

Coalition Meeting Agenda Thursday, June 18, 2020 - 9 am to Noon

By Webinar at https://global.gotomeeting.com/meeting/join/684815309

Or Conference Call: United States: +1 (626) 521-0015, Access Code: 684-815-309

NOTE: This meeting will be recorded

Time	Topic
9:00 – 9:10 am	Welcome, Announcements, Introductions – Eric Alberts, 2020 Board Chair
	Please confirm your attendance by emailing your name and organization's name
	to: info@centralfladisaster.org
9:10 – 9:20 am	Presentation of Awards: Eric Alberts
	2019 "Larry Lee" Leader of the Year Award: Lynda W. G. Mason
	2019 "Bill McDeavitt" Member of the Year Award: Sheri Blanton
9:20 – 10:20 am	Hurricane Season Briefing - Kevin Rodriguez, National Weather Service
10:20 – 11:45 am	COVID19 Response After Action Debrief Presentations (5 minutes or less) on Lessons Learned/Best Practices from:
	EID Collaborative: AC Burke
	EM/ESF8:
	Bill Litton, Osceola County EM
	Todd Stalbaum, Orange ESF8
	Steven Lerner, Seminole EM
	Tom Cisco, Volusia EM
	Hospitals:
	Eric Alberts, Orlando Health
	Brenna Young, AdventHealth Central Division
	Wayne Struble, Health First
	Steve Viola, AdventHealth Deland
	Public Health: Maria Stahl, Brevard County Health Officer
	EMS: Chief Chris Stable, Martin Fire Rescue
	Long-Term Care:
	Debra Wallace, Greystone Health
	Greg Santa Maria and Melisa Foronda, Good Samaritan
	Medical Examiners: Sheri Blanton, District 9/25
	Other Healthcare Providers/Responders
	Jemima Desir Douge, MD, MBA, Florida Poison Information Center
	Others
11:45 – Noon	Wrap-up – Eric Alberts
	Other Announcements
	Next Meeting: September 17
	Meeting Evaluation (e-survey following meeting)

6-18-20 CFDMC Meeting Minutes

Welcome: Eric Alberts, 2020 Board Chair, welcomed attendees and thanked all for participating. He reminded members to email info@centralfladisaster.org to confirm attendance.

Awards: Eric presented the following awards:

2019 "Larry Lee Leader of the Year Award" to Lynda W. G. Mason: Lynda served as the Vice Chair in 2018, as the CFDMC Board Chair in 2019, and has not taken on the role of Treasurer. She helped lead the coalition through some major changes, all with the coalition's best interest at heart and mind. She is the coalition's behavioral health expert and leads that project, and participates in many coalition projects, such as the MCI exercise planning team, and the conference planning team. Lynda is a great leader with a true vision for doing what is right.

2019 "Bill McDeavitt Member of the Year" Award to Sheri Blanton: Sheri has served on the CFDMC Board since December 2017. Sheri leads all coalition activities related to mass fatalities. She has served on the regional mass casualty exercise planning team for the past three years to integrate mass fatality in the medical surge exercise. She also served on the 2019 annual conference planning team.

Hurricane Season Briefing: Kevin Rodriguez, National Weather Service, presented a hurricane season briefing (see attached PDF). Question: If we have a hurricane approaching our coast this year, will COVID impact your evacuation orders? From a weather perspective, COVID does not impact; they will put out information for the public and emergency management. The local county emergency management will provide additional information on evacuation.

COVID19 Response After Action Debrief Presentations - Lessons Learned/Best Practices: Eric asked that questions be submitted through chat box.

A.C. Burke, Emerging Infectious Disease (EID) Collaborative: A.C. stated there were many lessons learned from COVID and probably more to come. One of the coalition activities over the past few weeks has been to update the EID plan, which was more focused on Ebola, and was not as applicable to COVID19. The coalition is gathering after action information and will use that to develop a pandemic plan. A major lesson learned was the need to work together for culture change in the nursing homes' view of infection prevention. They see this as a task of a specific individual such as a nursing director; they don't see this as part of their operations and processes. They have also been challenged by assistance from multiple sources. As soon as a nursing home has a positive case, they are inundated with teams from DOH, FEMA, and the state. They can have two to three strike teams on site at any one time and sometimes receive conflicting information, so it is difficult for nursing homes to navigate these recommendations and they rarely get a written report. It is also challenging when some counties have requirements that are different from the CDC. One county interpreted the CDC guidance to require respirators vs. a face mask which is the CDC guidance. Staffing is always a challenge in nursing homes. A.C. stressed the need to continue to strive for consistency across the region.

Bill Litton, Osceola County Emergency Management: Bill reported they have approximately ten to twelve staff at the EOC, focused on planning, logistics, and operations including health and medical, law enforcement and EMS. He stated they have received huge support from the SERT teams; such as categorizing and delivering supplies. Others are working virtually and will continue that as we move into hurricane season. He stated that technology such as Microsoft Teams and Zoom for virtual meetings has been helpful. They use Mutual Link that shares videos of testing sites and so they can monitor these live from the EOC. Early on, they created a dashboard for their leadership and the public. They have followed their pandemic plan and will be adding non-congregate sheltering space to the plan (e.g. use of hotel rooms for quarantine and isolation). Most counties have agreements with FEMA for this. They are keeping one site for COVID and are also planning one for hurricane sheltering.

Todd Stalbaum, Orange County ESF8: Todd provided the following information in writing: Orange County ESF8 recognized early on the need to distribute PPE to all LTC's, public safety, hospitals and other first line workers. We contacted the State DOH Planning team and proposed have a county LSA who in turn would take care of Orange County's PPE distribution. This model later became the states preferred model for distribution. Our ESF8 team took all

the state spreadsheets on LTC's and combined them into one, we then reached out to each LTC and set up an ordering system they could call/email anytime they became in need of PPE. Initially with supplies being desperately short we developed a standard model of issue based on patient/worker count. Education became the key with this model because everyone thought they needed N-95 masks when they really didn't. We had a severe shortage with over 250 LTC's, Public Safety and Hospitals desperately seeking N-95's. Several weeks into the event we were able to increase the PPE to each LTC to two weeks' worth, then gradually to three weeks and now we are at the 30-day level for each facility. One of our employees tested positive for COVID very early on requiring us to completely turn over our warehouse distribution system to another Health Services office for two weeks. Our employees continued to work from home including the only person who actually fell ill from the virus, no one missed a day of work. Well into the operation, ESF8 was tasked by County Administration to set up drive through testing. We operated two sites for several weeks while operating the warehouse distribution. To date we are still providing testing at drive through site, and community centers. We have been testing in tandem with DOH who have been working their own sites. Also during the event we have been tasked several times by County leadership to provide logistical leadership for business and faith-based POD PPE giveaways. Millions of masks and hand sanitizer bottles have been distributed throughout Orange County over the past few months. ESF8 will be working with Emergency Management and County Leadership to modify the County's CEMP process to include attestation that 30 days of PPE is on hand AND all personnel have been trained and fit tested. And finally, ESF8 logistics has been on point with Orange County Fire Rescue to help provide decontamination to Public Safety and other buildings as necessary. We have been assigned to working groups to look at future mitigation practices for on-going decon.

Steven Lerner, Seminole Emergency Management: Steven stated that it is day 97 and cases continue to increase in the county. His number one item is long-term care. We need to expand requirements for training for all nursing home/assisted living staff. Right now, the staff get one hour of infection control training. He suggested that the coalition provide or find an infection control course, and also provide training on donning/doffing PPE. He will be working with legislators to try to make this a change in statute. Number two, as the CEMPs are reviewed by local emergency management offices, as the CEMP cross-walk is being re-developed over past two years and still hasn't come out for rule-making, the planners in Region 5 feel there needs to be multiple written agreements to provide PPE. Many are still relying heavily on emergency management to provide this when the supply chain has stabilized, and these are available. Next is ESS training. So many facilities are unfamiliar or unable to log in. The coalition has offered this training and there is a helpline but there are still facilities that don't know how to log-in and provide information. He will also be championing that every long-term care facility is a member of their coalition. The coalition has put out a lot of information and training. He would like to see ESS access to all fields for all super users. There are a lot of changes in what has to be provided with little notice, and it would be good to provide better communication on this. There is a lot of duplication statewide, such as strike teams in nursing homes. The facilities think these are all DOH. There is a lot of duplication of information and conflicting information. DOH has good information channels. The coalition can also assist if a moratorium on visitation is put into place; this is a huge mental health issue for those facilities and we need to create resources for administrators for mental health programs in these facilities, particularly developmentally disabled or memory care facilities. We need to figure out how we continue collaboration and relationship-building in this digital world since face to face meetings with facilities and each other will be severely diminished and we need to continue to build relationships and collaborate.

Eric Alberts, Orlando Health: Eric stated that the hospital continues its response efforts. They are seeing increasing numbers and continue to monitor that. They still have virtual visits and the hotline is active. They still screen all visitors, are still running lab tests. They continue to work with supplies and vendors to make sure there is enough PPE, knowing that this will go on for a long-time.

Brenna Young, AdventHealth Central Division: They cover 16 hospitals in four counties - Seminole, Orange, Osceola and two new hospitals in Polk. Lessons learned from initial response - Zumro tent expectations. Leadership made decision to stand those up early on in case of influx of patients to be tested to keep them from emergency departments. Only used for a couple of testing events. LLs - tents are hot and not easy to cool. Had a lot of unexpected issues with tent. Also confusion among staff re testing or triage, internal communication issue. Tents not large so to maintain the

six-foot distancing and fire protective measures were an issue. Two best practices with tents - able to use house power for tents. Took down Zumro and put up vendor tents and used house power so didn't have to worry about generators. Their IT were also able to do Wi-Fi in tents. Another LL was mass fatality planning. Struggled finding refrigerated trucks to rent; took two weeks. Rented seven and staged these across the counties with transportation available. Another issue was placement of trailers and perception. You don't want them to be easily seen by public and transporting the decedent from the hospital to the trailer. Each facility hosting this had to work out logistics. Different ideas, such as cardboard cremation boxes, the trucks have grooves for air flow and so can't use stretchers or morgue cart across the floor. Best practices - internal dashboard that was very robust and tracked throughout all the north and south division hospitals, testing, hospitalized, on vents, PPE and shortages. Implemented a 100% employee mask and temperature checks. Staff on cohort units were in N-95s and all others in surgical mask. Also had a lot of community testing events in different counties. Extended internal and external communications re safety precautions. Two emails per day to staff re expectations, precautions, and then a second with things to protect yourself both physically and mentally, and resources available to employees and their families.

Maria Stahl, Brevard County Health Officer: Hard to do after action when you are still in high level response. One of the things they did before they had any cases, had a large press conference with emergency management, established new partnerships and solidified existing partnerships. Did a presentation to all schools. First case on March 16, running about 20 a week, last week 106 and this week so far 146. Early on the Commissioners, Sheriff, Emergency Management and DOH were having press conferences to let the public know what was going on. EM started 211 center and then added call center at the health department; both still in operation. Have a large number of school health staff who they re-purposed to COVID response. Helping with contacting tracing, call center, appointments to help with testing. Early in the response, very scant number of swab kits so limited testing. One of the state representatives got them 600 swab kits and started a collection site at Viera by appointment. Omni and hospitals also testing. FQHC has mobile van going into underserved areas. When numbers dropped in Viera, started going to community centers in targeted populations. Also got a state site at Palm Bay campus of Eastern Florida State College. Long-term care facilities have had some issues and agree with those issues mentioned early. Early on, they assigned three staff members to call the long-term care facilities every few days to check in. Have good relationship, but since then other groups coming in. DOH, EM, EMS has weekly calls with hospital and healthcare partner calls. Contact tracing -assigned several school health to this, and Epi managers huddles daily with the staff to ramp up or down these staff. Also, internally have team meetings. DOH has state calls every Monday-Wednesday-Friday and after that call have internal call. Lessons learned - partnerships have helped tremendously. Long-term care is very stressed; have good relationship and encourage them. Hospital calls and communication is good. Their staff attend hospital infection control meetings. Good relationship with EMS, solidified during Hep A outbreak and solidified during COVID. Don't have as good a relationship with home health and have identified that we need to build these relationships. Had a float nurse that tested positive and she impacted several different agencies. Have done a lot of work with churches. Have seen a surge in Hispanic communities. Will need to work out how to replace the school health staff when they go back to school.

Chief Chris Stable, Martin Fire Rescue: Used plans from Ebola, implemented pre-arrival screening questions so crew could don PPE before contact. Decided only one person from first arriving unit would go in and establish contact, maintaining six-foot social distance. If extra manpower not required, stay outside. Implemented an alert to hospital to let them know they were transporting a PUI. Notify hospital on arrival so they could clear hallways while bringing patient in. Didn't have a huge cache of PPE but found 17,000 surgical masks in an alternate cache and were able to use these throughout the county, including nursing homes and ALFs. When notified of positive results, flagged address so if responding could utilize enhanced precautions. When numbers started rising in nursing homes used enhanced precautions anytime entering NH or ALF, protected their staff and the residents. Did their own contact tracing when they transported positive patient and isolated those. In one day, had to send 25 people home in three stations. Since then, implemented more social distancing and masks. During peak, call volume dropped because a lot of routine calls did not happen because people were afraid to go to hospital. Now seeing it go back to normal. Two staff members who tested positive and both are back to work. Good relationships across the county. Did have a lot of rain and flooding. Two days ag, they had to close Roosevelt Bridge, main north-south artery due to structural integrity issues.

Wayne Struble: Very similar to others. Continue to respond. Hospital command center open and numbers are going up over past couple of weeks. About 1300 virtual visits per day. Our biggest challenge has been testing, not enough test

kits to do all in-house. Ran a little tight on PPE but did ok and are now trying to build up a 90-day supply. Did purchase a refrigerated trailer that they will keep at their distribution trailer; put at the loading dock at a hospital during peak. Used Microsoft Team to talk with partners and internal teams. Use Hospital IQ for analytics and have a COVID dashboard. A lot of the information that has to be supplied to AHCA is there. Put a summary out to executives and county EM and DOH every day.

Chief Hezedean Smith: Dr. Dean provided the attached written update. See PDF.

Debra Wallace, Greystone Health: Were able to secure the PPE needed. They have a 108-bed facility and had 200 face masks. Now have all needed PPE. Provide this to all coming into facility, including contract staff, transport, etc. Require gowns, gloves, masks for all. Limited number coming in, and no visitation. This is a challenge for their residents as they thrive with contact with family and friends. Have mental health workers coming in from beginning as they are essential. Try to find ways to participate in activities, e.g. bingo in hallways. Still screen staff every shift. They have been fortunate with no PUIs or positive cases. They did testing of all residents and staff with positives; will do this every two weeks. They know how to get in touch with health department and work well with them. Do have different reporting requirements now and have to update ESS daily by 10 am. Also have a new reporting system with CDC and NHSN system weekly. Penalties if you don't report. Staff come in street clothes and change in the facility and not allowed to leave facility until shift is over. Hold a daily conference call to report inventory of PPE and those in isolation. When we admit a patient from the hospital they are tested, and they are put on 14-day isolation; this can delay discharge for rehab patients but do rehab in room. 2020 has been an unusual year. Don't know when they will start allowing visitors in but will need to look different than it did before. They have two enclosed courtyards so residents and families can visit across the gate outside which has helped.

Greg Santa Maria, Good Samaritan: They approached from solid corporate response and then down to the local level. In January 2019, Sanford Health and Good Samaritan merged and become one organization and created emergency management plan. When Hurricane Dorian occurred, the corporate team came down to Osceola as an IMAT. After that event, a lot of training occurred across enterprise. When COVID emerged, they activated their corporate command center, and as part of their emergency operations plan, brought up eight operations centers in several states. Goal was to pull in all the data and to use that data for robust and consistent response. One of the first things they did at the corporate level, was to open an emergency management back channel so all emergency managers across regions could talk; daily call at 7:30. Testing, infection control, research all at command center. Motto was they would follow the science, and deploy models based on that. Constantly updating policies. Corporate public affairs communicating with Governor's offices. Continuous need for IT to keep the process working. Every day, we would have an 8 am check-in and deploy data out, and all regions would report in by 9 am. Three locations in Florida -Deland, Daytona and Kissimmee. One of the biggest lessons learned was impact on long-term care. Having contacts across the nation allowed them to watch and learn from hot spots like Washington and New York City. Made sure that we were coordinating with our partners. Kissimmee was on the phone daily with local DOH office. Reviewed thousands of pages of research on the disease and impact to be able to put up defenses. As they evaluated impacts, could then create decision-making, define things like obtaining and deploying PPE, corporate travel, etc. One of the things that worked well was getting incident command pre-deployed. Some health centers are good at this, others not. During hurricanes they build incident command structure and all that pre-work was very helpful in response. Melissa Good Samaritan has ALF and independent living. Best practices, closed doors to visitation on March 10 and began infection control processes and PPE. Had some infection prevention experts at corporate level. Mental health issues due to no visitation, had video and face time, window visitors, dedicated staff to help residents send photos. Did some exercises through closed circuit TV. Part of a corporate and daily calls that each state can share their requirements and lessons learned. Learned from those going through it helped them do impact assessments and prepare.

Sheri Blanton, Medical Examiner's Office, District 9/25: Five medical examiner offices in the region. Discussed and felt that best practice was that early on with the coalition help had a conference call to prepare. Also had to do a lot of messaging to alert hospitals and funeral homes that all COVID deaths fall under the ME jurisdiction. Medical examiners had enough PPE for early stages, and now have stable supply. Got a lot of outreach on handling bodies and was able to give links to CDC and national funeral association links about body handling and preparation. A best practice was from watching New York, reached out through Orange ESF8 to have state team FEMORS on standby with national guard for

transportation to and from storage areas. City of Orlando identified a site. Have not yet had to activate that. Lessons learned - biggest one is to engage with specific partners re pandemics. State Department of Health is a huge component - all prior education and training was that Medical Examiners would not handle all deaths, just those at home. This changed in COVID and caused so chaos as they had to get the message out, and some were not reported by hospitals, and funeral homes could not cremate without ME review. There is a state death registration system and want to get messaging out for that system next time. Testing is always a challenge. If there was a trauma that caused the death, we don't do testing for COVID; testing was only done if no other diagnosis or if there were symptoms. Medical examiners report death based on county of death; health department report based on county of residence. Also, medical examiners information is public information and for DOH it is protected. Need to identify some collection points in each county so that the hospitals don't have to do this as they will all be medical examiner cases. Did not have to do an autopsy on each case and could be left at the hospital for family to choose funeral home - need to work through that. Also work on extending cremation capacity.

Jemima Desir Douge, MD, MBA, Florida Poison Information Center: There are three poison centers in the state. They stood up a COVID hotline. Had experience with other public health emergencies like H1N1 and Zika but had to learn as they went with COVID. Both lines run 24/7, could not prioritize one over another, so had to stand up designated COVID team, quickly onboard staff, work through social distancing, just-in-time training to answer diverse calls. Put up a message board in center. Taught them to be transparent and say when we don't know. Stressed personal responsibility to stay current with information, stay protected, report symptoms. As information changed daily and sometimes during the day, quickly adjusted scripts. Partnerships with DOH and CDC to keep up to date. COVID emphasized the importance of surveillance data, could see COVID related poisoning trends and create alerts for hospitals. Use social media, live Q&As, media interview, and a new COVID page on their website. All teaching and education was switched to virtual platforms. As we enter hurricane season, COVID cases are rising, but will need to corporate hurricane messaging such as carbon monoxide poisoning. Learned that we cannot work in silos, must foster collaboration.

Clint Sperber: Shared a St. Lucie video: https://www.youtube.com/watch?v=pR6bLTp4o1A&feature=youtu.be

Wrap-up:

Coalition working on closing out contract deliverables. The Coalition's regional medical assistance team has been staffing an IMT team in South Florida and we've gotten great feedback on that.

Other Announcements Eric reminded members about the following upcoming events:

- June 19 Family Assistance Center/Disaster Behavioral Health Tabletop Exercise
- July 15 meeting on pediatric needs

Many protests are scheduled across the region. There has been severe weather. We know that we are in hurricane seasons. The next space launch is upcoming. Political events will be held. Please remain vigilant.

Lynne reminded that there are after action surveys open, please remember to provide your information.

Next Meeting: Eric stated that the next coalition meeting is scheduled for September 17.

Meeting Evaluation: Eric thanked all for participating and asked that members complete the e-survey that will be sent out following the meeting.

