 4

FORECAST LANDFALL LOCATION: Central Florida Gulf Coast (Sarasota, Port Charlotte, Fort Myers)

FORECAST LANDFALL TIMEFRAME: September 28

Latest Satellite Imagery



Source: NOAA / NASA

Discussion

Air Force Reserve and NOAA Hurricane Hunter data was absolutely critical this morning in diagnosing the rapid intensification of Ian, despite both planes undergoing multiple eyewall penetrations experiencing severe turbulence. That data supported an intensity of about 155 mph (250 kph) a few hours ago. Since that time, high-resolution Tampa Doppler radar data has been sampling the eyewall near 10,000 ft with winds up to 155 kt, indicating that Ian is on the **threshold of Category 5 status**. The maximum winds are set to 155 mph (250 kph) on this advisory.

Ian is expected to make landfall in southwestern Florida in the next few hours as a catastrophic hurricane.

No changes were made to the track forecast near Florida, except to be faster to come into line with the latest consensus aids. One important change is that Ian is likely to remain more intact as it crosses the Florida peninsula (due to both its stronger initial wind speed and its faster forecast forward speed), and this now increases the threat of hurricane-force winds on the east coast of Florida. This necessitates the issuance of a Hurricane Warning on the east coast of central Florida. While significant re-strengthening of Ian might not occur over the Atlantic Ocean, model guidance has been catching up with a trough interaction from a shortwave over the southern United States and are stronger than yesterday on Ian's intensity with more baroclinic forcing.

Thus, a Hurricane Watch has been issued from northeastern Florida northward up the coast through most of coastal South Carolina. The new intensity forecast is raised from the previous one, near the latest statistical-dynamical guidance.

Key Messages from the National Hurricane Center

1. **Catastrophic storm surge** inundation of 12 to 18 feet above ground level along with destructive waves are expected somewhere along the southwest Florida coastline from Englewood to Bonita Beach, including Charlotte Harbor. Residents in these areas should urgently follow any evacuation orders in effect.
2. **Catastrophic wind damage** is beginning along the southwestern coast of Florida today near the landfall location. Hurricane-force winds are expected to extend well inland along near the core of Ian. Preparations to protect life and property should be urgently rushed to completion.
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** is expected across portions of central Florida with considerable flooding in southern Florida, northern Florida, southeastern Georgia and coastal South Carolina. **Widespread, prolonged major and record river flooding is expected** across central Florida.
4. Hurricane conditions are expected along the east-central Florida coast overnight, where a Hurricane Warning has been issued. Hurricane conditions are possible from northeastern Florida to portions of South Carolina on Thursday and Friday, and a Hurricane Watch has been issued for that area.

Additional Information

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

- * Englewood to Bonita Beach, including Charlotte Harbor...12-18 ft
- * Middle of Longboat Key to Englewood...6-10 ft
- * Bonita Beach to Chokoloskee...8-12 ft * Chokoloskee to East Cape Sable...5-8 ft
- * Anclote River to Middle of Longboat Key, including Tampa Bay...4-6 ft
- * Suwannee River to Anclote River...3-5 ft
- * Lower Keys from Key West to Big Pine Key, including the Dry Tortugas...3-5 ft
- * Flagler/Volusia County Line to South Santee River including St. Johns River...3-5 ft
- * St. Johns River south of Julington...2-4 ft
- * East Cape Sable to Card Sound Bridge...2-4 ft
- * Florida Keys east of Big Pine Key...2-4 ft
- * Patrick Air Force Base to Flagler/Volusia County Line...1-3 ft
- * North of South Santee River to Surf City NC...1-3 ft

The deepest water will occur along the immediate coast near and to the right of the center, 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. For information specific to your area, please see products issued by your local National Weather Service forecast office.

WIND: Catastrophic wind damage is likely where the core of Ian moves onshore. Hurricane conditions will begin along the west coast of Florida within the Hurricane Warning area shortly, with tropical storm conditions ongoing.

Hurricane conditions are expected to begin along the east coast of Florida in the Hurricane Warning area starting overnight. Hurricane conditions are possible in the Hurricane Watch area on Thursday through late Friday.

Tropical storm conditions are occurring in the warning area in the Florida Keys and will continue this morning. Tropical storm conditions are occurring in parts of the warning area on the east coast currently and should spread up northward through the Georgia and South Carolina coasts tonight and Thursday. Tropical storm conditions are expected within the warning area in Cuba for the next few hours.

