

Welcome! We are

FOURCHON







portfourchon.com









@PortFourchon



@PortFourchon

Ready Today, Ready for Tomorrow

The location of Port Fourchon means we are in close proximity to the energy infrastructure in the Gulf of Mexico, but that same location also subjects the port to tropical storms and hurricanes. We have to be ready.





Hurricane Season Preparedness

During hurricane season (June 1-November 30), the Port Commission follows established protocols to prepare and respond to potential storm events, including:

- Preparing GLPC facilities and equipment to minimize potential storm damage
- > Meeting with employees to discuss responsibilities
- Maintaining contact with state and local government officials, parish and state offices of emergency preparedness, National Weather Service, US Coast Guard, NOAA, and more
- Providing up-to-date storm information to port and airport tenants, businesses, and the public



Megan Williams

Warning Coordination Meteorologist
National Weather Service
New Orleans/Baton Rouge





HURRICANE HAZARDS AND COMMUNICATION







2023 HURRICANE SEASON

NATIONAL WEATHER SERVICE

New Orleans/ Baton Rouge

MEGAN WILLIAMS

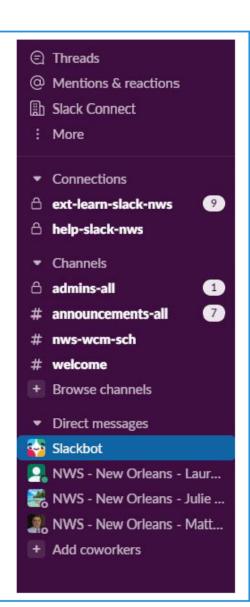
Meteorologist



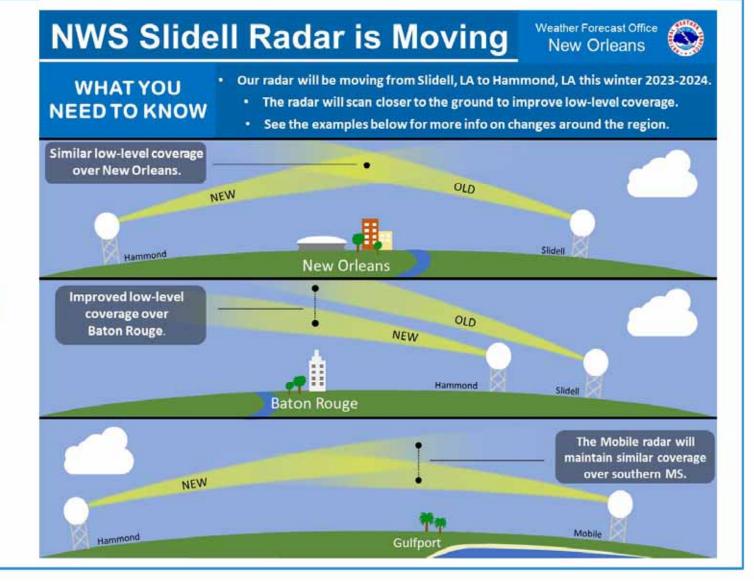
SLACK- NWSCHAT 2.0

- The NEW, stable,
 NWSChat will be on
 Slack
- NWS employees being trained now
- Partner training will be coming this summer!





RADAR IS ACTUALLY MOVING THIS DECEMBER!



2023 ATLANTIC HURRICANE NAMES

Arlene Harold Ophelia

Bret Idalia Philippe

Cindy Jose Rina

Don Katia Sean

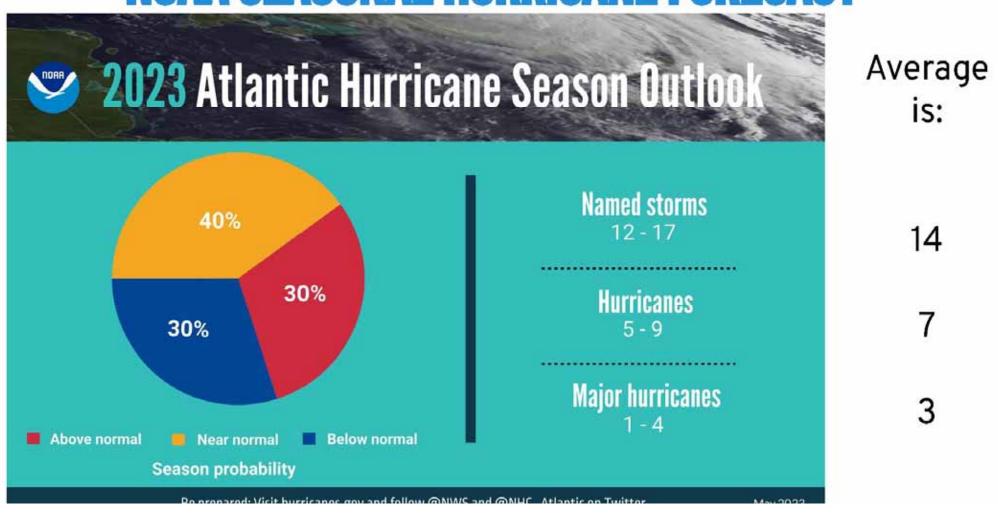
Emily Lee Tammy

Franklin Margot Vince

Gert Nigel Whitney

If we run out of names on the main list, we will go to the supplemental list of names, rather than the Greek alphabet

NOAA SEASONAL HURRICANE FORECAST





WHAT ABOUT EL NINO???

- We are heading into El Nino: 90+% chance it develops by Fall
 - "Typically" means a quieter hurricane season...
 - There is NO strong correlation between El Nino and slow GULF tropical seasons. So the storms may not form in the Atlantic, but they can still form in the Gulf!
 - Last year was La Nina, and we got nothing!