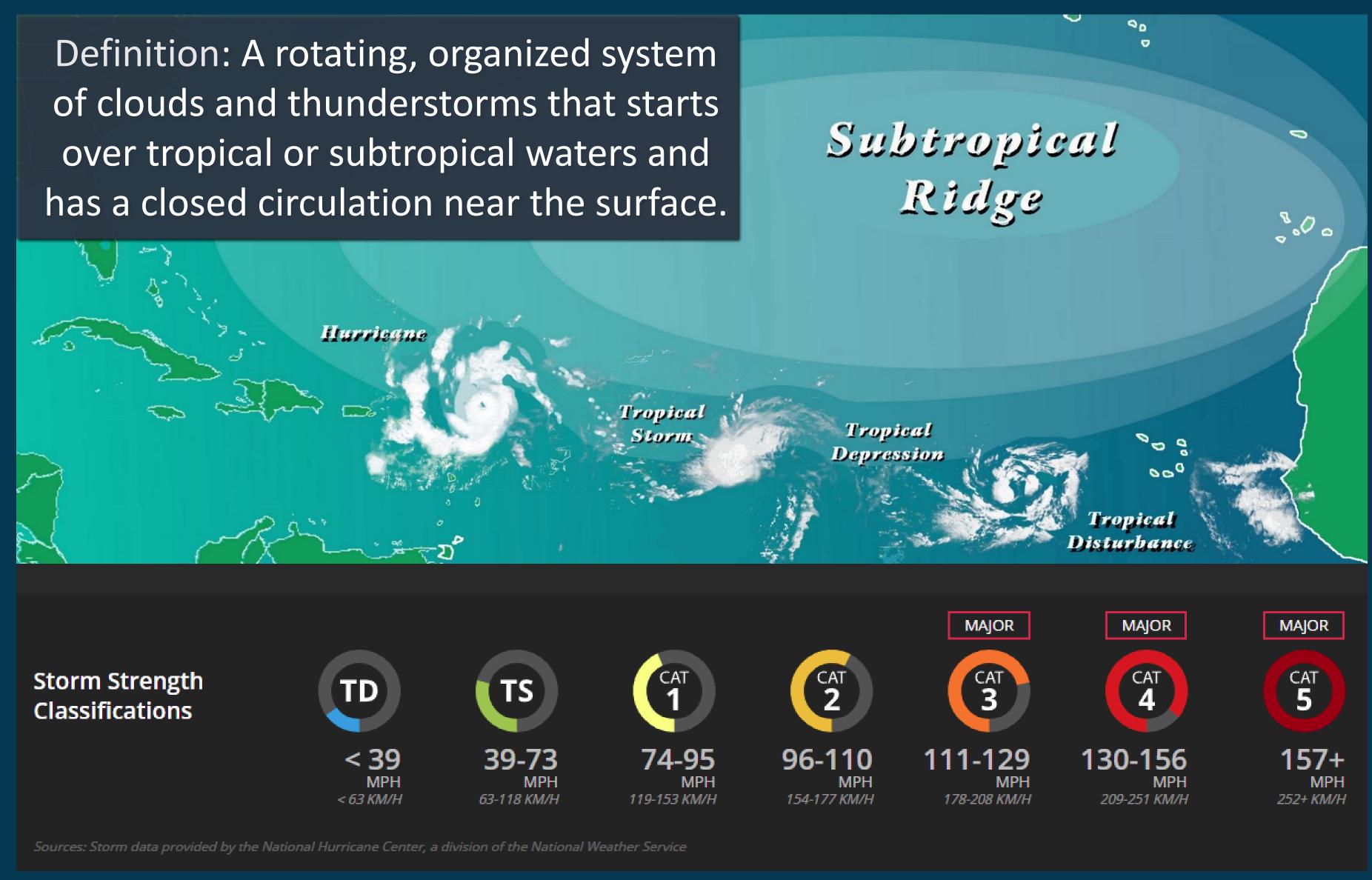
Eric thanked all for participating.



Tropical Cyclones

Basics and Classification





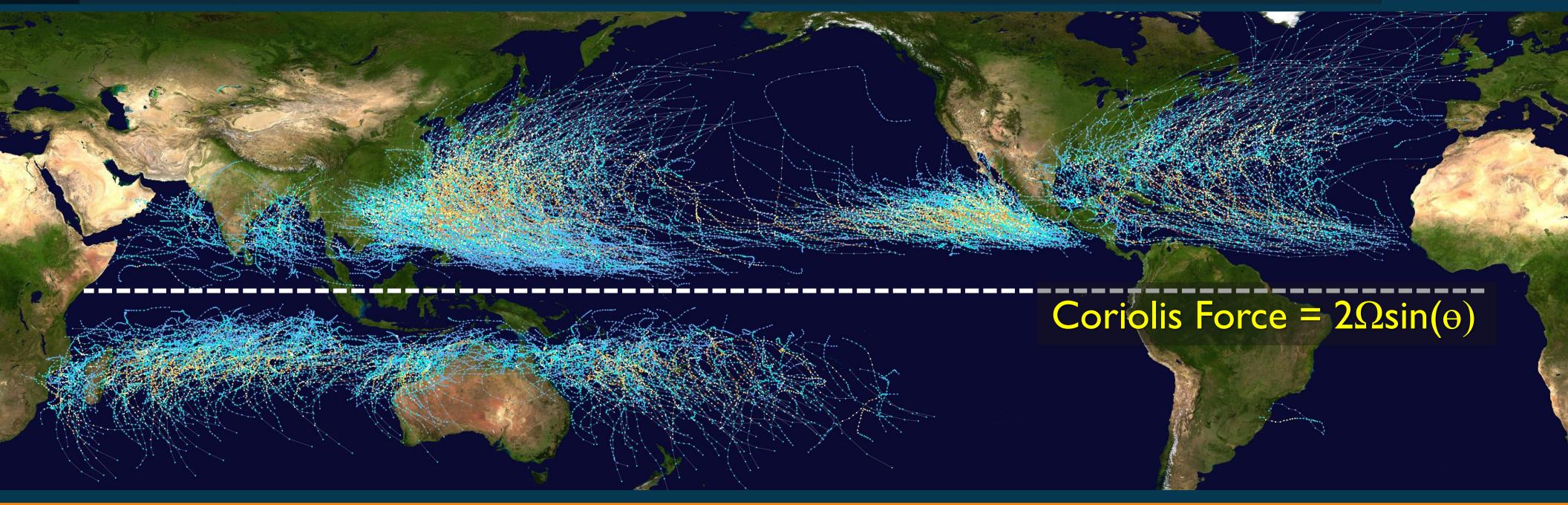
Tropical Cyclones

Necessary Ingredients



- Warm ocean water through a deep layer

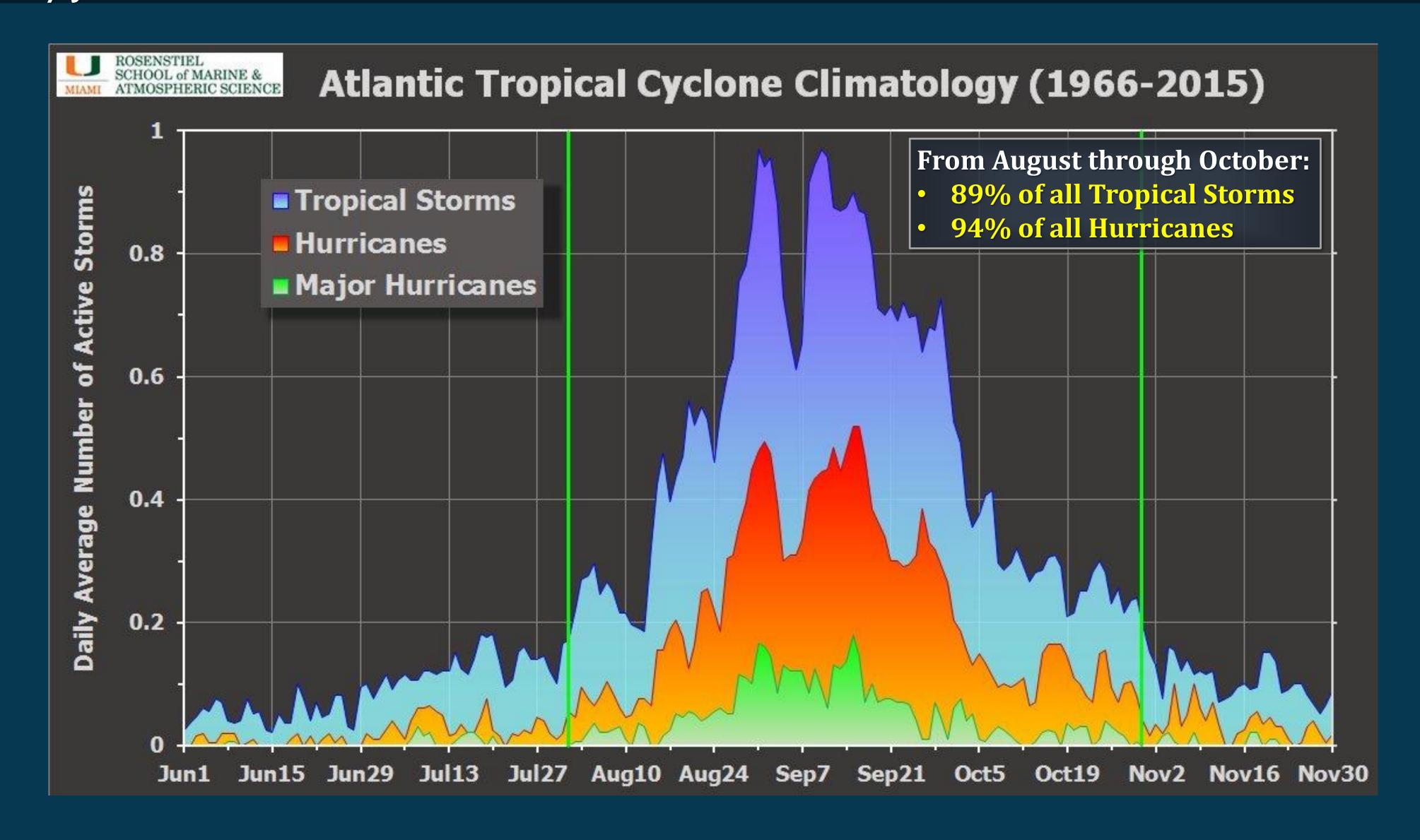
- Unstable atmosphere with sufficient moisture
 Low vertical wind shear
 Pre-existing disturbance near the surface (away equator) Pre-existing disturbance near the surface (away from equator)



Hurricane Season

Why June 1st to November 30th?





What is an "Average" Hurricane Season?

North Atlantic, Gulf of Mexico, and Caribbean Sea Acitivyt



Based on the last 30-years of data from the North Atlantic, Caribbean Sea and Gulf of Mexico...

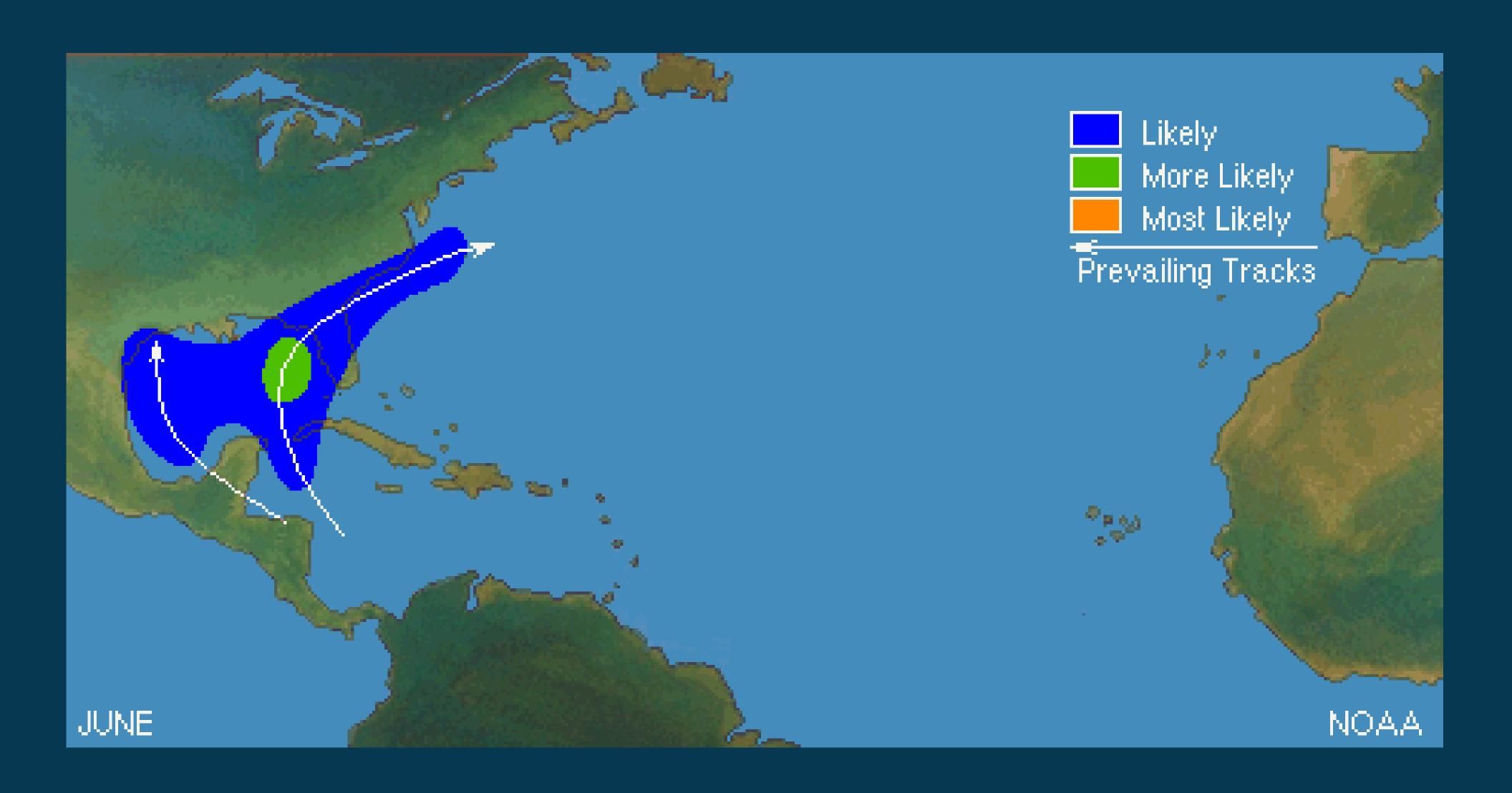
An "average" season is comprised of:

- 12 Tropical Storms (i.e. systems given names; sustained winds 39-73 mph)
- 6 Hurricanes (sustained winds of 74+ mph)
- 3 Major Hurricanes (Category 3-5; sustained winds of 111+ mph)
- July 9 Average date of first Tropical Storm
- August 10 Average date of first Hurricane
- September 4 Average date of first Major Hurricane

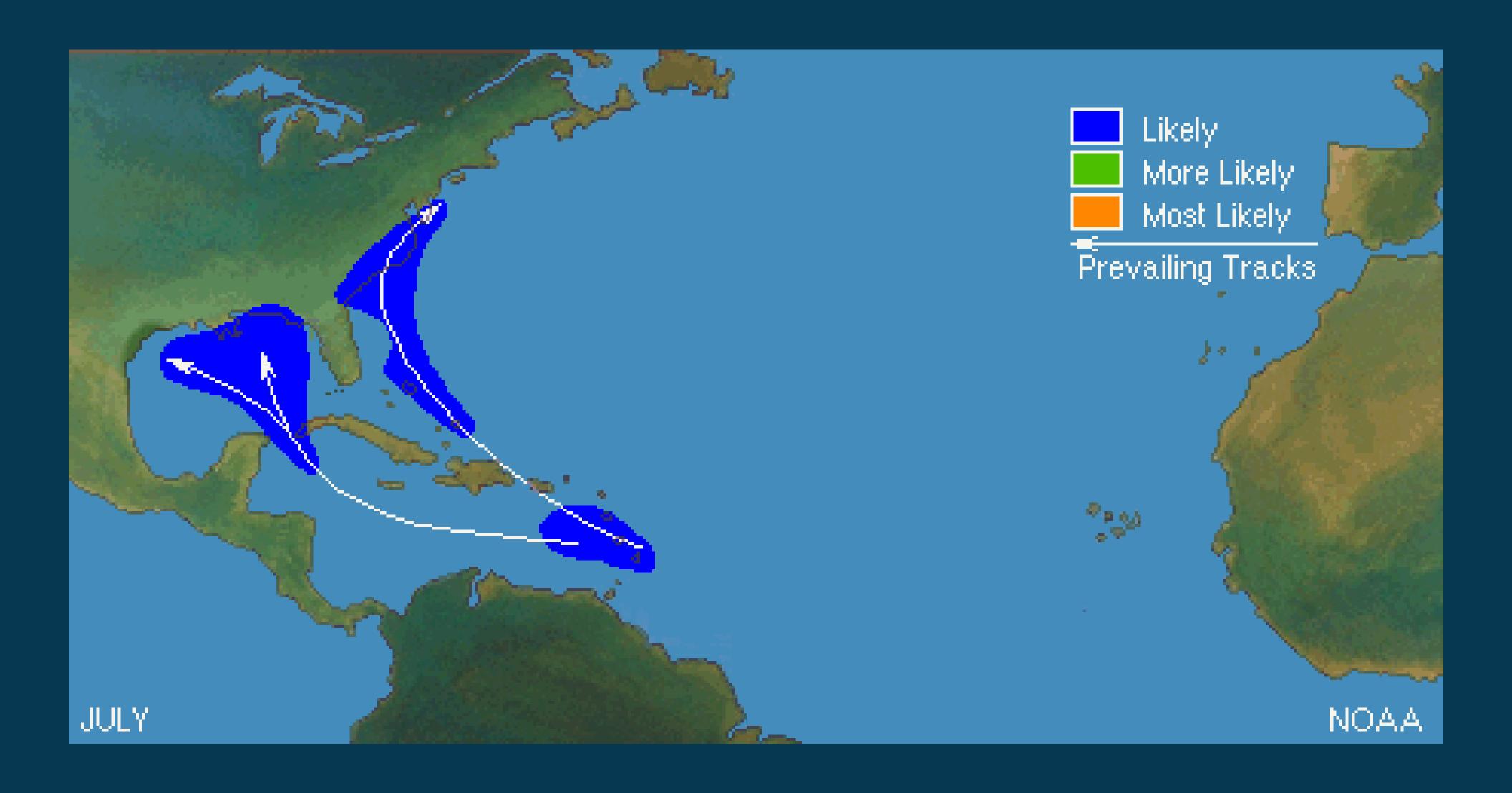
Pre-season and early season formations do NOT necessary mean the overall season will be above normal (some are, some are not – NO correlation exists).

• Thus, early season development can NOT be used as a reliable predictor for later season activity.

