



TROPICAL UPDATE



8:00 AM EDT

Sunday, July 4, 2021

Tropical Storm Elsa

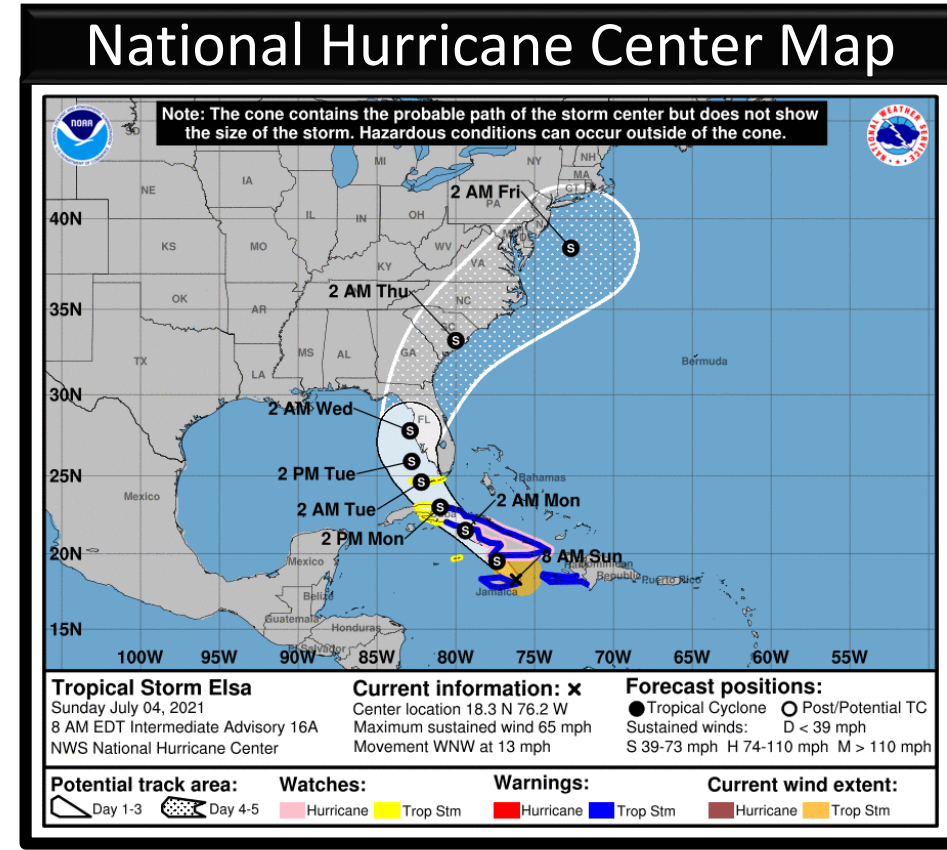
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an active weather event please contact your County Emergency Management or Public Safety Office, local National Weather Service forecast office, or visit the National Hurricane Center website at www.hurricanes.gov.



Tropical Storm Elsa

8 AM ET Sunday: Florida Threats & Changes Since Last Packet

	MINIMAL	Low	MODERATE	HIGH	EXTREME
WINDS					
STORM SURGE					
FLASH FLOODING					
TORNADOES					
	Low	MODERATE			
RIP CURRENTS					



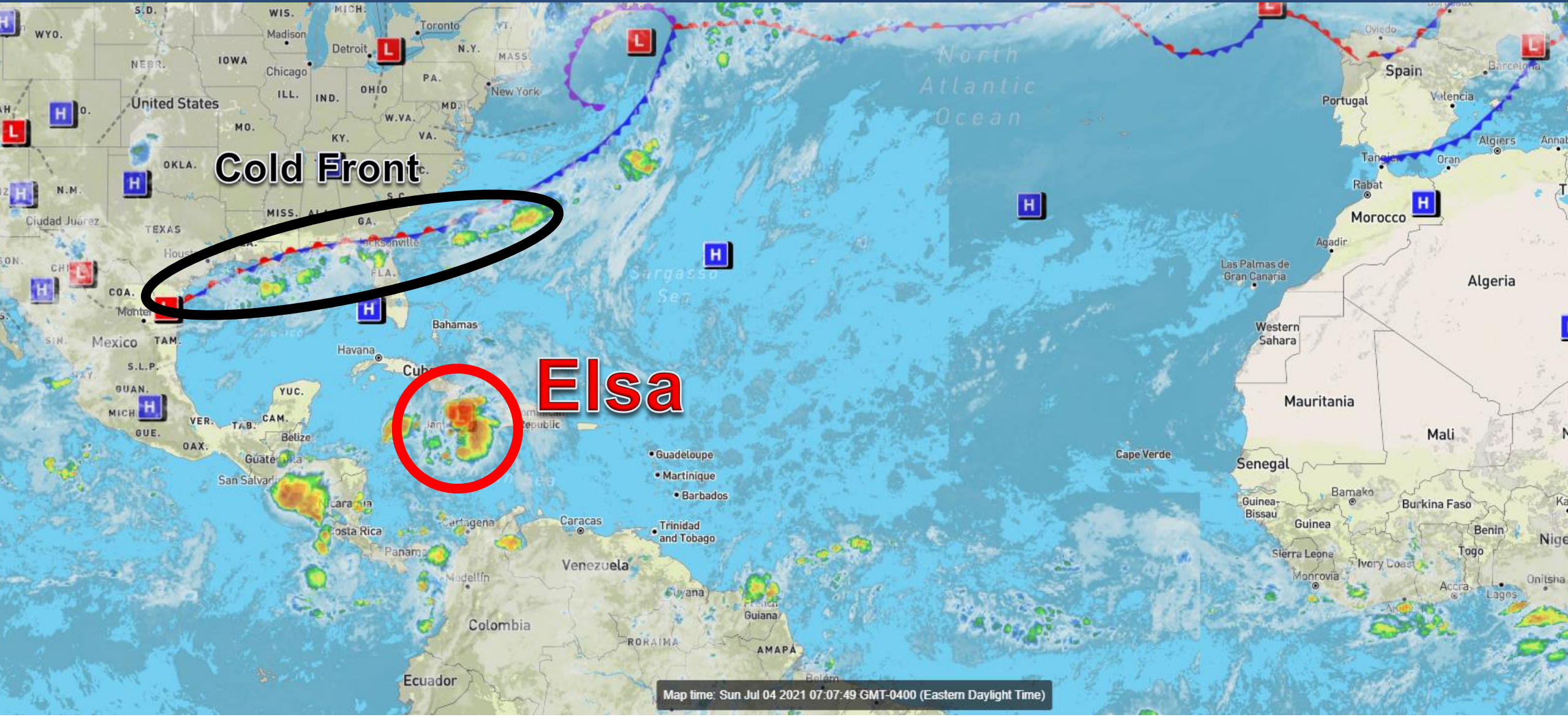
Overview/Recent Changes:

Elsa remains a strong tropical storm as it moves west-northwest. The track remains largely unchanged as the system will move across Cuba and will be near Key West Monday night. Elsa may then spend 24-36 hours over the eastern Gulf of Mexico before moving inland over the Florida Peninsula, and there remains some concern about possible re-intensification. Tropical Storm Watches have been issued for the Lower and Middle Florida Keys and additional watches are likely today.



Atlantic Basin Satellite Image

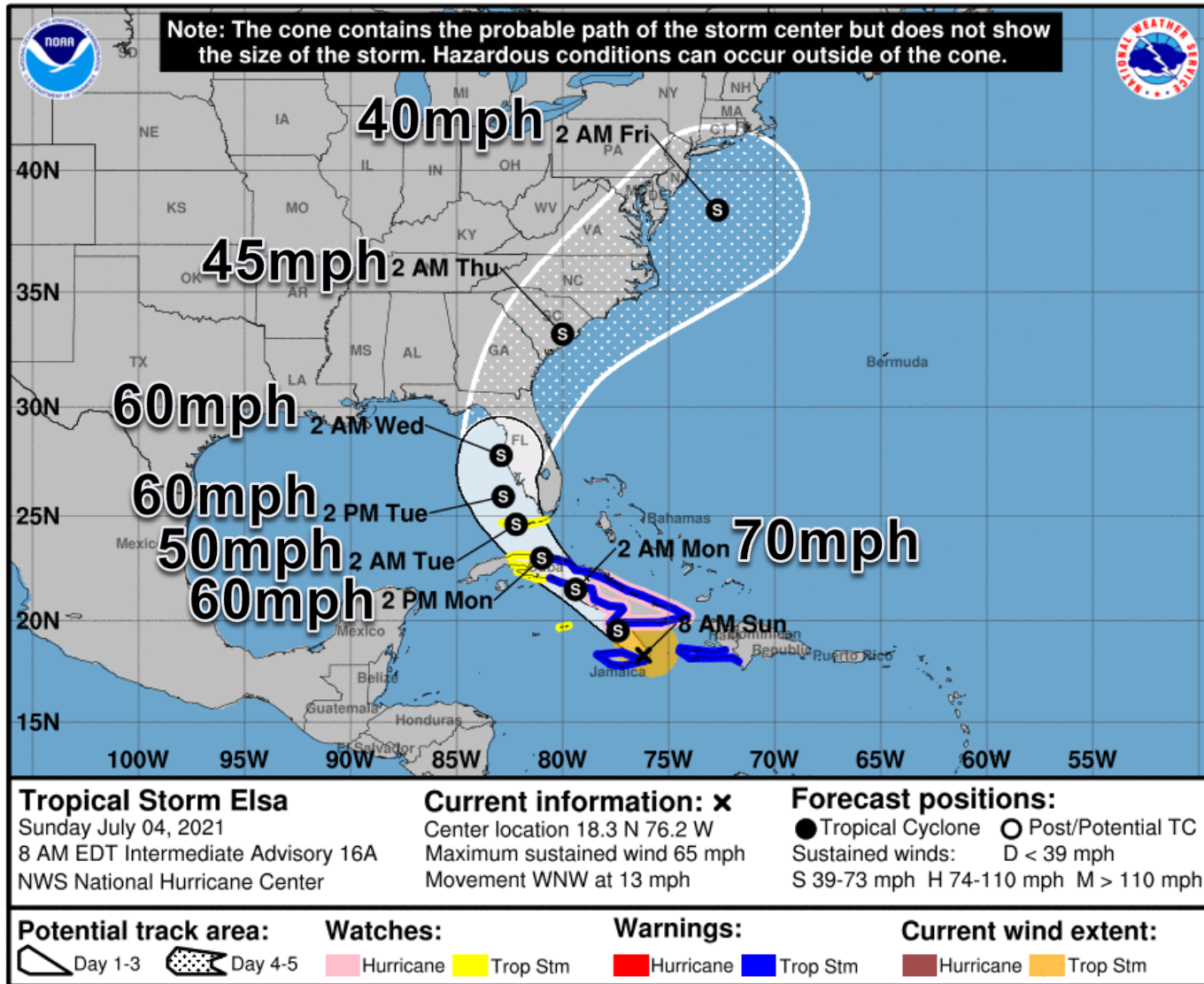
Chance of development: — None — Low — Medium — High





Official Forecast Track – Elsa

From the National Hurricane Center – ([LINK](#))

