



TROPICAL UPDATE



8:30 AM EDT

Friday, July 2, 2021

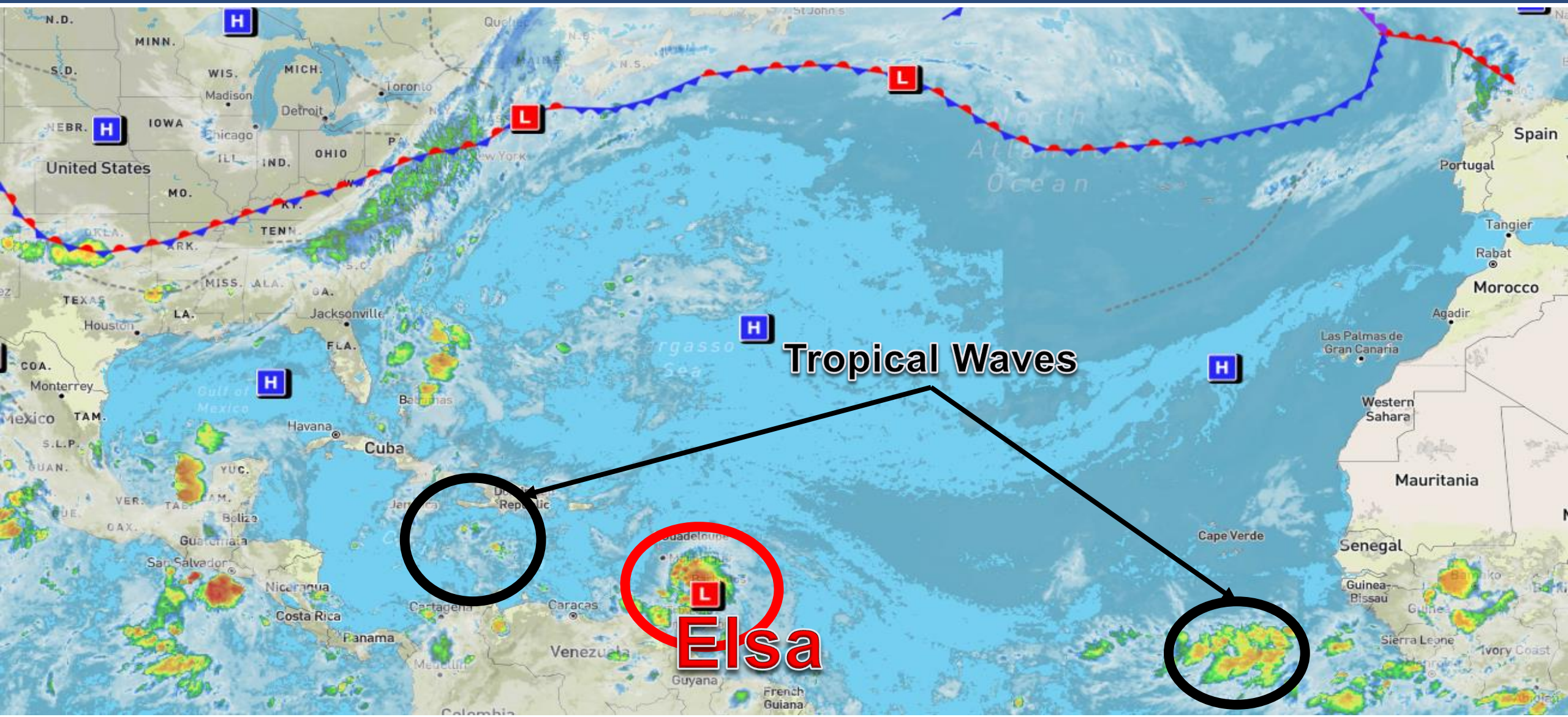
Hurricane Elsa

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.



Atlantic Basin Satellite Image

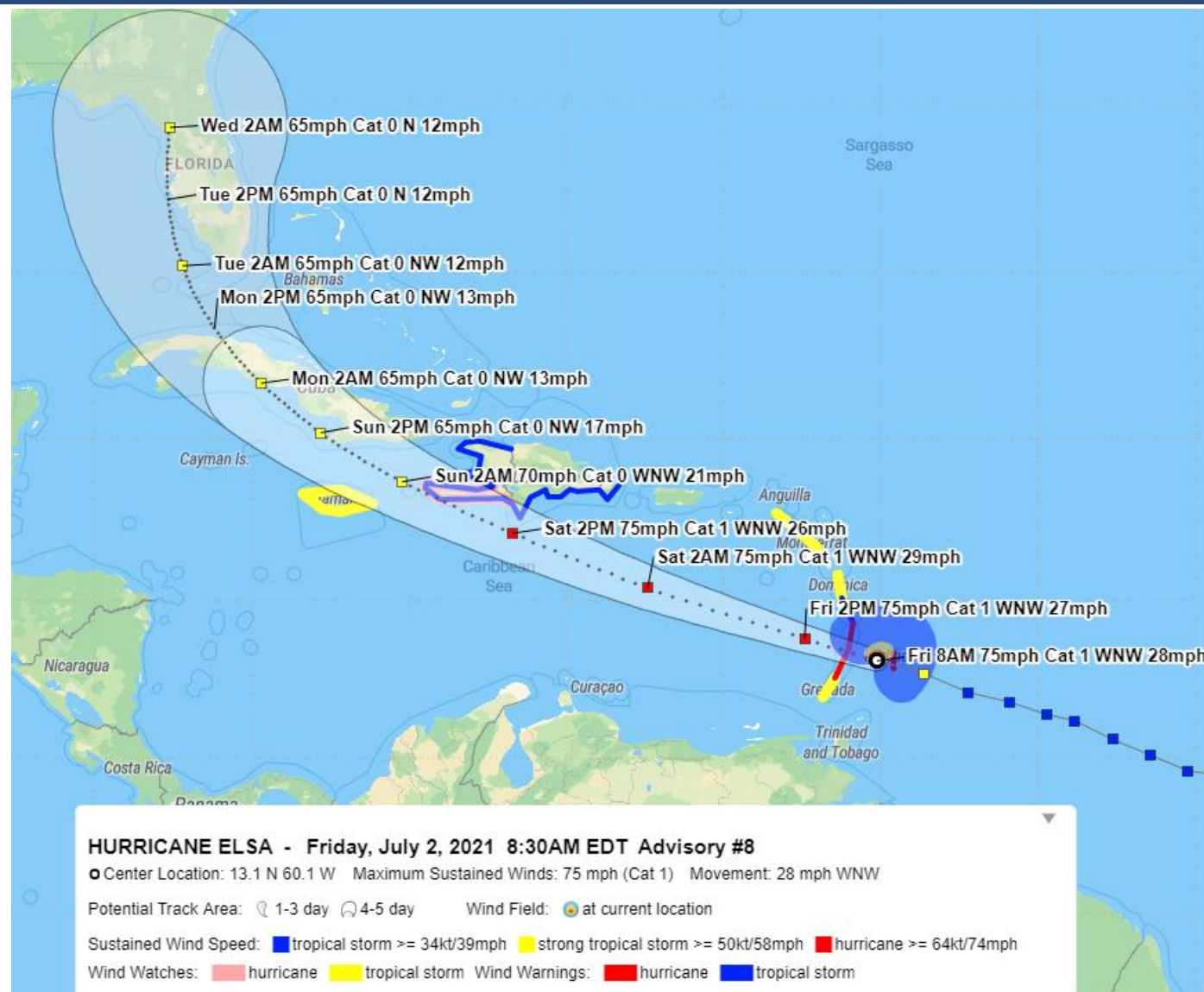
Chance of development: — None — Low — Medium — High