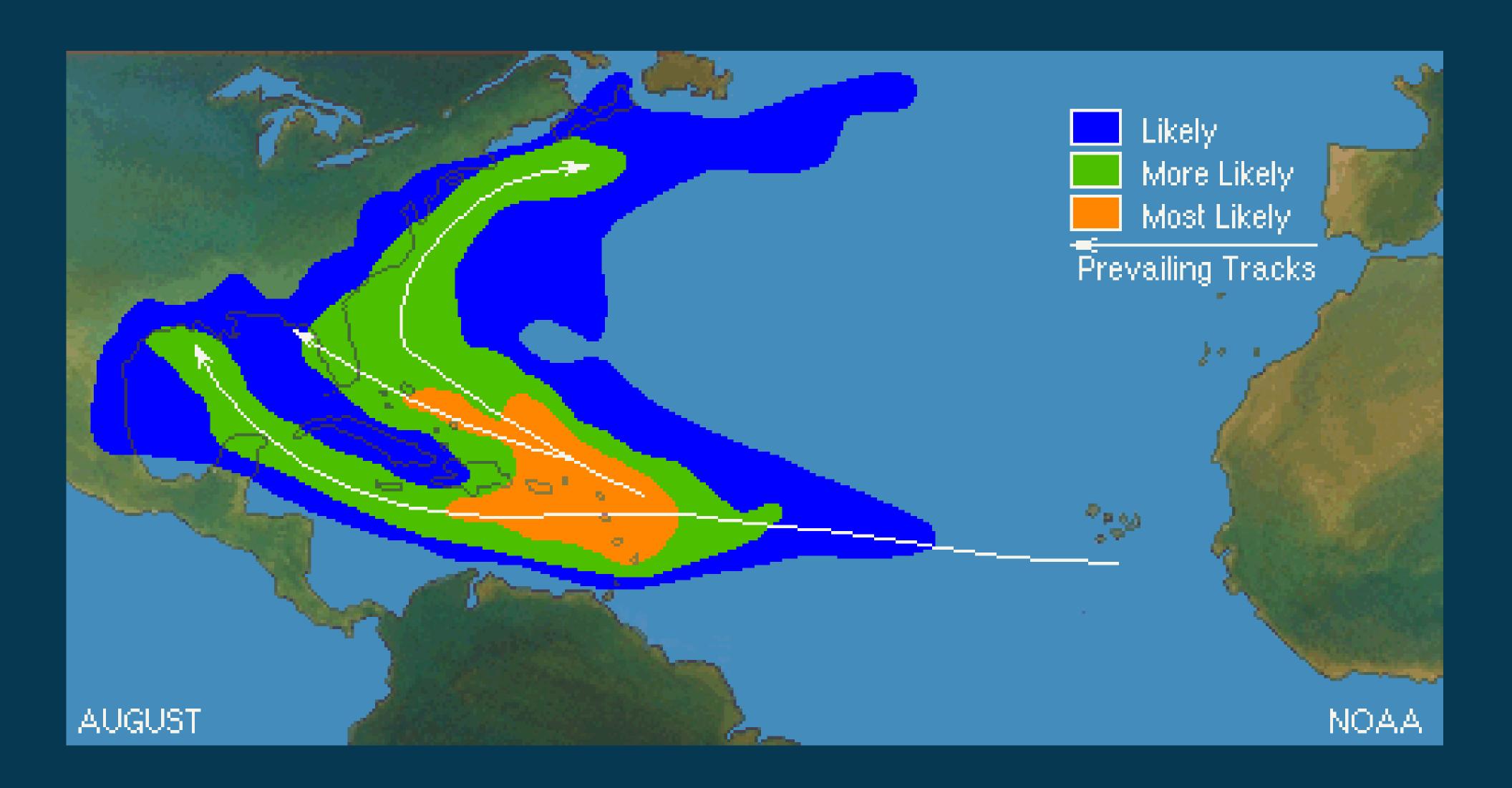




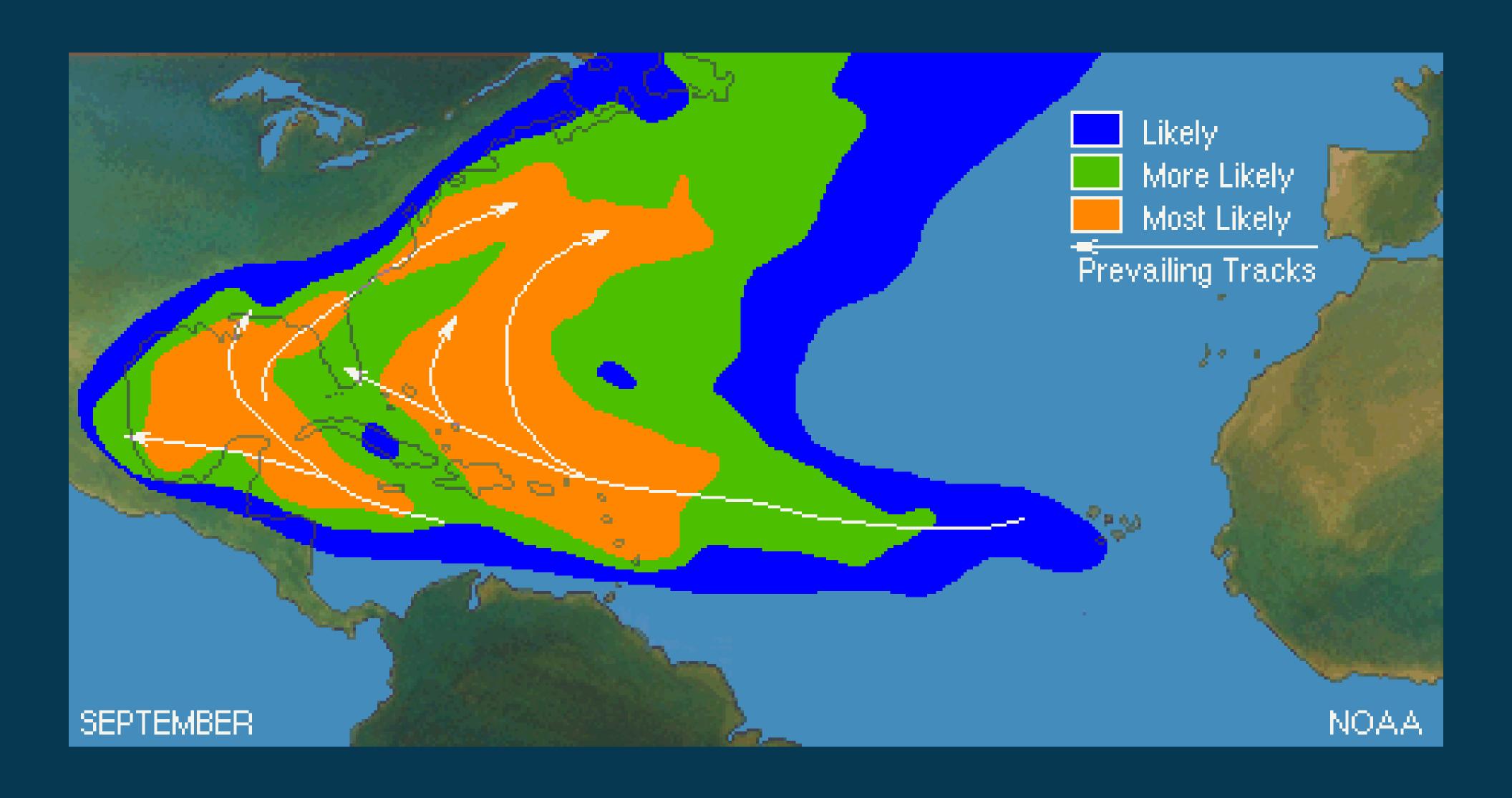




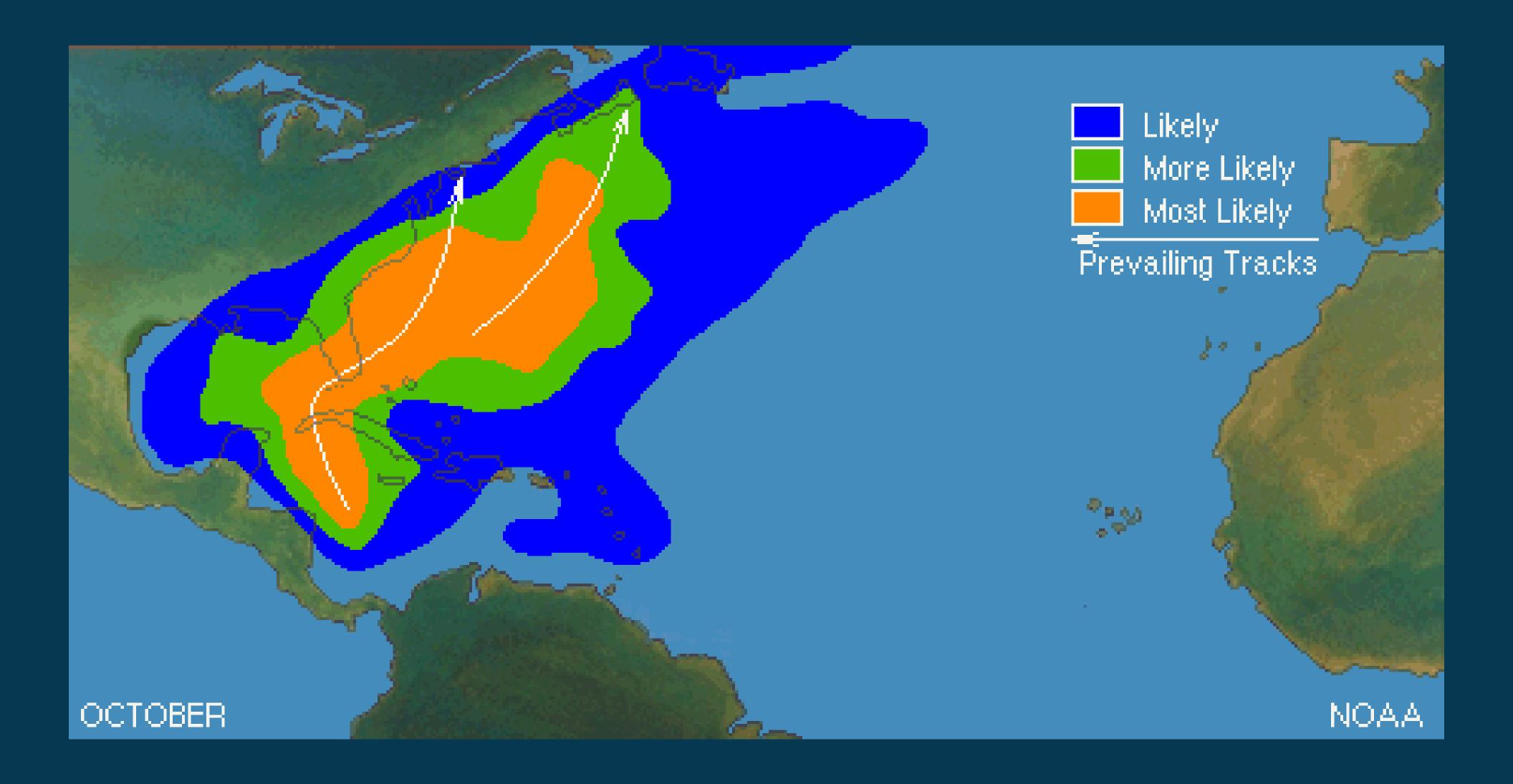




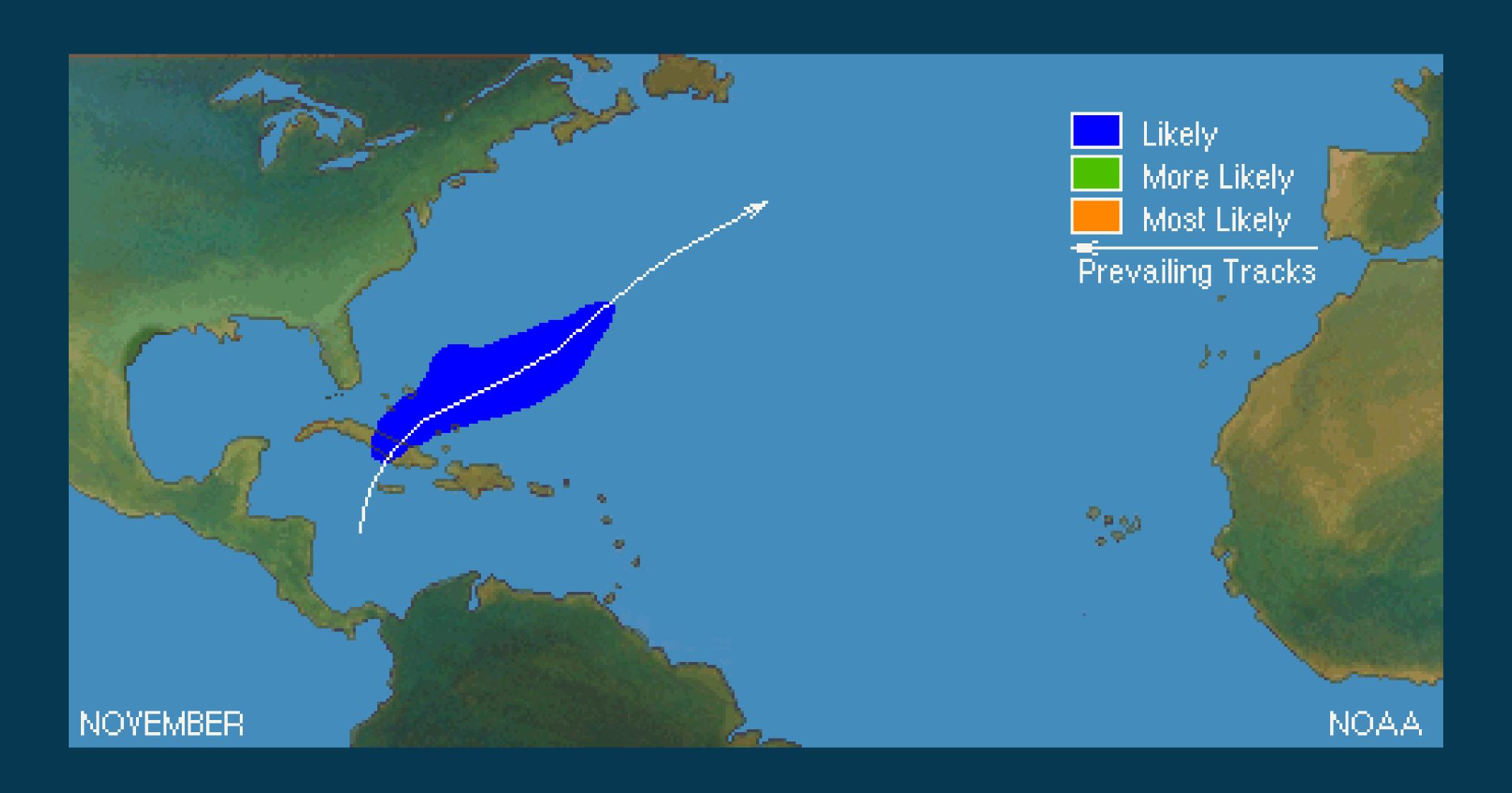






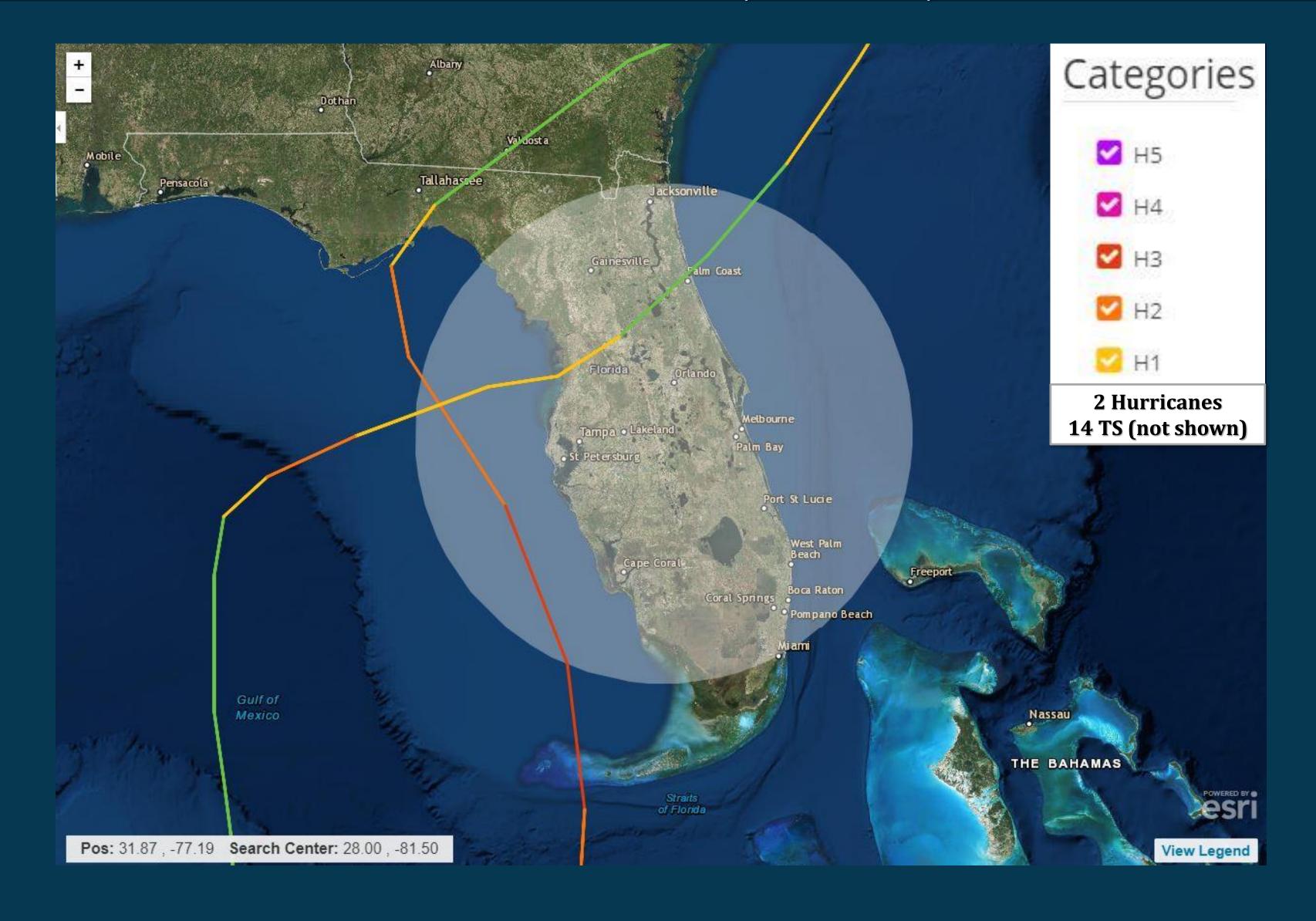






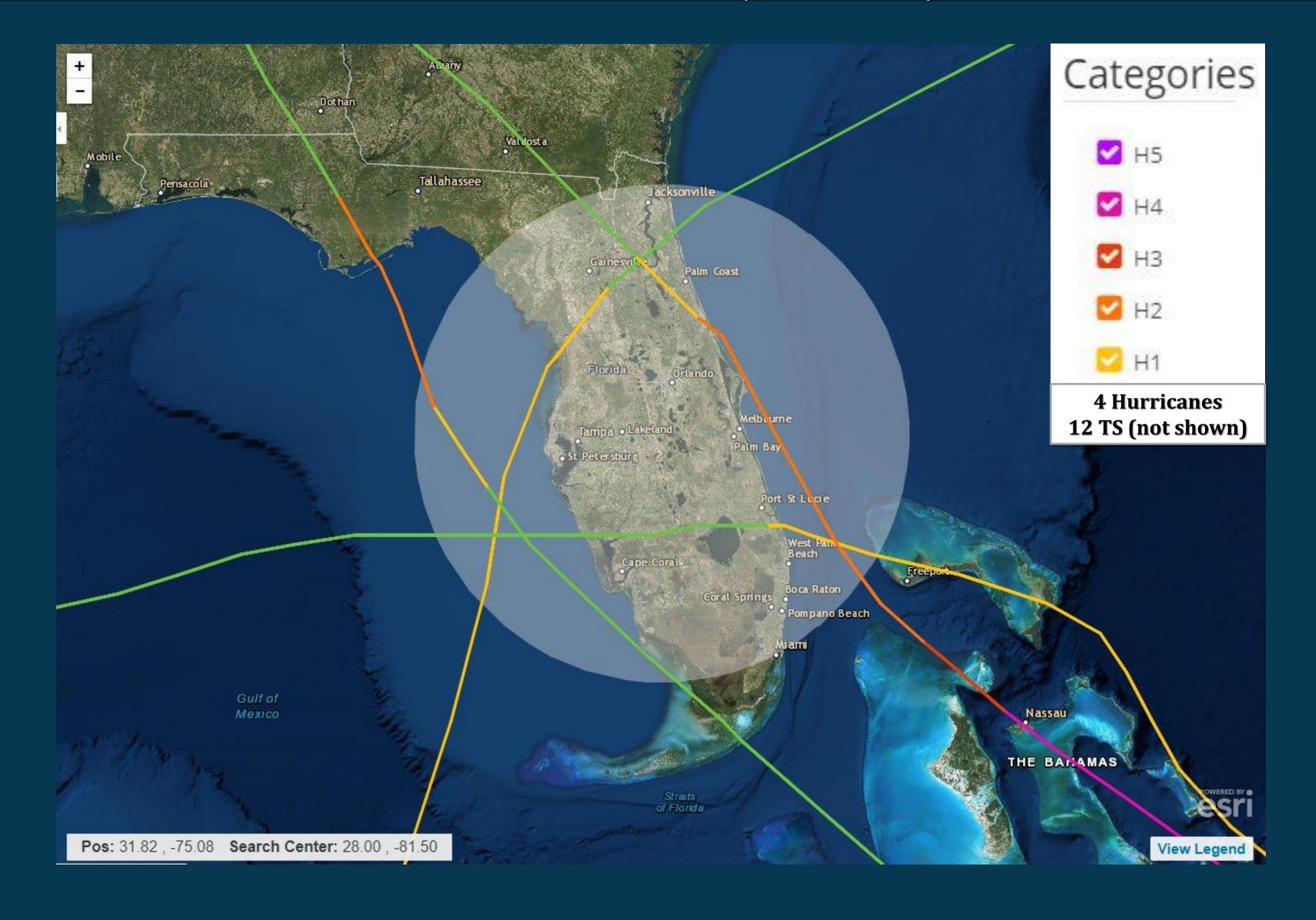
Historical June Hurricanes





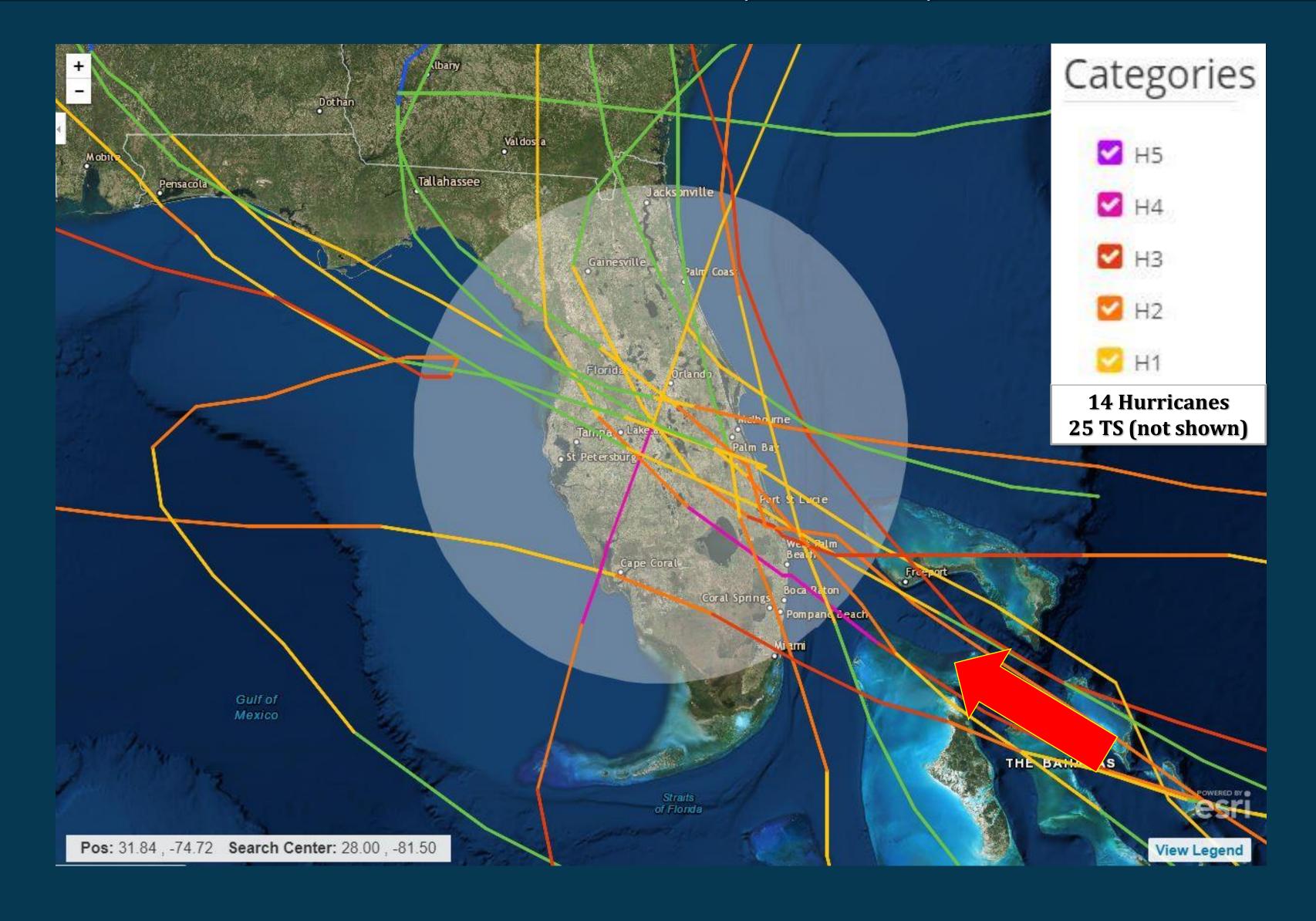
Historical July Hurricanes





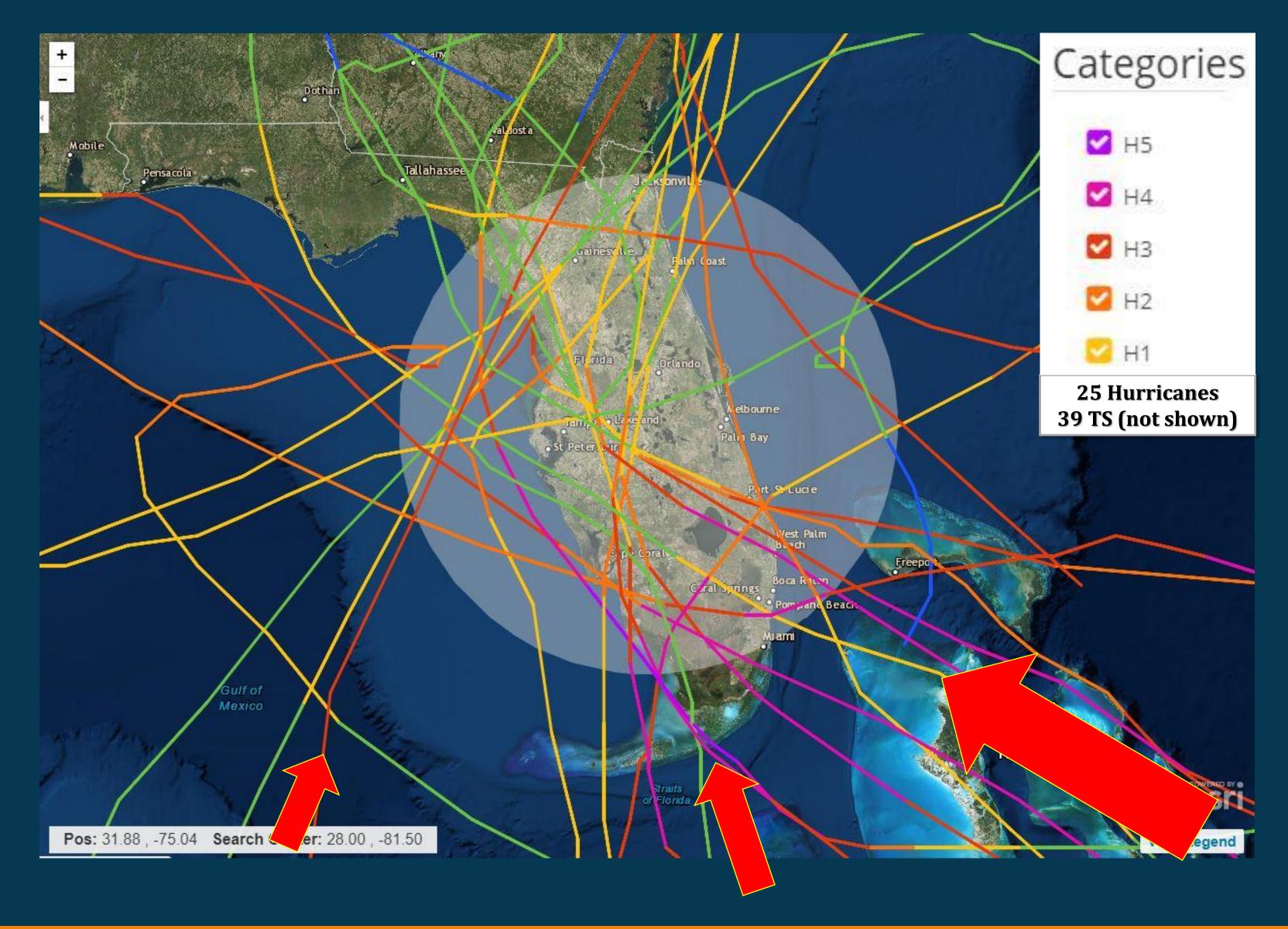
Historical August Hurricanes





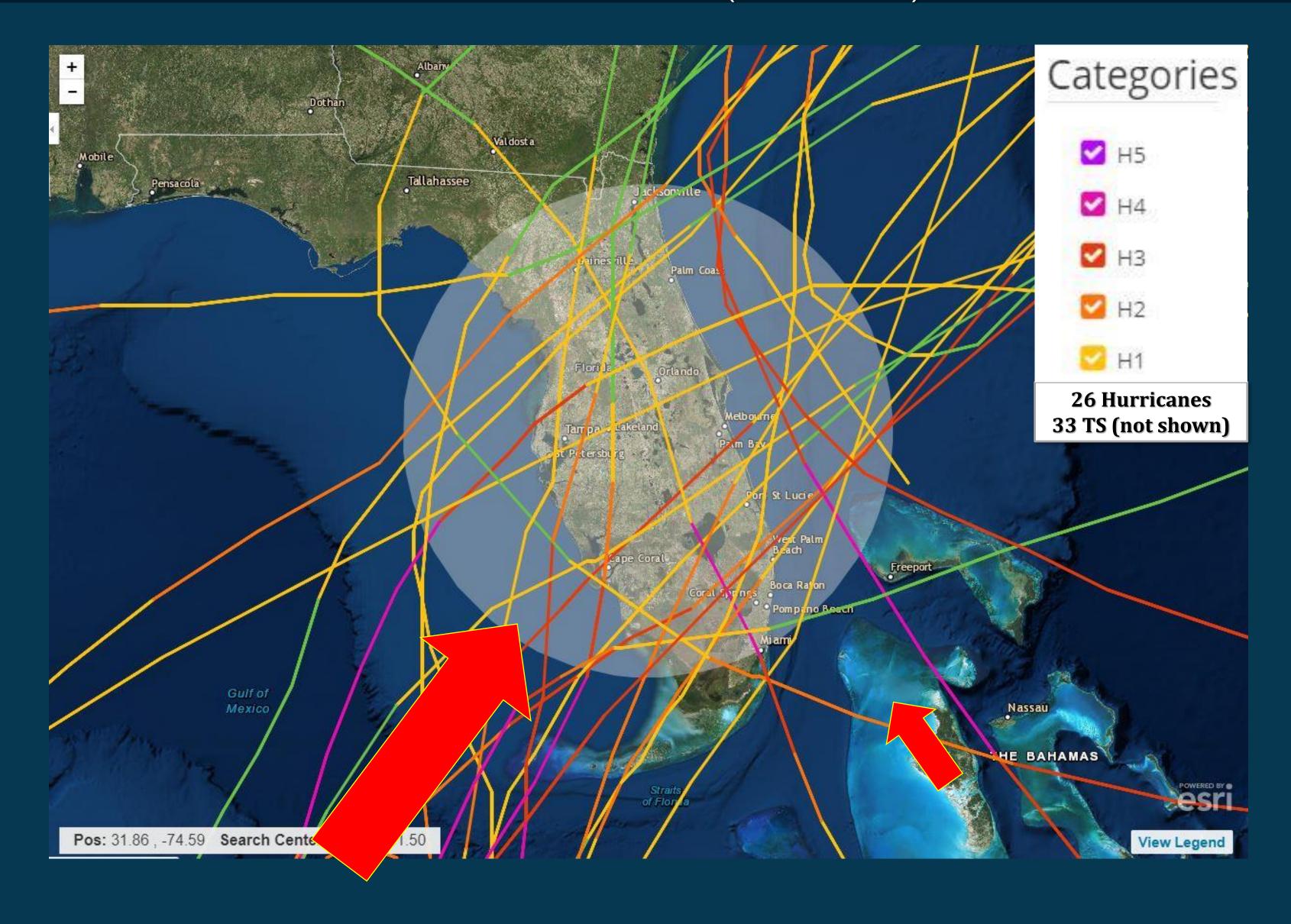