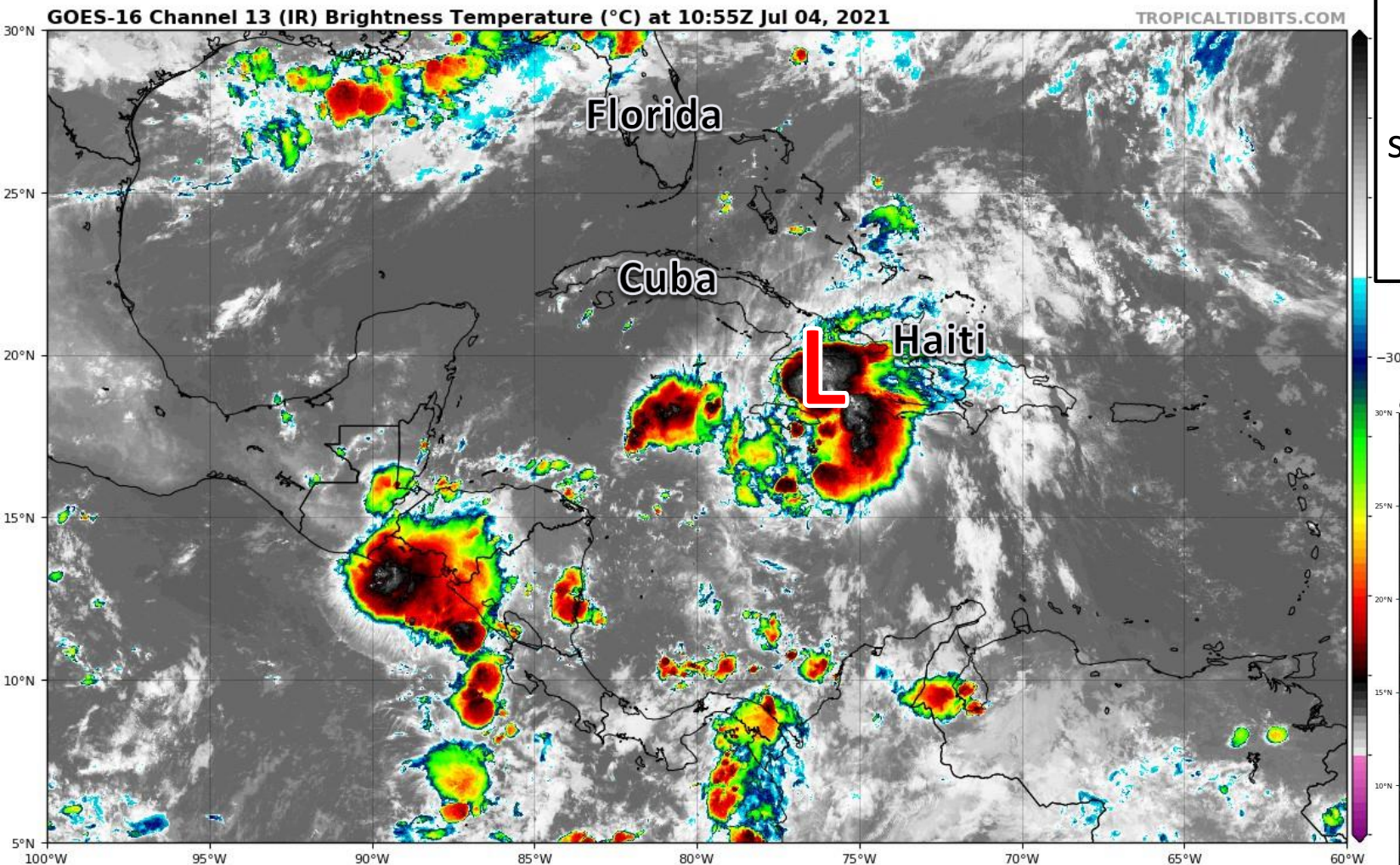


- The center of Elsa is located about 45 miles east-northeast of Kingston, Jamaica or about 560 miles southeast of Key West.
- Elsa is a tropical storm with maximum sustained winds near 65 mph.
- Some slight strengthening is possible before Elsa moves over Cuba, with weakening thereafter. Some slight restrengthening is possible after it emerges into the Gulf of Mexico.
- Elsa has slowed down and is only moving to the west-northwest at 13 mph. A northwestward turn is expected today.
- Elsa will then turn northward and northeastward on Tuesday near or over the Florida Keys and Peninsula.
- There is a large area that could see a landfall, including the entire West Coast, the Big Bend, and the Keys. When and where the northeast turn occurs will determine landfall.

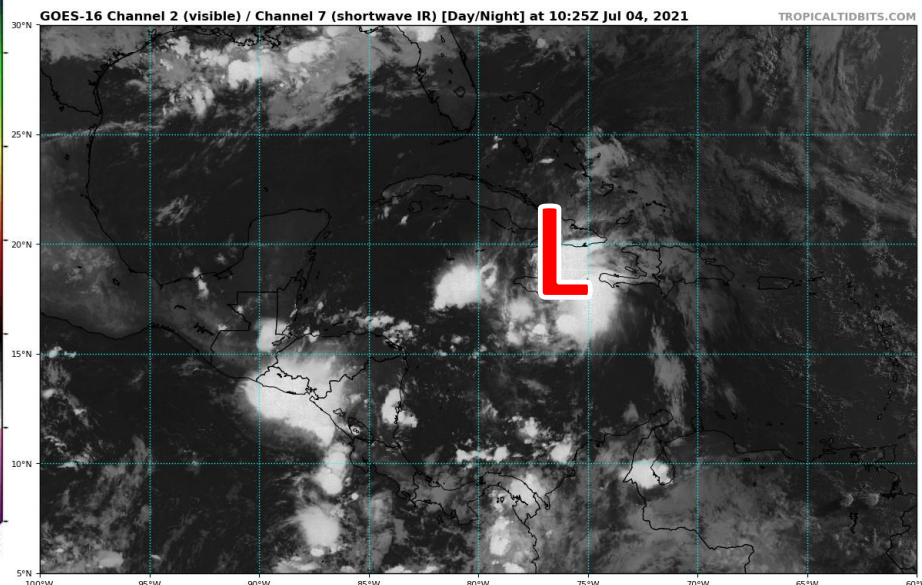


Satellite Imagery

Caribbean Sea – Tropical Storm Elsa



Elsa has been trying to reorganize overnight as thunderstorms developed near and over the center, but no strengthening has occurred. Elsa has been avoiding the mountainous terrain of Jamaica, Haiti, and Cuba so far.





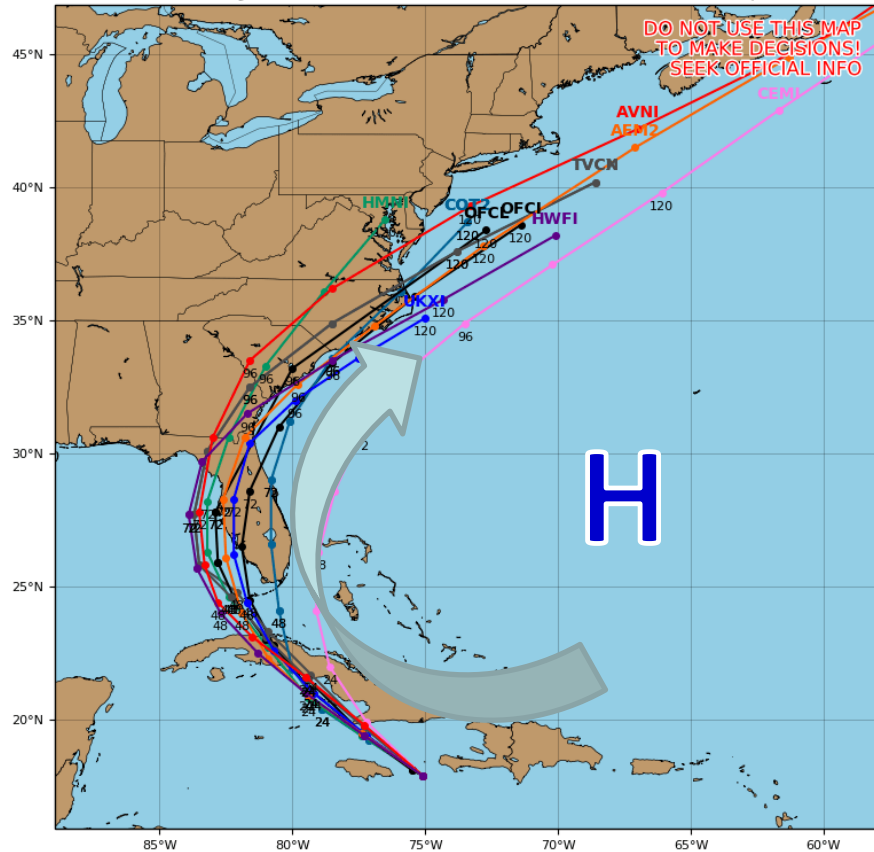
Model Forecasts Next 5 Days

Track & Intensity Models – Tropical Storm Elsa

Tropical Storm ELSA Model Track Guidance

Initialized at 06z Jul 04 2021

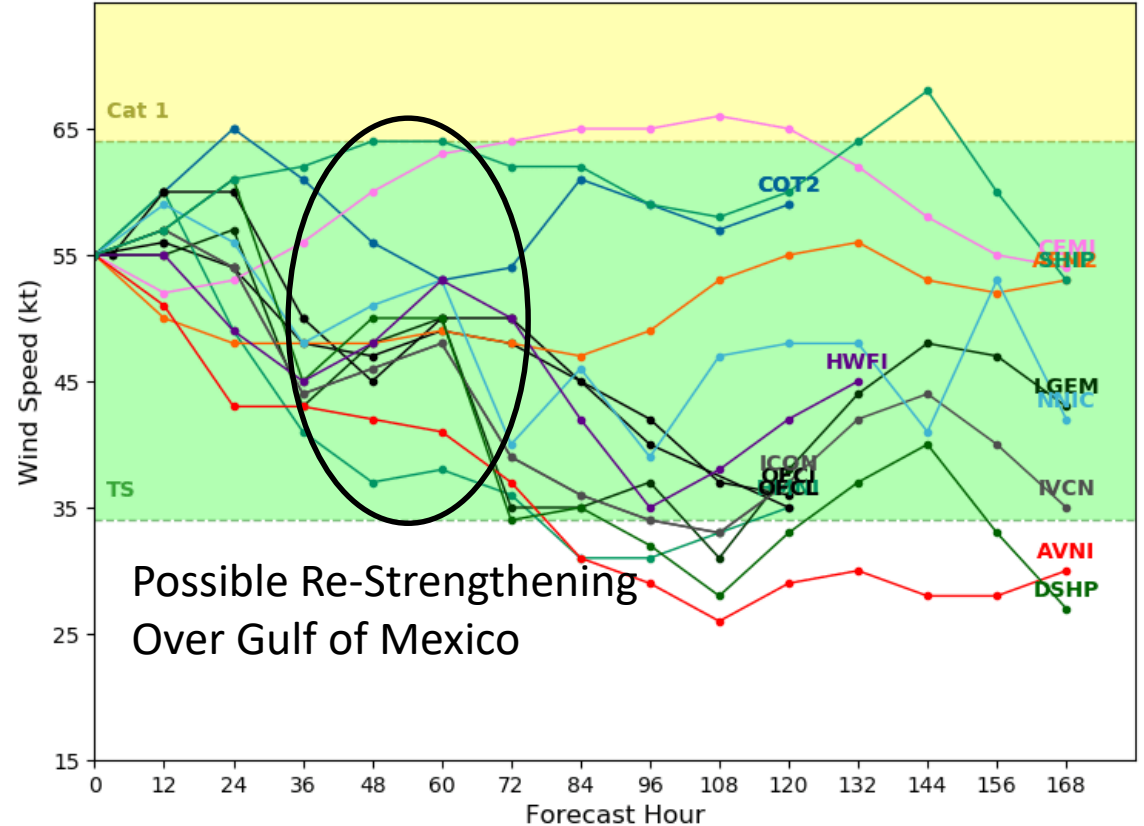
Levi Cowan - tropicaltidbits.com



Tropical Storm ELSA Model Intensity Guidance

Initialized at 06z Jul 04 2021

Levi Cowan - tropicaltidbits.com



Track models are in fairly good agreement of taking Elsa. Landfall of the system in Florida remains anywhere from the Big Bend all the way into Southwest Florida/Keys. Some re-strengthening is possible once over the Gulf of Mexico as water temperatures are warm and dry air/wind shear minimal.