RAINFALL: Ian is expected to produce the following storm total rainfall:

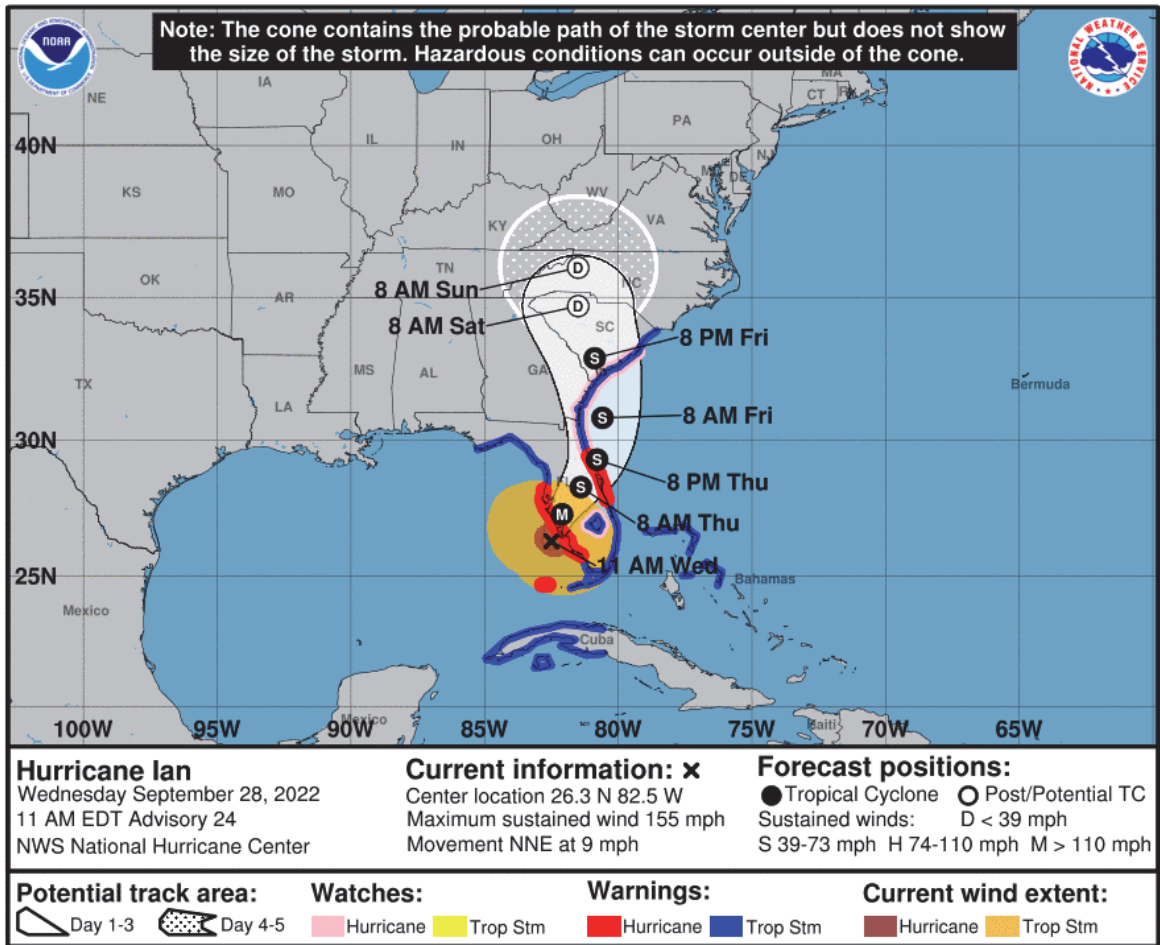
- * Florida Keys and South Florida: 6 to 8 inches, with local maxima up to 12 inches.
- * Central and Northeast Florida: 12 to 18 inches, with local maxima up to 24 inches.
- * Eastern Georgia and Coastal South Carolina: 4 to 8 inches, with local maxima of 12 inches.

Widespread, life-threatening catastrophic flash, urban, and river flooding is expected across central Florida. Widespread considerable flash, urban, and river flooding is expected across portions of southern Florida through Wednesday, and northeast Florida, southeastern Georgia, and coastal South Carolina later this week through the weekend. Limited flash, urban, and river flooding is possible over portions of the Southeast and southern Mid-Atlantic U.S. later this week through the weekend.

TORNADOES: Tornadoes are possible today and tonight, especially across east central Florida.

SURF: Swells generated by Ian are affecting the northern coast of Cuba, the northeastern coast of the Yucatan peninsula and west coast of Florida. Swells will increase along the east coast of Florida, Georgia, and South Carolina tonight and Thursday. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