Historical September Hurricanes





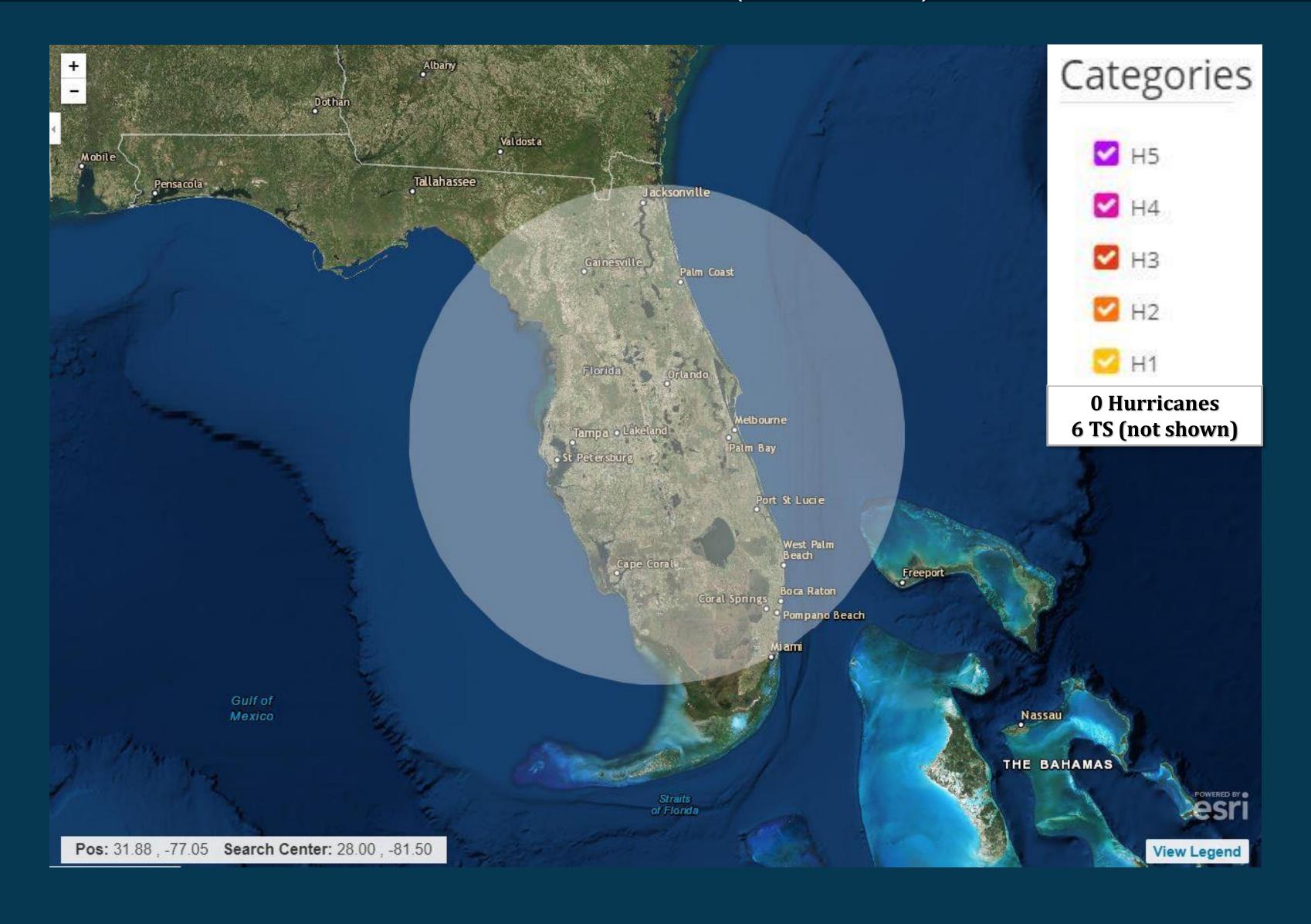
Historical October Hurricanes





Historical November Hurricanes

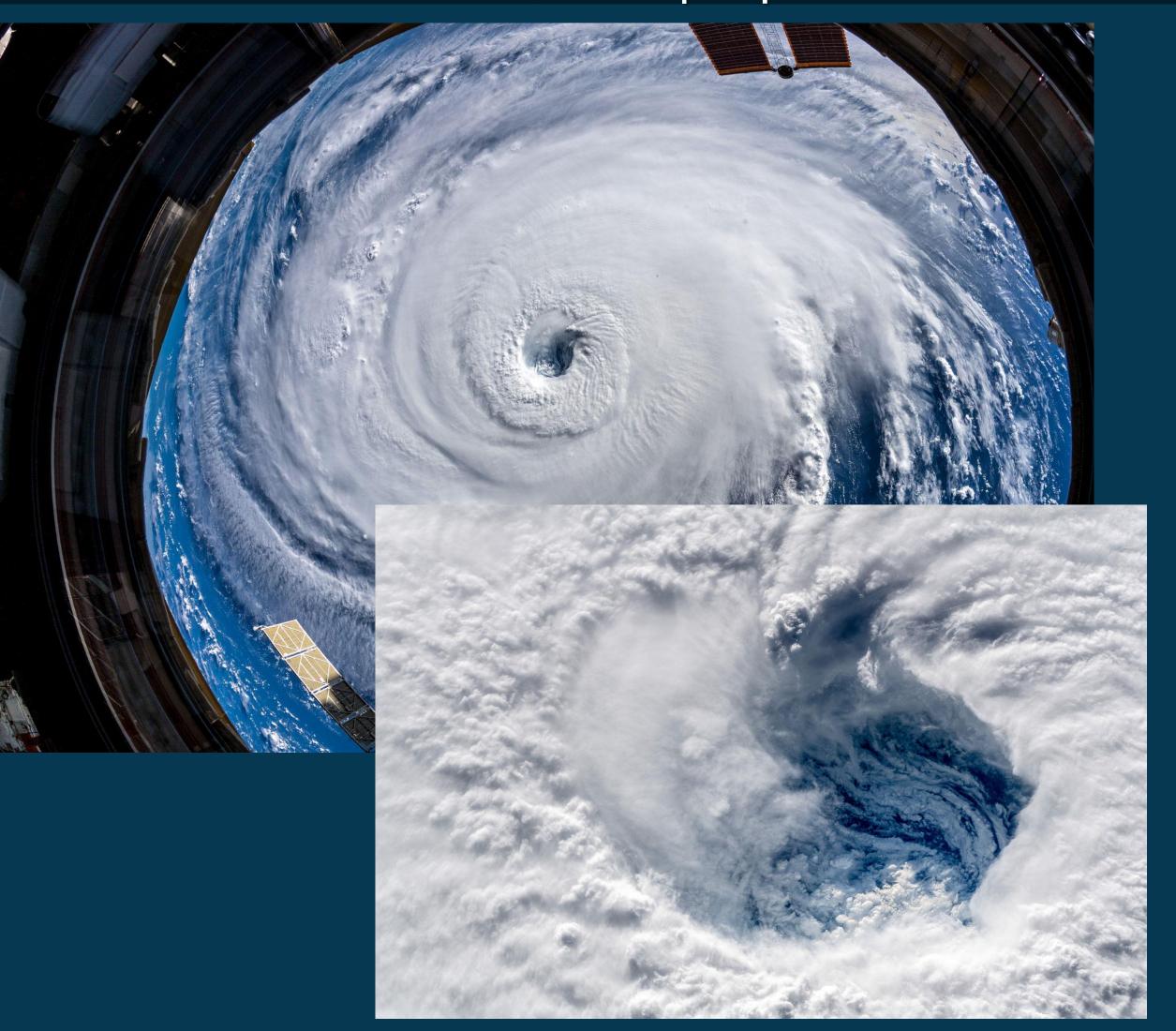




GOES-16 Satellite (R-Series)

Launched: November 19, 2016 | Operational: December 18, 2017





GOES Height 22,500 miles

Compared to previous generation of weather satellites

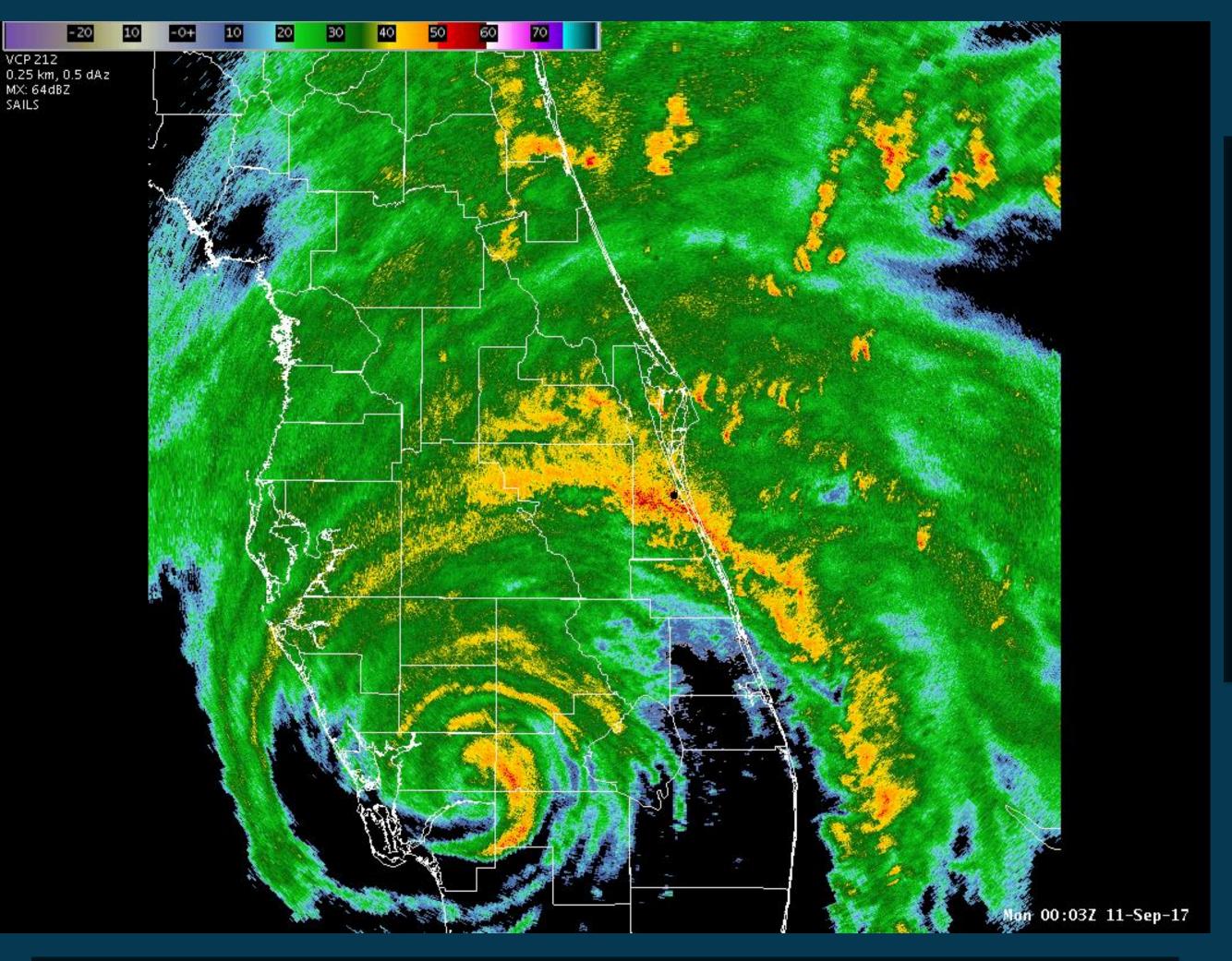
- 3X MORE CHANNELS
 - 16 bands
- 4X BETTER RESOLUTION
 - 0.3 miles
- 5X FASTER SCANS
 - Every 30 seconds