Damaging Wind Threat Overview

Tropical Storm Elsa

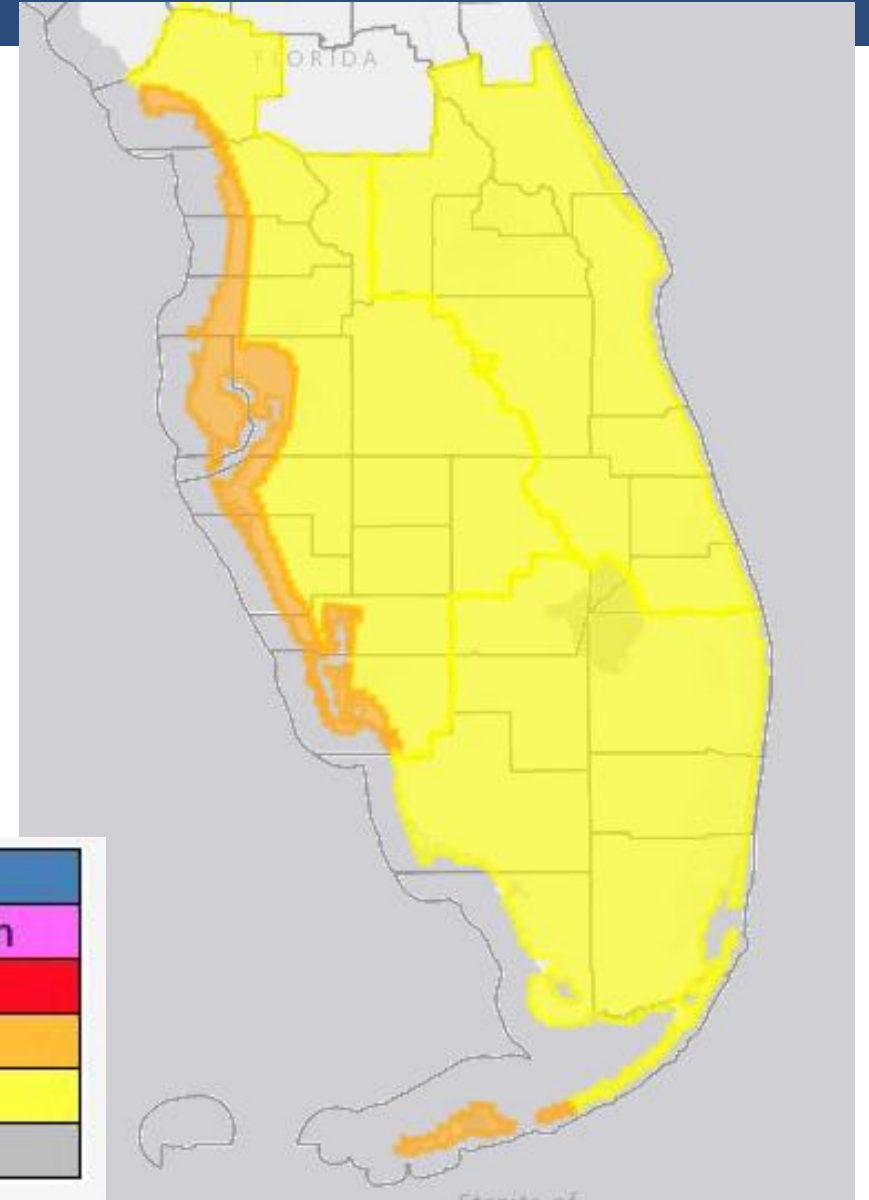
The greatest wind threat is along the immediate West Coast of Florida (west of I-75 and north of Naples) and across the Lower and Middle Florida Keys.

Still, tropical storm force winds remain possible across any part of Central and South Florida Monday-Tuesday.

[https://www.weather.gov/srh/tropical?
office=mfl](https://www.weather.gov/srh/tropical?office=mfl)

Click on "Threats and Impacts" Tab

Wind Threat
Potential for wind greater than 110 mph
Potential for wind 74 to 110 mph
Potential for wind 58 to 73 mph
Potential for wind 39 to 57 mph
Wind less than 39 mph



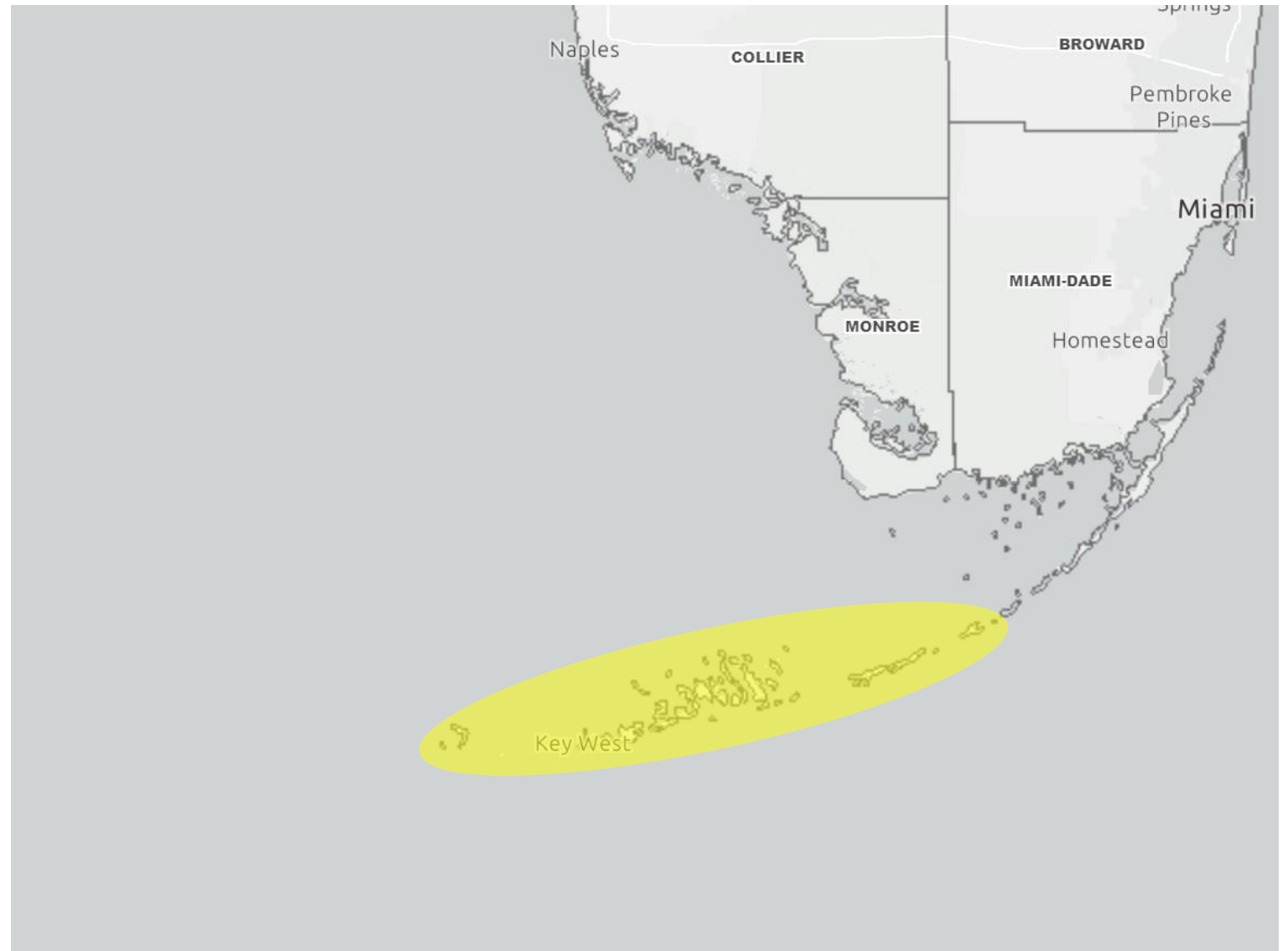


Wind Watches and Warnings

In Effect Until Further Notice

Tropical Storm Watches have been issued for the Lower and Middle Keys (Monroe County), from Dry Tortugas to Craig Key.

Additional Tropical Storm Watches may be issued today for parts of the West Coast.



Tropical Storm & Hurricanes

Watches Versus Warnings

WATCH

Tropical storm and/or hurricane conditions are **POSSIBLE** in Watch area

Issued up to 48 hours in advance of tropical storm force winds

WARNING

Tropical storm and/or hurricane conditions are **EXPECTED** in Warning area

Issued up to 36 hours in advance of onset of tropical storm force winds

Hurricane preparedness activities become difficult once winds reach tropical storm force. **Watches & Warnings are issued in advance of onset of tropical storm force winds, 39-73mph**



NWSMobile



weather.gov/mob

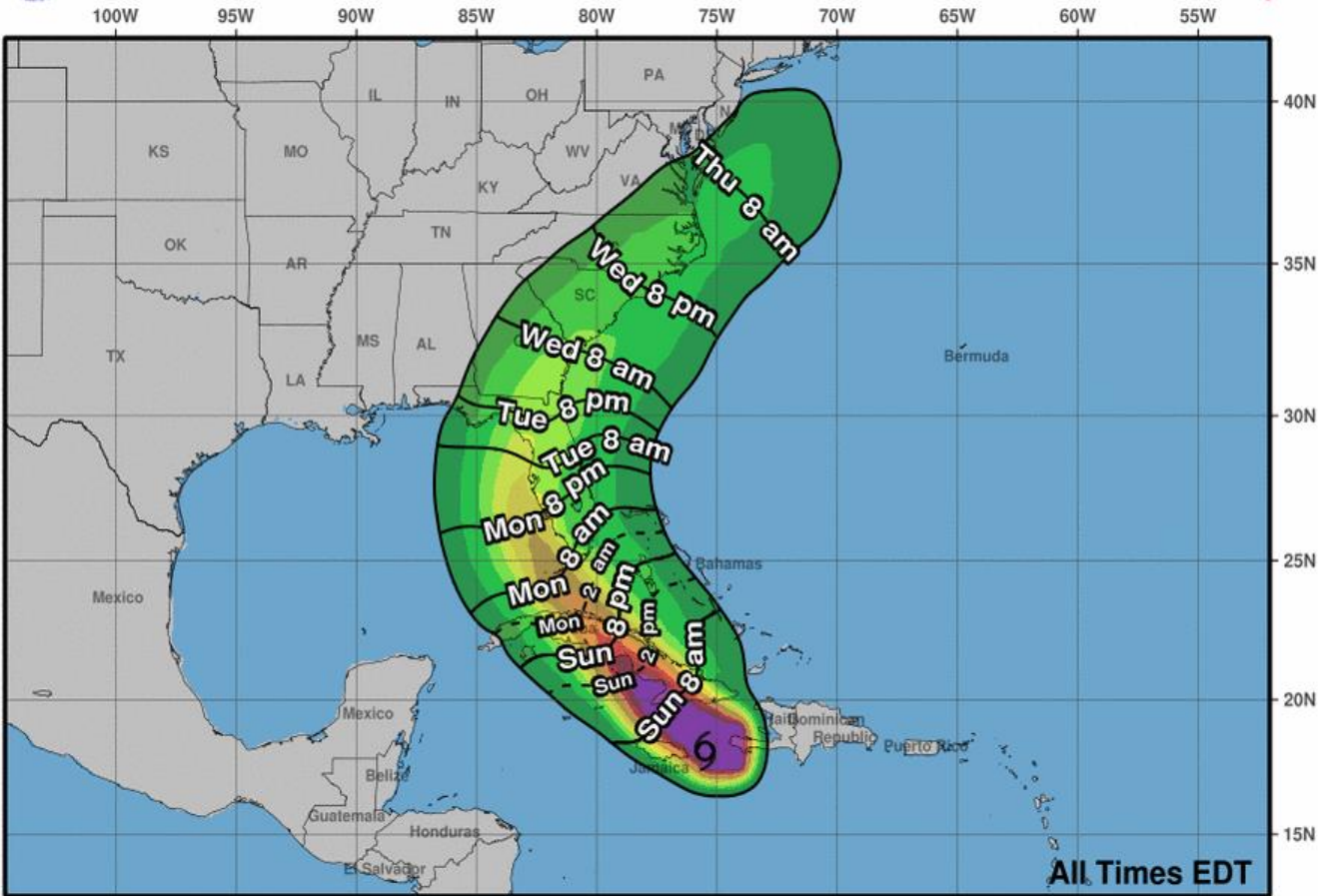


Time of Arrival & Wind Speed Probabilities

EARLIEST REASONABLE Time of Arrival of Tropical Storm Force Winds (>39 mph)



Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Tropical Storm Elsa
Sun. Jul. 4, 2021 5 am EDT
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 %

City	Chance for TS Winds	Changes Since Last Packet
Key West	54%	+/-0%
Marathon	49%	+4%
Naples	42%	+2%
Miami	13%	+1%
West Palm Beach	16%	+/-0%
Ft. Myers	25%	+4%
Tampa	35%	-2%
Orlando	19%	+2%
Apalachicola	13%	-7%
Tallahassee	14%	-6%
Jacksonville	21%	+1%

Tropical storm force winds could begin **as early as** early Monday morning south of Lake Okeechobee, then from Lake Okeechobee to Orlando on Monday, and Northeast Florida on Tuesday. On the current forecast track, the **most likely** timeframe for tropical storm force winds is Monday afternoon and Monday night south of Lake Okeechobee and Tuesday and Tuesday night north of Lake Okeechobee and Wednesday morning for the Jacksonville area. The odds of hurricane force winds are less than 5% in the Florida Keys and along the West Coast.