- Rut soa surface temperatures are also at a record high

STRONG EL NINO YEARS



It doesn't matter what the forecast is if that *one* storm hits us!





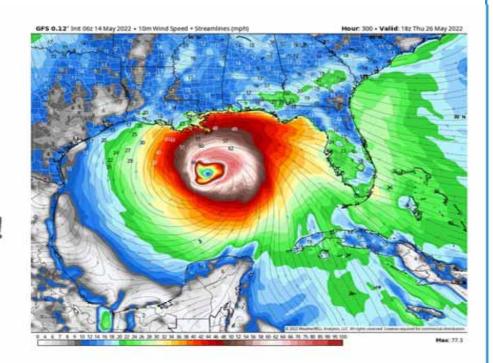
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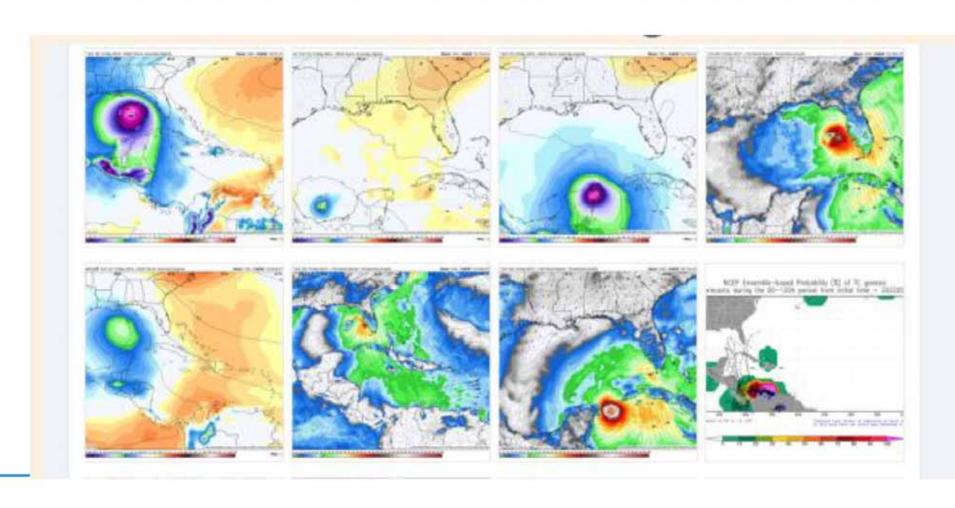
SOCIAL MEDIA

"SOCIAL MEDIAROLOGISTS"

- Just because a forecast goes "viral" doesn't mean it's likely to happen.
- Individual models constantly create tropical systems.
- There is a 175 mile track error out 5 days. Imagine what that is at 10 days?!
- We will NEVER hide a hurricane from you!
- NEVER follow someone who is showing just weather models.

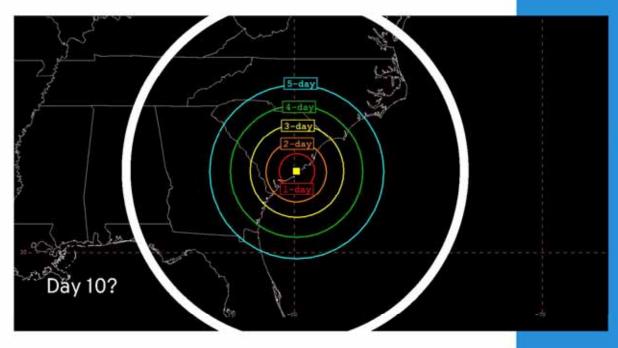


WHAT HURRICANE DO YOU THINK THESE IMAGES WERE FROM?





How good are the forecasts?



This is a good visual representation on how large that error is at Day 5. Imagine how large it is when you see a weather model showing it at day 10?



General Timeline: When do products become available?

NEW

7 DAYS OUT

TROPICAL WEATHER OUTLOOK





60 HOURS OUT*

 PSURGE (FOR SELECT, WELL-BEHAVED STORMS)