Hurricane Florence | September 10, 2018

WSR-88D Doppler Weather Radar

NWS Melbourne, FL (KMLB)





Radar Specifications

- 2 min update frequency
- 0.13-0.54 mile resolution
- Up to 250 mile range
- Up to 14 elevation angles

Hurricane Irma | September 11, 2017 00:03Z - 02:44Z

Hurricane Wind

Saffir-Simpson Hurricane Scale



Saffir-Simpson Hurricane Wind Scale

Category 1 - 5

5

WIND: 157 mph or higher

DAMAGE: Catastropic damage will occur

4

WIND: 130-156 mph

DAMAGE: Catastropic damage will occur



WIND: 111-129 mph

DAMAGE: Devastating damage will occur



WIND: 96-110 mph

DAMAGE: Extremely dangerous winds will cause extensive damage



WIND: 74-95 mph

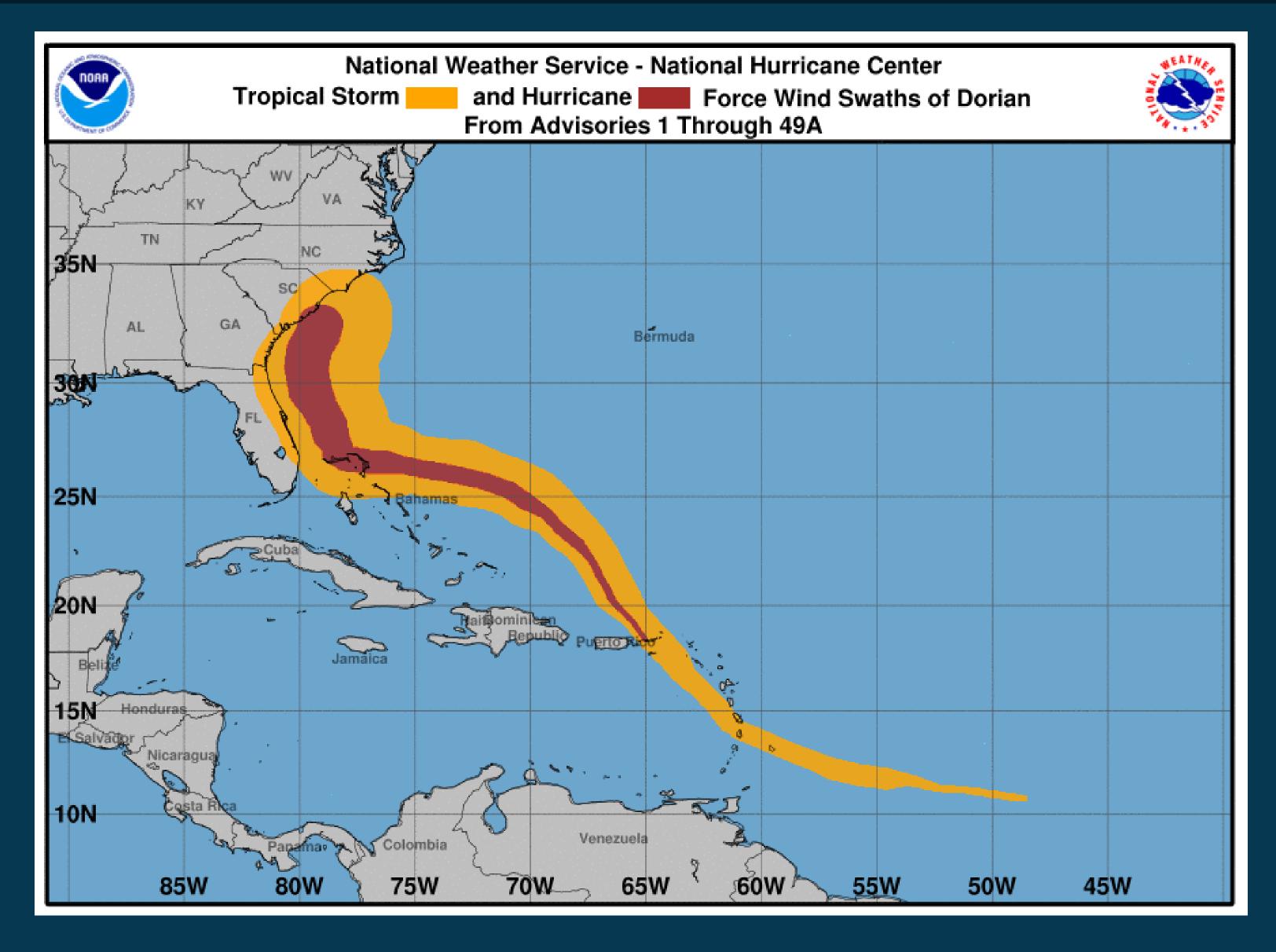
DAMAGE: Very dangerous winds will produce some damage



Hurricane Dorian (2019)

Hurricane Wind Swath

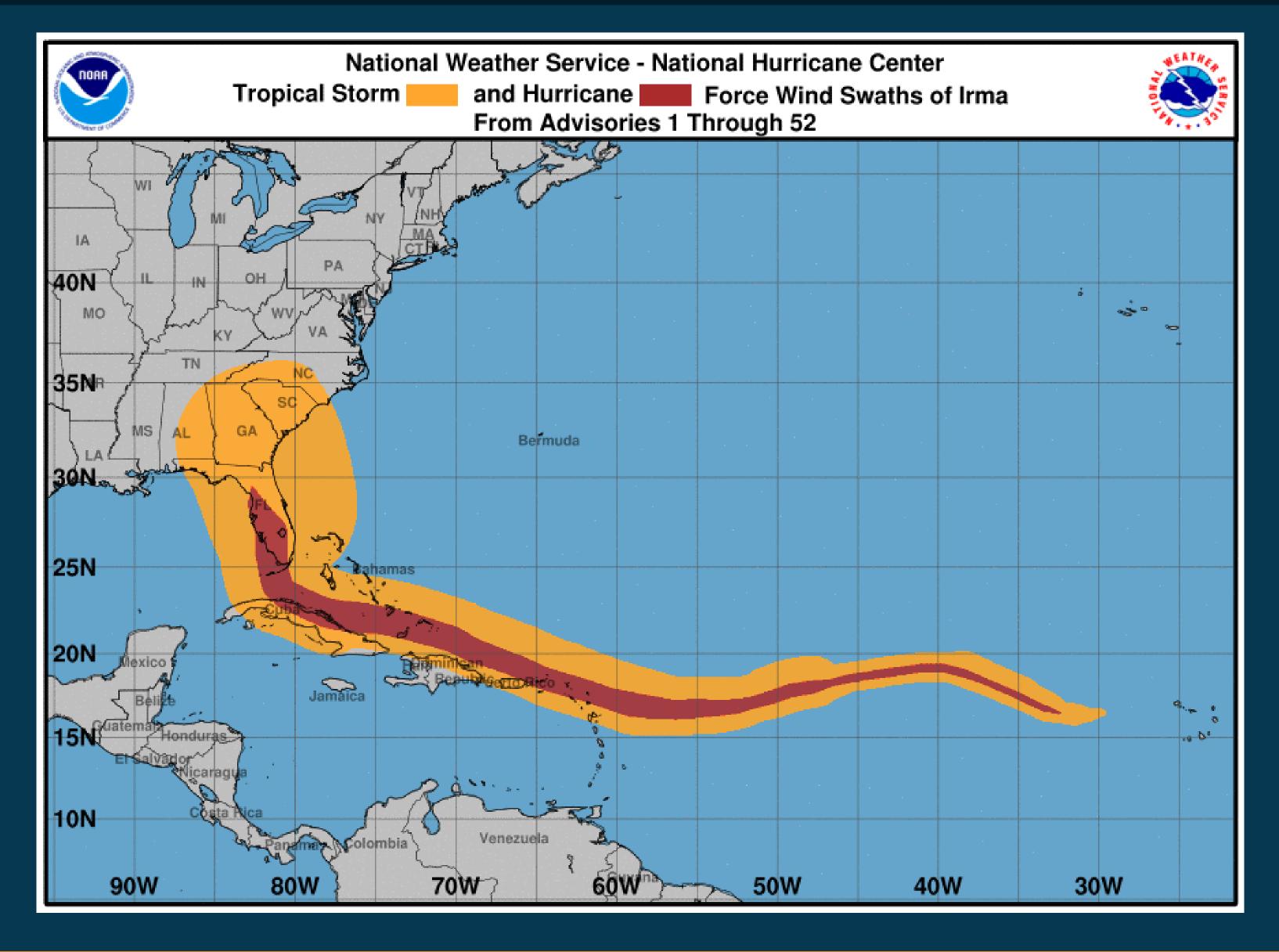




Hurricane Irma (2017)

Hurricane Wind Swath

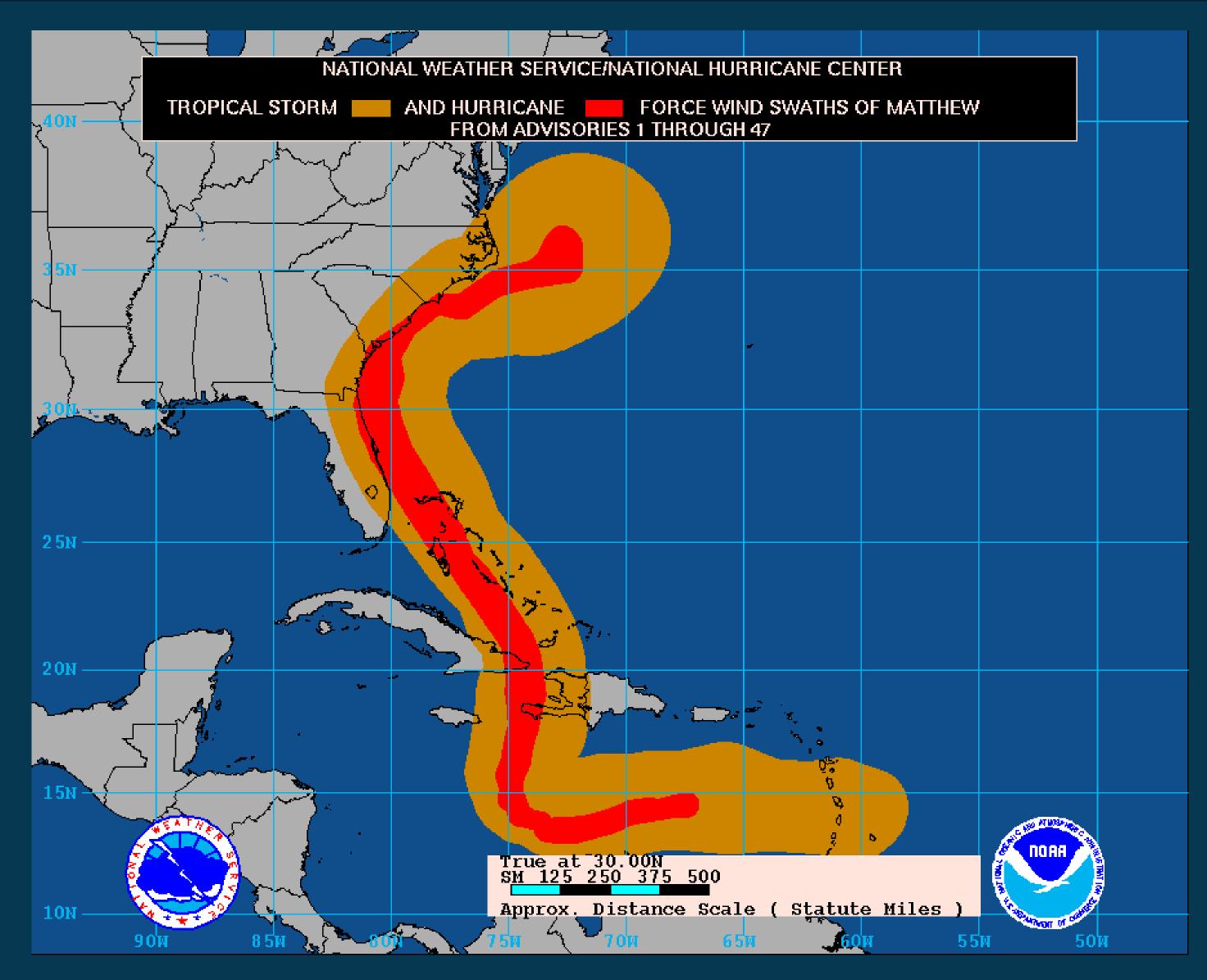




Hurricane Matthew (2016)

Hurricane Wind Swath





Exponential Increase in Power

Saffir-Simpson Hurricane Scale





How is a Seasonal Forecast Made?

Only takes one impact to make for a bad year, PREPAREDNESS IS KEY! WEATHER FORECAS

A very large percentage of the year-to-year variation in the number of Tropical Storms, Hurricanes and Major Hurricanes across the North Atlantic, Caribbean Sea and Gulf of Mexico can be explained by two primary factors:

I. The warmth of Sea Surface Temperatures (SSTs)

- In general, the warmer the SSTs, the greater the number of storms/hurricanes
- In general, the cooler the SSTs, the lesser the number of storms/hurricanes

2. The amount of wind shear within the atmosphere (El Niño is a good proxy)

- In general, the stronger the El Niño, the lesser the number of storms/hurricanes
- In general, the lack of an El Niño, the greater the number of storms/hurricanes

3. Some important caveats concerning the Seasonal Hurricane Forecast:

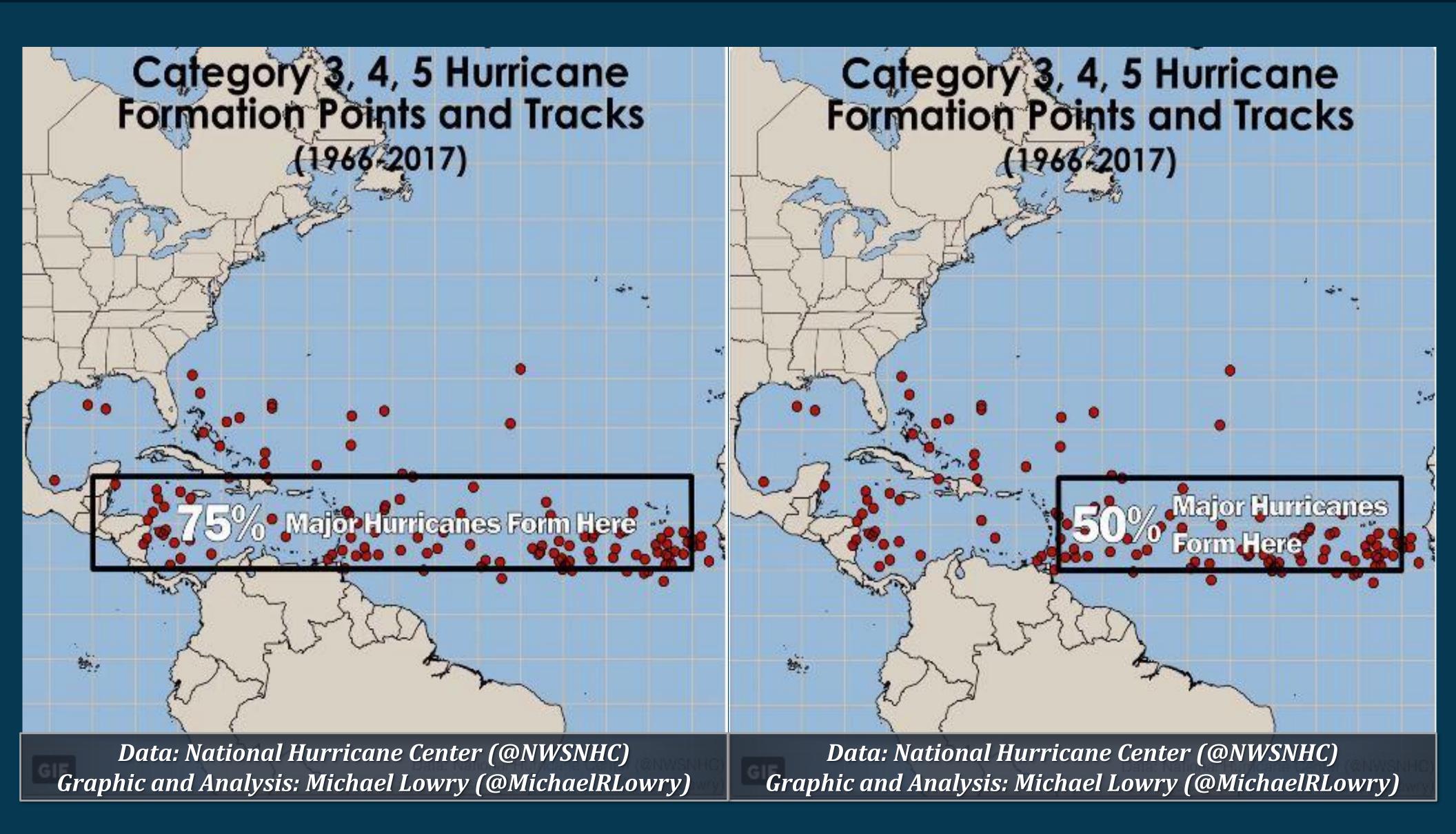
- It is for the entire season, from June 1 to November 30
- It is for the entire North Atlantic, Caribbean Sea & Gulf of Mexico
- It doesn't say anything about what areas may be impacted by storms/hurricanes



Main Development Region (MDR)

Critical Area For Hurricane Formation

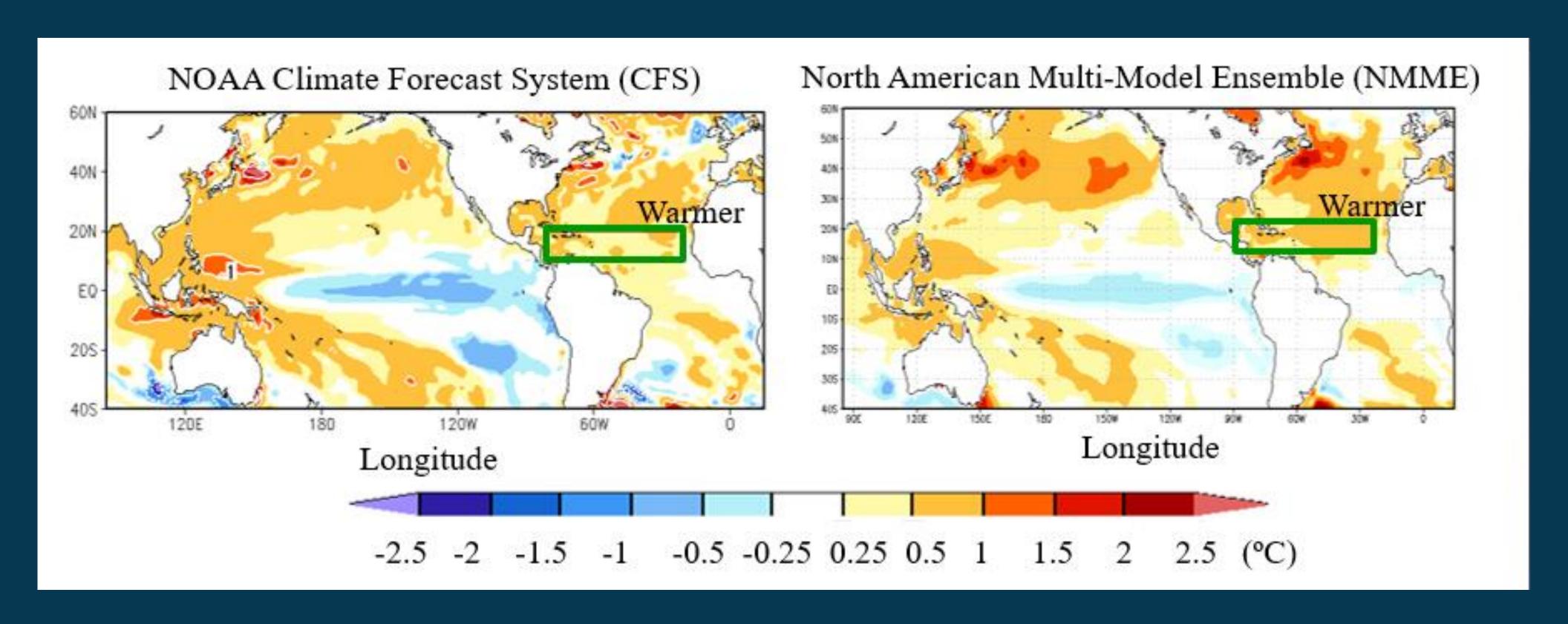




NOAA Sea Surface Temperature Forecast

August to October 2020 SST Average (relative to normal)





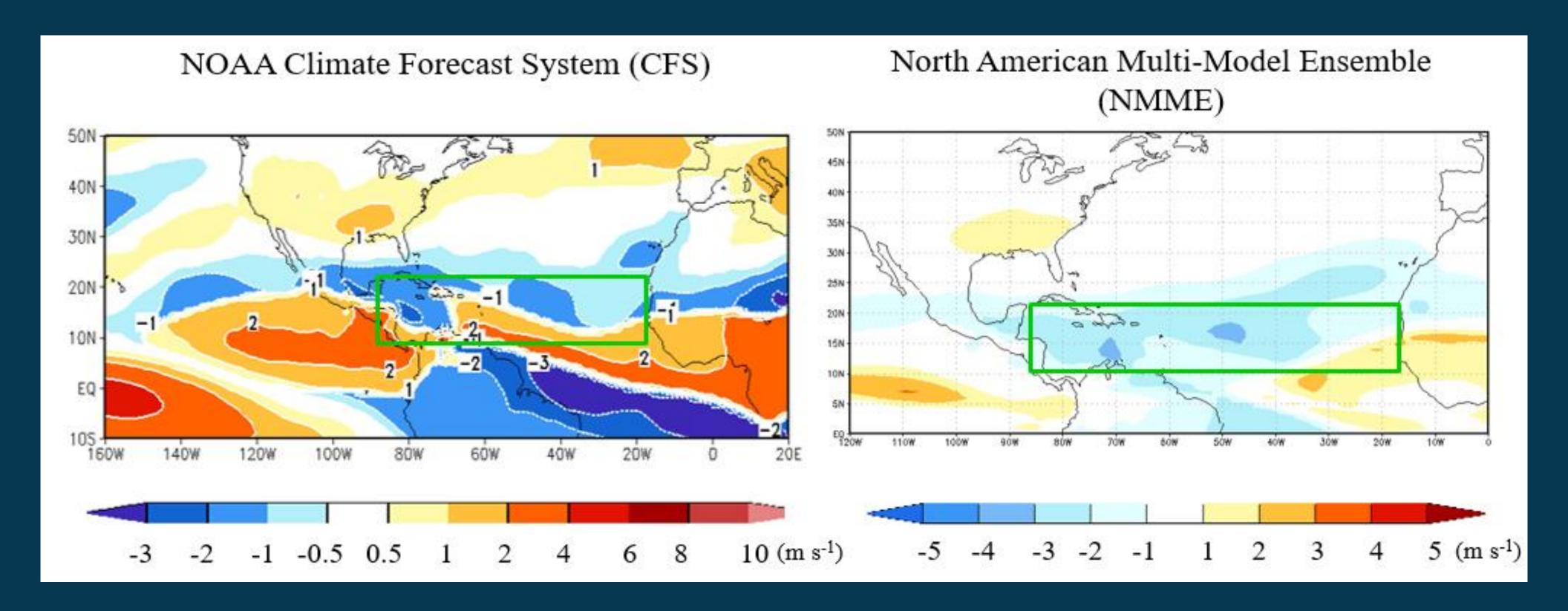
North Atlantic Ocean temperatures are forecast to be above normal during the peak of hurricane season.