Key Messages

From the National Hurricane Center



Key Messages for Tropical Storm Elsa Advisory 16: 5:00 AM EDT Sun Jul 04, 2021

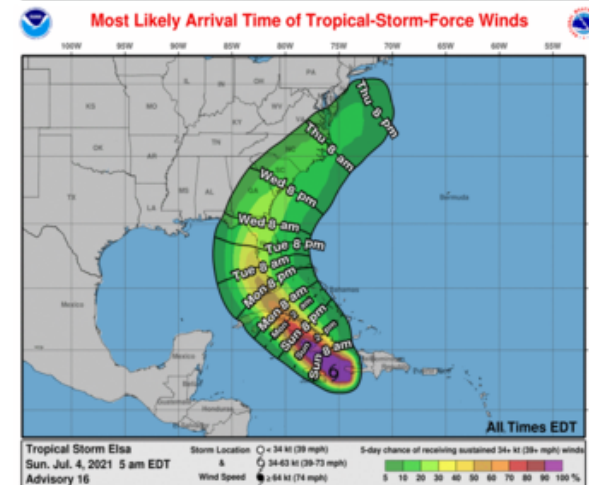
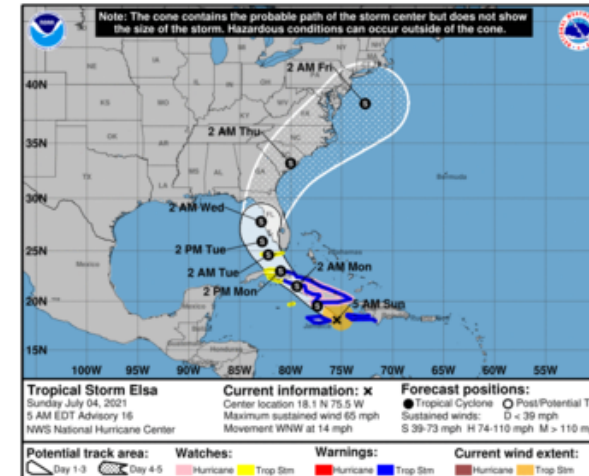


1. Widespread heavy rain will move across southern Haiti and Jamaica tonight into Sunday where isolated to scattered flash flooding and mudslides will be possible. Heavy rain will then impact the Cayman Islands and Cuba Sunday into Monday resulting in significant flooding and mudslides over Cuba. As Elsa approaches the Florida Keys and Florida Peninsula early next week, isolated flash flooding and minor river flooding will be possible.

2. Tropical storm conditions and dangerous storm surge are expected with hurricane conditions possible in portions of eastern Cuba later this morning. Tropical storm conditions are possible in central and western Cuba tonight and Monday.

3. There is an increasing risk of tropical storm conditions, storm surge, and rainfall impacts beginning late Monday in the Florida Keys, and a Tropical Storm Watch is in effect for portions of the Florida Keys.

4. There is a risk of tropical storm conditions, storm surge, and rainfall impacts along the Florida Peninsula Monday night through Wednesday and the coasts of Georgia and the Carolinas Wednesday and Thursday. However, uncertainty in the forecast remains larger than usual due to Elsa's potential interaction with Cuba.

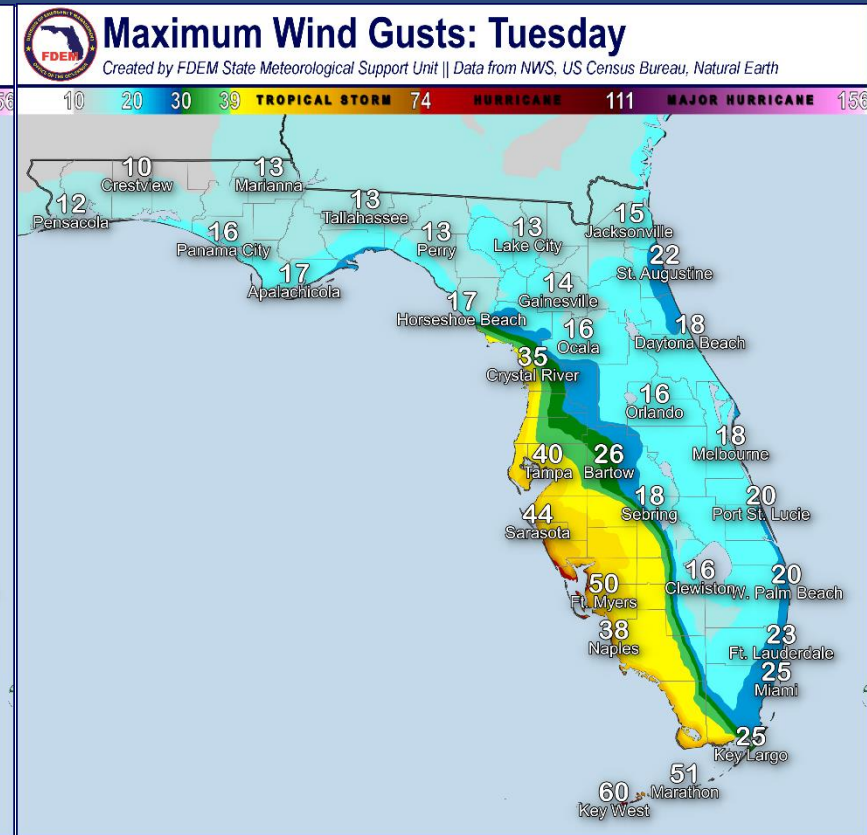
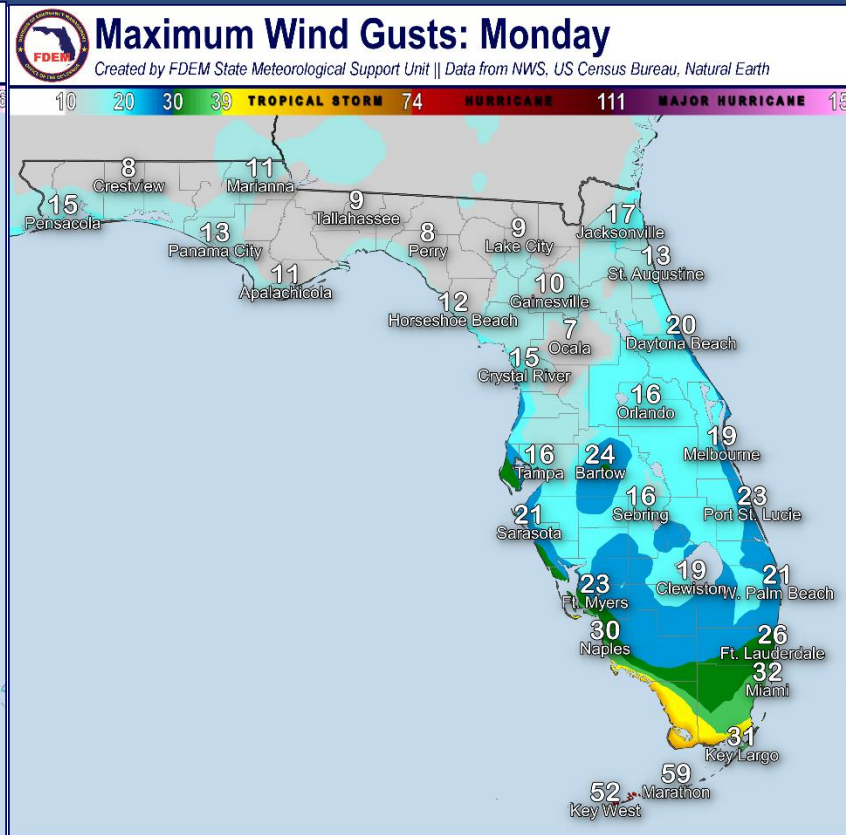
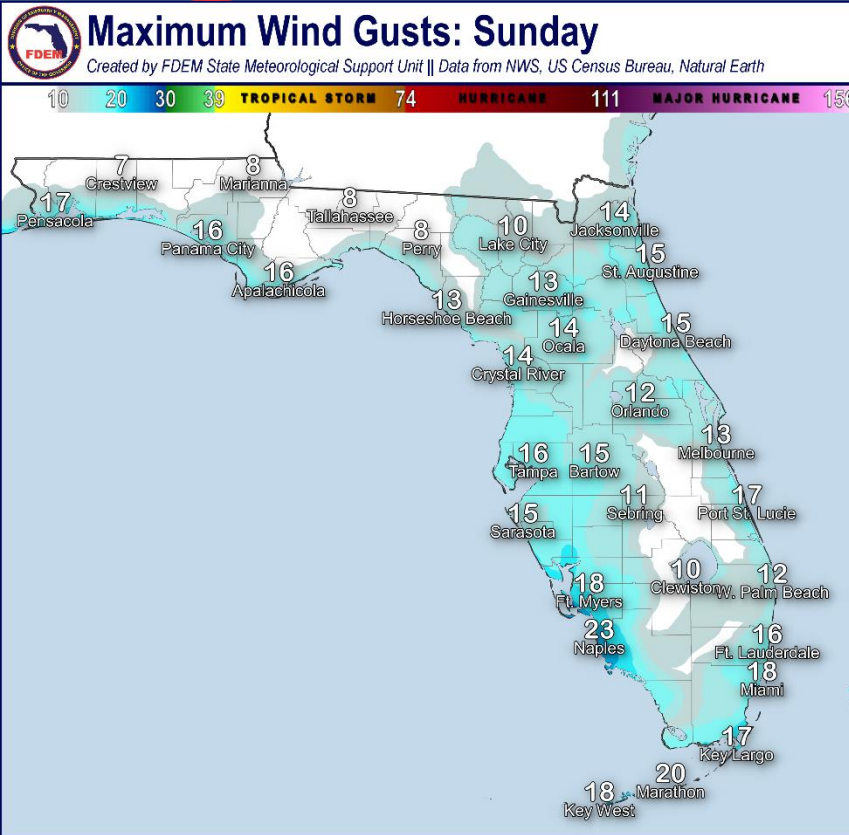


For more information go to hurricanes.gov



Max Wind Gusts Next 3 Days

Outside of Any Thunderstorms



Winds will increase on Monday in far southern Florida and the Keys and across the western Florida Peninsula through Tuesday as Elsa approaches and moves into the state.



Storm Surge Threat Overview

Tropical Storm Elsa

The greatest storm surge threat is expected along the West Coast of the Peninsula. Storm surge/inundation values greater than 3 feet above ground level are possible.

Storm surge/coastal flooding will be minimal (1-2 feet) across the Florida Keys and East Coast.

The storm surge threat is yet to be determined for the West Coast/Big Bend so please stay tuned for details.

