

## Current Watches and Warnings

A **Hurricane Warning** is in effect from High Island, Texas (TX) to Morgan City, Louisiana (LA)

A **Storm Surge Warning** is in effect from High Island, TX to Ocean Springs, Mississippi (MS), including Calcasieu Lake, Vermilion Bay, Lake Pontchartrain, Lake Maurepas, and Lake Borgne

A **Tropical Storm Warning** is in effect from west of High Island to San Luis Pass, TX; east of Morgan City, LA to the mouth of the Pearl River, including New Orleans; Lake Pontchartrain and Lake Maurepas

A **Tropical Storm Watch** is in effect from east of the mouth of the Pearl River to Bay St. Louis, MS

## Current Details from the National Hurricane Center (NHC)

**COORDINATES:** 24.0° north, 92.7° west

**LOCATION:** 400 miles (645 kilometers) south of Cameron, Louisiana

**MOVEMENT:** northwest at 14 mph (22 kph)

**WINDS:** 105 mph (165 kph) with gusts to 125 mph (205 kph)

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

**RADIUS OF HURRICANE-FORCE WINDS:** 35 miles (55 kilometers)

**MINIMUM CENTRAL PRESSURE:** 968 millibars

**SAFFIR-SIMPSON SCALE RANKING\*:** Category 2

**2<sup>nd</sup> FORECAST LANDFALL TIMEFRAME:** Friday afternoon or evening local time

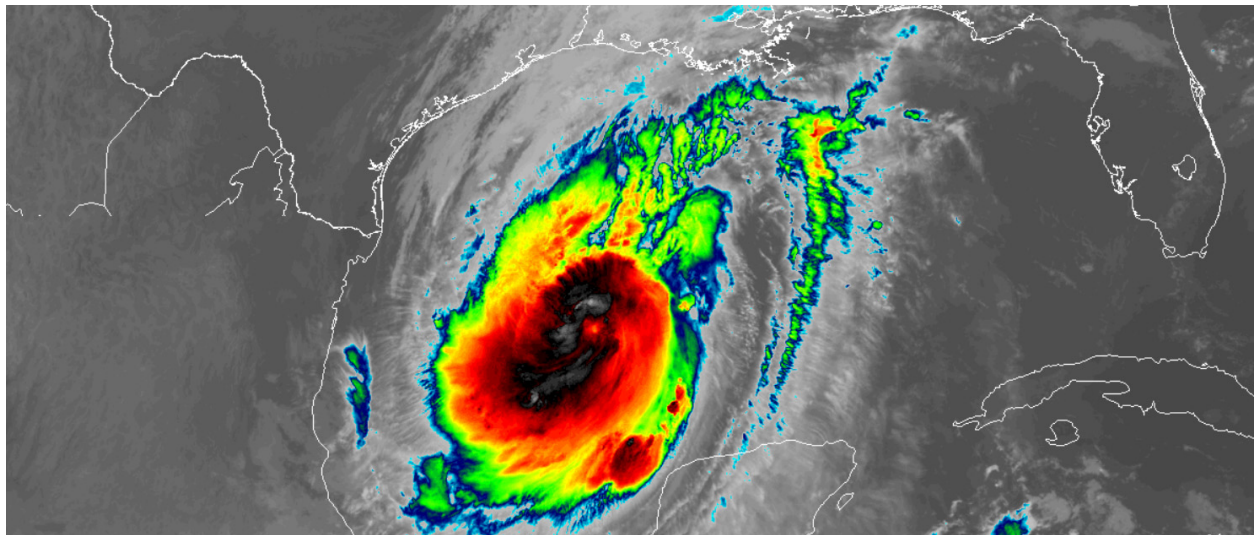
**2<sup>nd</sup> FORECAST LANDFALL LOCATION:** United States (southwest Louisiana)

**1<sup>st</sup> LANDFALL LOCATION:** Mexico's Yucatan Peninsula; near Puerto Morelos (just south of Cancun)

**1<sup>st</sup> LANDFALL TIMEFRAME:** approximately 5:30 AM local time Wednesday (10:30 UTC)

**1<sup>st</sup> LANDFALL INTENSITY:** 110 mph (175 kph) – Category 2

## Latest Satellite Picture



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

# Discussion

Hurricane Delta, located approximately 400 miles (645 kilometers) south of Cameron, Louisiana, is currently tracking northwest at 14 mph (22 kph). Satellite imagery shows that Delta has become better organized this morning, with the center well embedded in a cold central dense overcast and an eye feature appears to be developing in the overcast. Reports from Air Force Reserve and NOAA Hurricane hunter aircraft indicate that the central pressure has fallen to 968 millibars. Measured flight-level and surface-adjusted wind speeds suggest a sustained wind speed of 105 mph (165 kph), which the NHC has used for this advisory. This makes Delta a Category 2 storm on the Saffir-Simpson Hurricane Wind Scale.

The initial motion remains northwestward, and the track forecast remains generally unchanged. During the next 12 to 24 hours, Delta should turn to the north between a mid- to upper-level ridge of high pressure located over the Florida Peninsula and eastern Gulf of Mexico and a mid- to upper-level level trough over the U.S. Southern Plains. This should be followed by a north-northeastward motion that is expected to bring the center near or over the northern Gulf Coast, most likely in southwestern Louisiana, in about 36 hours. After landfall, the cyclone should move northeastward through the Lower Mississippi and Tennessee Valleys along the southern edge of the mid-latitude westerlies until it dissipates. The forecast model track guidance is very tightly clustered in terms of direction, and the new NHC forecast track has only minor tweaks from the previous one.