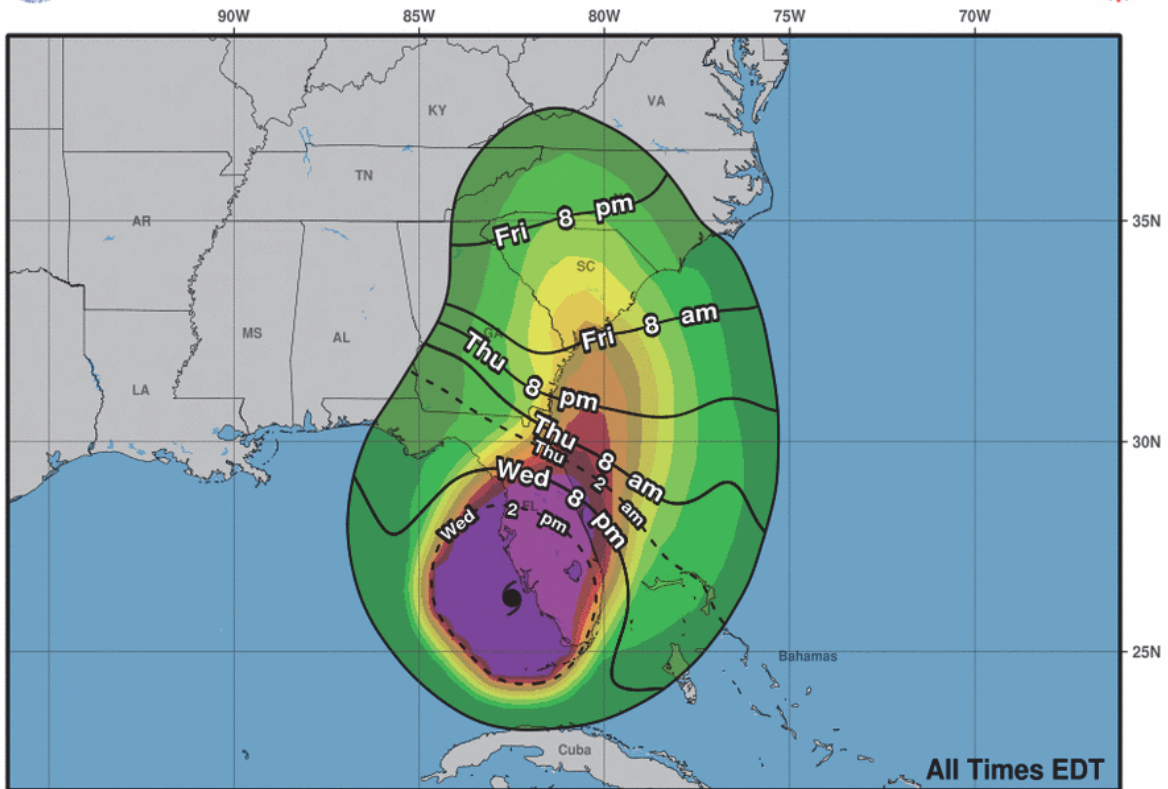
National Hurricane Center Forecast



Most Likely Arrival Time of Tropical Storm-Force Winds



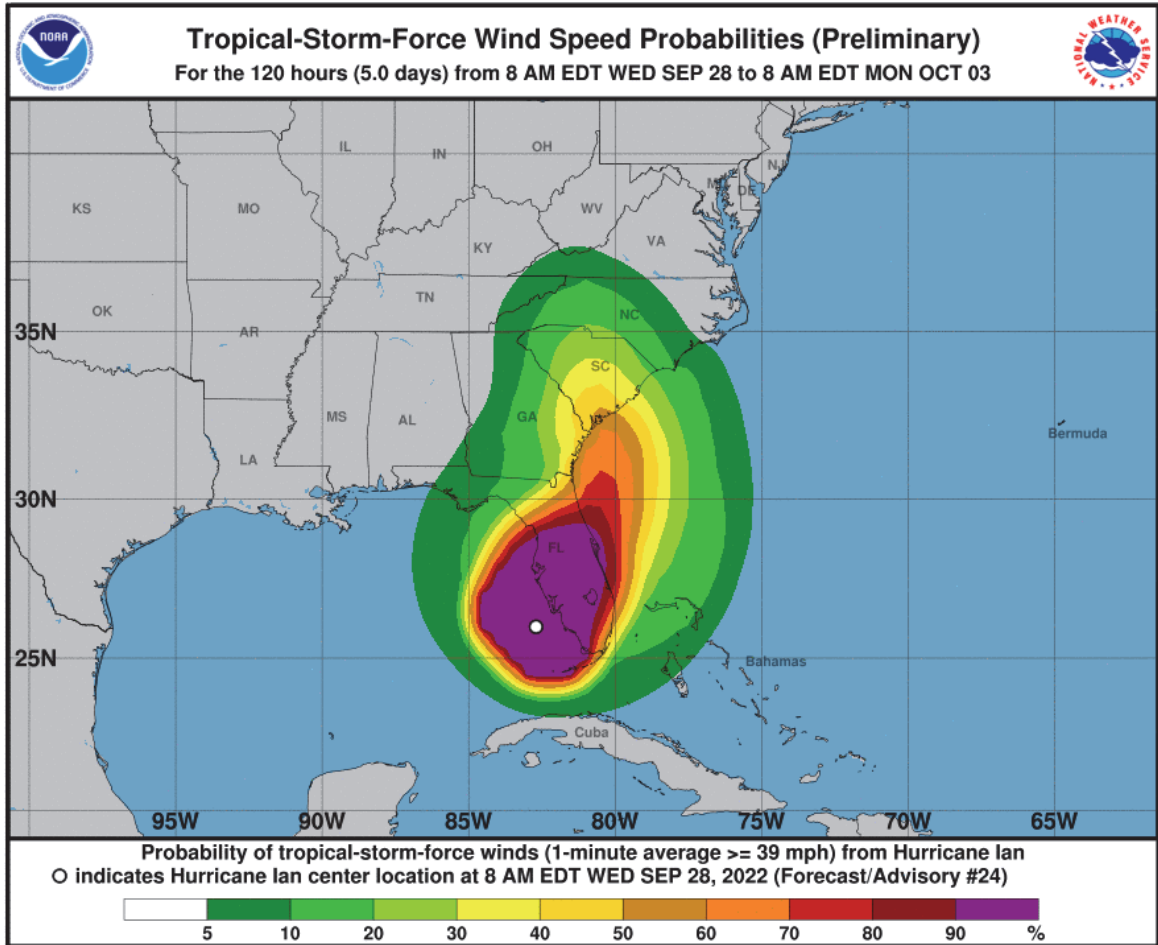
Most Likely Arrival Time of Tropical Storm-Force Winds