<https://www.weather.gov/srh/tropical?office=mfl>

Click on “Threats and Impacts” Tab

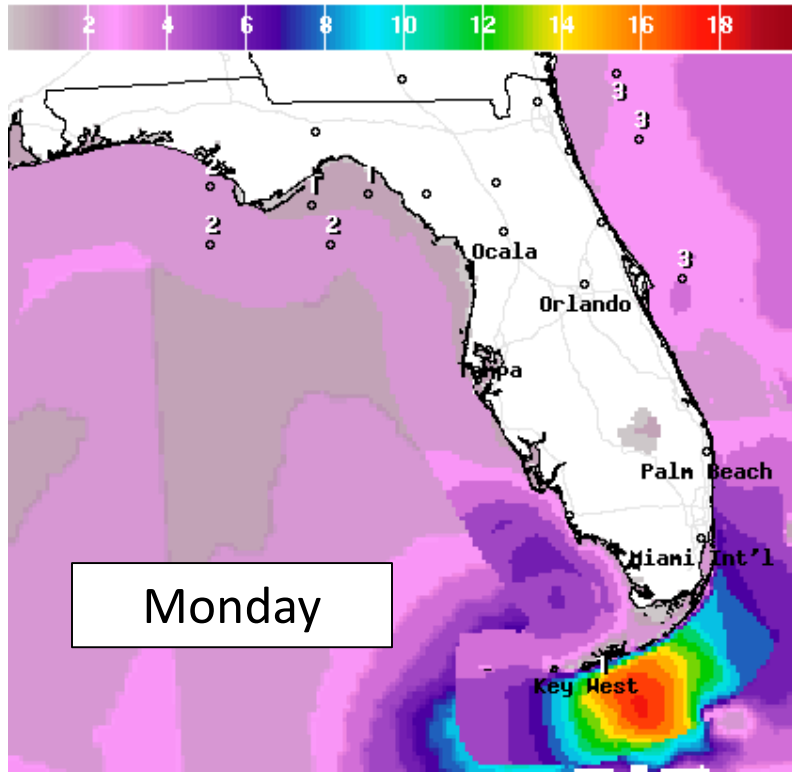
Storm Surge Threat
Potential for storm surge flooding greater than 9 ft above ground
Potential for storm surge flooding greater than 6 ft above ground
Potential for storm surge flooding greater than 3 ft above ground
Potential for storm surge flooding greater than 1 ft above ground
Little to no storm surge flooding





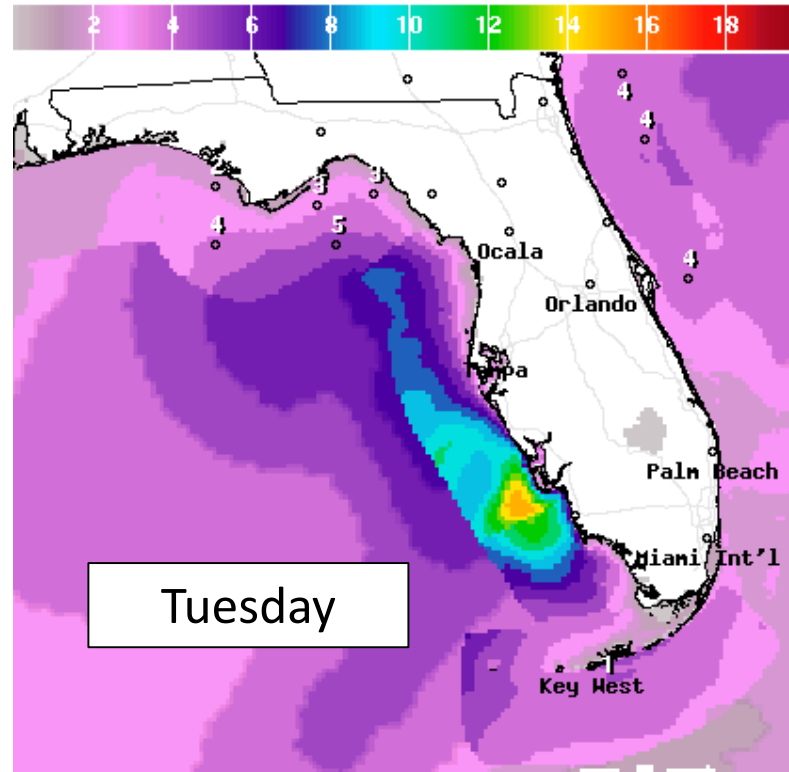
Forecast Wave Heights

Monday through Wednesday



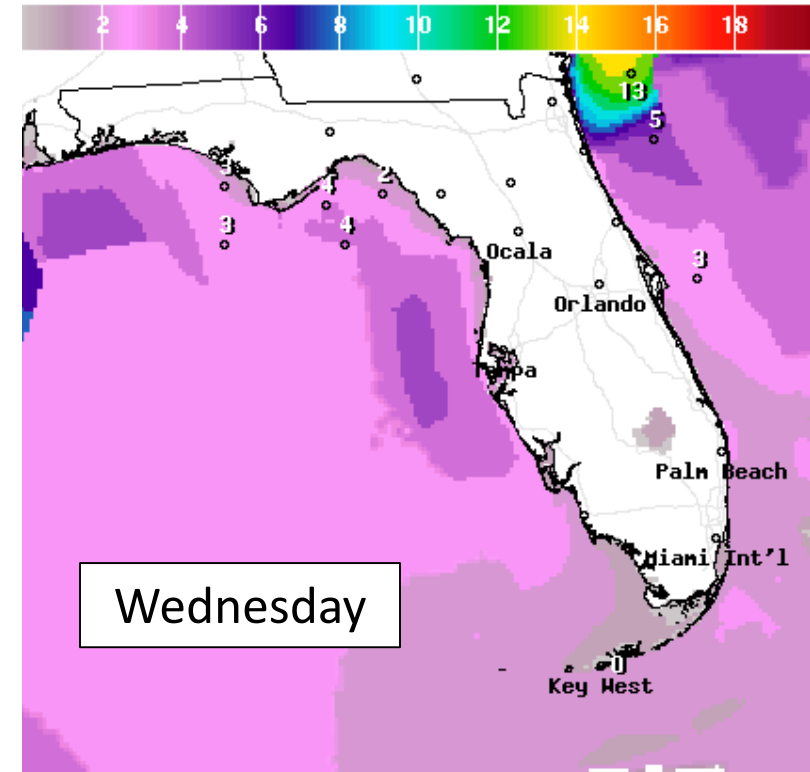
Monday

Wave Height(ft) Ending Mon Jul 05 2021 8PM EDT
(Tue Jul 06 2021 00Z)
National Digital Forecast Database
11z issuance Graphic created-Jul 04 7:22AM EDT



Tuesday

Wave Height(ft) Ending Tue Jul 06 2021 8PM EDT
(Wed Jul 07 2021 00Z)
National Digital Forecast Database
11z issuance Graphic created-Jul 04 7:23AM EDT



Wednesday

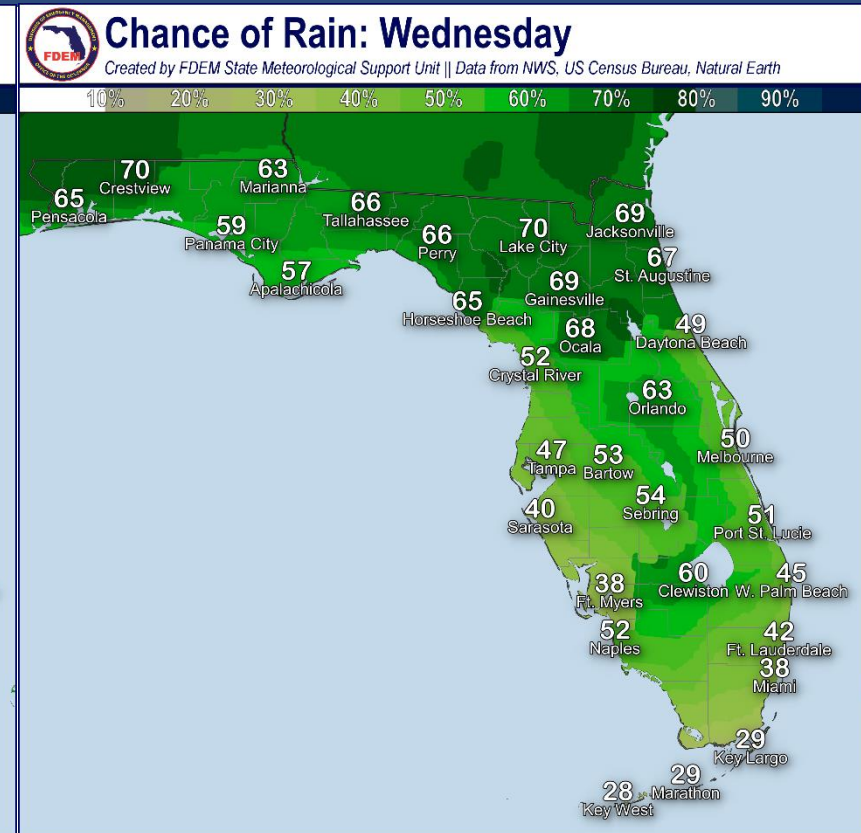
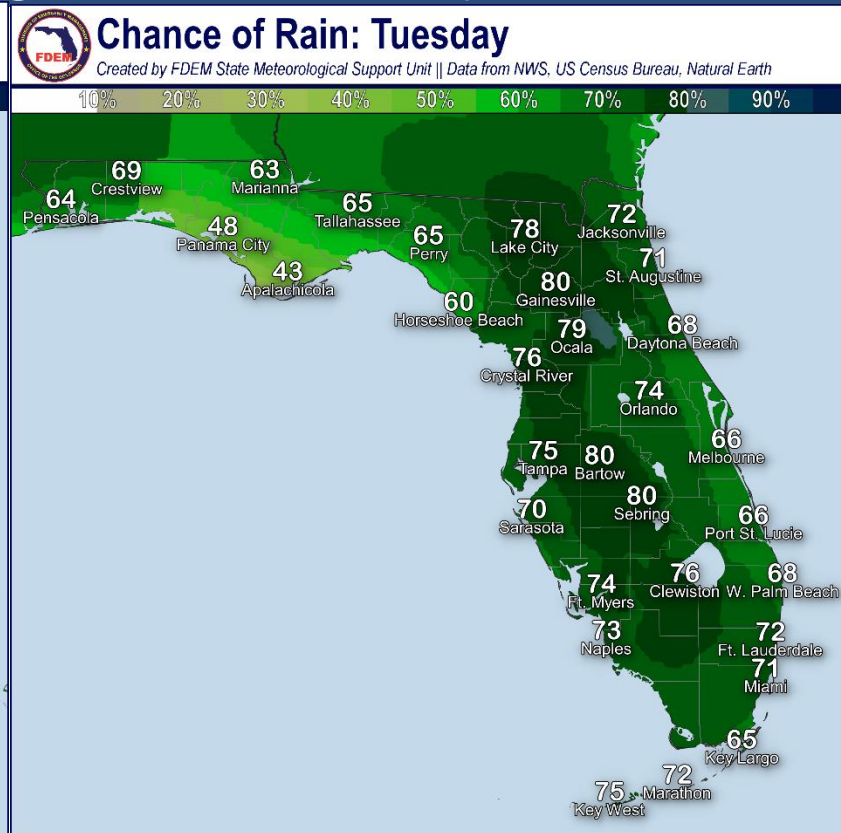
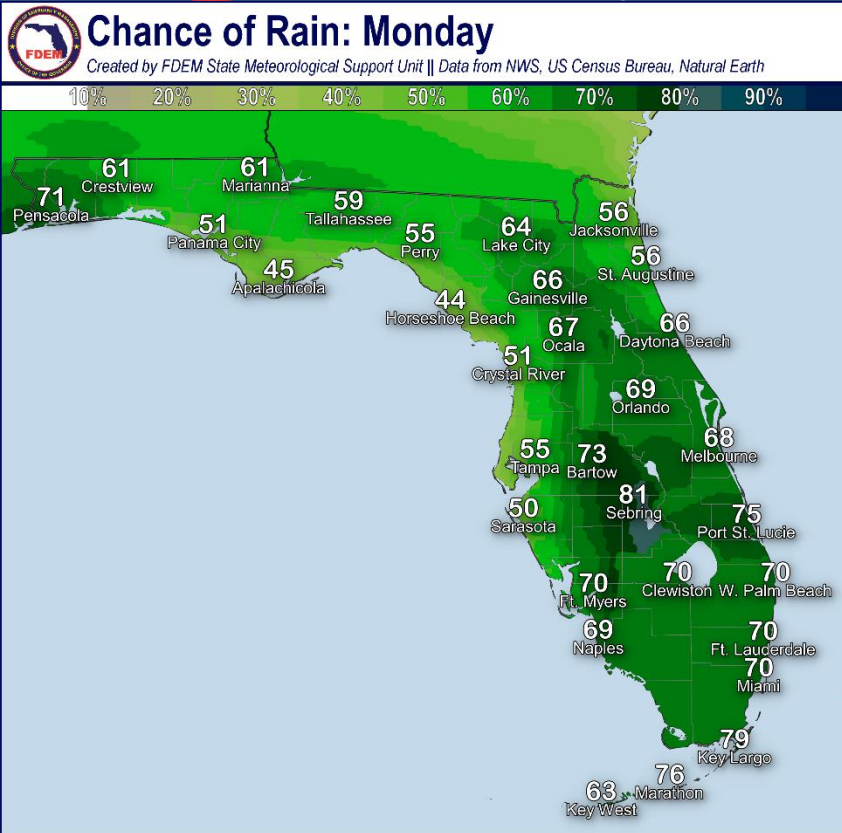
Wave Height(ft) Ending Wed Jul 07 2021 2PM EDT
(Wed Jul 07 2021 18Z)
National Digital Forecast Database
07z issuance Graphic created-Jul 04 3:30AM EDT

Surf will build next week along many Florida beaches as Elsa moves near and over the state. This will result in dangerous rip currents at nearly all Florida beaches. Minor to moderate beach erosion cannot be ruled out along parts of the West Coast.