A combination of low wind shear, warm sea surface temperatures, and ample atmospheric moisture appear favorable for strengthening during the next 12-24 hours. Based on this trend, Delta is expected to regain major hurricane strength. Rapid intensification cannot be ruled out, although the various rapid intensification indices do not suggest a high chance, and the first 24 hours of the NHC forecast is already above the intensity guidance. The forecast models all indicate strong southwesterly wind shear developing over the hurricane during the last 12 hours before landfall, and based on this some weakening is forecast. Rapid weakening is expected after landfall, with Delta forecast to degenerate to a remnant low by 72 hours and dissipate shortly after that. It should be noted that the NHC 1 to 2 day intensity forecasts are subject to errors of around 1 Saffir-Simpson category.

Delta is expected to grow in size as it approaches the Louisiana coast. The NHC wind radii forecast again follows a consensus of the global and hurricane regional models.

## Key Messages from the National Hurricane Center

1. Life-threatening storm surge is expected near and east of where Delta makes landfall on Friday, and a Storm Surge Warning is in effect from High Island, Texas, to Ocean Springs, Mississippi. The highest inundation of 7 to 11 feet is expected somewhere between Rockefeller Wildlife Refuge and Port Fourchon, Louisiana. Residents in the warning area should promptly follow advice given by local officials. The storm surge risk remains high despite the forecast decrease in intensity before landfall since Delta is expected to grow in size.
2. Hurricane-force winds are expected Friday afternoon and evening somewhere within the Hurricane Warning area between High Island, Texas, and Morgan City, Louisiana. Hurricane-force winds will also spread inland across portions of southern Louisiana near the path of Delta's center Friday evening and Friday night.
3. Significant flash flooding and minor to moderate river flooding are likely in parts of Louisiana Friday and Saturday, with additional flooding in portions of the central Gulf Coast into the Lower Mississippi Valley.

### 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:

*Rockefeller Wildlife Refuge, LA to Port Fourchon, LA, including Vermilion Bay: 7-11 feet*

*Holly Beach, LA to Rockefeller Wildlife Refuge, LA: 4-7 feet*

*Port Fourchon, LA to the Mouth of the Mississippi River: 4-6 feet*

*Sabine Pass to Holly Beach, LA: 3-5 feet*

*Calcasieu Lake: 3-5 feet*

*High Island, TX to Sabine Pass: 2-4 feet*

*Mouth of the Mississippi River to Ocean Springs, MS: 2-4 feet*

*Lake Borgne, Lake Pontchartrain, and Lake Maurepas: 2-4 feet*

*Ocean Springs, MS to the AL/FL border including Mobile Bay: 1-3 feet*

*Sabine Lake: 1-3 feet*

*Port O'Connor, TX to High Island, TX including Galveston Bay: 1-3 feet*

The deepest water will occur along the immediate coast near and to the east of the landfall location, where the surge will be accompanied by large and dangerous 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 by Friday afternoon or evening, with tropical storm conditions expected within this area by early Friday. Tropical storm conditions are expected within the Tropical Storm Warning areas on Friday, and are possible in the Tropical Storm Watch area Friday night.

**RAINFALL:** Friday through Saturday, Delta is expected to produce 5 to 10 inches of rain, with isolated maximum totals of 15 inches, from southwest into south-central Louisiana. These rainfall amounts will lead to significant flash, urban, small stream flooding, along with minor to isolated moderate river flooding.

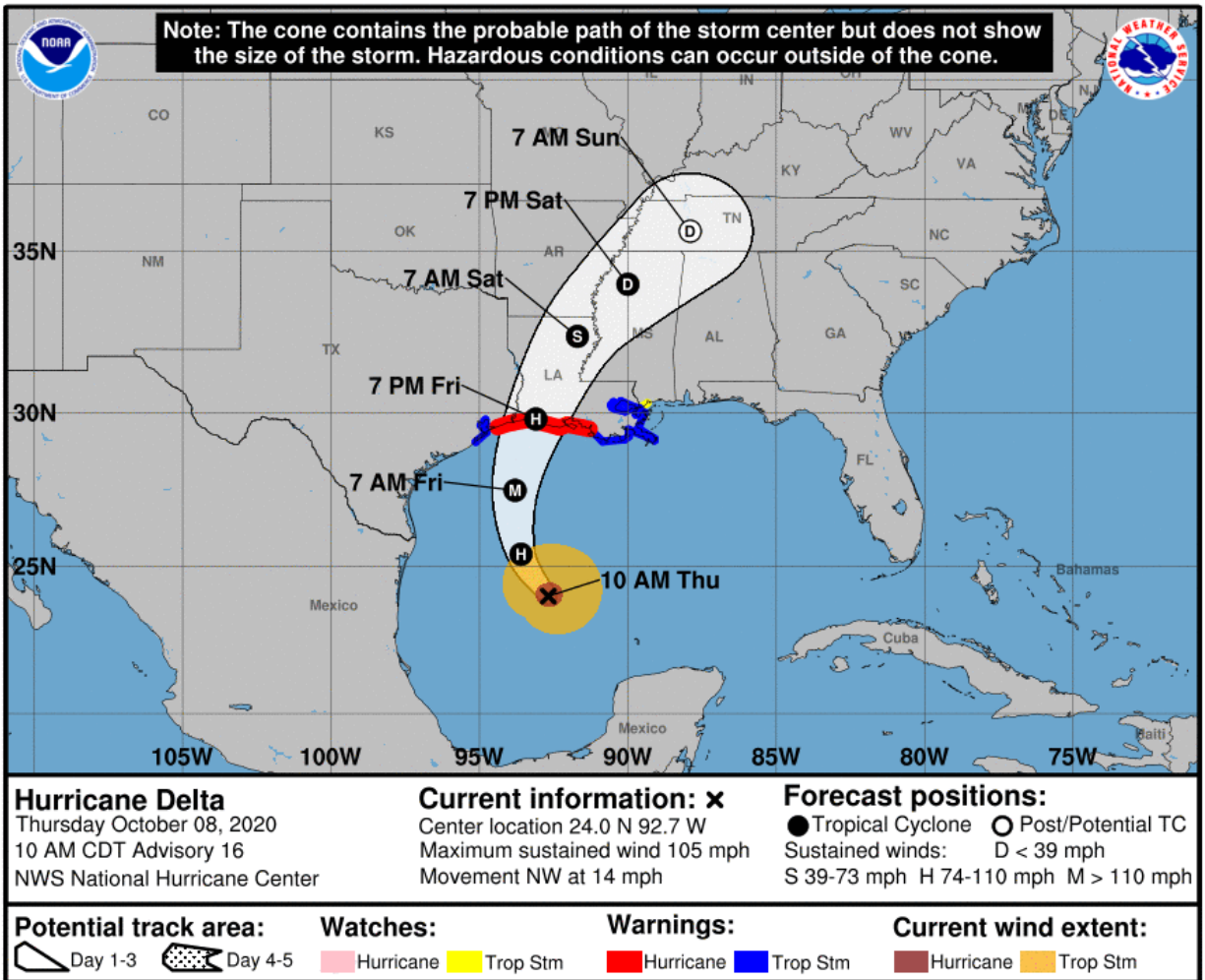
For extreme east Texas into northern Louisiana, southern Arkansas and western Mississippi, Delta is expected to produce 3 to 6 inches of rain, with isolated maximum totals of 10 inches. These rainfall amounts will lead to flash, urban, small stream and isolated minor river flooding.