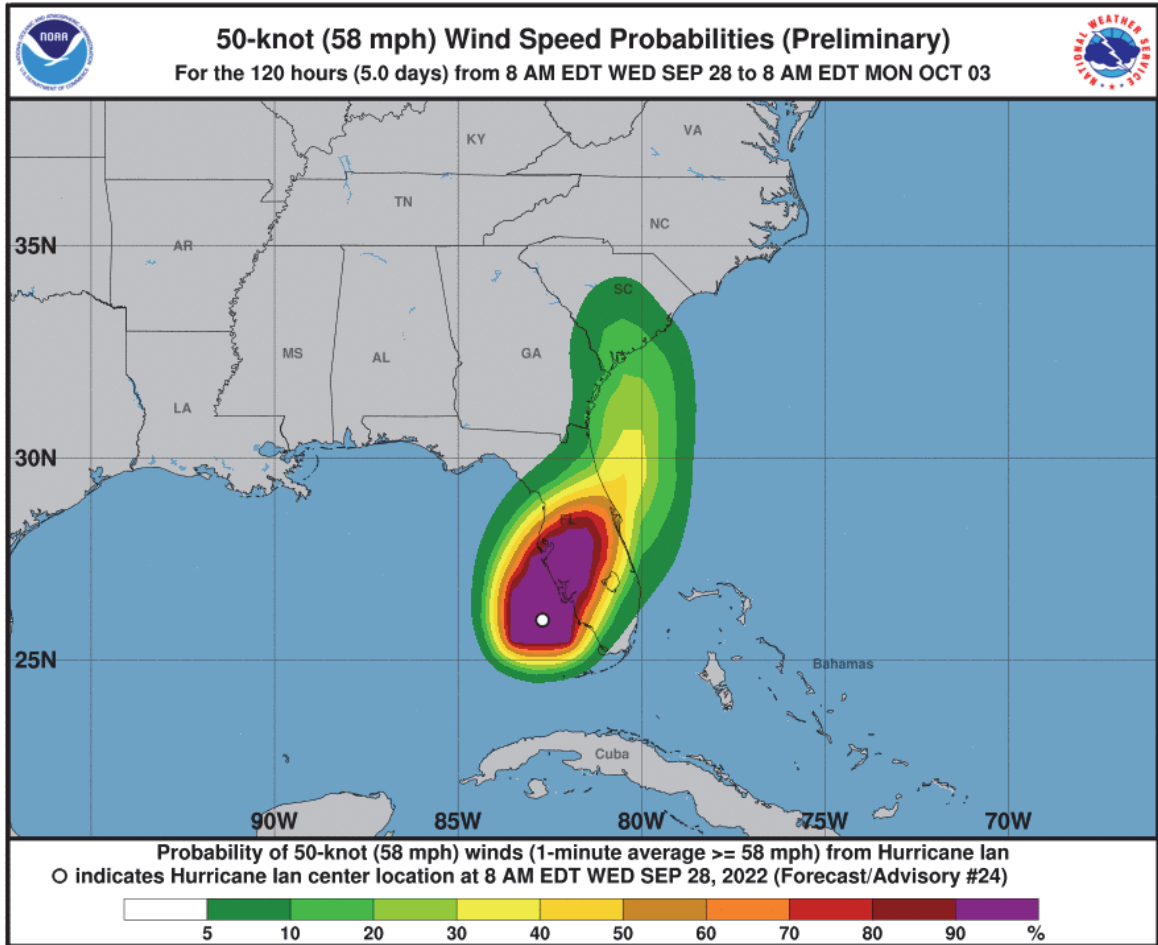
Hurricane Ian Wed. Sep. 28, 2022 11 am EDT Advisory 24	Storm Location	○ < 34 kt (39 mph)	5-day chance of receiving sustained 34+ kt (39+ mph) winds
	&	○ 34-63 kt (39-73 mph)	
	Wind Speed	● ≥ 64 kt (74 mph)	