Forecast Rain Chances

Monday through Wednesday – Tropical Storm Elsa



Rain chances will increase across the state on Monday, but particularly in South Florida. High rain chances will overspread much of the state as Elsa moves northward. Some decrease in rain chances is possible by Wednesday as Elsa departs the state, but will remain high across North Florida.



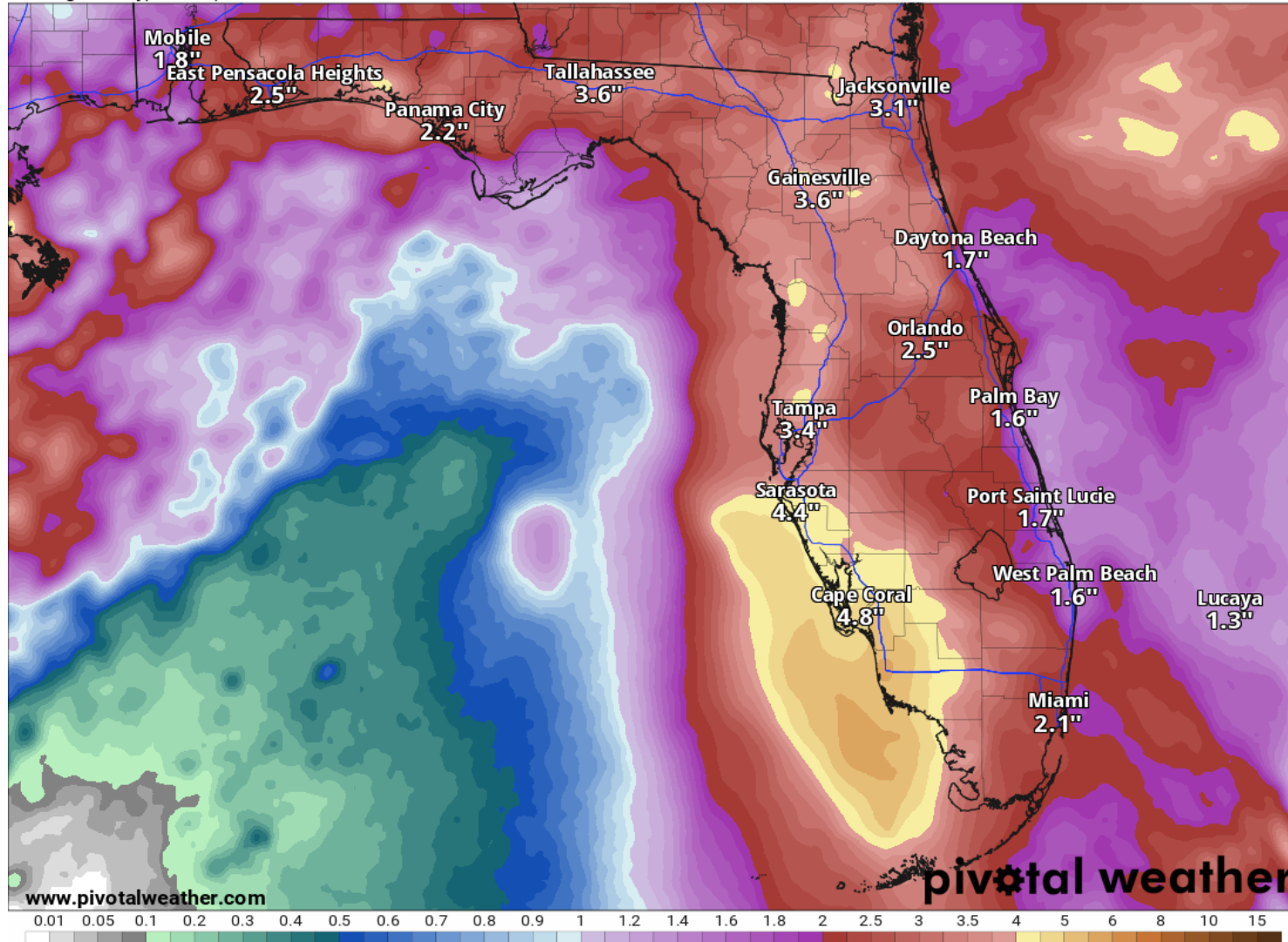
Rainfall Totals Next 7 Days

Ending 8 AM ET Sunday (7/11/21)

7-Day Precipitation (in)

Ending Sunday, Jul. 11, 2021 at 8 a.m. EDT

Init: Sun 2021-07-04 12z WPC



Through the next 7 days, rainfall totals of 3-5" are expected across much of the West Coast and Northeast Florida with localized totals of 6+" possible. Rainfall totals will be less along the East Coast- from 1-3". However, these rainfall totals are highly dependent on the eventual track of Elsa.

More info from NWS Miami:

<https://nwschat.weather.gov/p.php?pid=202107031930-KMFL-FGUS72-ESFMFL>

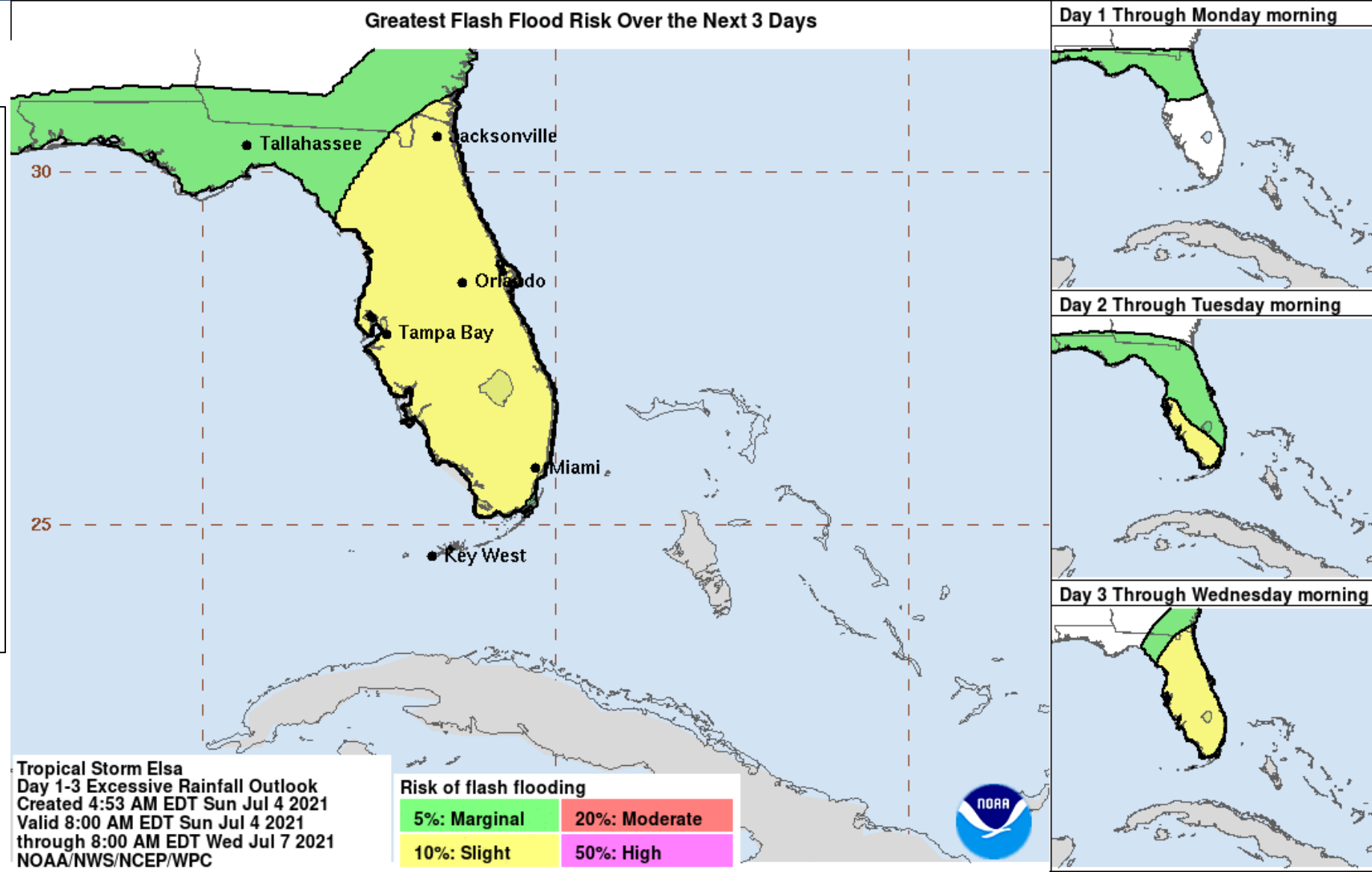


Flash Flood Outlook

3-Day Event Summary

Recent heavy rainfall across the Peninsula combined with the heavy rain potential from Elsa will result in an increased risk of flash flooding on Monday and Tuesday.

The flash flood risk in North Florida through Tuesday morning is associated with a stalled front.