Official Forecast Track – Hurricane Elsa

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



- At 7:45am EDT Friday, Elsa was upgraded to a Category 1 hurricane with maximum sustained winds 75 mph. Little change in strength is forecast, though some slight weakening is possible on Sunday due to land interaction.
- The center of Elsa is located about 40 miles west of Barbados or about 1,575 miles southeast of Miami.
- Elsa is moving quickly to the west-northwest at 28 mph, and this general motion is expected over the next 2-3 days. A turn toward the northwest and north is expected by Sunday or Monday.
- There remains **SIGNIFICANT uncertainty in the track and intensity forecast**. This system should continue to be closely monitored for impacts to Florida, but interests are urged to **not focus on the exact forecast points**.



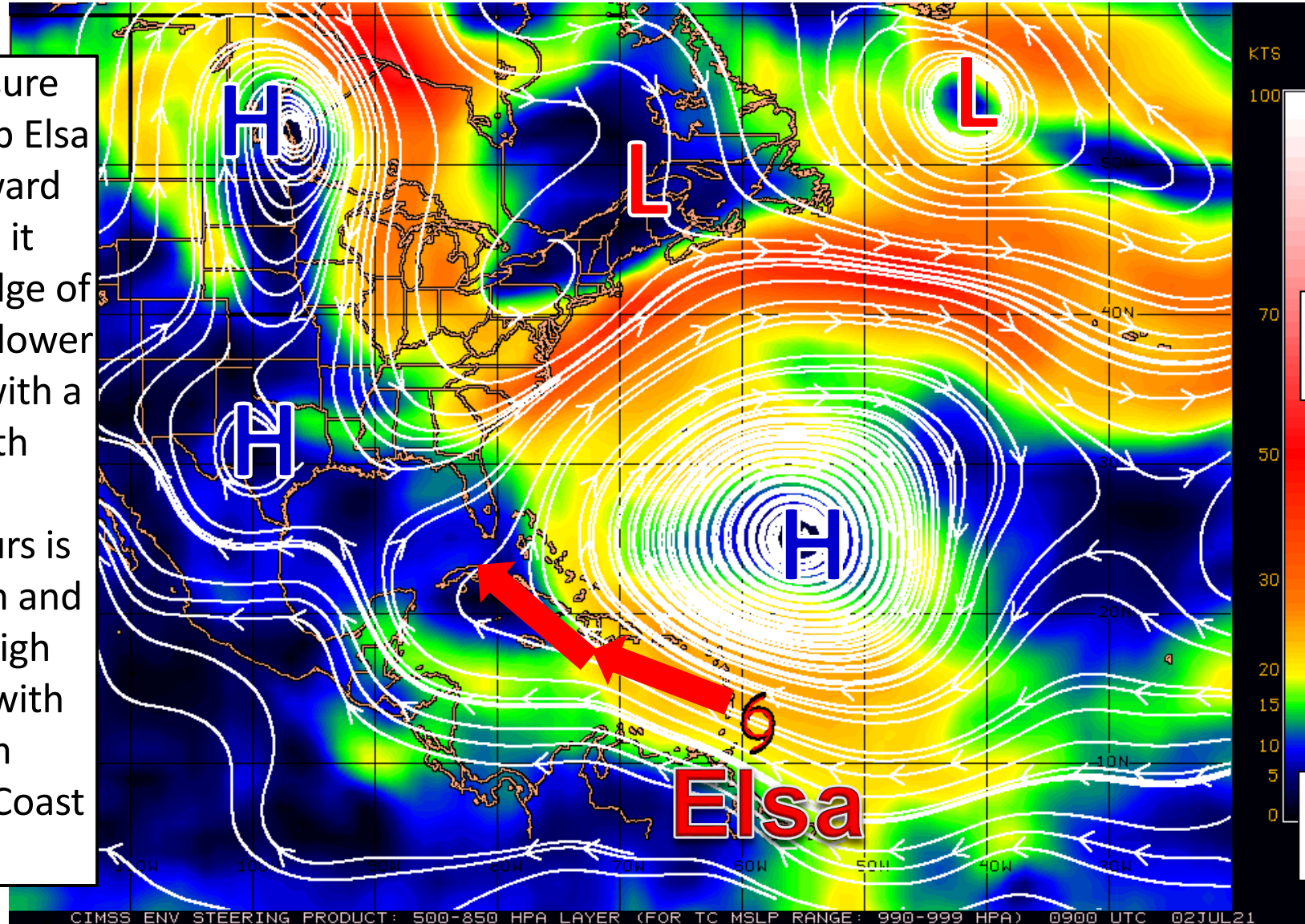
Steering Currents

What is Moving the System?

Color denotes the movement speed through the atmosphere and thin white lines denote direction. Tightly clustered white lines represent faster movement as well.

A large area of high pressure across the Atlantic will keep Elsa moving west-northwestward over the next 2 days. As it approaches the western edge of the high pressure ridge, a slower motion is forecast, along with a more northwest to north movement.