National Hurricane Center: Wind Speed Probabilities

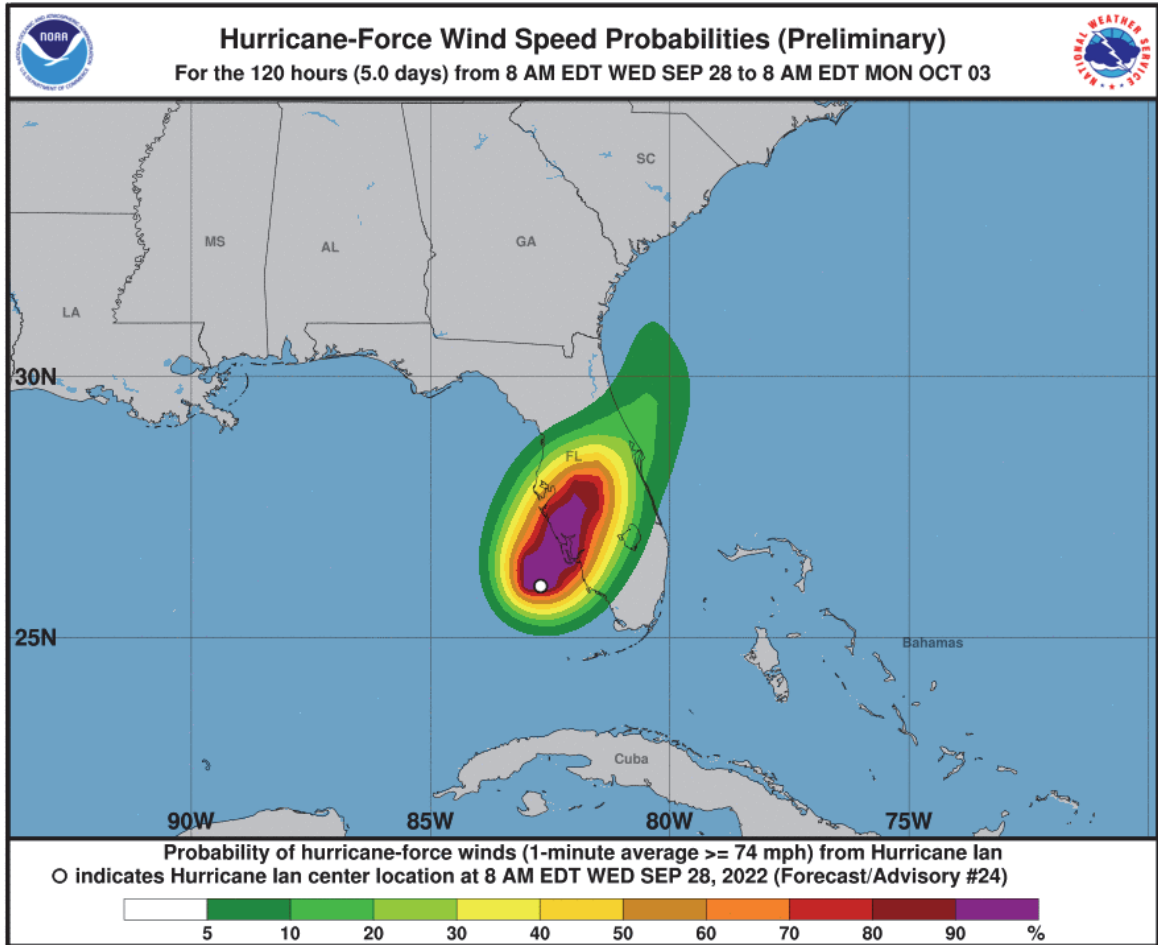
Tropical Storm-Force Wind Probabilities (≥ 40 mph (65 kph))