Flash Flood Risk Categories

Understanding the Weather Prediction Center Risk Scale

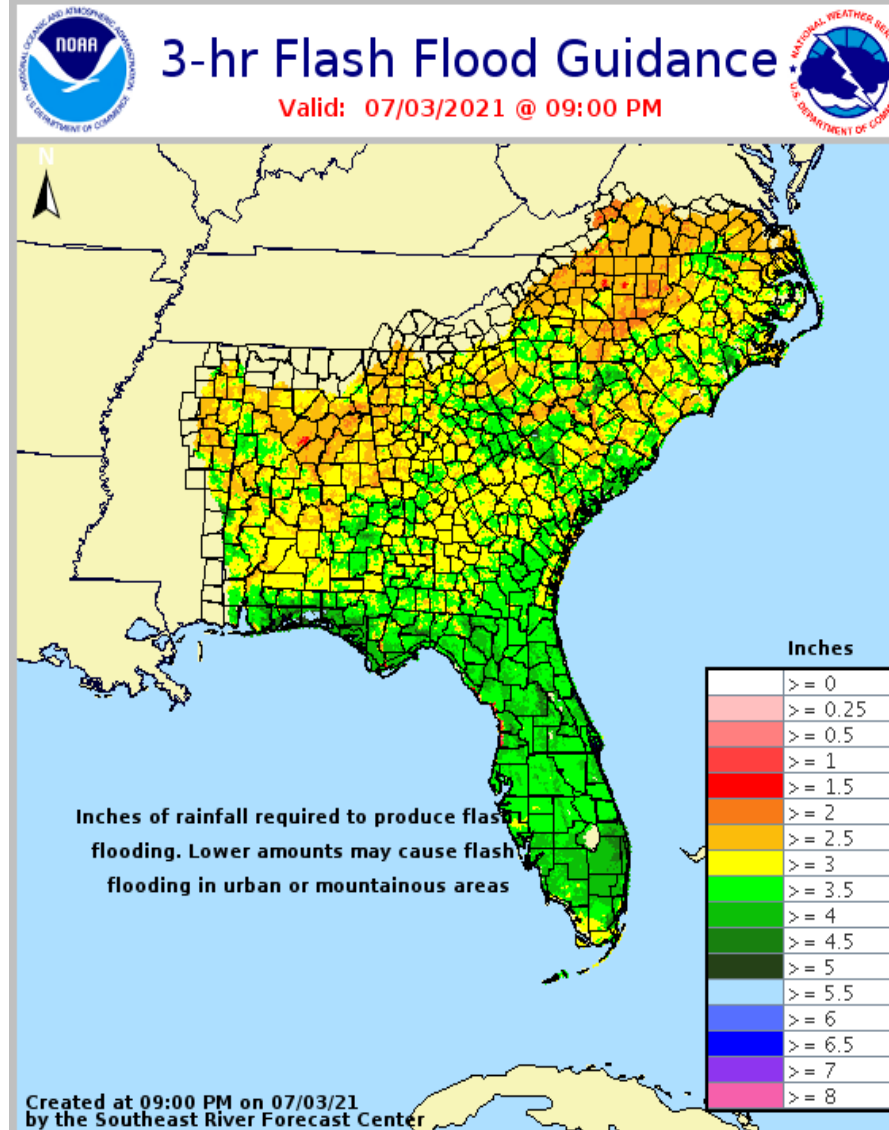
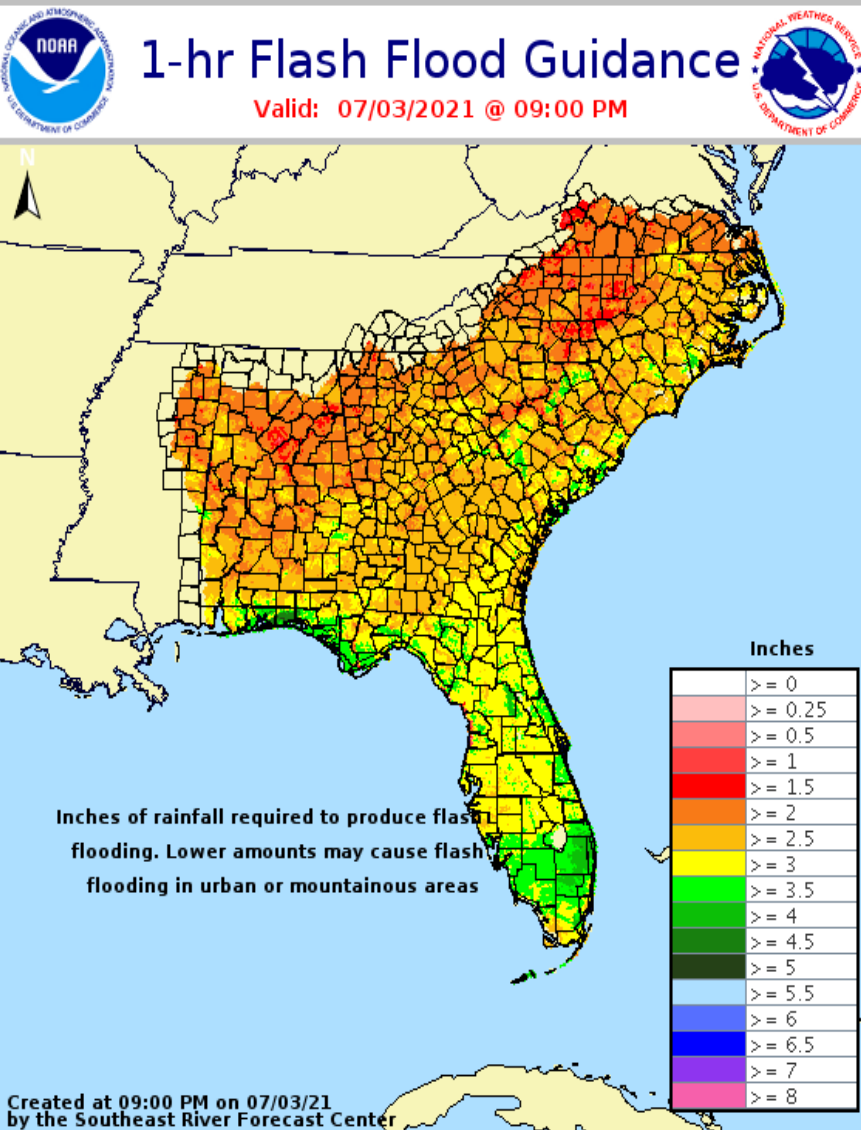
Understanding WPC Excessive Rainfall Risk Categories

No Area/Label		MARGINAL (MRGL)	SLIGHT (SLGT)	MODERATE (MDT)	HIGH (HIGH)	
Flash floods are generally not expected.		Isolated flash floods possible	Scattered flash floods possible	Numerous flash floods likely	Widespread flash floods expected	
Localized and primarily affecting places that can experience rapid runoff with heavy rainfall.		Mainly localized. Most vulnerable are urban areas, roads, small streams and washes. Isolated significant flash floods possible.	Numerous flash flooding events with significant events possible. Many streams may flood, potentially affecting larger rivers.	Severe, widespread flash flooding. Areas that don't normally experience flash flooding, could. Lives and property in greater danger.		
www.wpc.ncep.noaa.gov @NWSWPC						
Flash flooding near me?	Flash Flooding NO Flash Flooding					
 WEATHER PREDICTION CENTER		<div>Risk of rainfall exceeding flash flood guidance within 25 miles of a point to the right of a line</div> <div>HIGH: > 50%SLGT: 10%-20%</div> <div>MDT: 20%-50%MRGL: 5%-10%</div>				



Flash Flood Guidance

How Much Rain is Needed to Create Flash Flooding?

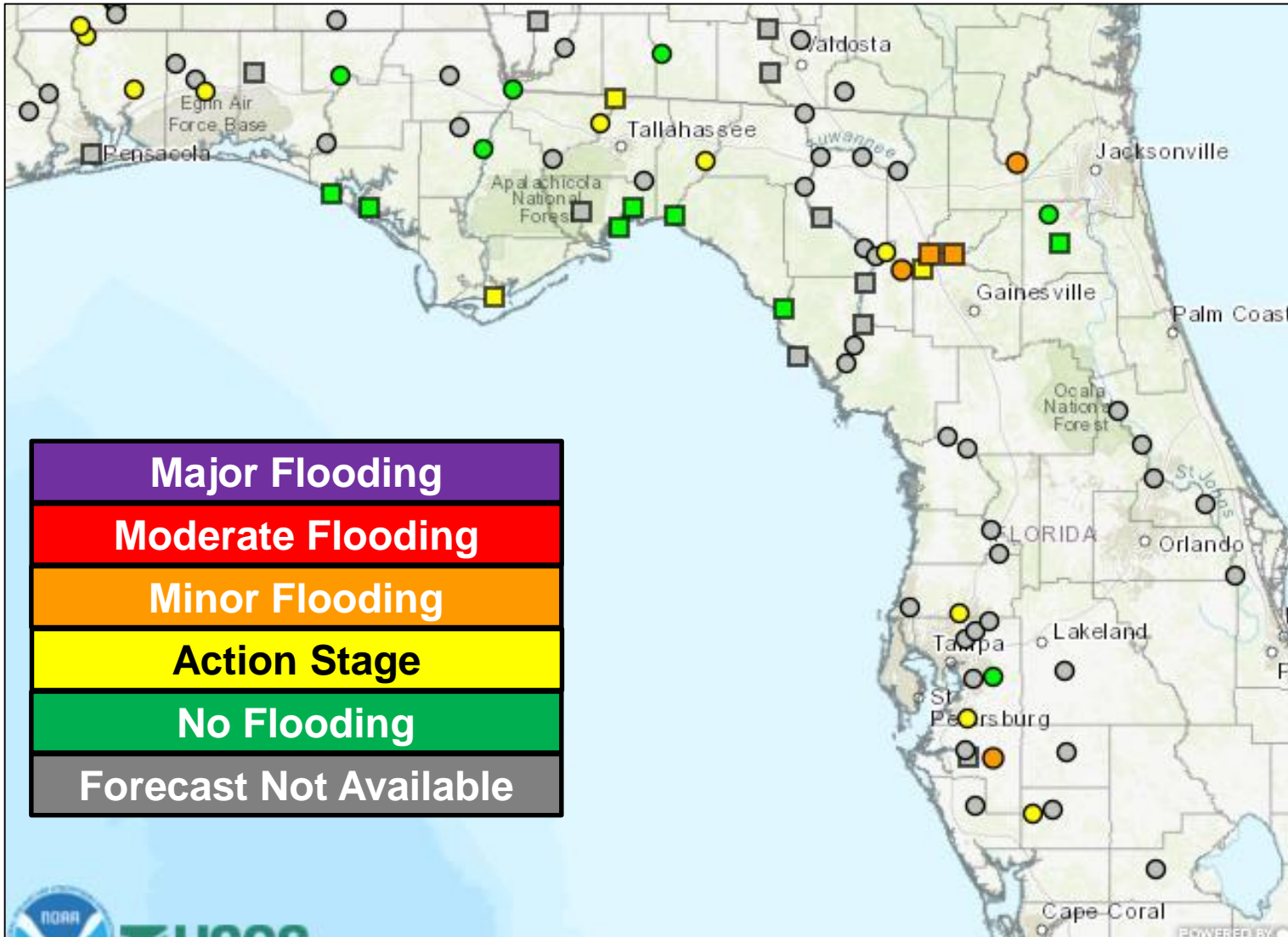


3-4" of rain in 3 hours will be enough to cause flash flooding across most of the state.



Forecast River Flooding

Forecast River Levels Based on Rainfall Next 48 Hours



Based on current forecasts, the Manatee River at Myakka Head and the St. Marys River near Macclenny may reach minor flood stage. Additionally, the Santa Fe River will likely remain in minor flood stage.

Several other rivers across the state could reach action stage.

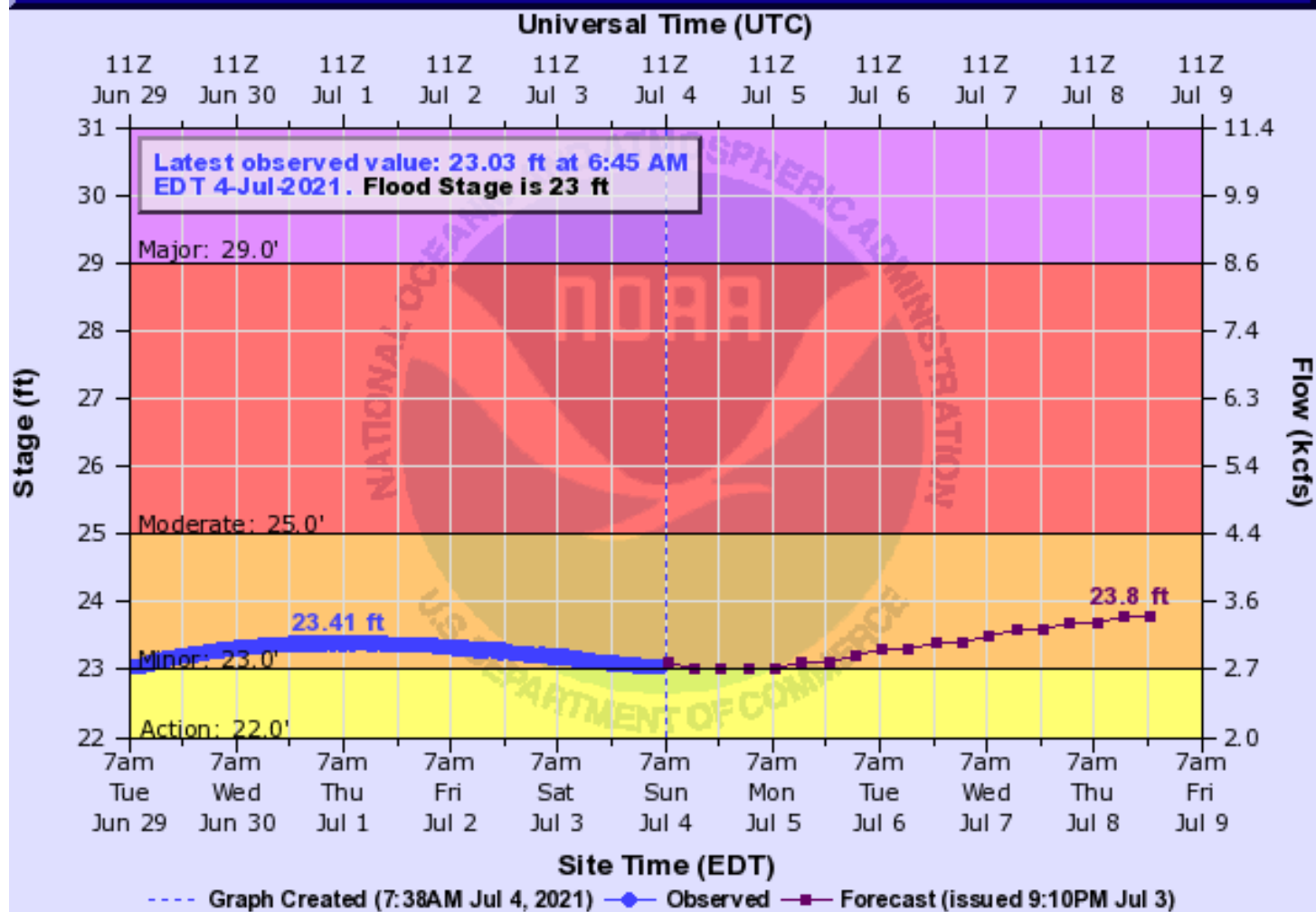
Note that the river levels will depend greatly on where the heaviest rainfall sets up. Smaller, flashier creeks not shown here could see quick rises in heavy rain bands.