As Delta moves farther inland, 1 to 3 inches of rain, with locally higher amounts, are expected in the Ohio Valley and Mid Atlantic this weekend.

**TORNADOES:** A few tornadoes are possible late tonight through Friday over southern parts of Louisiana and Mississippi

**SURF:** Swells from Delta will begin to affect portions of the northern and western Gulf coast later today. These swells are likely to cause life-threatening surf and rip current conditions.

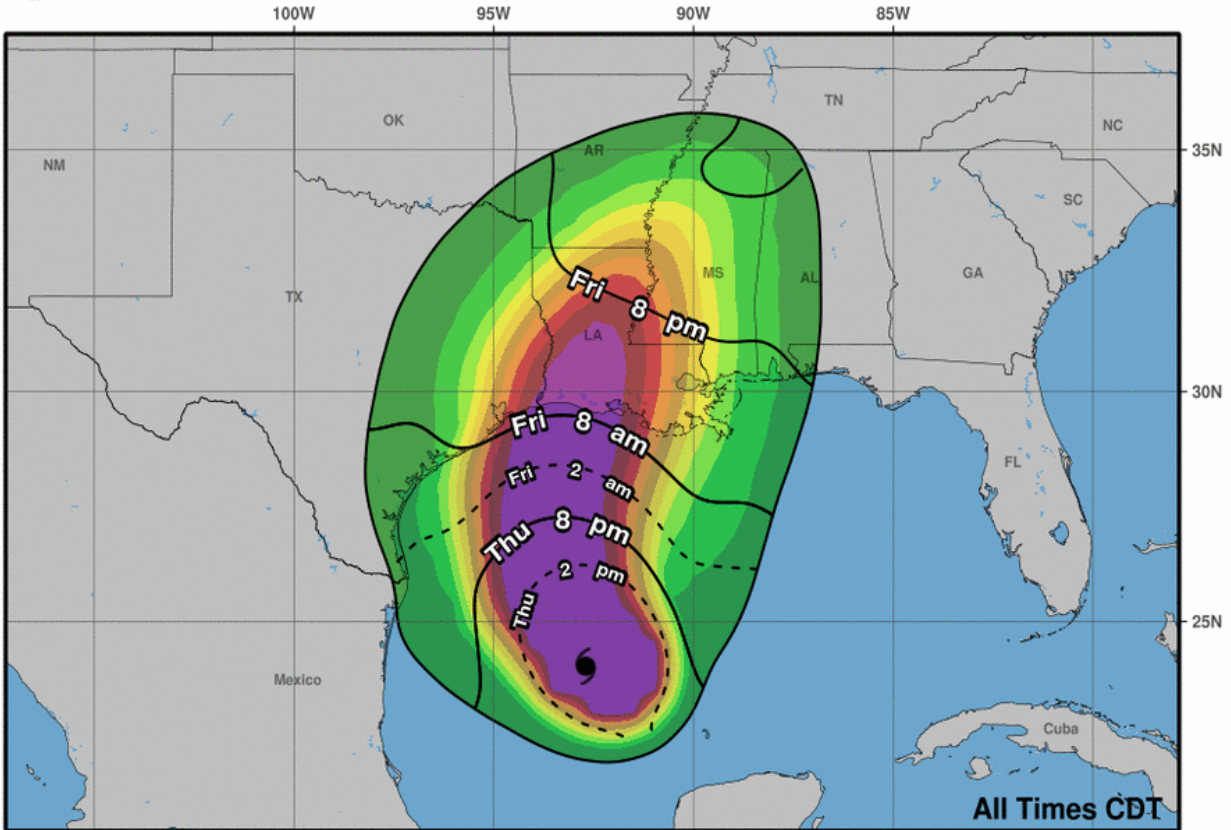
# National Hurricane Center (NHC) Forecast