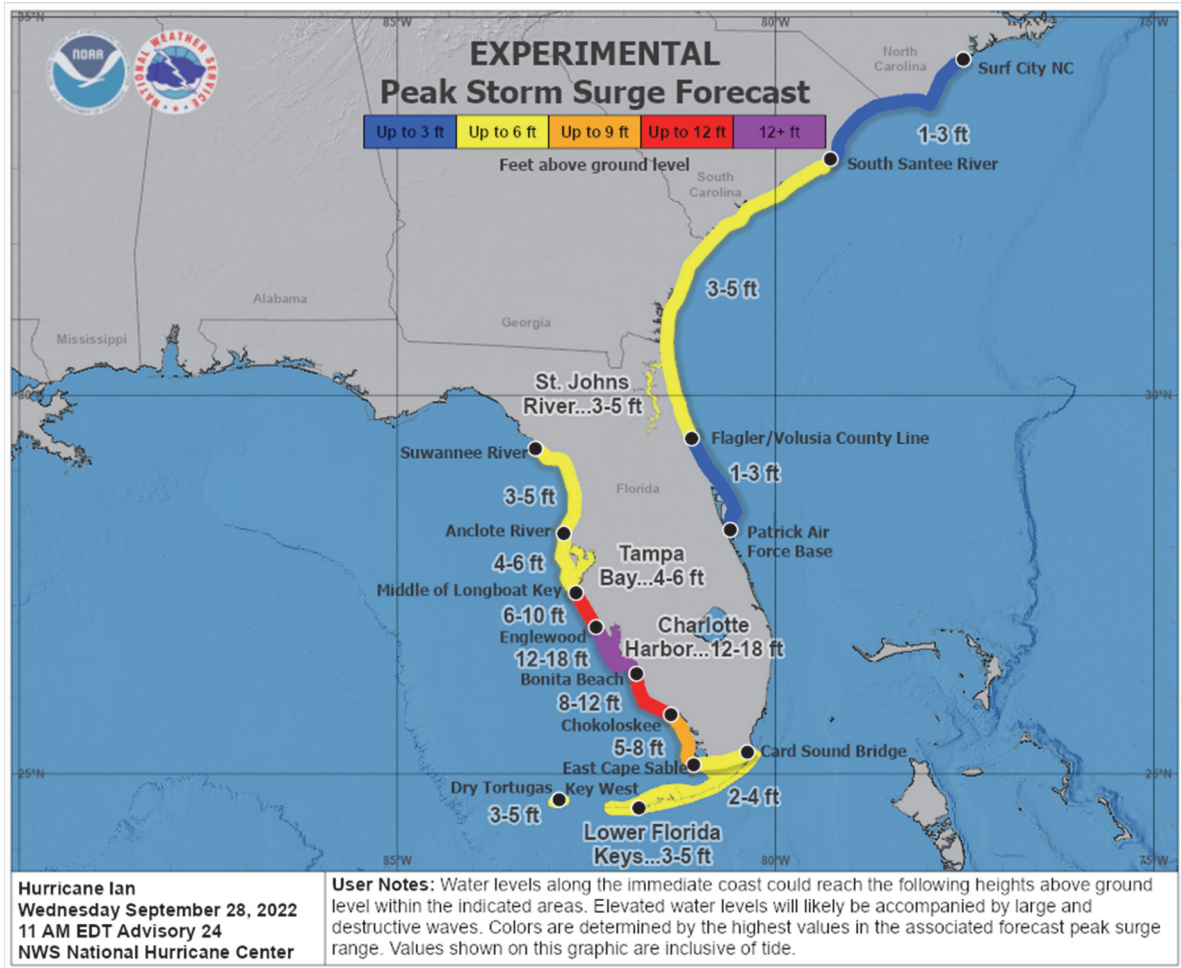
Wind Probabilities (≥ 60 mph (95 kph))