Santa Fe River near Fort White

[Hydrograph Link](#)

SANTA FE RIVER NEAR FORT WHITE (IN NAVD88)



FWHF1(plotting HGIRG) "Gage 0" Datum: 0'

Observations courtesy of US Geological Survey

- 29 Major damage and disruption to the community is expected. Roads will be cut off and many homes will be surrounded by water. Boat wash damage to homes will be severe.
- 25 Damage to homes at low elevation as well as basement areas underneath homes on stilts is likely.
- 23.25 Florida Fish and Wildlife Commission begins enforcement of a no wake zone on the Santa Fe River from the centerline of the US 27 Bridge downstream to one-half mile upstream from the State Road 47 Bridge.
- 23 Minor damage to dwellings is possible due to boat wash.

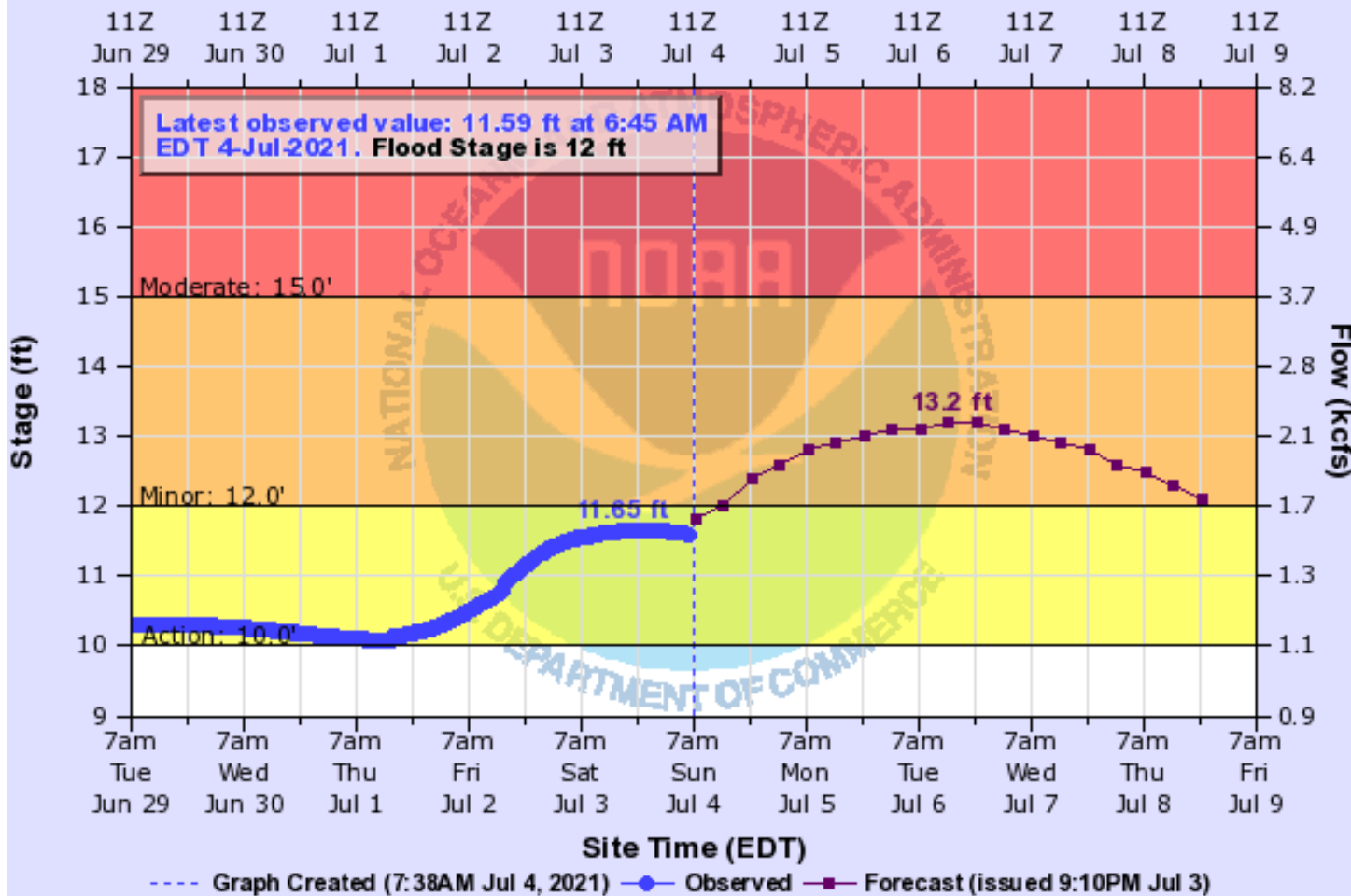


St. Marys River near Macclenny

[Hydrograph Link](#)

ST. MARYS RIVER NEAR MACCLENNY

Universal Time (UTC)



- 16 Access roads on both sides of the river in Florida and Georgia are flooded, including the entire low lying stretch of St. Mary's River Bluff Road on the Georgia side which cuts off 40 to 50 homes. On the Florida side, the lower end of St. Mary's Cove Road past the public boat ramp becomes flooded and cuts off access to 20 to 30 homes. The Stokes Road Bridge over the river is generally closed due to high water.
- 15 Flooding begins to impact the lower end of Steel Bridge Road on the Florida side and cuts off access to the river gage as well as access to several homes.
- 14 Flooding of bottomlands along the river and some lower access roads including the lower half of St. Mary's River Bluff Road which cuts off 15 to 20 homes on the Georgia side.
- 12 Minor flooding of low lying areas and timber lands including some properties along St. Mary's River Bluff Road and the Cypress Landing Resort on the Georgia side.



Tornado Threat Overview

Tropical Storm Elsa

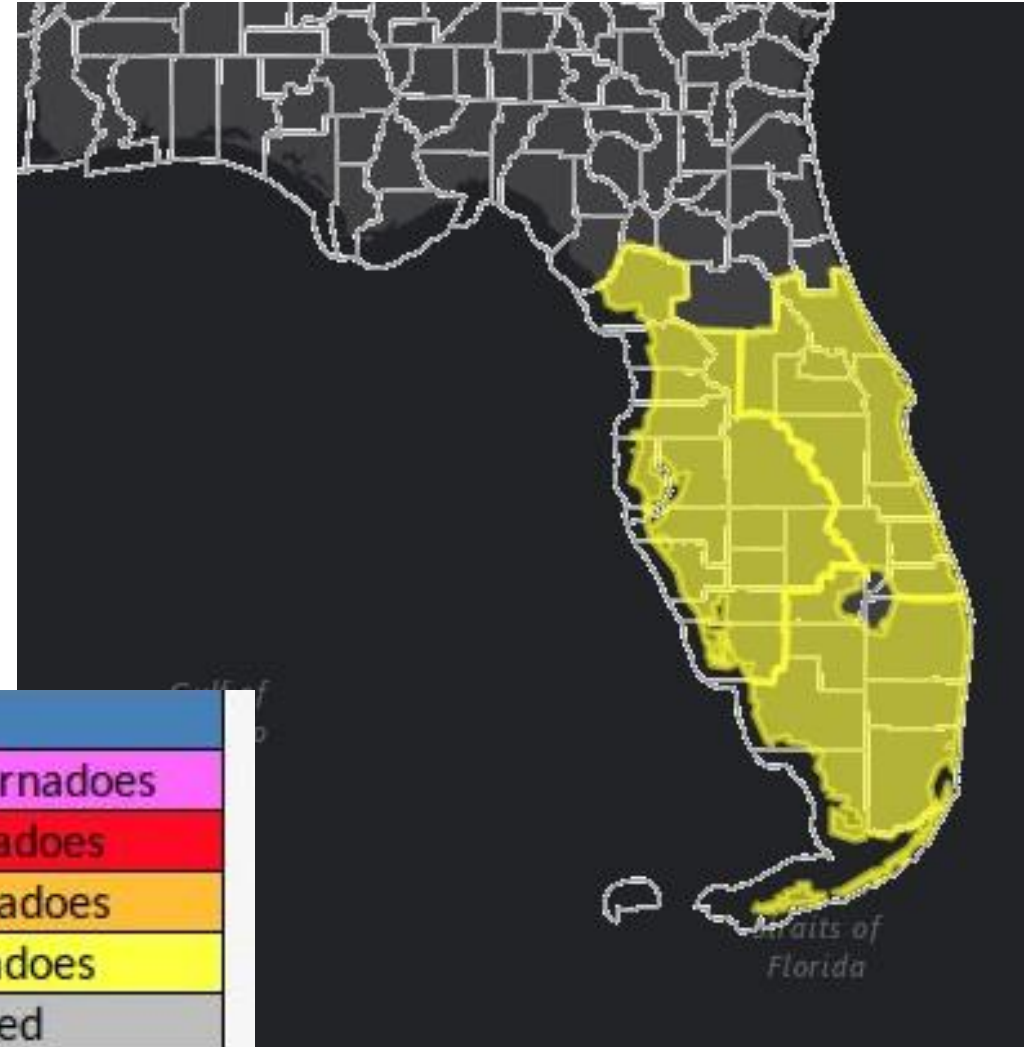
A few tornadoes will be possible in the outer bands of Elsa starting late in the day on Sunday across South Florida, with the threat spreading north on Monday and Tuesday.

A tornado threat may continue into North Florida Tuesday and Wednesday depending on the exact track and intensity.

[https://www.weather.gov/srh/tropical?
office=mfl](https://www.weather.gov/srh/tropical?office=mfl)

Click on “Threats and Impacts” Tab

Tornado Threat
Potential for outbreak of tornadoes
Potential for many tornadoes
Potential for several tornadoes
Potential for a few tornadoes
Tornadoes not expected





Overall Summary

Tropical Storm Elsa

- The center of Elsa is located about 45 miles east-northeast of Kingston, Jamaica, or about 560 miles southeast of Key West, FL.
- Elsa is a tropical storm with maximum sustained winds near 65 mph. Elsa could strengthen slightly before reaching Cuba tonight, but should weaken as it moves over Cuba on Monday.
- Elsa is still racing toward the west-northwest at 13 mph. A turn toward the northwest is expected today or tonight. Elsa will then turn northward and northeastward on Tuesday near or over the Florida Keys and Peninsula.
- There is the possibility of re-strengthening once Elsa moves offshore Cuba and tracks across the eastern Gulf of Mexico.

Florida Outlook:

- The entire Florida Keys, Florida Peninsula, Big Bend, Northeast Florida, and eastern Florida Panhandle are included in the day 5 forecast error cone, but no impacts to Florida are expected through at least this afternoon.
- This system should continue to be closely monitored for impacts to Florida starting late Sunday or Monday, but people are urged to not focus on the exact forecast points as impacts will extend well outside of the forecast cone.
- **Tropical Storm Watches** have been issued for the Lower and Middle Florida Keys- from Dry Tortugas to Craig Key.
- Tropical storm force winds from 40-70 mph are possible starting in about 36 hours in the Keys and South Florida. These will spread northward through early next week.
- Storm surge values of less than 3' are expected across the Keys and Southeast Florida, but may be higher than 3' along the West Coast of Florida.
- Additional tropical storm watches are likely to be issued further north along the West Coast of Florida today.
- A widespread 2-4" of rain is possible across the Big Bend, Peninsula, and Keys over the next 7 days with localized totals of 4-6". This could result in some urban or flash flooding early next week due to wet/saturated soils as well as some minor river flooding. Flood Watches may be needed.
- Dangerous rip currents are expected next week along many Florida beaches. Minor to moderate beach erosion is also possible along West Coast beaches.
- There is a threat of isolated tornadoes beginning Monday in South Florida, spreading up the Peninsula through Tuesday. However, details remain uncertain.

The next briefing packet will be issued around midday today. For the latest information on the tropics, please visit the National Hurricane Center website at

www.hurricanes.gov.



TROPICAL UPDATE



Created by:

Cameron Young, Assistant State Meteorologist

Cameron.Young@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency Management

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