5 DAYS OUT

- NHC ADVISORY PACKAGES (CONE, WIND SPEED PROBABILITIES, TOA)
- SLOSH MOMS AND MEOWS*

48 HOURS OUT

- WATCH/WARNING PRODUCTS
- HURRICANE THREATS AND IMPACTS GRAPHICS
- PSURGE/INUNDATION FORECASTS

REVIEW: THE NHC ADVISORY CYCLE

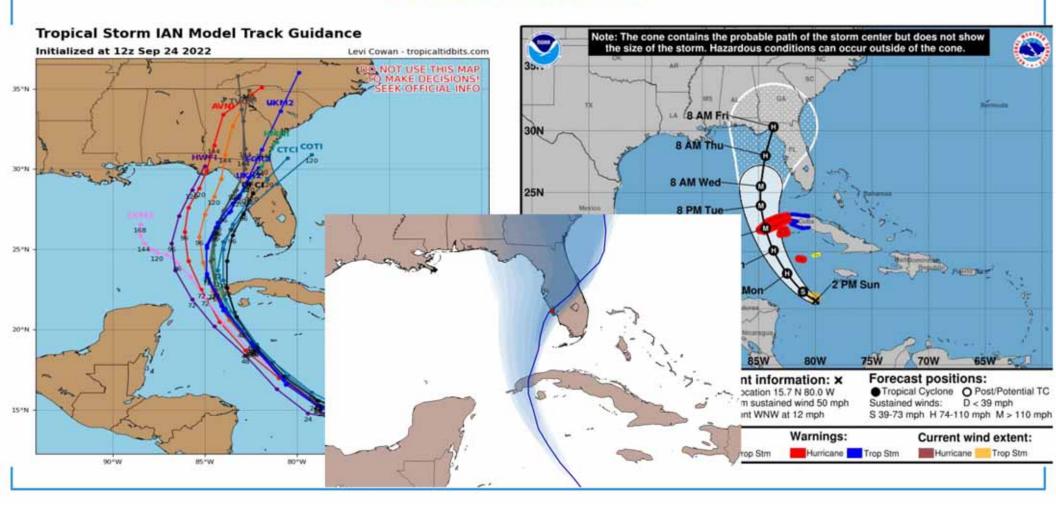
- When no watches/warnings in effect anywhere:
 - Full advisory packages issued at 4a, 10a, 4p, 10p CDT
- When watches/warnings are in effect somewhere:
 - Full advisory packages issued at 4a, 10a, 4p, 10p CDT
 - Intermediate advisories issued at 1a, 7a, 1p, 7p CDT
- When a storm with a well defined eye is within radar range:
 - Full advisory packages issued at 4a, 10a, 4p, 10p CDT
 - Intermediate advisories issued at 1a, 7a, 1p, 7p CDT

WHAT THE CONE ACTUALLY IS

- Represents the most likely path of the CENTER of the storm- NO forecast of impacts.
- Created by connecting imaginary circles that represent 2/3 the average track error over the past 5 years.
- Small changes in size every year
- Does NOT change for every storm.



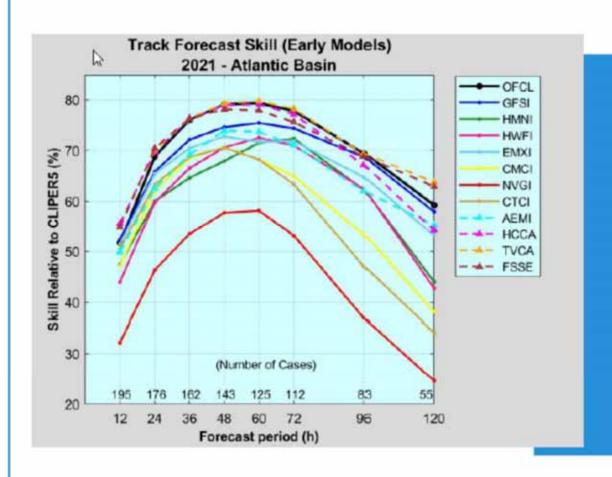
IAN EXAMPLE



WHAT WEATHER MODEL SHOULD YOU USE FOR YOUR HURRICANE FORECASTING?

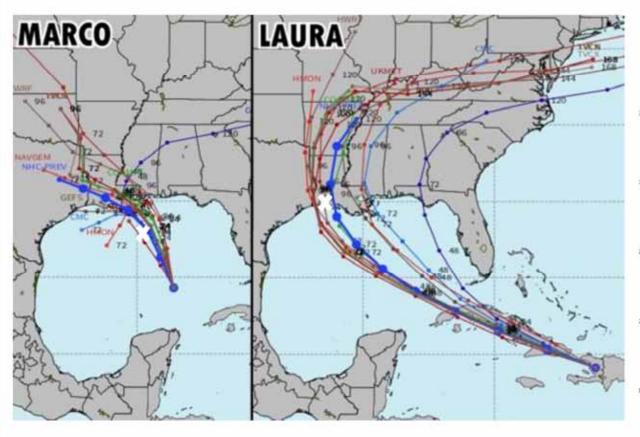
- The GFS (American model)
- The Euro (European model)
- The UKMET (UK model)
- The HWRF (Hurricane model)
- I like Spaghetti
- You shouldn't.



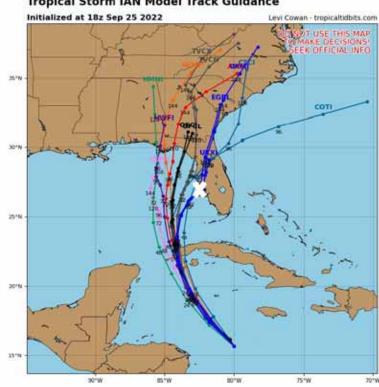


- In 2021, no individual model performed better than the official NHC track forecasts.
- A few consensus aids (dashed lines) did slightly outperform NHC at early lead times.