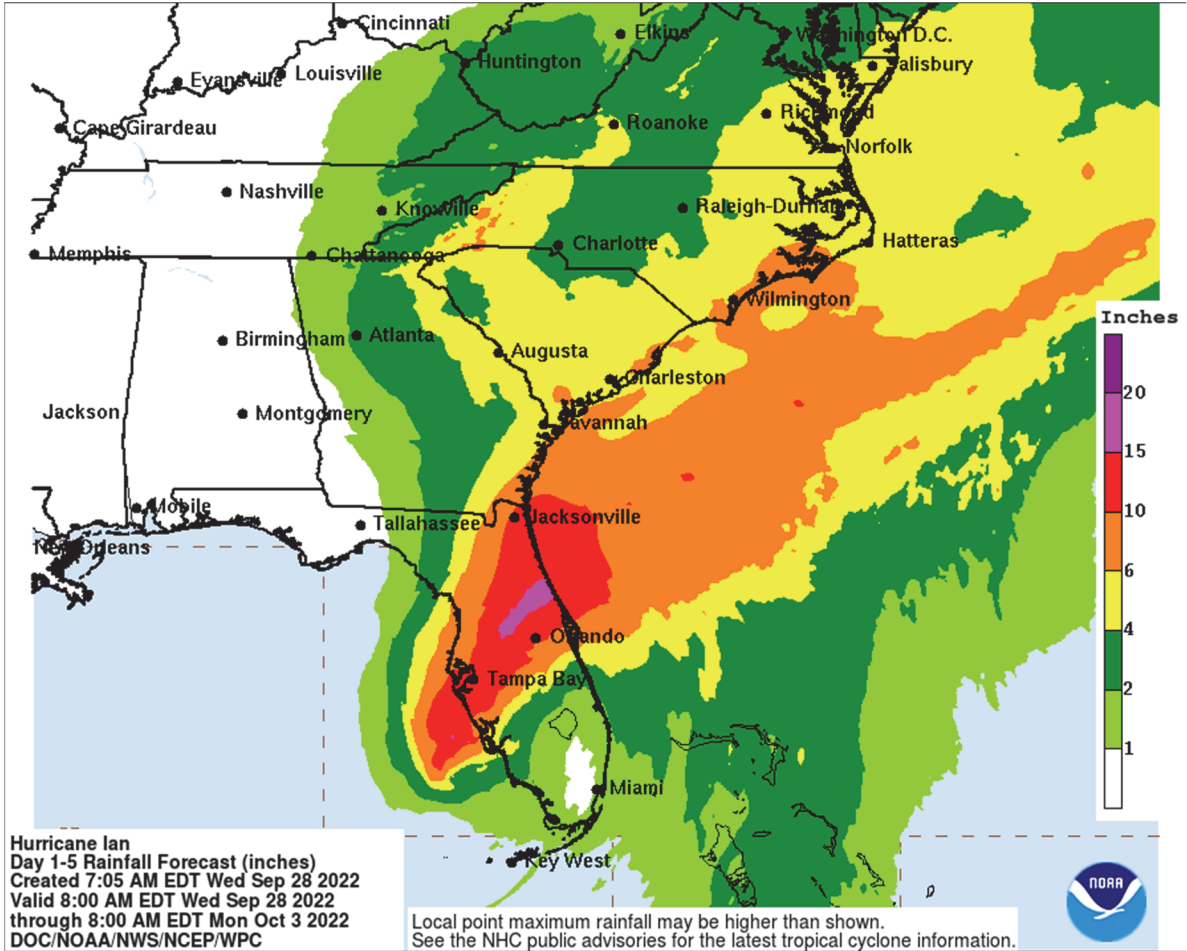
Hurricane-Force Wind Probabilities (≥ 75 mph (120 kph))



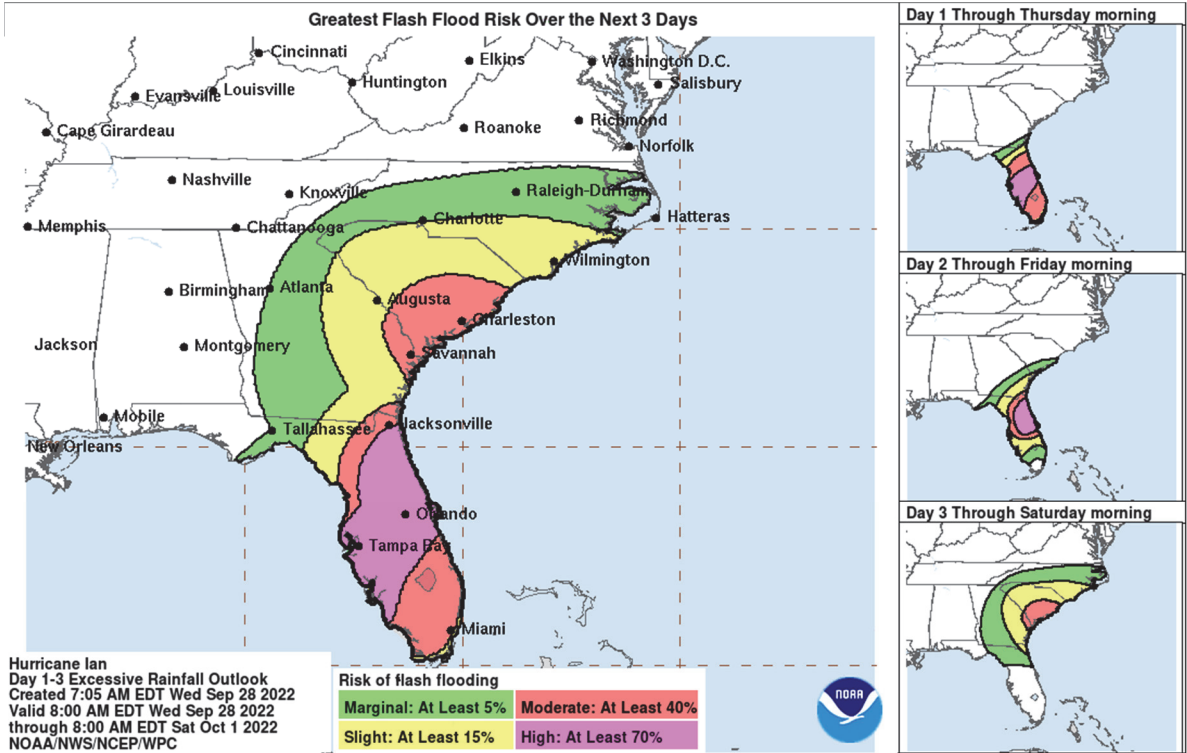
National Hurricane Center: Storm Surge Inundation Graphic