# Most Likely Arrival Time of Tropical Storm-Force Winds



## Most Likely Arrival Time of Tropical-Storm-Force Winds



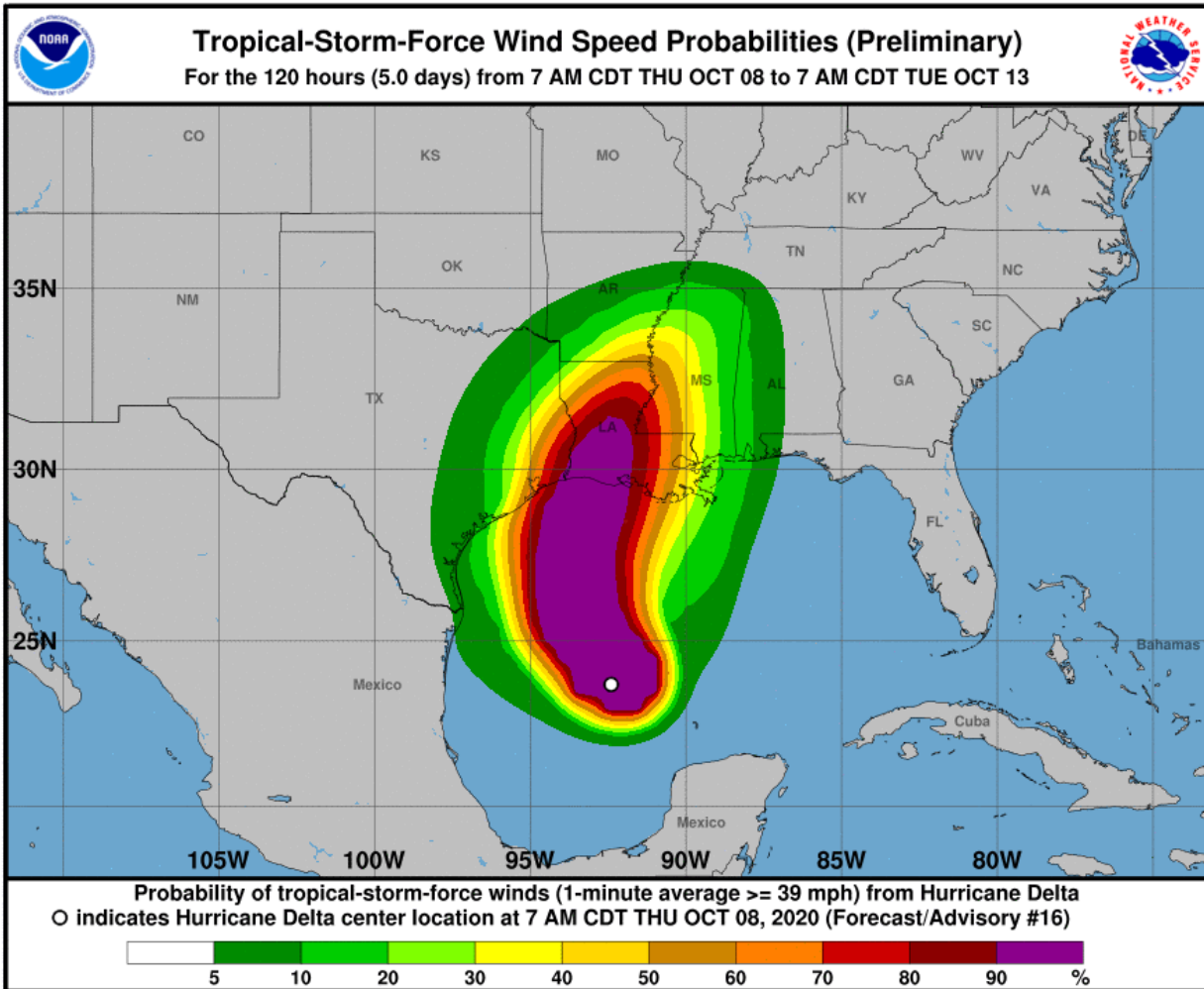
**Hurricane Delta**  
**Thu. Oct. 8, 2020 10 am CDT**  
**Advisory 16**

Storm Location & Wind Speed  
 ○ < 34 kt (39 mph)  
 ⊙ 34-63 kt (39-73 mph)  
 ● ≥ 64 kt (74 mph)