SPAGHETTI MODELS- PICK YOUR FAVORITE LINE



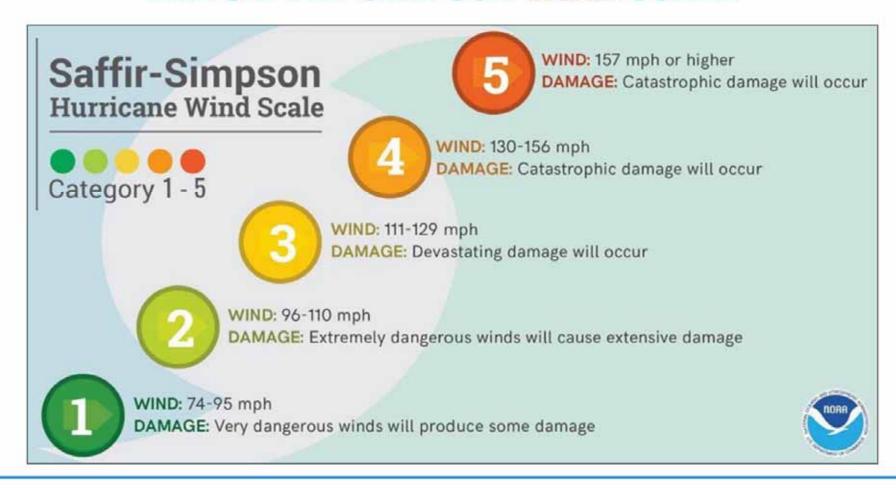
Tropical Storm IAN Model Track Guidance



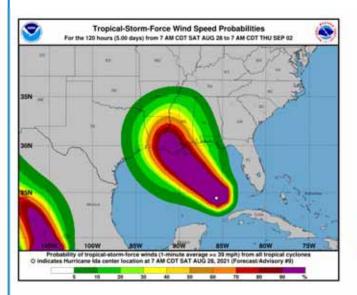


WIND HAZARDS AND COMMUNICATION

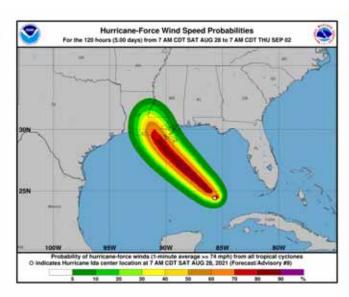
THE SAFFIR-SIMPSON WIND SCALE



WIND SPEED PROBABILITIES







- Available for 34kt, 50kt, 64kt wind speeds out 5 days
- Remember, low probabilities can be significant!

HOW ARE THEY MADE?

Based on 1,000 realistic alternative scenarios created using:

- Official NHC track and intensity forecast
- Historical NHC track and intensity forecast errors
- Climatology and persistence wind radii model

Uses model spread to account for track uncertainty.



HURRICANE THREATS AND IMPACTS GRAPHICS (HTI)

- Probabilistic forecast based on the current NHC advisory and accounting for reasonable forecast errors
- Wind, Tornado, Surge, Flooding
- Provides the POTENTIAL of what you should prepare for- likely will be higher than what is in the forecast
- Example from Hurricane Ida 10am 8/28.



WHY USE HTI'S?

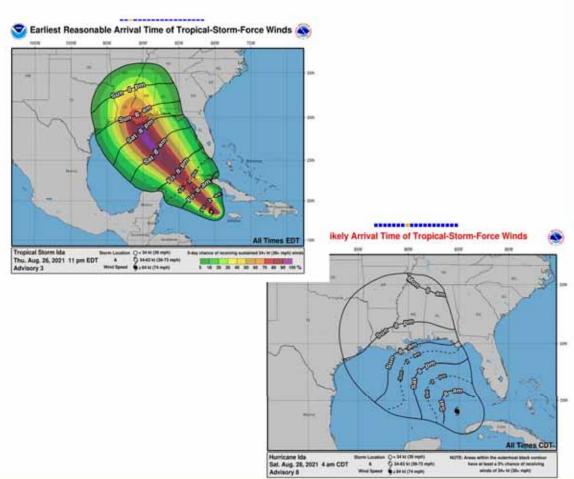




All graphics associated with the 10am CDT forecast 8/28 for Hurricane Ida

TIME OF ARRIVAL GRAPHICS

- Provides probabilistic time of arrival of 34 KT/39 MPH winds
- Earliest reasonable is based on 10% threshold- 90% chance that the storm will arrive AFTER the time on the graphic.
- Most likely is based on 50% threshold.

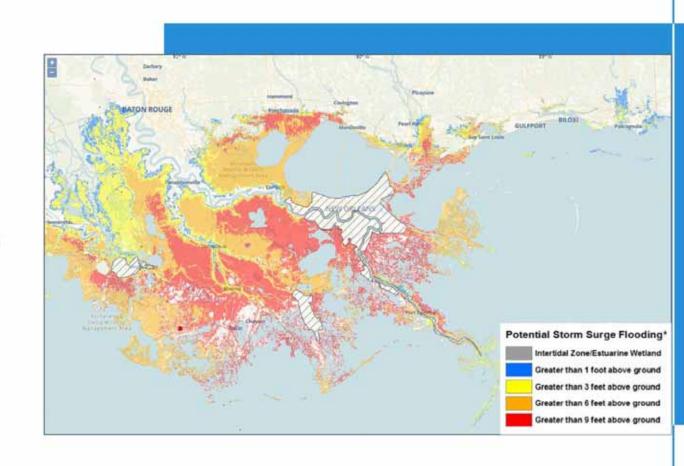




STORM SURGE

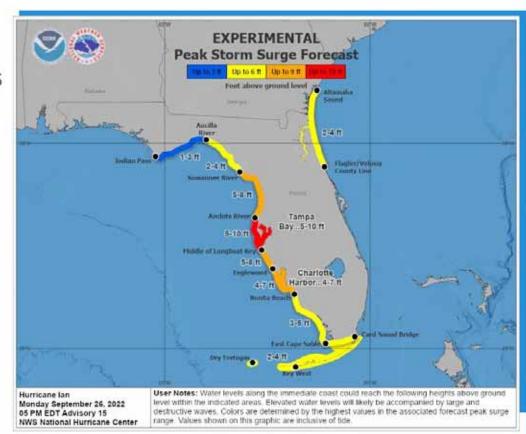
STORM SURGE FLOODING MAP

- Based on probabilistic surge forecasts
- Provides a reasonable worst case inundation at each location based on the current NHC forecast track and intensity.
- Shows how high above ground the water is forecast to go, in 3 feet intervals.



PEAK STORM SURGE FORECAST GRAPHIC

- Provides potential peak inundation values along the open coast
- Not everywhere will see these values
- Does NOT indicate potential depths away from the open coast
- Available around advisory time when watches/warnings are in effect.