When the turn north occurs is dependent on the strength and location of the Atlantic high pressure area combined with the next frontal system approaching the U.S. East Coast later next week.



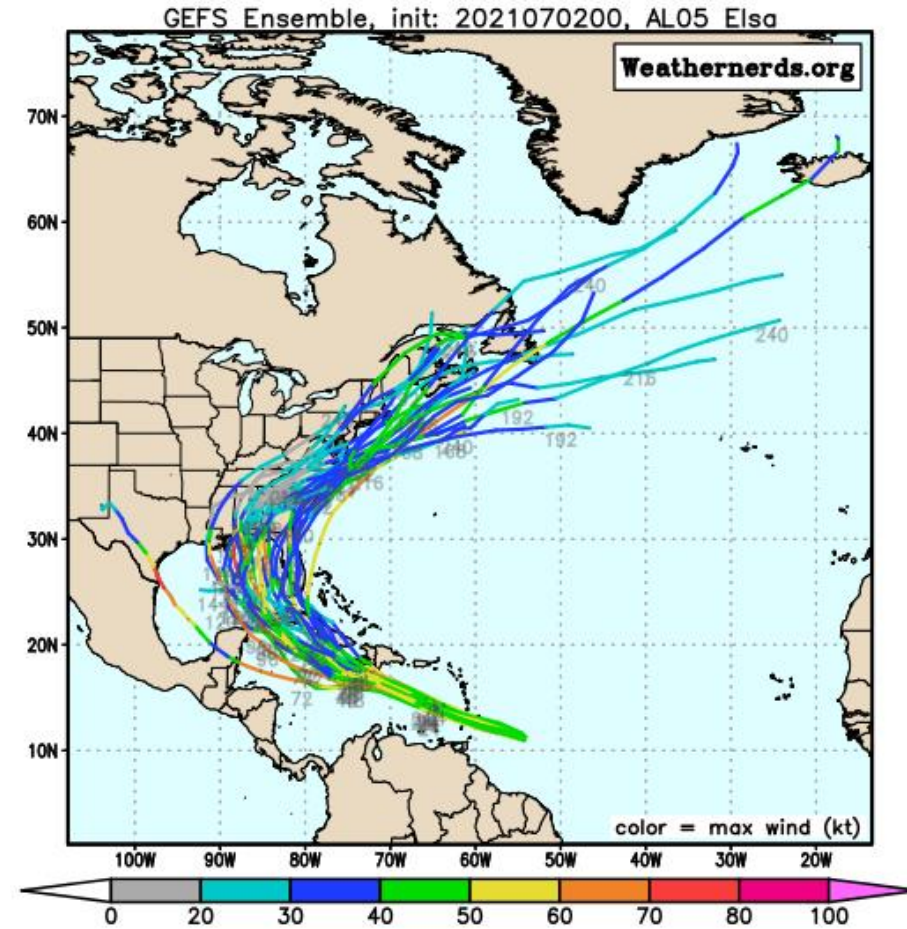
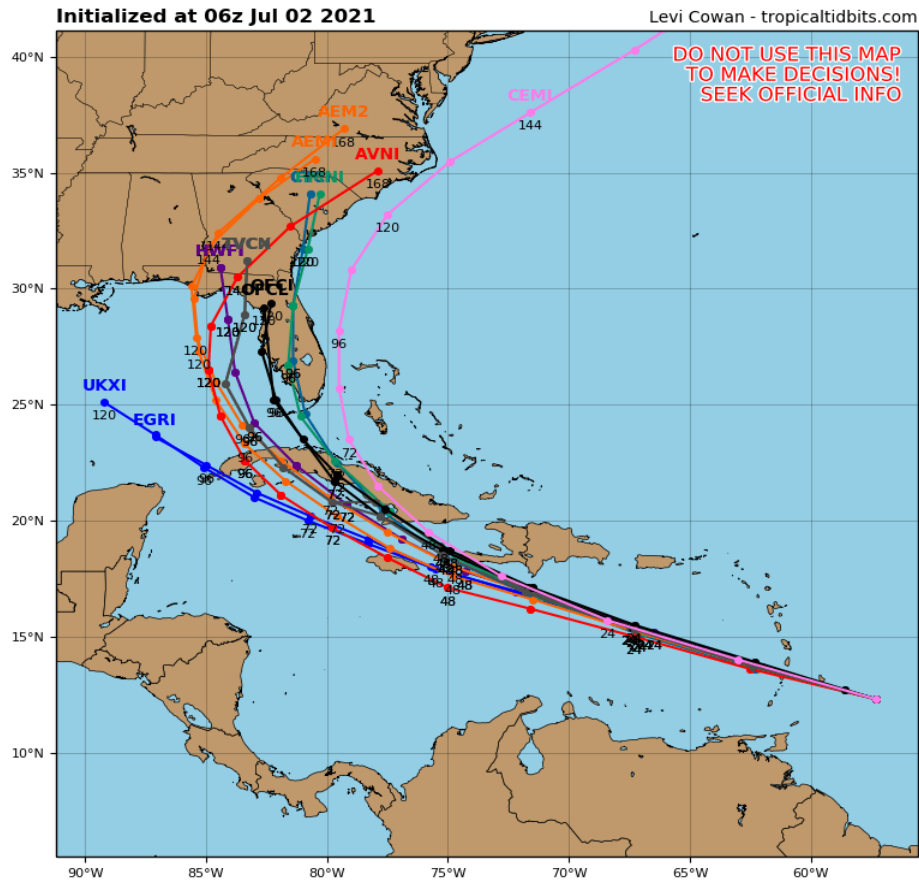
Fast Steering Flow