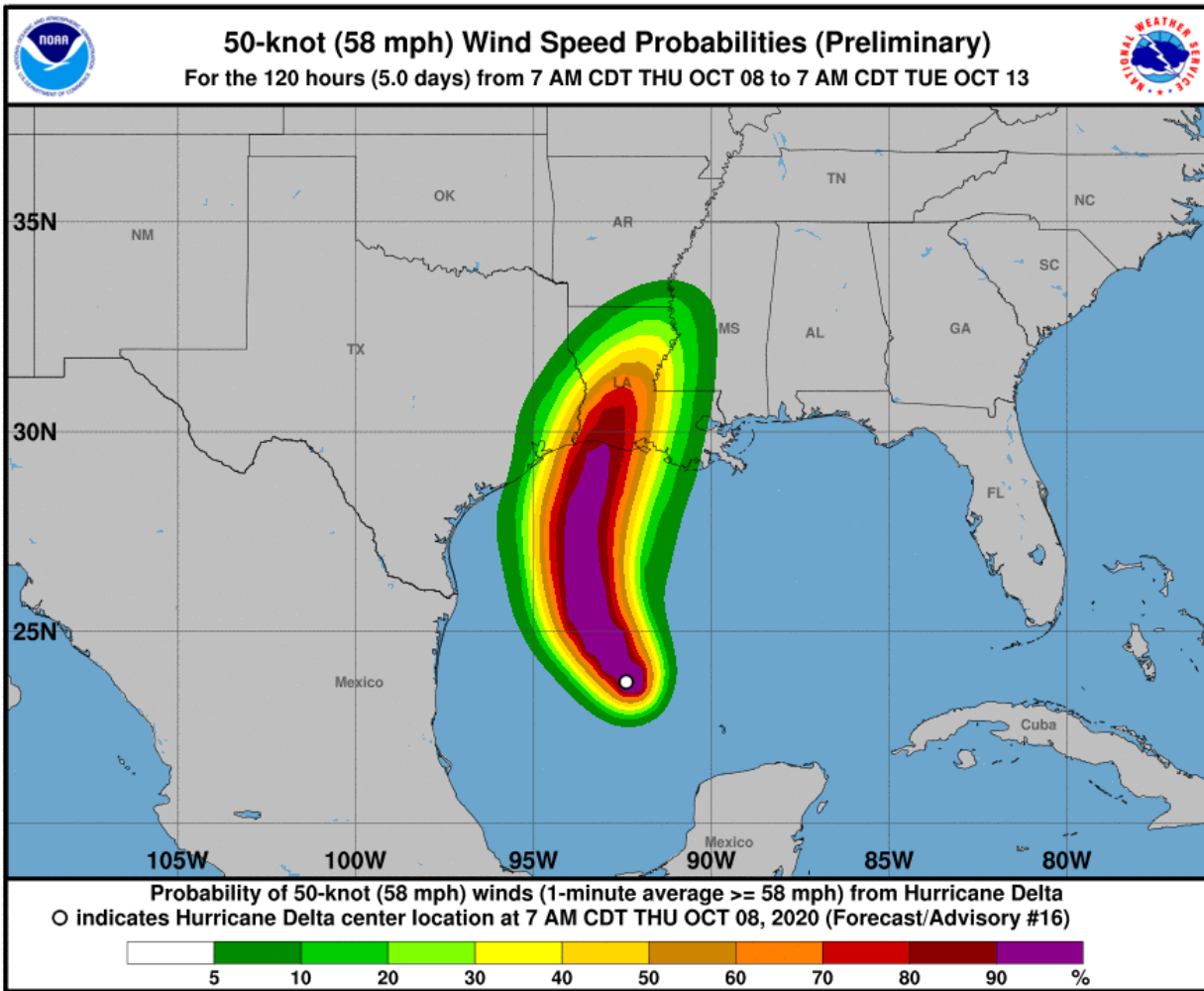
5-day chance of receiving sustained 34+ kt (39+ mph) winds  
 5 10 20 30 40 50 60 70 80 90 100 %

# National Hurricane Center: Wind Speed Probabilities

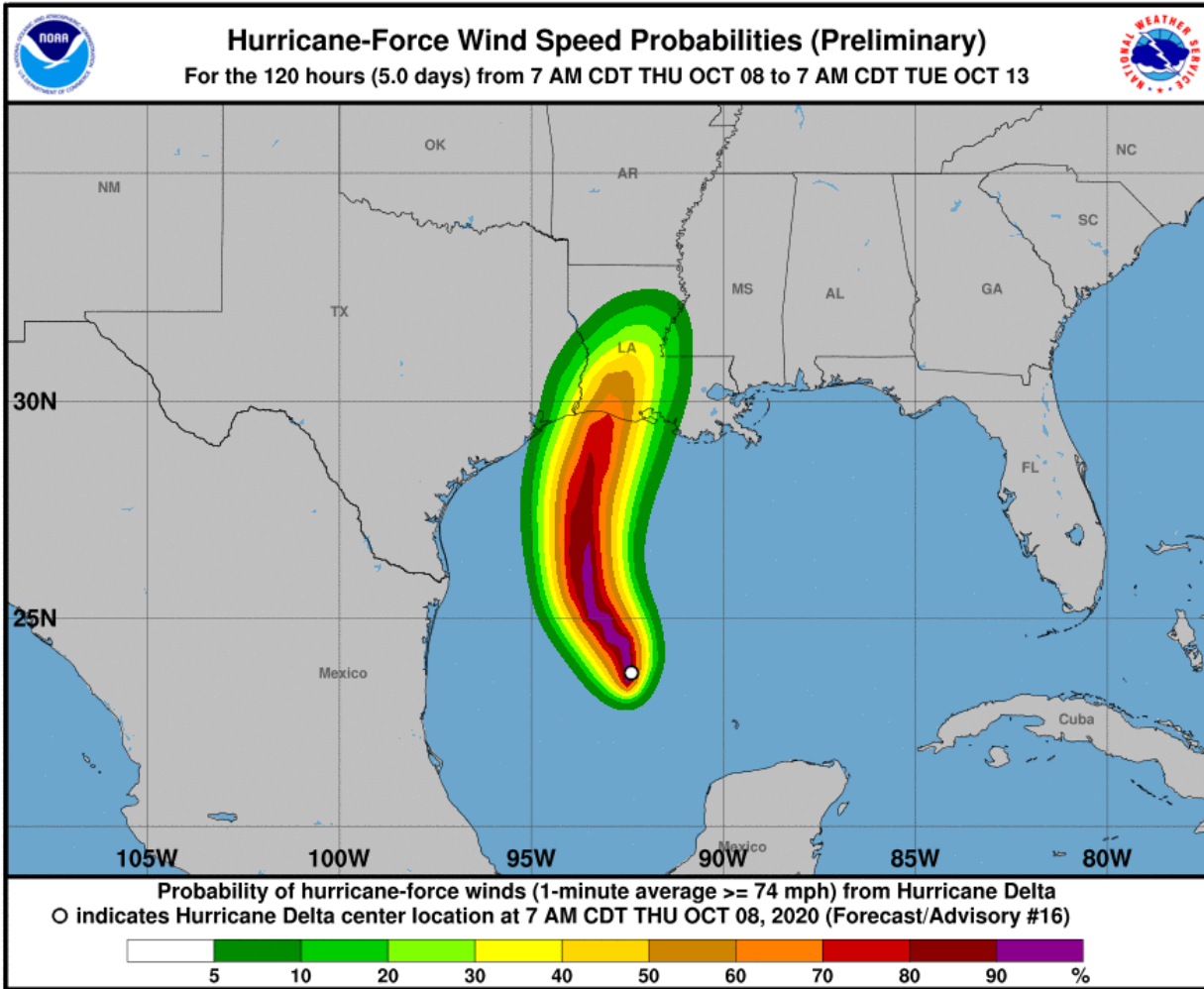
## Tropical Storm-Force Wind Probabilities ( $\geq 40$ mph (65 kph))