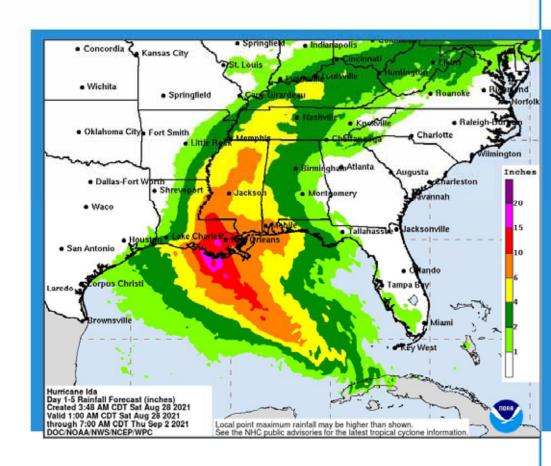


FLOODING RAIN

NOFD

DETERMINISTIC RAINFALL FORECAST (QPF)

- Rainfall forecast graphics for tropical systems are created with a broader color scale.
- They are hosted on both the WPC and NHC website and typically include 3 to 5 days of rainfall depending on the storm.



RESOURCES

QUESTIONS?!?!

www.weather.gov/neworleans

www.weather.gov/srh/tropical?office=lix

www.nhc.noaa.gov

www.facebook.com/NWSNewOrleans

www.twitter.com/NWSNewOrleans

www.weather.gov/lix/embrief (includes link to latest briefing slides and recording)

LAUREN NASH
LAUREN.NASH@NOAA.GOV

And last but not least... US! If you're struggling to put together the pieces, give us a call. We're here to help!





Official evacuation orders come from the parish president, but the Port Commission closely monitors Gulf weather activity that may affect Port Fourchon and the South Lafourche Airport. GLPC reports on approaching storms using these storm phases:

- > Seasonal Alert
- Phase I Storm Watch
- Phase II Voluntary Evacuation
- > Phase III Recommended Evacuation
- Phase IV Mandatory Evacuation
- Phase V Storm in Port
- Recovery Phase

Seasonal Alert

This alert indicates the beginning of hurricane season, which lasts from June 1 through November 30 of each year.

➤ This seasonal alert serves as a reminder that as storm season begins, it is time to review your facility's plan for storm season and share any updates to your contact information with GLPC.



Phase 1: Storm Watch

This phase indicates that GLPC is monitoring a weather condition in the Gulf that is expected to affect the Gulf Coast. Port personnel will begin sending weather updates to port facilities.



- When you see a Phase 1 alert, there is a weather condition developing, and we are watching it for potential effects to the port area.
- > Be thoughtful of stockpiling any loose material or excess items that could fly or be damaged if Port Fourchon is affected by a storm.
- At Phase 1, the Emergency Storm Harbor Marina just inside the South Lafourche Levee System at the Golden Meadow lock will be activated for use by commercial fishing vessels seeking refuge from an approaching storm on a first come, first served basis.

Phase 2: Voluntary Evacuation

This phase indicates that tropical force winds are expected to be in Port Fourchon within 72 hours.

- >Begin securing, fastening down, or moving equipment out of port.
- > Determine special needs and intentions of vessels moored at your facility.
- >Update your contact people and confirm evacuation plans.



NOTE: Evacuation times may vary dependent upon storm conditions, i.e., projected path, storm strength and forward speed, pre-storm weather, and road conditions.

Phase 3: Recommended Evacuation

This phase indicates that tropical force winds are expected to be in Port Fourchon within 50 hours.

- > Non-essential personnel should evacuate port.
- > Secure hazards and clear nonessential equipment from facility grounds such as pallets, lumber, stone, etc.
- > All small craft owned by the facility that can be hauled out or trailered should be removed from the water and secured well away from the effects of possible storm surge and high winds.
- > Prepare office areas to minimize water intrusion damage.
- Secure your buildings to prevent storm damage by applying storm shutters or plywood over windows or doors.
- Secure fuel tanks and storage areas.
- > Check regularly for up-to-date info from the Port Commission on the approaching storm.

Note: No NEW mooring dolphin rentals will be accepted once Phase 3 is activated. All unleased mooring dolphins will be considered first come, first served until the storm has passed.



This phase indicates that tropical force winds are expected to be in Port Fourchon within 36 hours.

- > All remaining personnel should evacuate port.
- > Shut off your facility's utilities (water, power, gas) to minimize damage.

NOTE: Twelve hours after mandatory evacuation has been ordered, LA 1 will be closed to all vehicles south of the Leon Theriot Lock in Golden Meadow.



LA 1 Closure at Leon Theriot Lock in Golden Meadow





Port Fourchon Harbor Police: Last Ones Out, First Ones In



Phase 5: Storm in Port

This phase indicates that tropical force winds are expected to be in Port Fourchon within 24 hours.

- > GLPC Ordinance No. 71 applies in Phase 5: No unattended vessels in the port area.
- > Check regularly for updates from the Port Commission via email or social media.



Recovery Phase

This phase indicates that the storm has passed and port personnel are entering the area, assessing the damages to highways and facilities, and clearing debris and power lines.