Slow Steering Flow



Model Forecast Tracks Next 5 Days

Ensemble and Dynamical Models – Hurricane Elsa



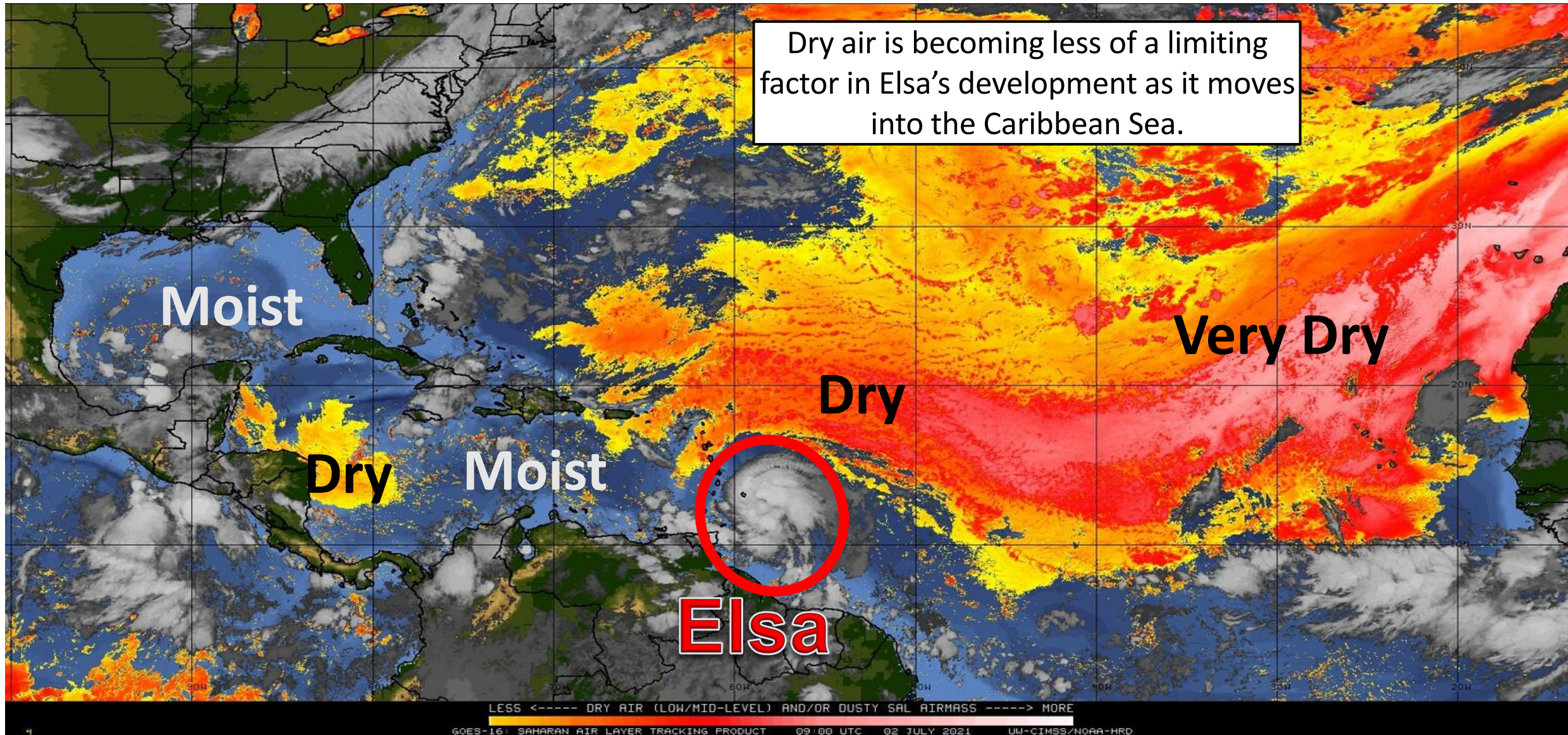
There is higher than normal uncertainty in the track forecast beyond 3 days. Models split considerably by the time Elsa makes it to central or western Cuba. Storm intensity would be guided by how much land interaction occurs. A more southern track in the Caribbean and western track in the Gulf of Mexico would favor a stronger system.



Dry Air & Saharan Dust

Is the environment favorable for the system?

Color denotes concentration of Saharan Dust or dry, stable air.