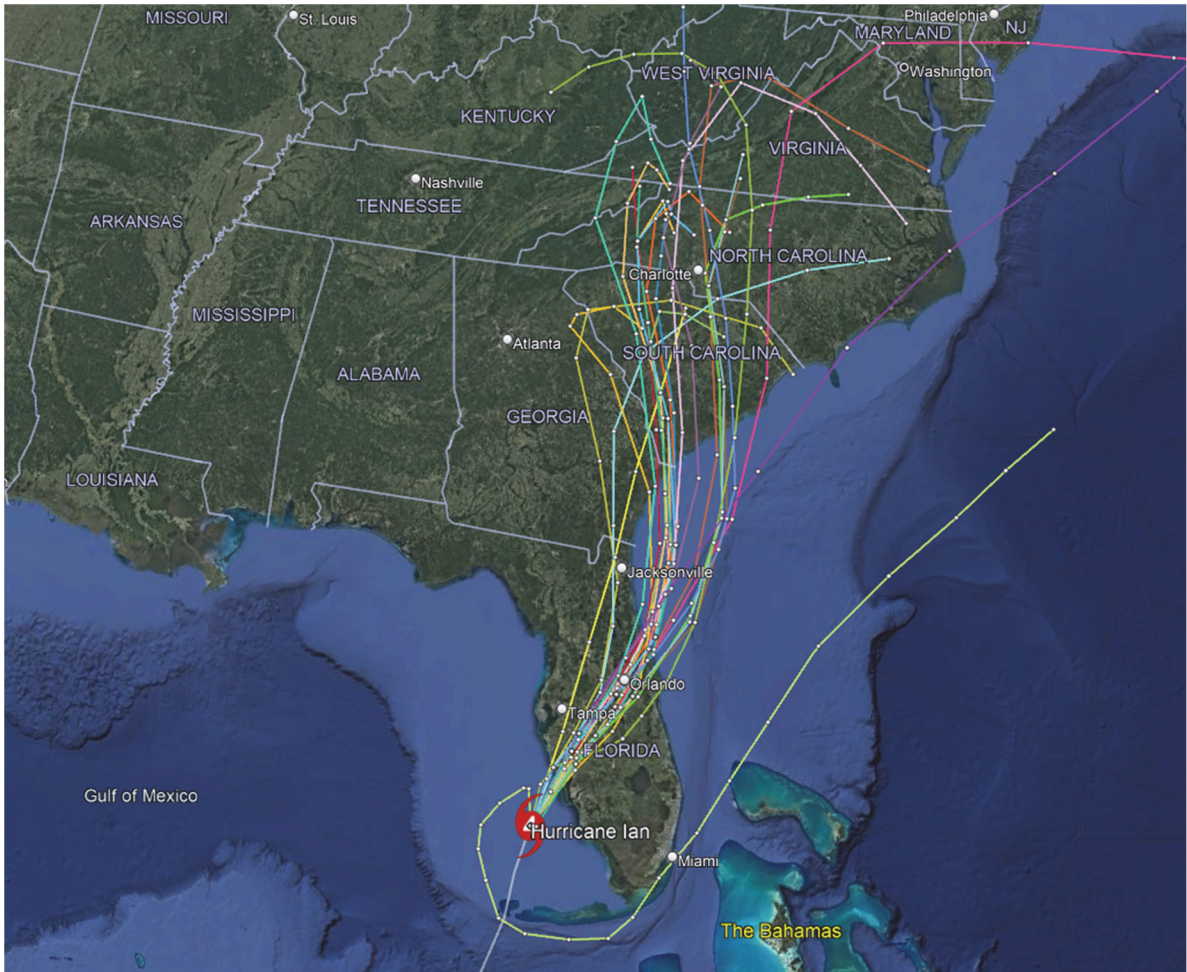
Weather Prediction Center: Rainfall Potential



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: Wednesday, September 28 after 21:00 UTC

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	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			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	Typhoon	Cat. 4 Severe Tropical Cyclone		Cat. 4 Severe Tropical Cyclone	Intense Tropical Cyclone
105	120	195								
110	125	205								
115	130	210								
120	140	220	Cat. 4 Major Hurricane	Super Typhoon	Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone	Super Cyclonic Storm		
125	145	230								
130	150	240								
135	155	250	Cat. 5 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								

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