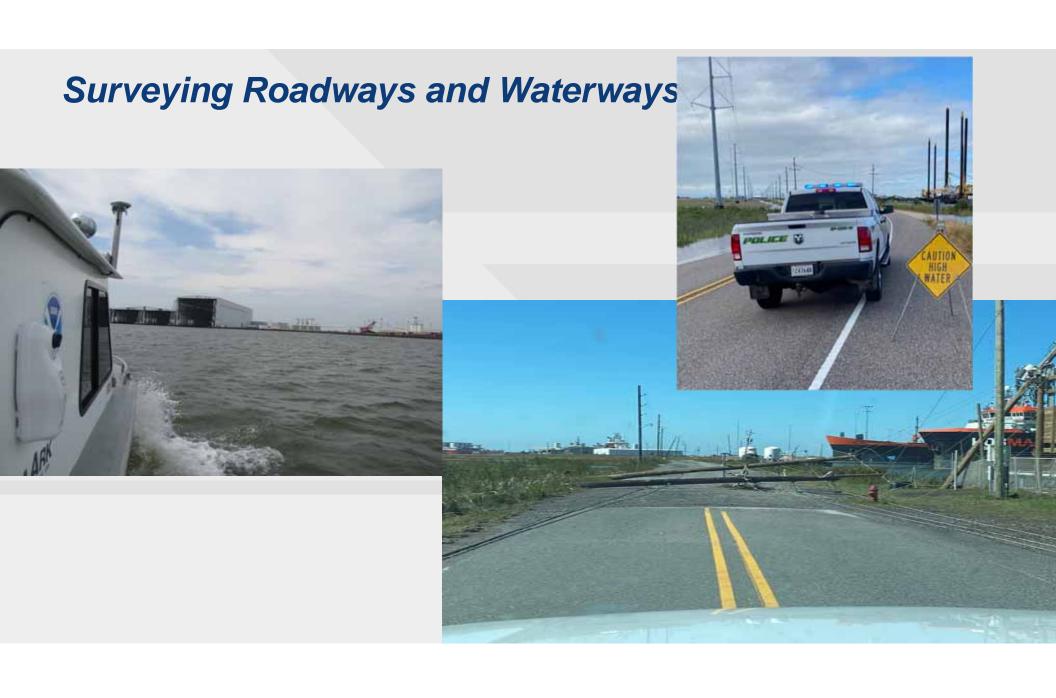
- ➤ The purpose of the Recovery Phase is to ensure that Port Fourchon is safe and operational as soon as possible after a storm.
- As soon as safety allows, a port re-entry team will coordinate a damage assessment of all waterways and roadways leading into and out of Port Fourchon.
- Please stay out of the area until you are given clearance. Your presence may hamper or delay recovery efforts. Neither vessels nor aircraft shall enter the port until port damage assessment has been completed and the all clear is given.



Bringing in Crews and Equipment







➤ The Port Commission will notify you when limited or full access is given to tenants to return and assess any damages to their facilities.



Post-Storm Re-Entry

- Expect roadblocks on roadways leading to the port, including LA 1 & LA 3235.
- ➤ No one will be allowed through a checkpoint until the road is safe and has been cleared for re-entry.
- ➤ When it is safe to re-enter, you will be notified.
- ➤ You may be expected to show identification upon re-entry. Bring your ID, TWIC, and parish re-entry credentials.









Greater Lafourche Port Commission

www.portfourchon.com

LAFOURCHE PARISH POST-STORM RE-ENTRY

Eric Benoit

Office of Emergency Preparedness
Lafourche Parish Government





CONTACT INFO

- ERIC BENOIT
- ericb@lafourchegov.org
 - •985-493-6922
- www.parishreentry.com/lafourche



Storm Season Communications

- BE PREPARED: Make sure the Port Commission has your current contact information, and vice versa, so that we can stay in touch regarding storm events.
- KEEP YOURSELF INFORMED: We send out updates via email, text, and social media, and we post them on our Weather & Storm Info webpage at www.portfourchon.com along with storm-related information and resources.

Tenant Information We Request

We ask for updated contact information from our tenants every year. Why?

To keep our port and airport users safe and informed during emergencies.

You can find multiple options for updating important contact information on our *Weather & Storm Info* webpage at www.portfourchon.com.



Emergency Notification/ FSO Contact Info Form

- This form is used to identify your facility's Facility Security Officer (FSO), who is the person responsible for securing your facility.
- > The FSO will be the first to receive facilityspecific safety, security, and recovery updates from the Greater Lafourche Port Commission.
- Please use this form to update your FSO's name and most current contact information.



READY TODAY.
READY FOR TOMORROW.

Emergency Notification/FSO Contact Info Form

Please use this form to update name and contact information for your facility's FSO (Facility Security Officer), who is the person responsible for securing your facility. In the event of an emergency, the FSO will be the first to receive facility-specific safety, security, and recovery updates from the Port Commission. Send completed forms via email to info@portfourchon.com or via fax to (985) 632-6703,

PLEASE PRINT

FSO (Facility Security Officer)		
Name:		
Title:		
Email Address:		
Facility Physical Address:		
Facility Mailing Address:		
Office Phone #:		
Fax #:		
Cell Phone #:		
Company Website:		
Does your facility have a security and safety plan?	If so, would you be willing to share it?	
Does your facility have a hurricane/weather plan?	If so, would you be willing to share it?	

Port Fourchon Operations Center

Common Name

180 A.O. Rappelet Road Port Fourthon, LA 70057

Phone: (985) 395-2750

Greater Lafourche Port Commission Administration Office

16829 East Main Stre Cut Off, LA 70345

Phone: (985) 632-6701 Fex: (985) 632-6703 (imal: glpc@portfourston.com

www.portfeurchon.com

GAO - South Lafourche Leonard Miller, Jr. Airport

> 149 King Air Drive Gellano, LA 70354

Phone: (585) 475-6701

Cybersecurity Contact Info Form

- This form is used to identify your facility's Cybersecurity Contact, who is the person responsible for securing your facility's cyber data and technology.
- ➤ The Cybersecurity/ CISO/ IT contact will be the first to receive facility-specific cybersecurity and data or technology-related updates from the Port Commission.
- Please use this form to update your Cybersecurity Contact's name and most current contact information.