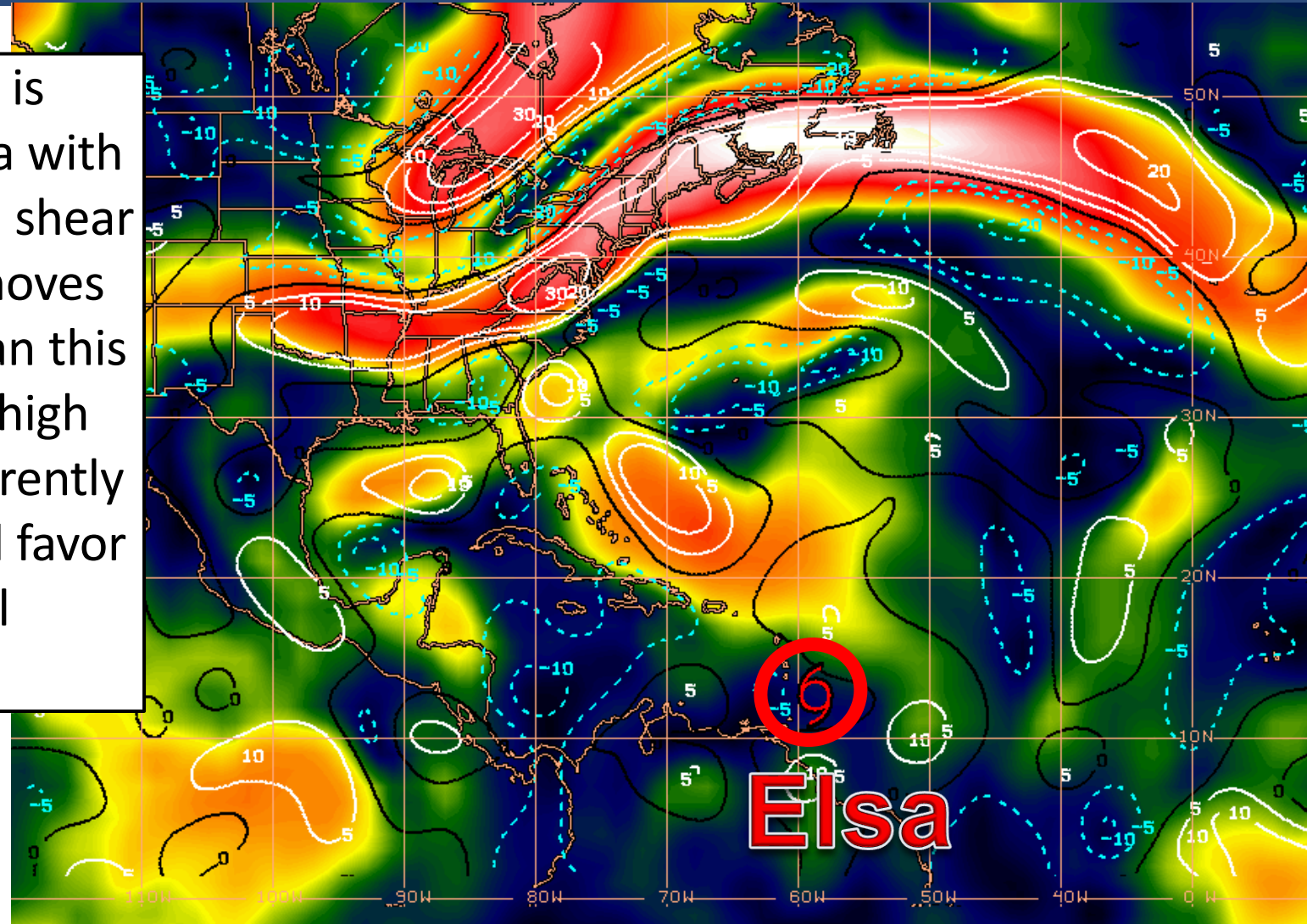


Wind Shear

Is the environment favorable for the system?

Color denotes the amount of wind shear and the lines denote how it have changed over the last 24 hours (dotted lines show decreasing shear and solid lines show increasing).

The environment is favorable around Elsa with low wind shear. Wind shear may increase as it moves through the Caribbean this weekend, but very high wind shear is not currently forecast, which could favor some additional strengthening.



Current
Shear
KTS

HIGH Shear
(Unfavorable)

HIGH Shear
(Unfavorable)

MODERATE
Shear
(Neutral)

LOW Shear
(Favorable)

Shear Tendency (KTS) Over Past 24 Hours: Increasing — Decreasing ----



Sea Surface Temperatures & Anomalies

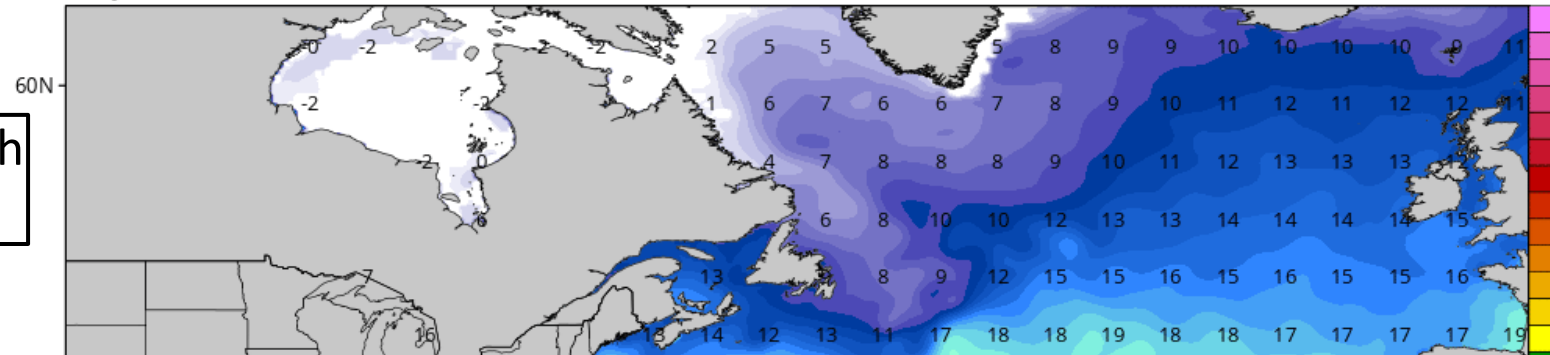
Is the ocean favorable for the system?

Water temperatures are warm enough to support a hurricane.

CDAS Sea Surface Temperature (°C)