Warm waters provide additional "fuel" for hurricane formation and contributes to enhanced levels of activity.

NOAA Wind Shear Forecast

August to October 2020 SST Average (relative to normal)





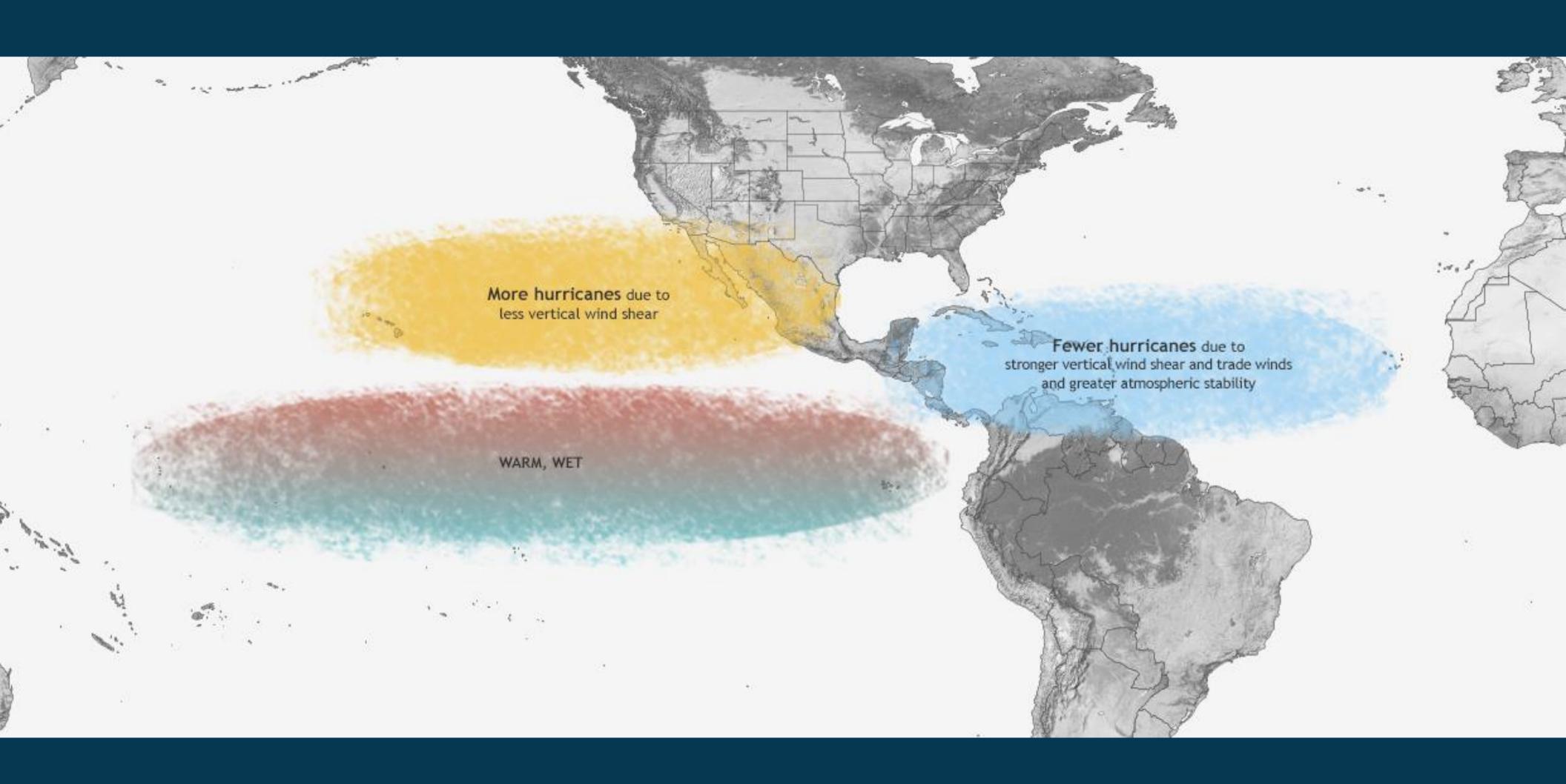
Wind shear conditions over the tropical Atlantic are forecast to be below normal during the peak of hurricane season.

Weaker wind shear does not suppress (and can reinforce) conditions for hurricane formation/strengthening and contributes to enhanced levels of activity.

El Niño

Changes Across The Tropics

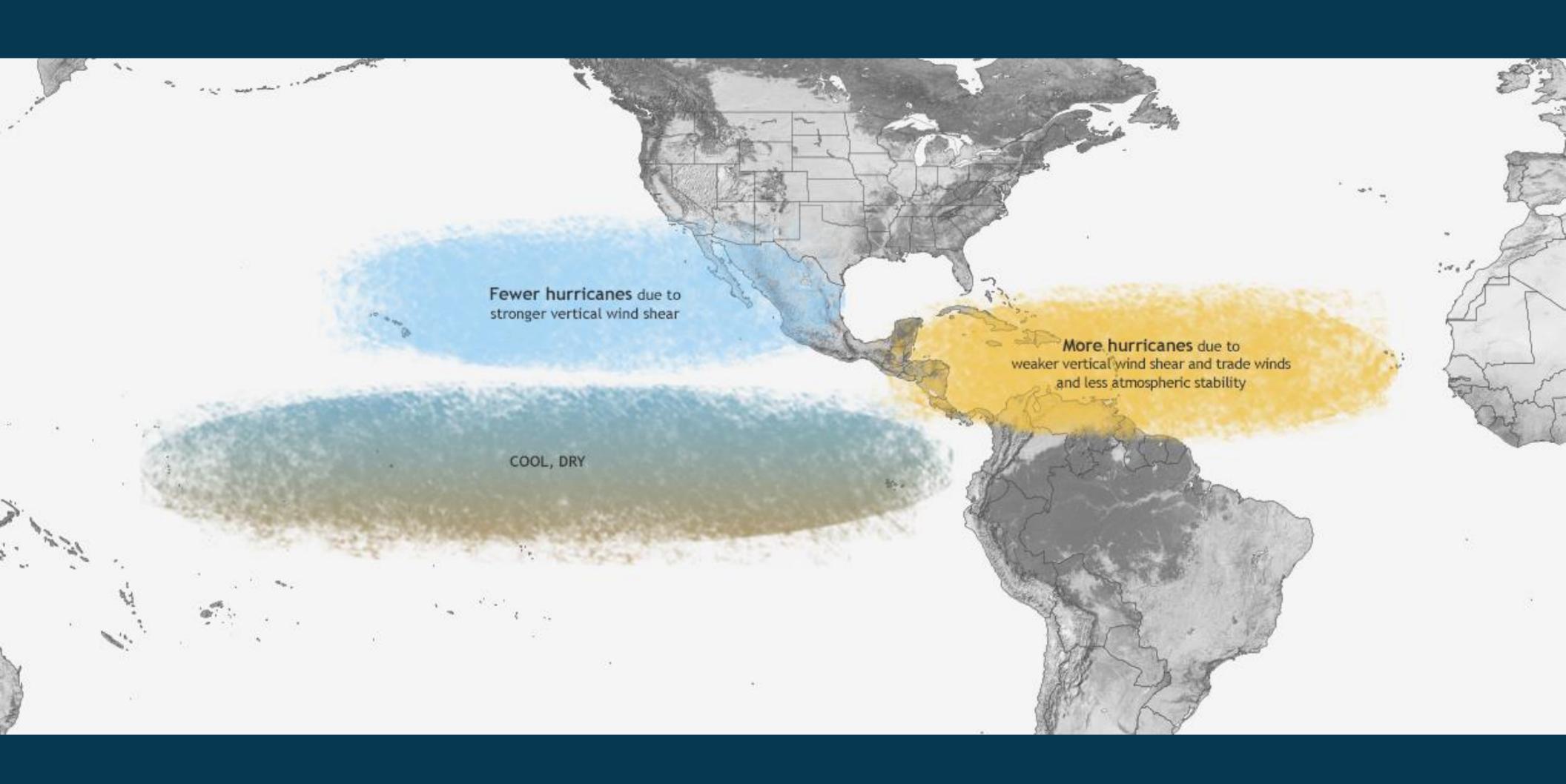




La Niña

Changes Across The Tropics

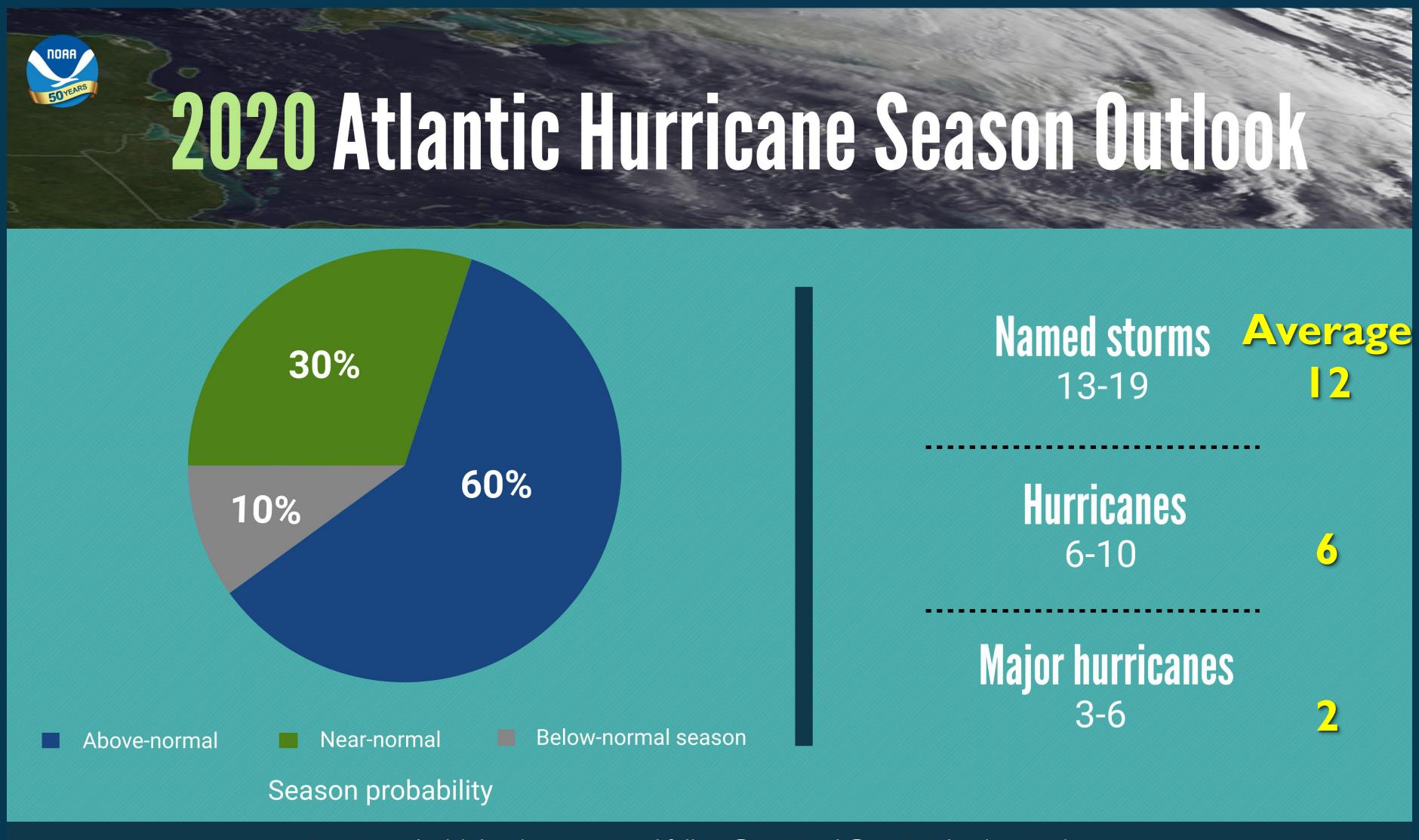




Outlook for 2020 Season

Above-Average Season Expected





Be prepared: Visit hurricanes.gov and follow @NWS and @NHC_Atlantic on Twitter.

May 2020

2020 Atlantic Tropical Cyclone Names

21 Names; 6-Year Rotating List of Names, unless a name is retired



Arthur
Bortha
Cristobal
Dolly
Edouard
Fay
Gonzalo

Hanna Isaias Josephine Kyle Laura Marco Nana Omar Paulette Rene Sally Teddy Vicky Wilfred

*Names provided by the World Meteorological Organization

Be prepared: Visit hurricanes.gov and follow @NWS and @NHC_Atlantic on Twitter.

May 2020

Tropical Storm Cristobal developed on June 2, 2020 – making it the earliest "C" name storm on record (previous was T.S. Colin on June 5, 2016)

Tropical Weather Watches





- <u>Tropical Storm Watch</u>: Tropical storm conditions (sustained winds of 39 to 73 mph) are *possible* somewhere within the specified area within 48 hours.
- <u>Hurricane Watch</u>: Hurricane conditions (sustained winds of 74 mph or greater) are possible somewhere within the specified area. Because it is not safe to prepare for a hurricane once winds reach tropical storm force, hurricane watches are issued 48 hours before tropical storm-force winds.
- Storm Surge Watch: There is a possibility of life-threatening inundation from rising water (defined as 3+ feet above ground level) moving inland from the shoreline somewhere within the specified area, generally within 48 hours.

Tropical Weather Warnings





- Tropical Storm Warning: Tropical storm conditions (sustained winds of 39 to 73 mph) are expected somewhere within the specified area within 36 hours.
- Hurricane Warning: Hurricane conditions (sustained winds of 74 mph or greater) are expected somewhere within the specified area. Because it is not safe to prepare for a hurricane once winds reach tropical storm force, hurricane watches are issued 36 hours before tropical storm-force winds.
- Extreme Wind Warning: Extreme sustained winds of a major hurricane (115 mph or greater), usually associated with the eyewall, are expected to begin within one hour. Take immediate shelter in the interior portion of a well-built structure.
- Storm Surge Warning: Danger of life-threatening inundation from rising water (defined as 3+ feet above ground level) moving inland from the shoreline somewhere within the specified area, within 36 hours.

Four Impacts

All tropical cyclones can produce one or combination of these











Hurricane Irma (2017)

Wind Impacts



Daytona Beach

Sustained: 54 mph; Gust: 78 mph

Leesburg

Sustained: 48 mph; Gust: 69 mph

Orlando

Sustained: 59 mph; Gust: 79 mph

Sanford

Sustained: 55 mph; Gust: 75 mph

Kissimmee

Sustained: 44 mph; Gust: 67 mph

Ft. Pierce

Sustained: 71 mph; Gust: 89 mph

Okeechobee

Sustained: 46 mph; Gust: 71 mph

Weather radar estimates suggest sustained winds of 50-70 mph with gusts of 75-95 mph impacted much of the east-central Florida coast. A few locations may have experienced peak wind gusts near 100 mph, associated with the strongest rain band squalls.

Hurricane Irma (2017)

Tornado Impacts



Location	Time (Sept 10)	EF Scale	Max Winds (mph)	Track Length (miles)	Track Width (yards)
Melbourne Beach	919 am	EF-O	70-80	0.20	50
Turkey Creek	1100-1102 am	EF-1	100-110	1.33	75
Indialantic	1124-1126 am	EF-1	90-100	1.21	75
Mims-Kilbee St.	548-550 pm	EF-2	115-125	1.55	125
Mims-Northgate	600-601 pm	EF-1	90-95	0.48	60
Umatilla	628-630 pm	EF-1	95-100	3.84	500
Ormond Beach	904-905 pm	EF-1	100-110	0.78	175
Patrick AFB	904-905 pm	EF-1	85-95	1.23	50
Rockledge	914-915 pm	EF-1	95-105	0.30	60
N. Merritt Island	948-950 pm	EF-1	95-105	3.36	60