READY TODAY. READY FOR TOMORROW.

Cybersecurity Contact Info Form

Please use this form to update contact information for your facility's cybersecurity contact, who is the person responsible for securing your facility's cyber data and technology. The Cybersecurity/ CISO/IT Contact will be the first to receive cybersecurity updates and potential threat information from the Port Commission. Send completed forms via email to info@portfourchon.com or via fax to (985) 632-6703.

PLEASE PRINT

-company (same	
Cybersecurity/CISO/IT Contact	
Name:	_
Fitle:	
Email Address:	
acility Physical Address:	
acility Mailing Address:	
Office Phone #:	
ax #:	_
Cell Phone #:	
Company Website:	
Other Important Contact Info:	

Port Fourchon Operations Center

Company Name

180 A.O. Rappelet Road Port Fourshon, LA 70357

Phone: (985) 395-2750

Greater Lafourche Port Commission Administration Office

16829 East Main Stre Cut Off, LA 70345

Phone (985) 632-6701 Fax: (985) 632-6703 (imel: glood/portfourston.com

www.portfeurchon.com

GAO - South Lafourche Leonard Miller, Jr. Airport

> 149 King Air Drive Gellano, LA 70354

Phone: (585) 475-6701

Directory Listing Contact Info Form

- This form is used to add or update your facility's most current directory listing information.
- The Port Commission's website directory is where the public looks for information to contact companies and facilities in Port Fourchon and at the South Lafourche Airport, including:
 - Physical and mailing addresses
 - Phone and fax numbers
 - Company website, if desired
- This information is published in our port and airport directories at <u>www.portfourchon.com</u> and is publicly accessible online.



READY TODAY. READY FOR TOMORROW.

Directory Listing Contact Info Form

Please use this form to update your port or airport facility's directory listing information, which is published online at www.portfourchon.com under CONTACT US, PORT FOURCHON, and SOUTH LAFOURCHE AIRPORT tabs. Our web directory is where the public looks for information on port and airport companies. Send completed forms via email to info@portfourchon.com or via fax to (985) 632-6703.

PLEASE PRINT

Company Name:				
*DBA Name, if any:				
PORT FOURCE	ION FACILITY	SL AIRPORT F	ACILITY C	OTHER-Specify:
Facility Physical Address	:			
Facility Mailing Address:				
Office Phone #:				
Company Website:				
If you would like to add you	r company's website to	its directory listing on www.p	ortfourchon.com, ple	ease check here:
Facility Contact Person N	ame:			
Title:				
Email Address:				
Cell Phone #:				
Other Important Contact	info:			

Port Fourchon Operations Center

180 A.O. Rappelet Road Port Fourthon, LA 70357

Phone: (985) 395-2750

Greater Lafourche Port Commission Administration Office

6829 East Main Stre Cut Off, LA 70345

Phone (985) 632-6701 Fax: (985) 632-6703 Email glociliporthuschen.com

www.portfeurchen.com

GAO - South Lafourche Leonard Miller, Jr. Airport

> 149 King Air Drive Gellano, LA 70354

Phone: (585) 475-6701

Public Information Update Signup Form

This form is used for both tenants and the public to sign up to receive informational email updates from the Greater Lafourche Port Commission, including:

- Local Road & Bridge Updates
- Bayou, Floodgate, & Lock Updates *in conjunction with the South Lafourche Levee District
- Weather & Storm Season Updates
- Port Commission Meeting Notices
- **Port Commission Press Releases**
- Seaport & Airport Facilities Notices

You can also subscribe online on our NOTIFY ME webpage.



READY FOR TOMORROW.

Public Information Update Signup Form

Please use this form to sign up to receive informational email updates from the Port Commission. Send completed forms via email to info@portfourchon.com, via fax to (985) 632-6703, or subscribe to GLPC updates online using the NOTIFY ME page at http://portfourchon.com/news-events/notify-me/-

Name:	Title:	
Company Name:		
Email Address:		
Physical Address:		
Mailing Address:		
Office Phone #:	Fax #:	
Cell Phone #:	Other:	
and/or floodgate notices aff Weather & Storm Season U	Jpdates - Updates on local waterways, includecting waterways in South Lafourche and the pdates - Updates on weather impacting the South Lafourche Airport, as well as storm season	Port Fourchon area outh Lafourche area, including
	Notices – GLPC committee and board meeting	
	cases - GLPC press releases featuring Greater afourche Airport news and information	r Lafourche Port Commission,
Seaport Facilities Notices -	Notices for people who work at Port Fourchor	n facilities or tenant companies
Airport Facilities Notices -	Notices for people who work at SL Airport fac	ilities or tenant companies
Port Fourchon	Greater Lafourche Port Commission	GAO - South Lafourche