Analysis Time: 00z Jul 02 2021

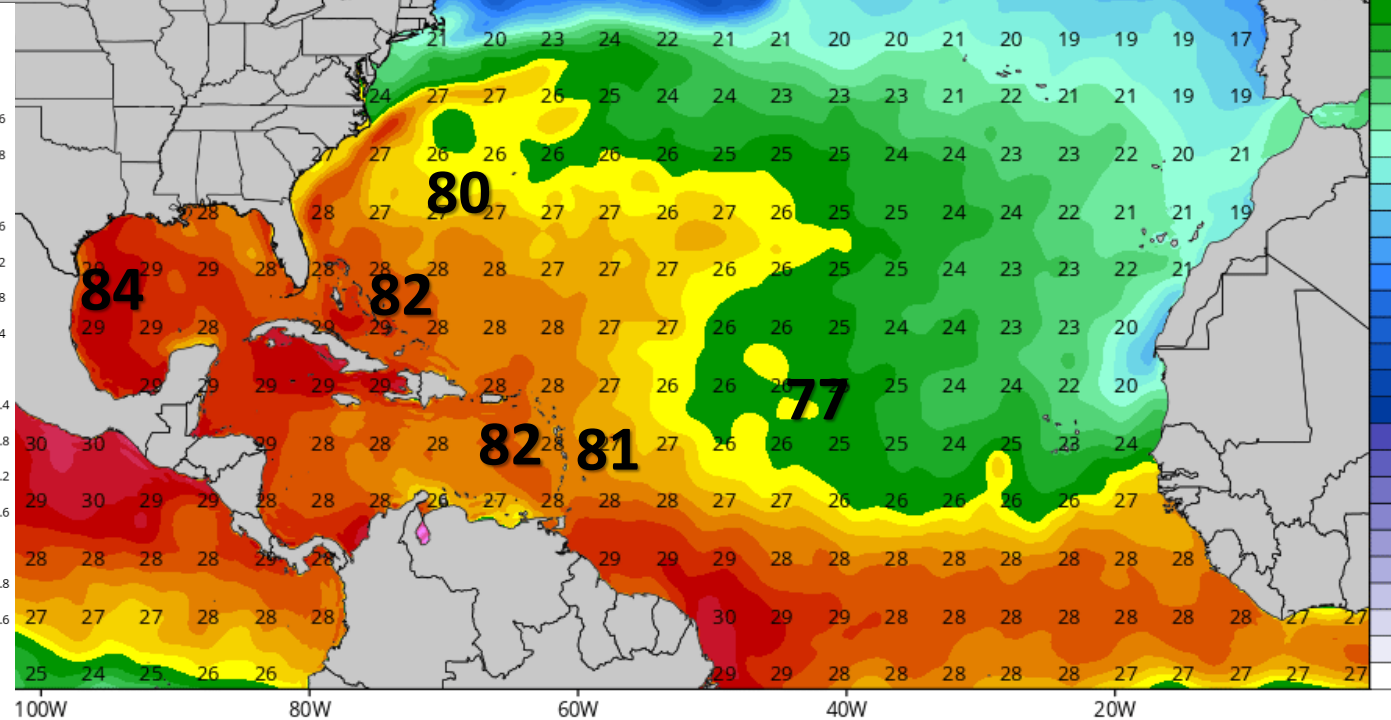
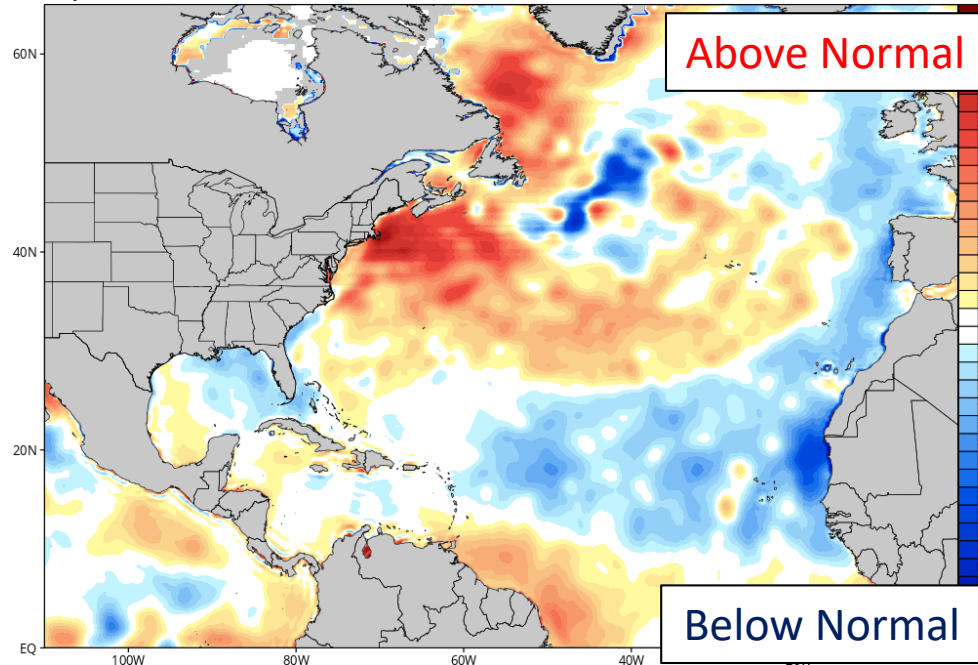
TROPICALTIDBITS.COM



CDAS Sea Surface Temperature Anomaly (°C) (based on CFSR 1981-2010 Climatology)

Analysis Time: 00z Jul 02 2021

TROPICALTIDBITS.COM

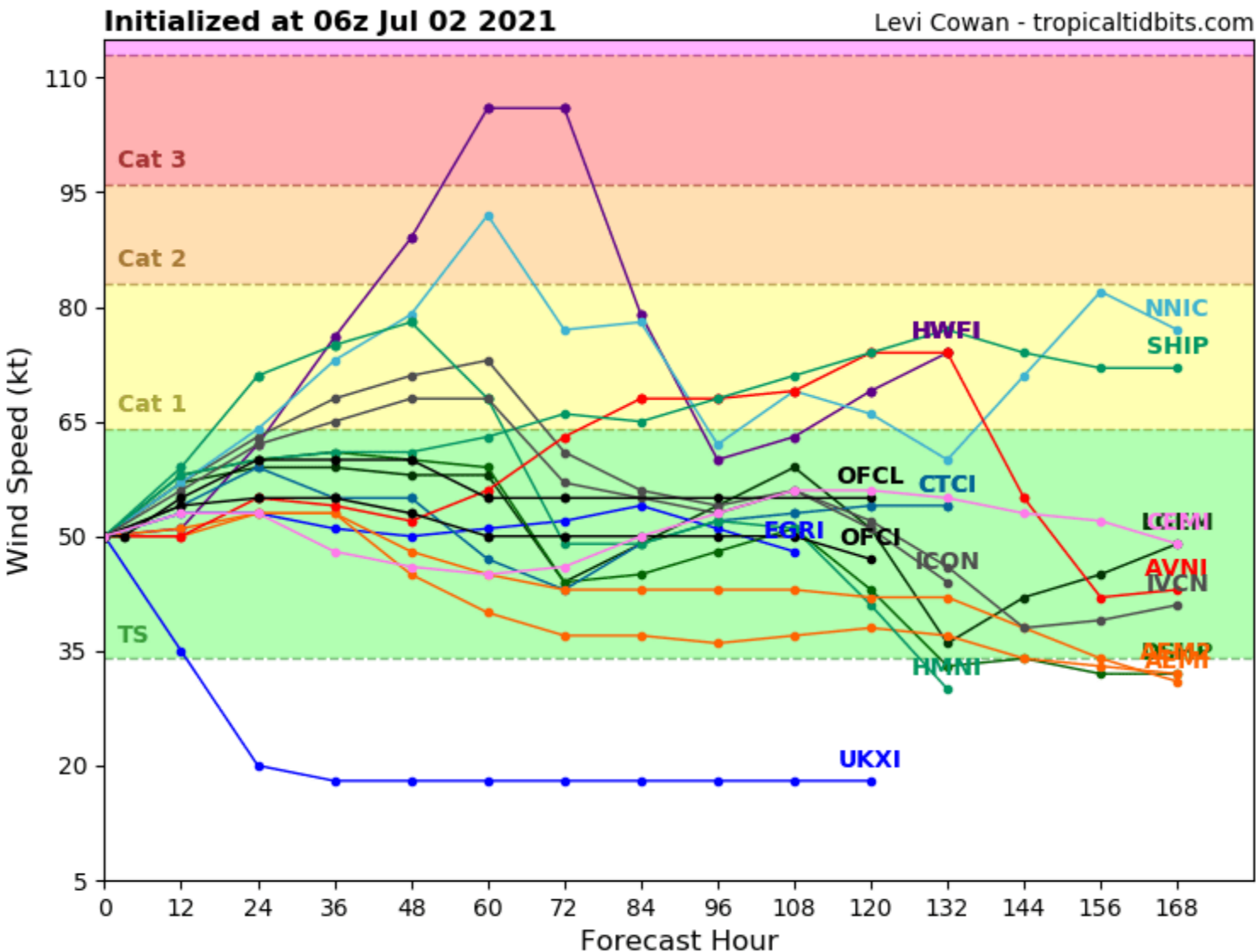


°F
90
88
86
84
82
81
79
75
72



Model Forecast Intensity

Dynamical and Statistical Models – Tropical Storm Elsa



There is wide variability among the intensity guidance. This is due to uncertain interactions with any lingering dry air, wind shear, or land. Model guidance will be updated later this morning.