# Wind Probabilities ( $\geq 60$ mph (95 kph))

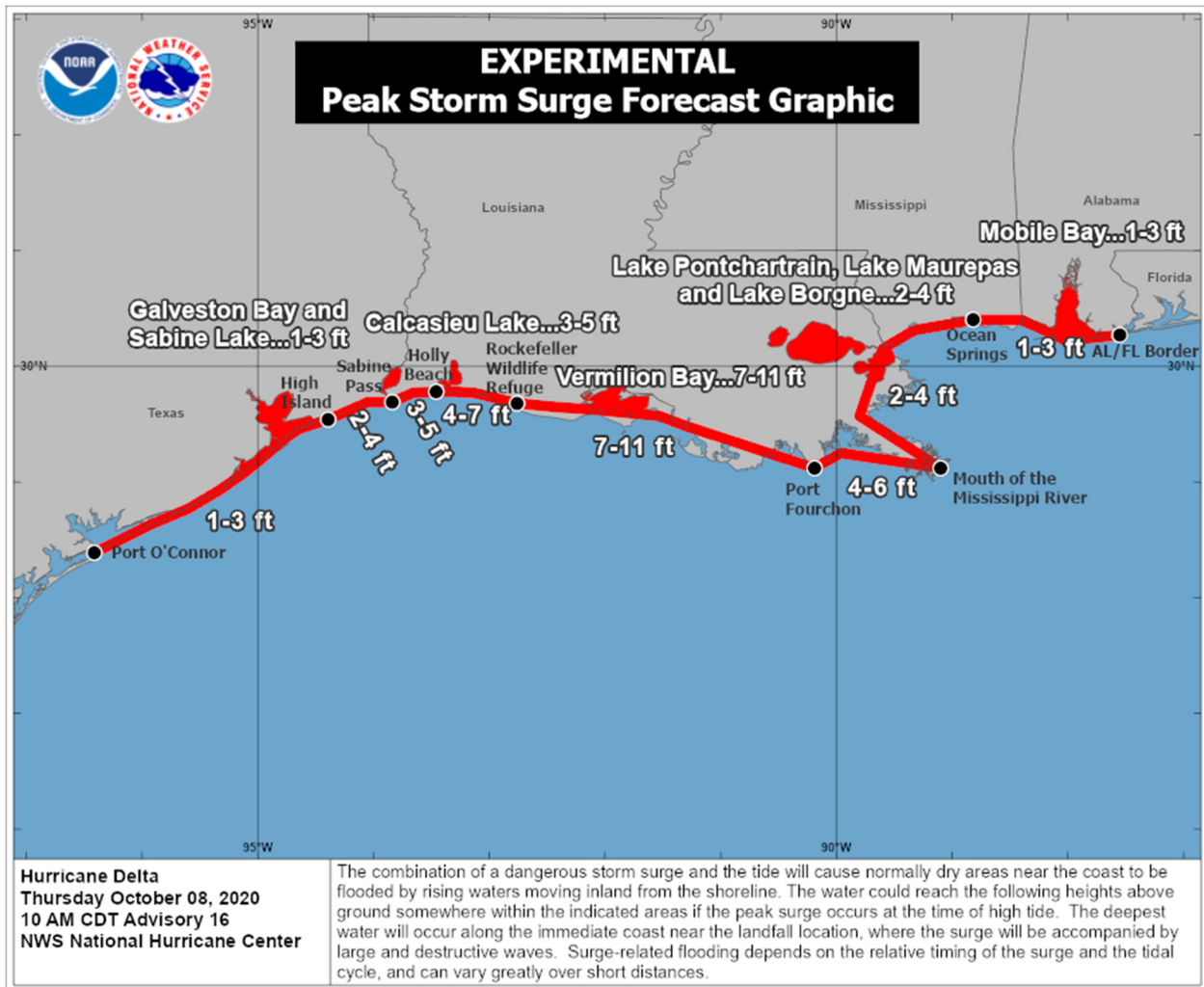


# Hurricane-Force Wind Probabilities ( $\geq 75$ mph (120 kph))

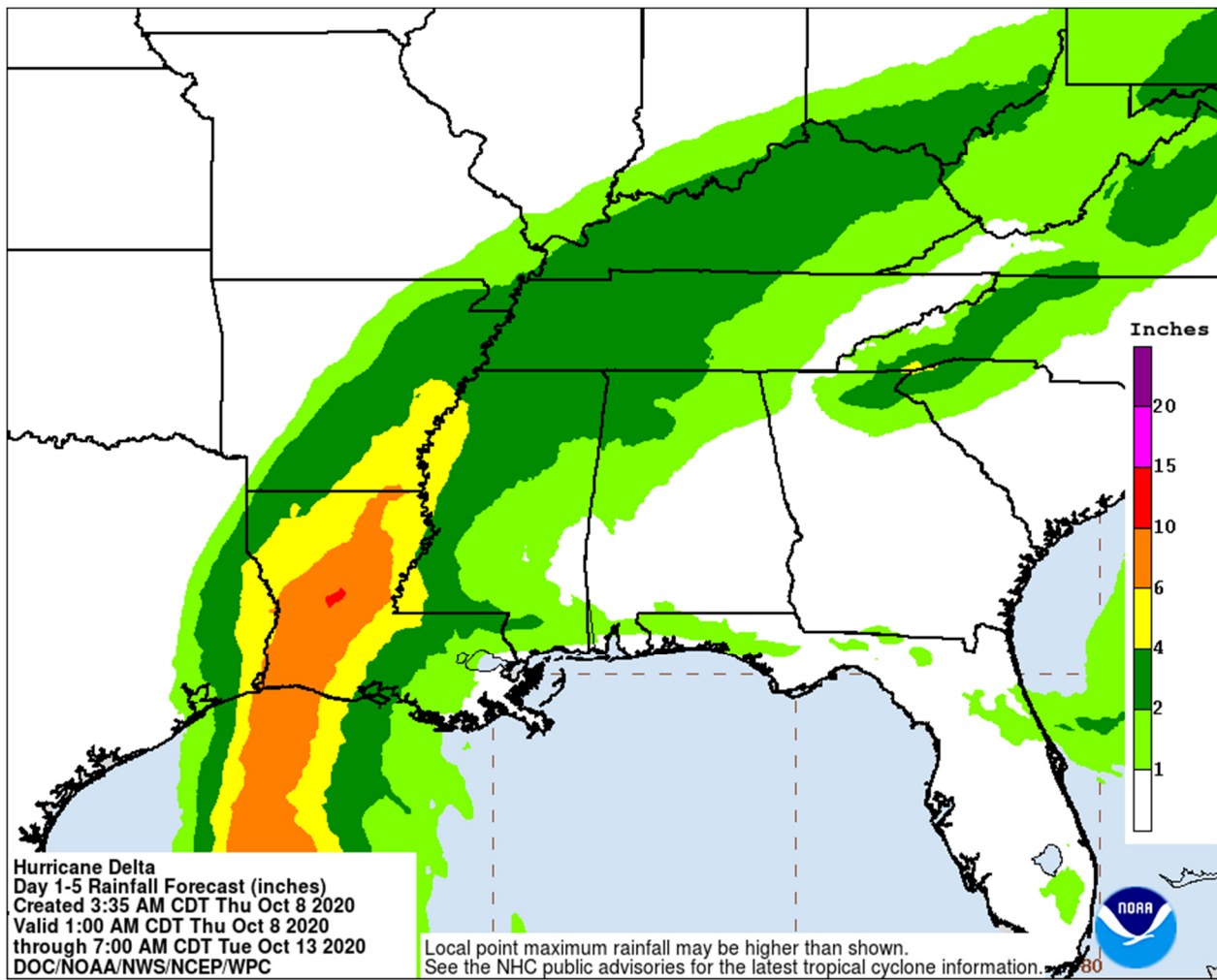




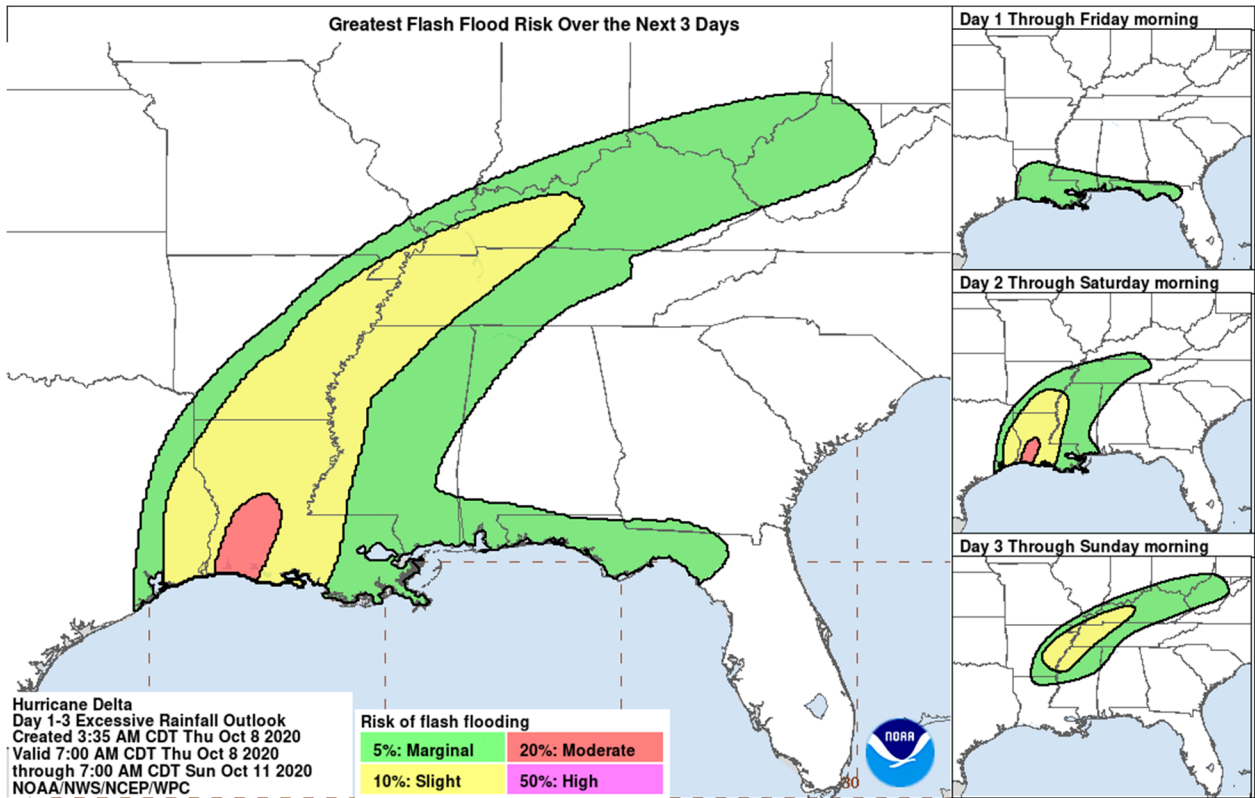
# NHC: Storm Surge Inundation Graphic



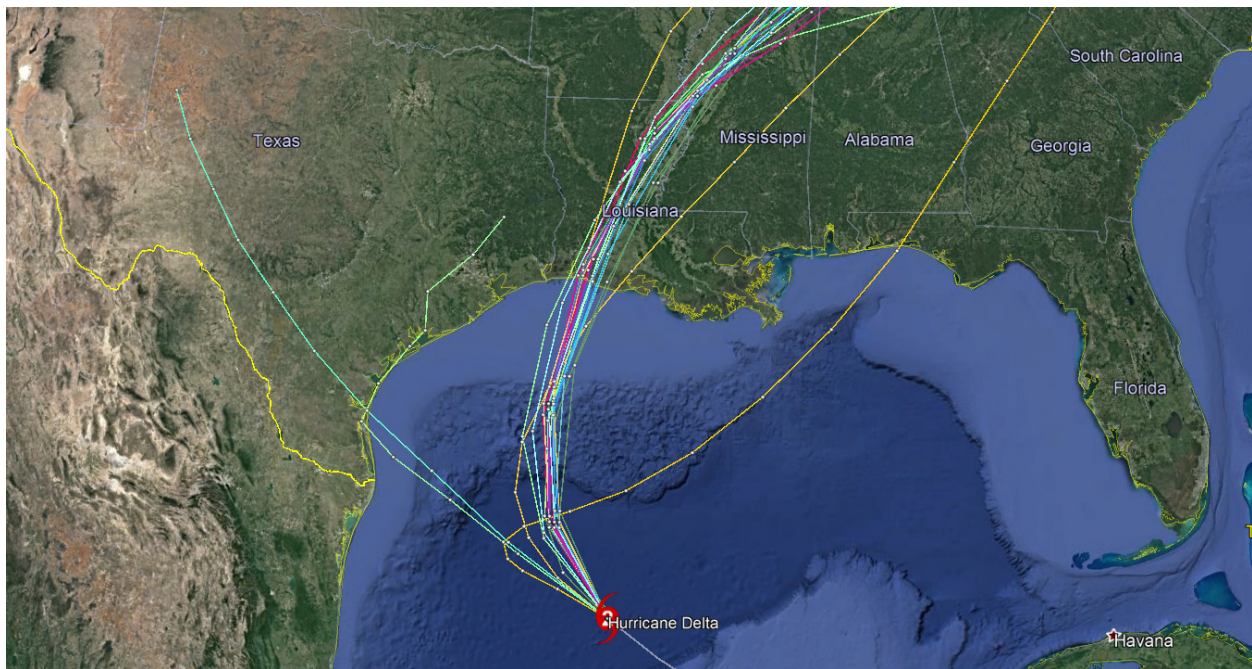
# Weather Prediction Center: Rainfall Potential



# 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](http://www.nhc.noaa.gov)

**NEXT CAT ALERT:** Friday morning after 10:00 AM Central Time (15:00 UTC).

## \*Tropical Cyclone Intensity Classifications for Global Basins

WIND SPEED			BASINS AND MONITORING BUREAU							
KTS <sup>1</sup>	MPH <sup>1</sup>	KPH <sup>1</sup>	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			Severe Tropical Storm	Cat. 2 Tropical Cyclone	Cat. 2 Tropical Cyclone	Severe Tropical Storm		Severe Cyclonic Storm
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	Cat. 2 Hurricane			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			Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone	Very Intense Tropical Cyclone		
105	120	195								
110	125	205								
115	130	210								
120	140	220	Cat. 4 Major Hurricane			Super Typhoon	Super Typhoon	Super Typhoon		
125	145	230								
130	150	240								
135	155	250								
140	160	260	Cat. 5 Major Hurricane	Super Typhoon	Super Typhoon	Super Typhoon				
>140	>160	>260								

# 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 2020. 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](http://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.