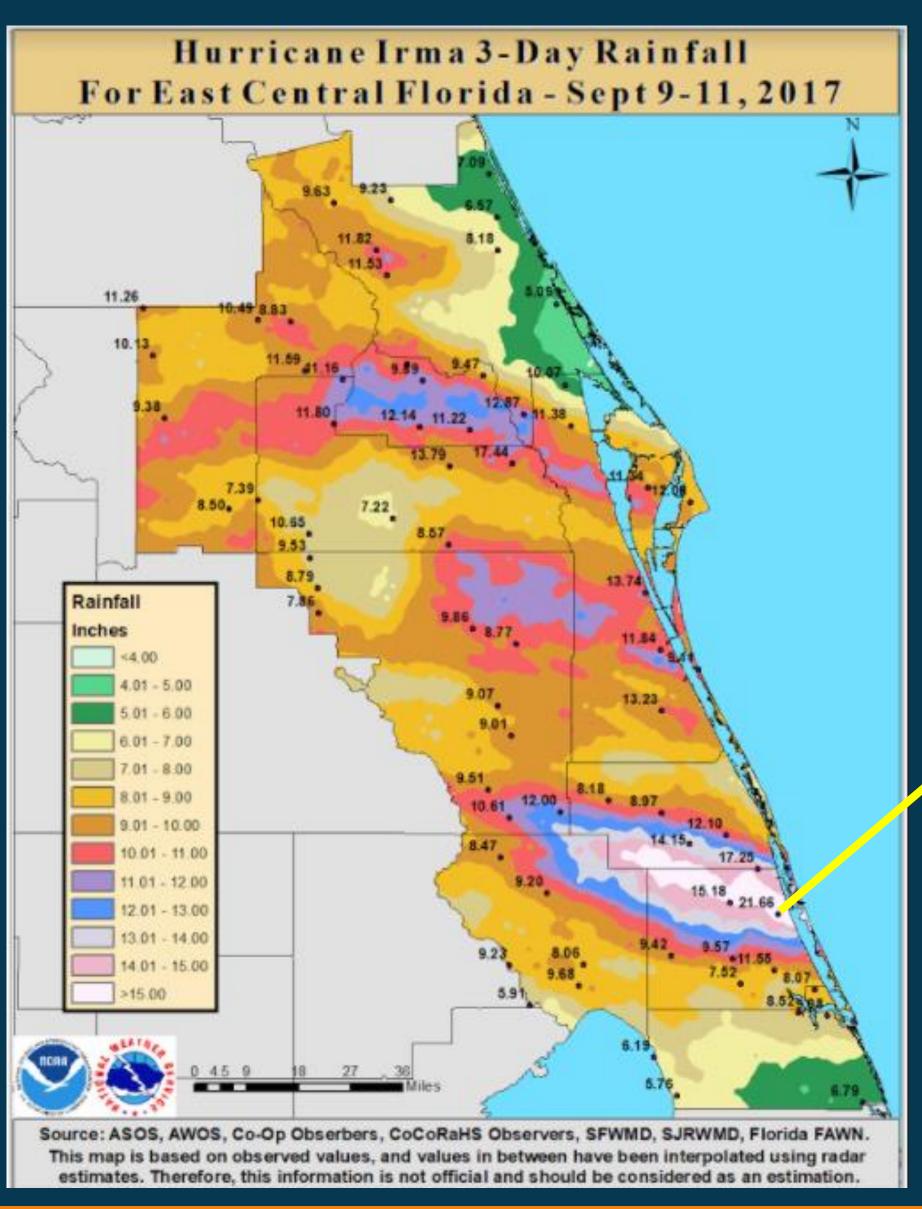




Flooding Rain Impacts

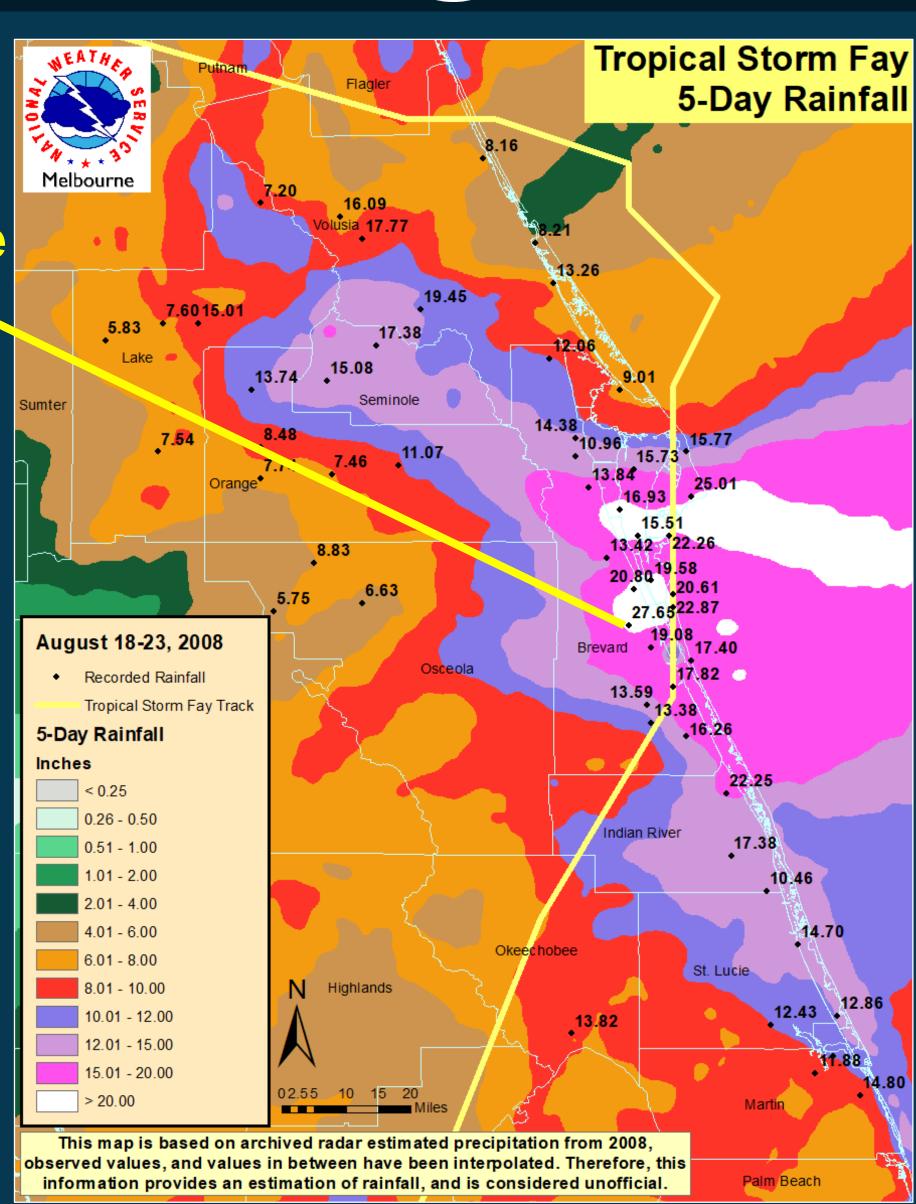
Hurricane Irma (2017) and Tropical Storm Fay (2008)

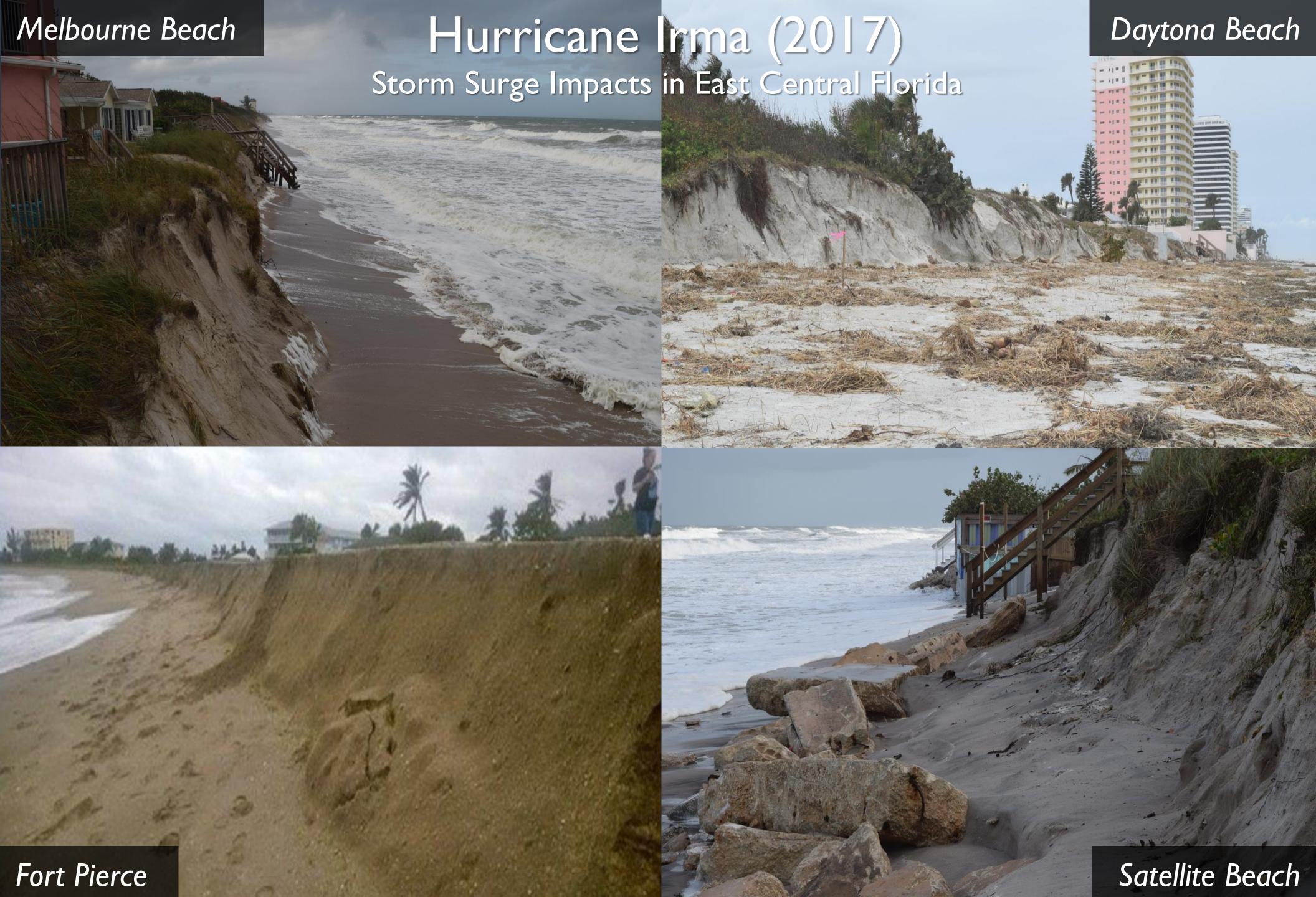




27.65" Melbourne

21.66" Ft. Pierce

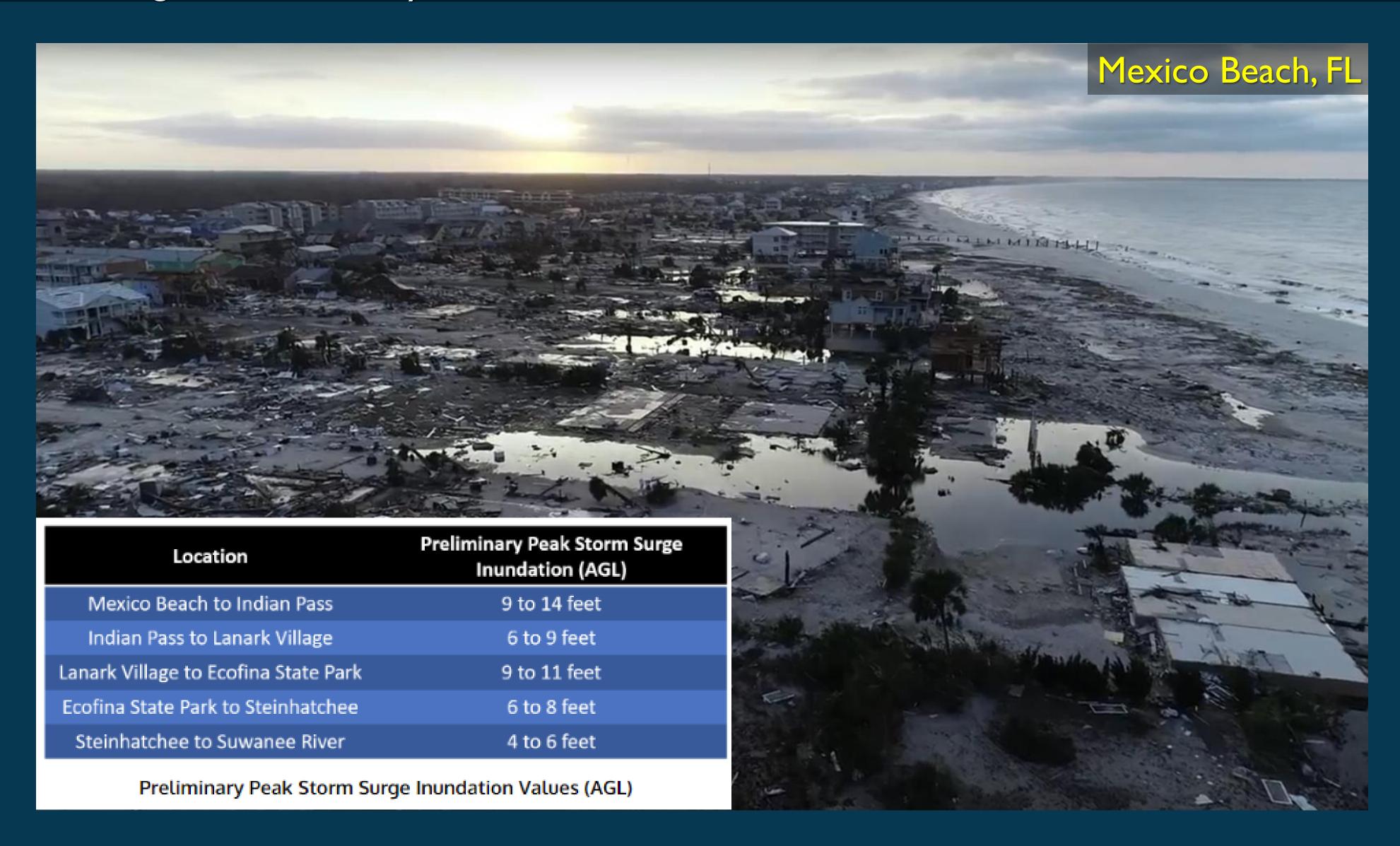




Hurricane Michael (2018)

Storm Surge in Panama City





Hurricane Fatalities (2016-2018)



Water-related hazards are generally underestimated. This can be lethal!



83% Water Related

Most Inland Flooding – Only 4% Storm Surge Related

*excludes Maria due to uncertainty related to causes of direct deaths

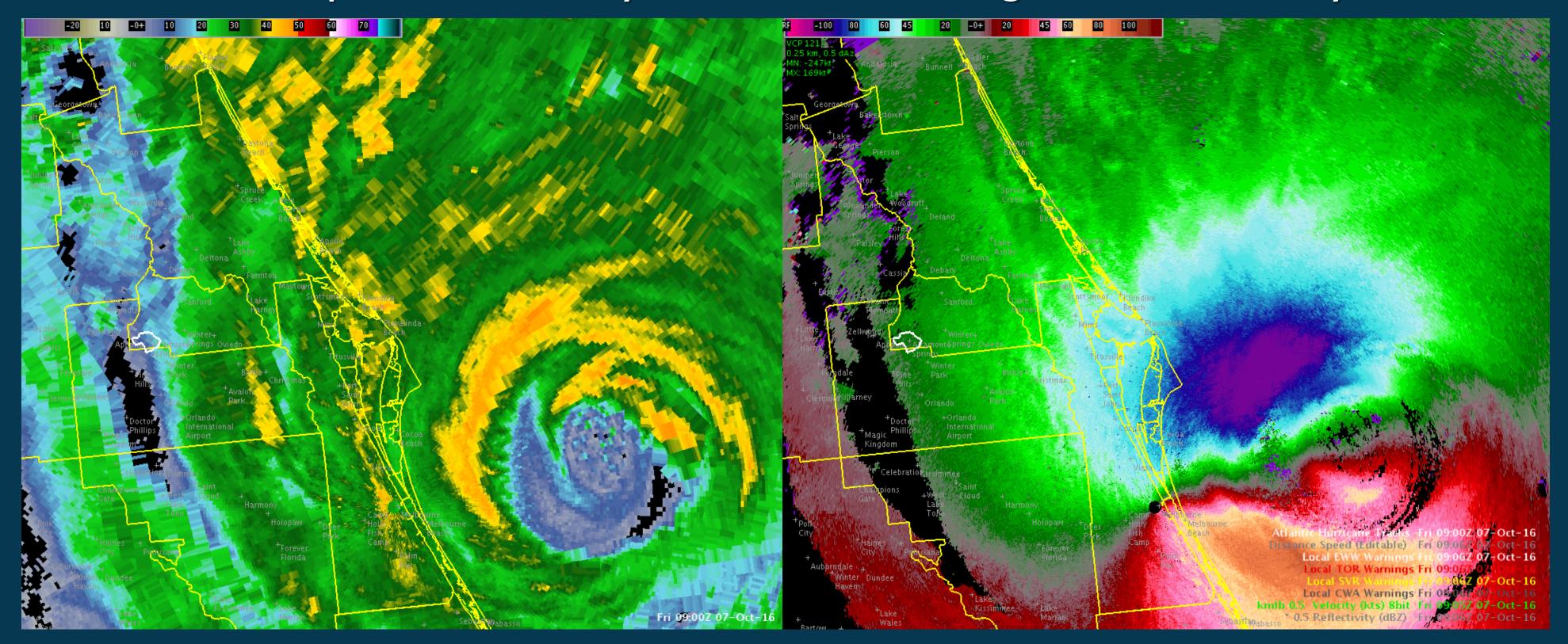


Nature of Extreme Hurricane Winds

Equivalent in Strength to a Strong to Violent Tornado



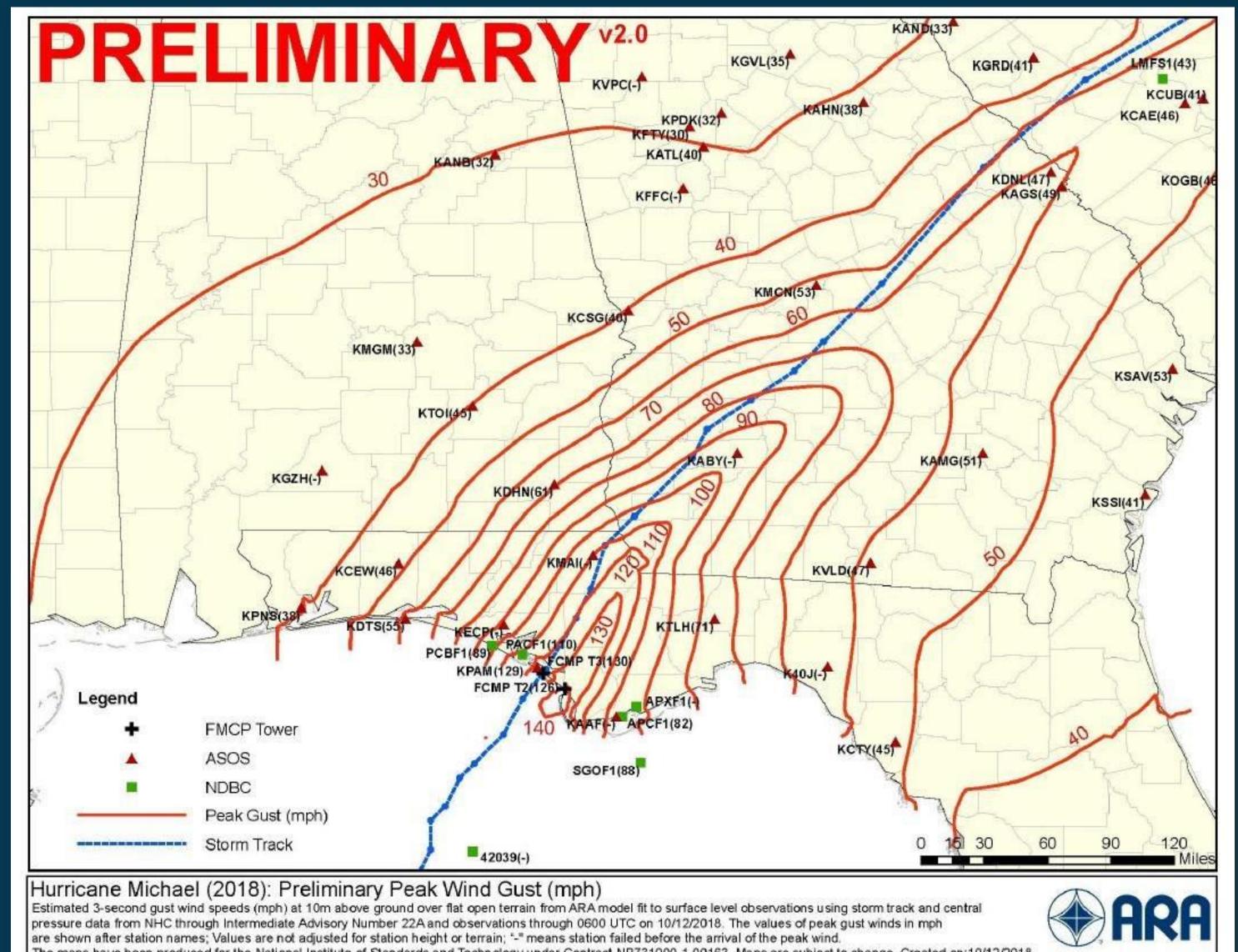
- Occurrence in any one location is a rare event.
- Lives greatly imperiled; devastating/catastrophic damage.
- Exponential increase in impacts; increased projectile loading.
- Numerous rescues may be needed; difficult initial response.
- Collapsed community infrastructure; longer-term recovery.



Hurricane Michael (2018) Wind Swath

Inland Extent of Extreme Winds





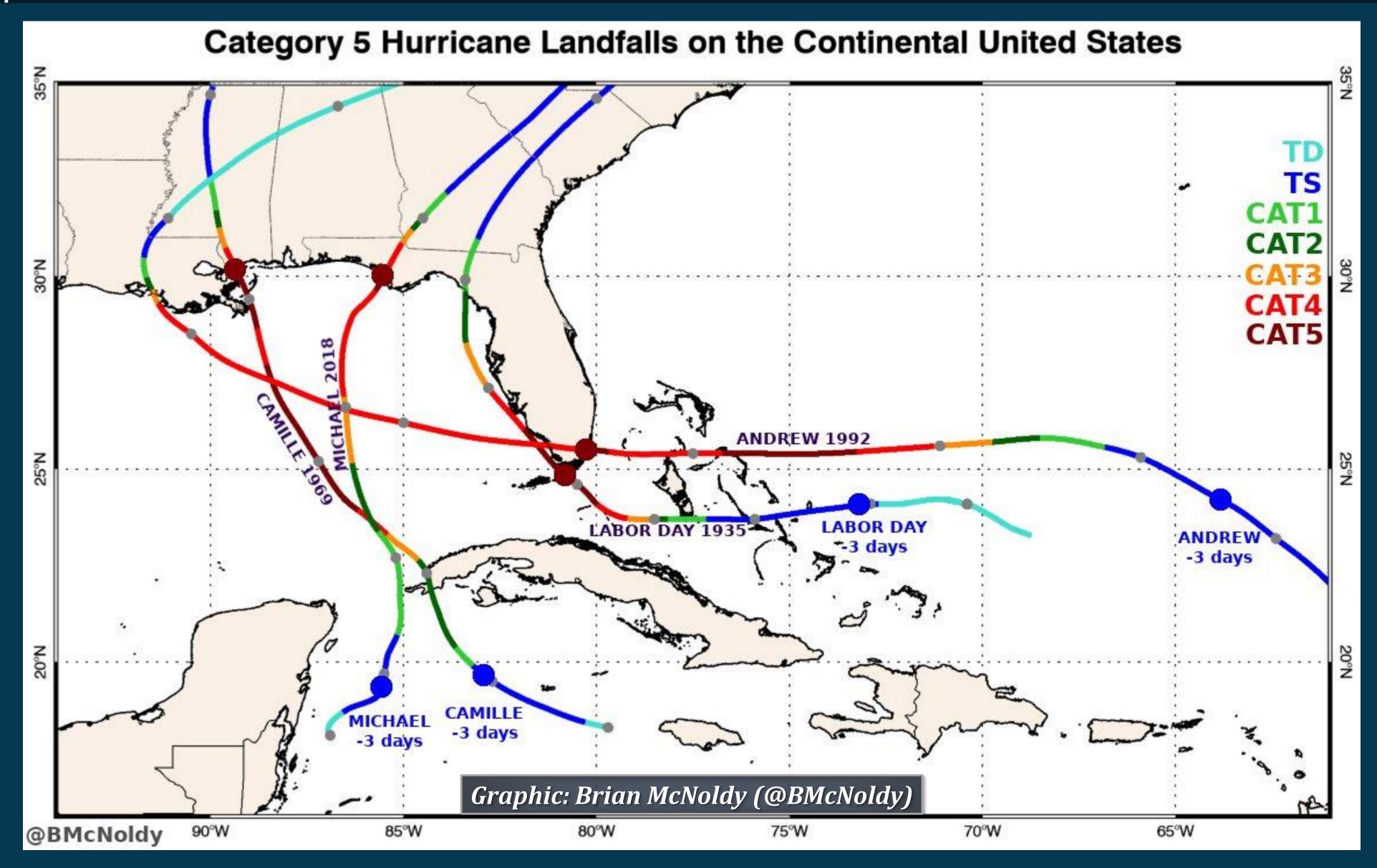
are shown after station names; Values are not adjusted for station height or terrain; "-" means station failed before the arrival of the peak wind.