Operations Center

180 A.O. Rappelet Road

Phone: (985) 396-2750

Administration Office

Cut Off 1 A 70345

Phone: (985) 632-6701

Leonard Miller, Jr. Airport 16829 East Main Street

Phone: (985) 475-6701

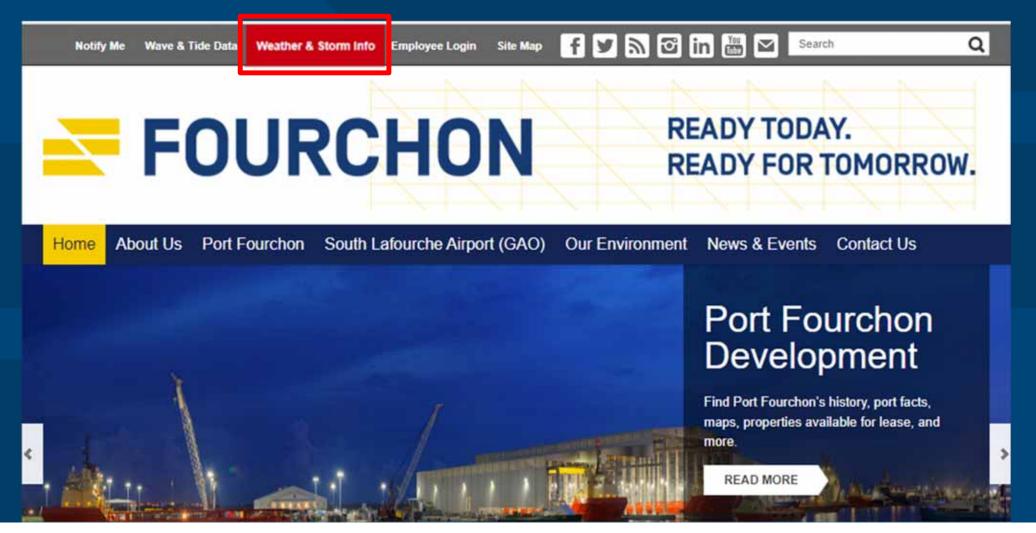
Email: glpc@portfourchon.com www.portfourchon.com

Information We Share: Communications

To keep our tenants informed, the Port Commission has instituted numerous ways for you to get up-to-date storm-related information as it pertains to Port Fourchon.

- > Port Commission Website www.portfourchon.com
 - Find the latest weather and storm-related information on our WEATHER & STORM INFO page
- Email Notifications
 - Sign up for notifications and manage your subscription preferences on our NOTIFY ME webpage
- Social Media
 - > Follow us on Facebook, Twitter, or Instagram
- Public Service Announcements
 - > Broadcast updates on local radio and/or television stations

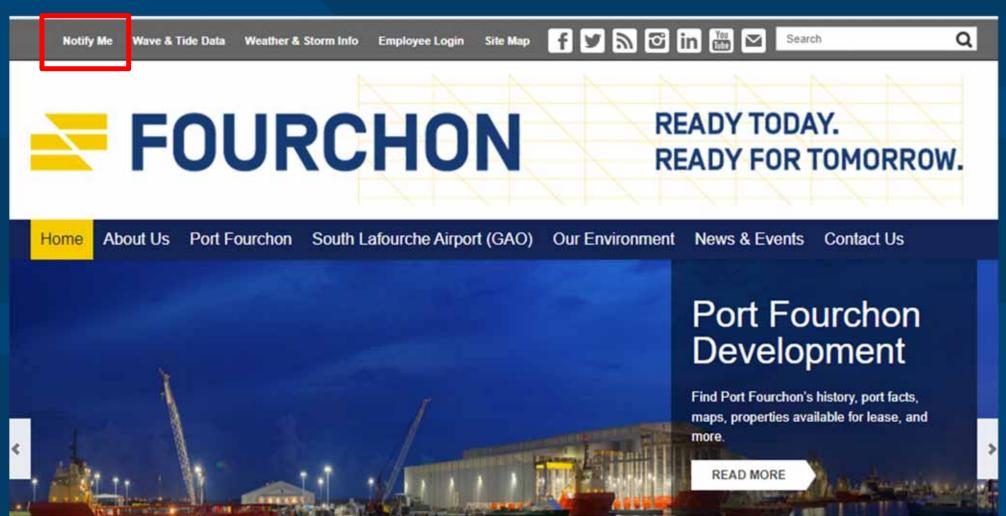
Website Feature: WEATHER & STORM INFO



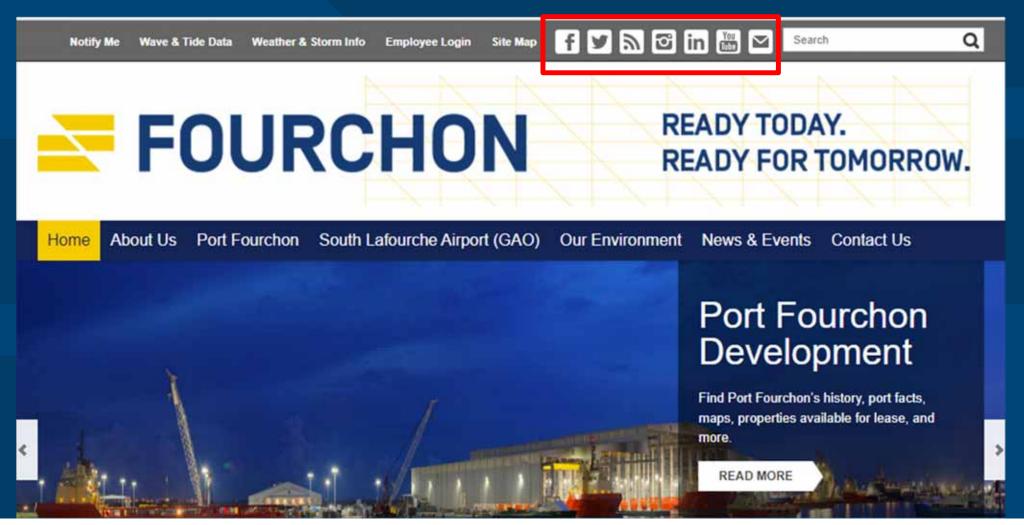
Website Feature: WAVE & TIDE DATA



Website Feature: NOTIFY ME



Website Feature: SOCIAL MEDIA LINKS



THANK YOU for viewing the 2023 Hurricane Readiness Meeting Presentation