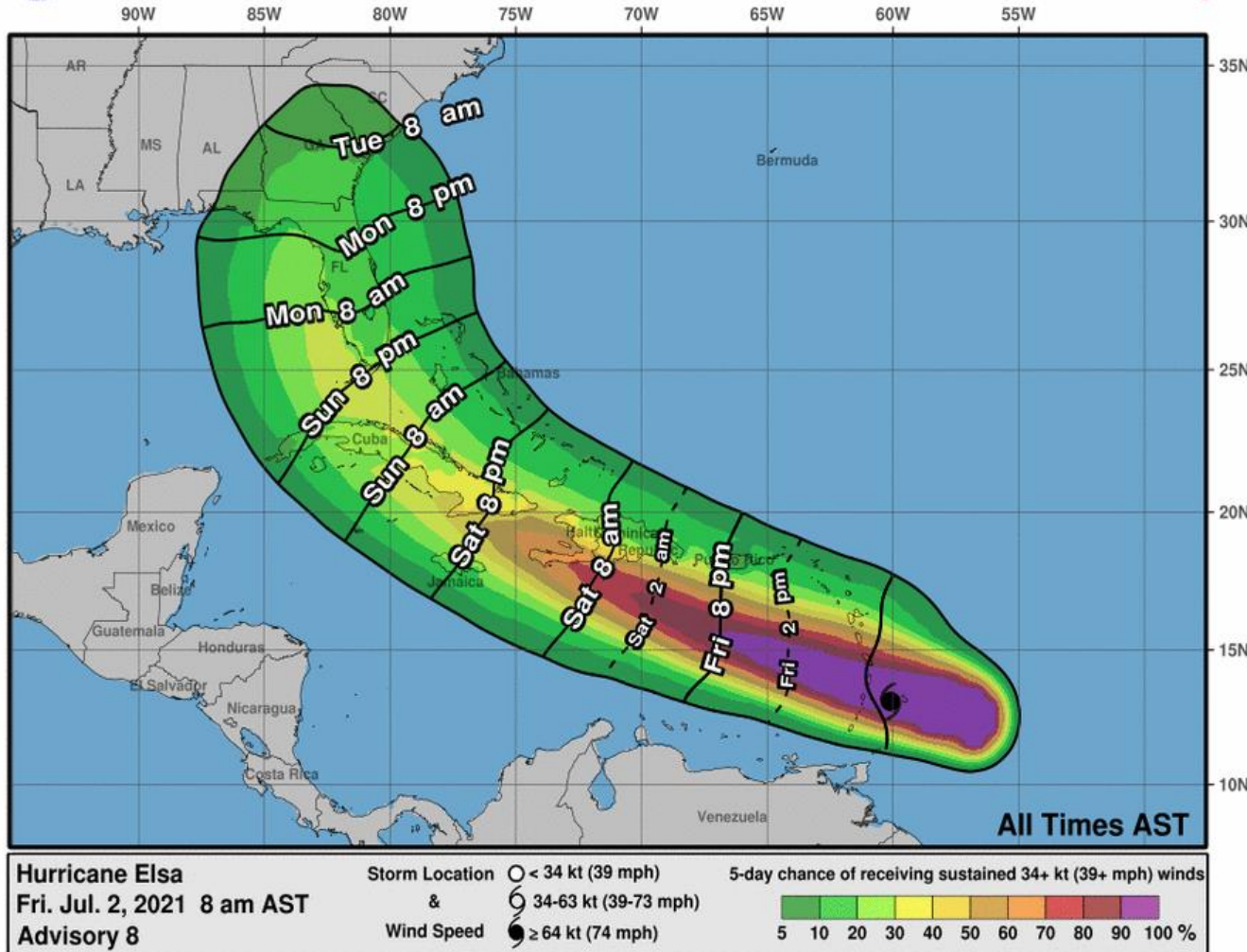


Time of Arrival & Wind Speed Probabilities

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



Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



City

Chance for
TS Winds

Changes Since
Last Packet

Key West	37%	+14%
Marathon	36%	+18%
Naples	33%	+17%
Miami	17%	+11%
Ft. Lauderdale	22%	+11%
West Palm Beach	20%	+12%
Ft. Myers	21%	+13%
Tampa	27%	+14%
Orlando	16%	+/-0%
Apalachicola	15%	+/-0%

The earliest timing for tropical storm wind impacts could be as early as Sunday night in South Florida and during the day Monday for the central and northern Peninsula.

On the current forecast track, the most likely timeframe for tropical storm force winds is Monday afternoon/evening across South Florida and late Monday night through Tuesday for areas north of Lake Okeechobee. Given the uncertainty in the forward speed, the “Earliest Reasonable Time of Arrival” graphic should be used for planning into the holiday weekend.



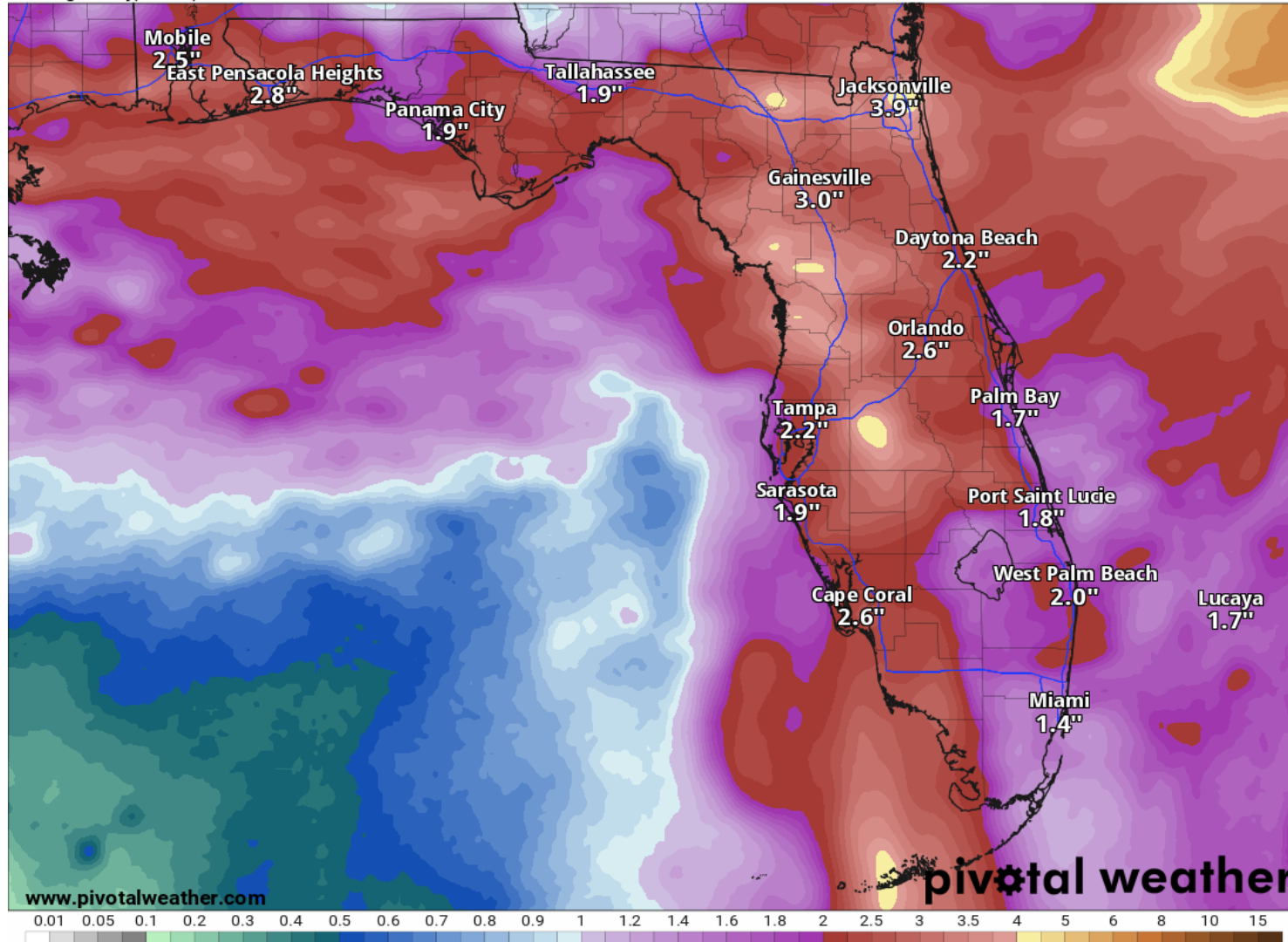
Rainfall Totals Next 7 Days

Ending 8 AM ET Friday (7/9/21)

7-Day Precipitation (in)

Ending Friday, Jul. 9, 2021 at 8 a.m. EDT

Init: Fri 2021-07-02 12z WPC



Through Monday morning, most areas across the Peninsula will see about 0.5-1.5" from daily afternoon and evening thunderstorms.

From Monday and beyond, an additional 2-3" of rain is expected across the Peninsula with about 1" across North Florida. These totals are highly dependent on the track and intensity of Elsa.

However, recent heavy rain across North Florida and northern Central will make grounds more susceptible to flash flooding, should heavy rainfall occur. Drier soil across the southern half of the state will require heavier totals to pose a significant flood risk.



Key Messages

From the National Hurricane Center



Key Messages for Hurricane Elsa

Advisory 8: 8:30 AM AST Fri Jul 02, 2021



1. Hurricane conditions are occurring on Barbados and are expected elsewhere in the Hurricane Warning area in the next few hours. Tropical storm conditions are expected to begin later this morning in other portions of the Windward and Leeward Islands. Tropical storm conditions are expected and hurricane conditions are possible over southern portions of Hispaniola on Saturday. Tropical storm conditions are possible over Jamaica beginning Saturday night.

2. Heavy rainfall from Elsa will move quickly across the Windward and southern Leeward Islands today, including Barbados. Outer rain bands will impact Puerto Rico late today into Saturday, and southern Hispaniola and Jamaica Saturday into Sunday. Flooding and mudslides are possible.

3. There is a risk of wind and rainfall impacts in portions of Cuba, the Turks and Caicos, and the Bahamas through early next week. Interests in these areas should monitor Elsa's progress and updates to the forecast.

4. There is a risk of storm surge, wind, and rainfall impacts in the Florida Keys and portions of the Florida Peninsula early next week. However, the forecast uncertainty remains larger than usual due to Elsa's potential interaction with the Greater Antilles this weekend. Interests in Florida should monitor Elsa's progress and updates to the forecast.



For more information go to hurricanes.gov



Overall Summary

Hurricane Elsa

- At 7:45am EDT Friday, Elsa was upgraded to a Category 1 hurricane with maximum sustained winds 75 mph.
- The center of Elsa is located about 40 miles west of Barbados or about 1,575 miles southeast of Miami.
- Elsa is moving quickly to the west-northwest at 28 mph, and this general motion is expected over the next 2-3 days. A turn toward the northwest and north is expected by Sunday or Monday.
- Little change in strength is forecast, though some slight weakening is possible on Sunday due to land interaction.

Florida Outlook:

- The entire Florida Peninsula, Florida Keys and eastern Florida Panhandle are included in the day 5 forecast error cone, but no impacts to Florida are expected through Sunday afternoon.
- There remains SIGNIFICANT uncertainty in the track and intensity forecast. 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.
- There are currently no hurricane-related watches or warnings for Florida, but based on current trends, watches could be issued for portions of South Florida sometime on Saturday.
- Strong winds, locally heavy rainfall, isolated tornadoes and storm surge impacts are possible for portions of South Florida and the Florida Gulf Coast, but specific details are not yet available.

The next briefing packet will be issued Friday evening. For the latest information on the tropics, please visit the National Hurricane Center website at www.hurricanes.gov.



TROPICAL UPDATE



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State Meteorological Support Unit

Florida Division of Emergency Management

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