The maps have been produced for the National Institute of Standards and Technology under Contract NB731000-1-00163. Maps are subject to change. Created on:10/12/2018

U.S. Category 5 Landfalls

Rapid Intensification A Common Factor

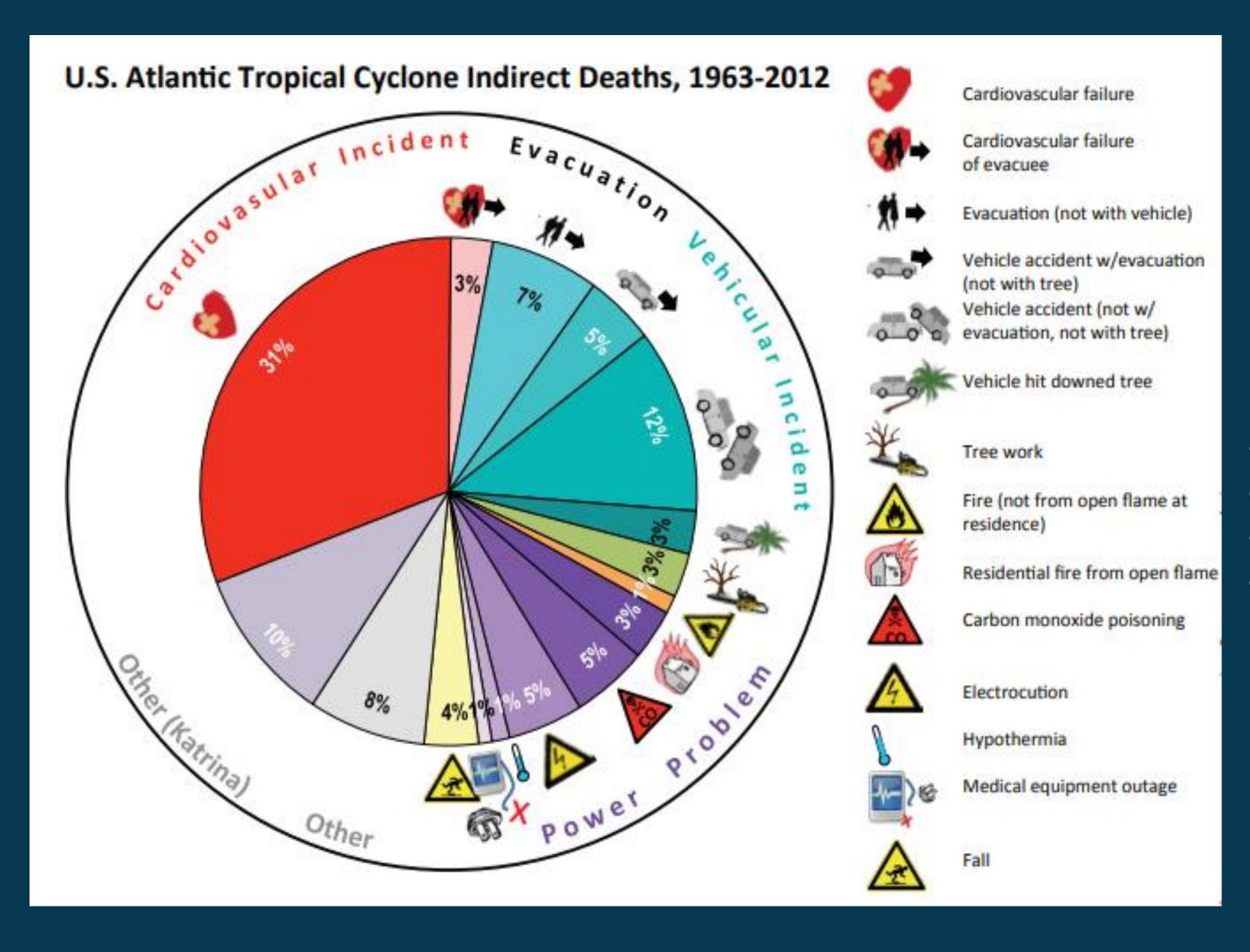




Indirect Fatalities

Longer-Term Impacts





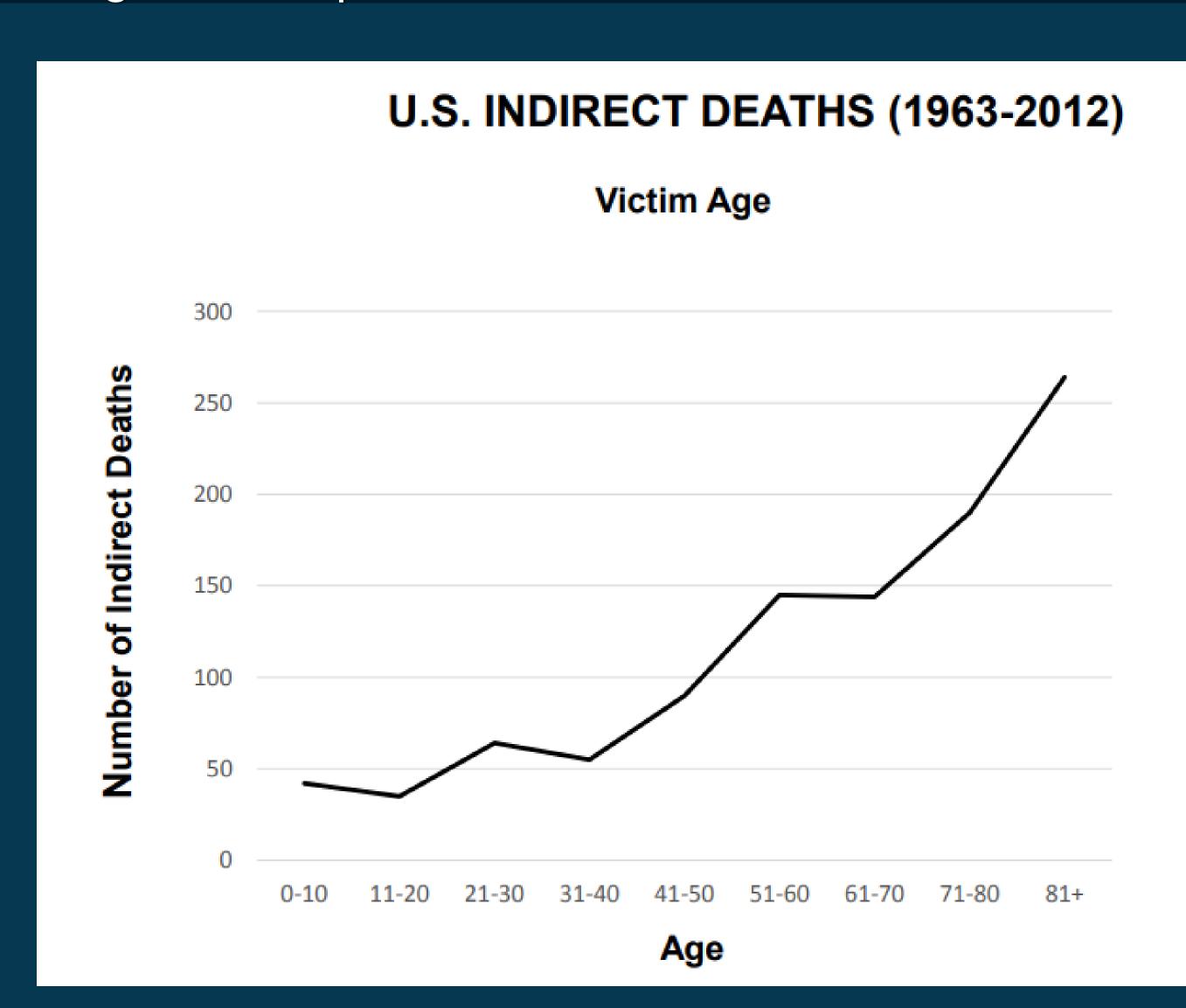
Most frequent factors

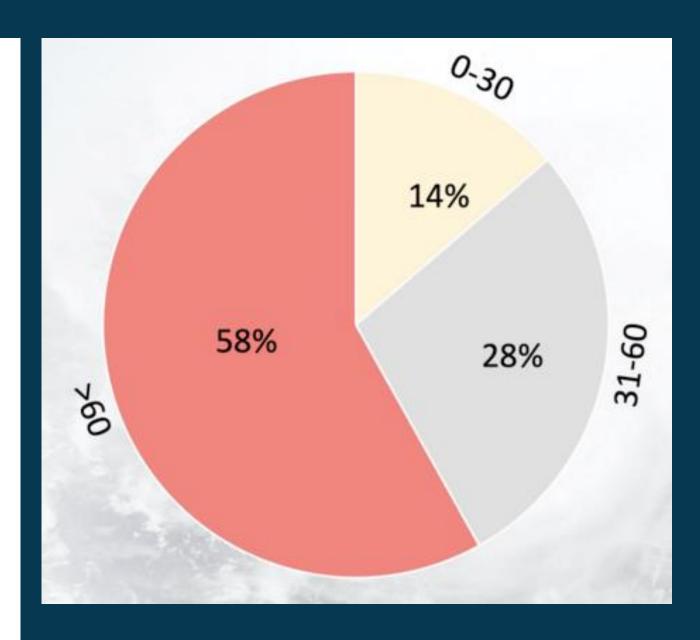
- Cardiovascular
- Loss of electricity
- Vehicle accident
- Evacuation

Indirect Fatalities

Longer-Term Impacts







Number increases generally with age

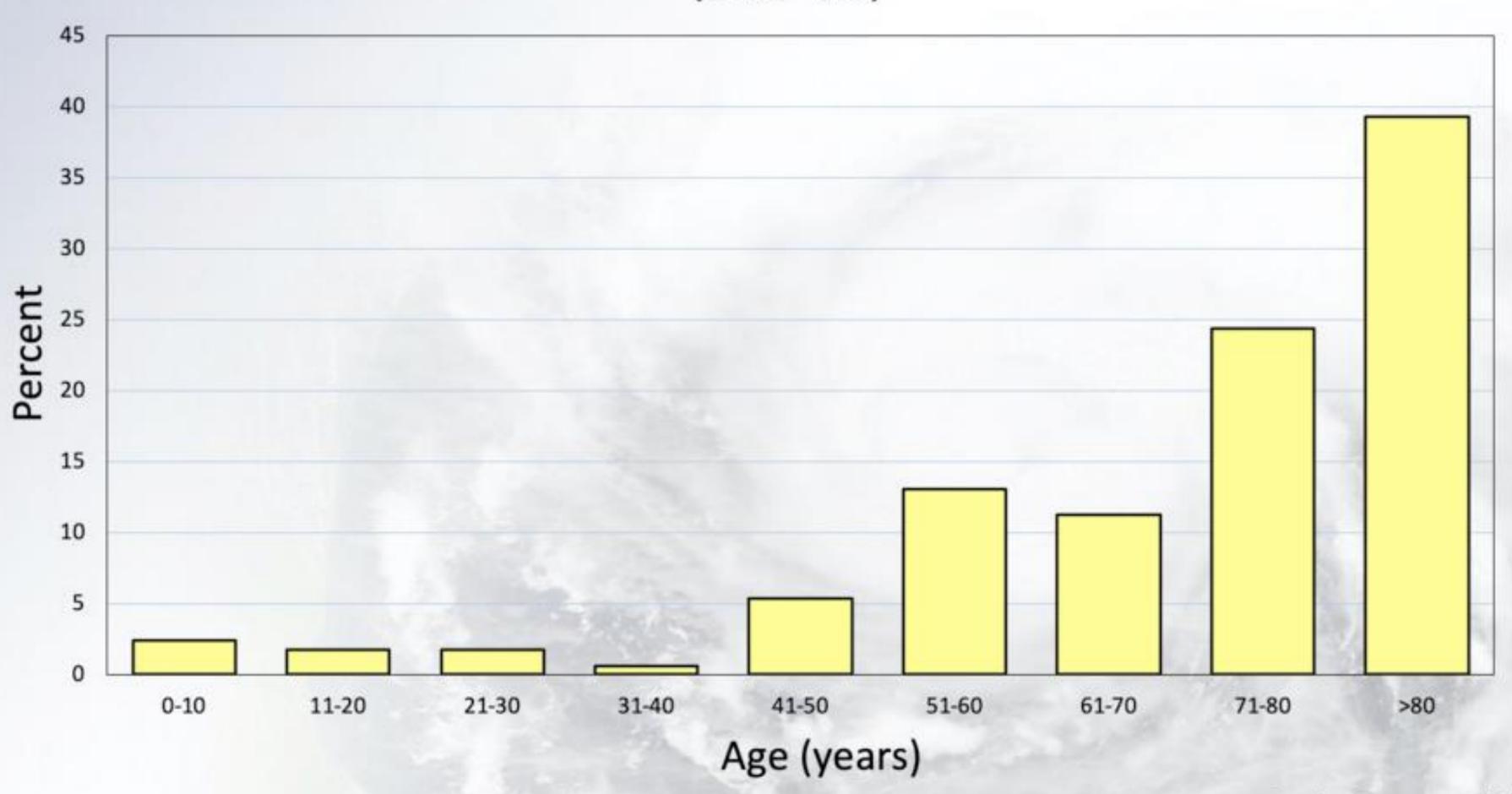
Eight times as many victims over 70 years old as under 21 (influence of heart attacks)

Indirect Fatalities

Longer-Term Impacts



U.S. Tropical Cyclone Indirect Deaths associated with Evacuation (Total = 168)



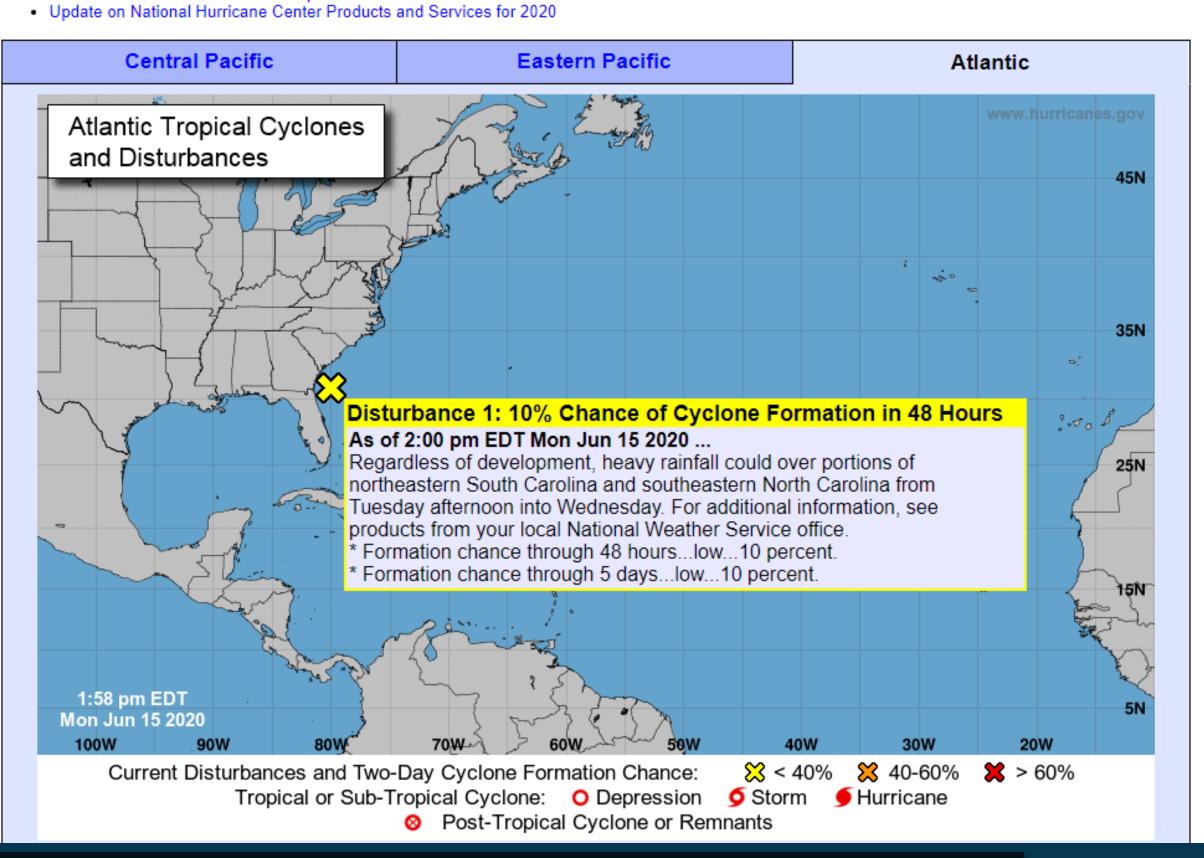
National Hurricane Center

Most Accurate Hurricane Information



Top News of the Day... view past news NOAA releases 2020 seasonal Atlantic/Eastern Pacific hurricane forecast and Central Pacific forecast

- NOAA National Hurricane Center Specialists 1950s-2020s





- 5-day tropical weather outlook every 6 hours
- Track/intensity forecasts updated every 6 hours
- Watches and Warnings
- TS and hurricane wind speed probabilities
- Most likely arrival time of TS winds
- Rainfall and Storm Surge

https://www.hurricanes.gov

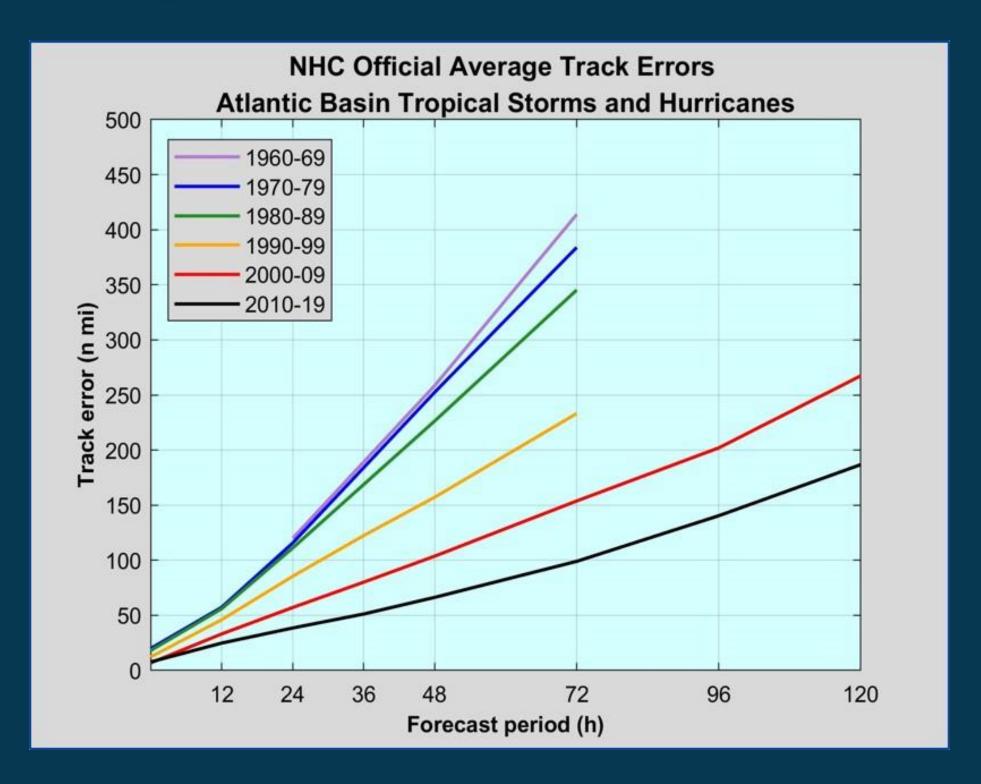


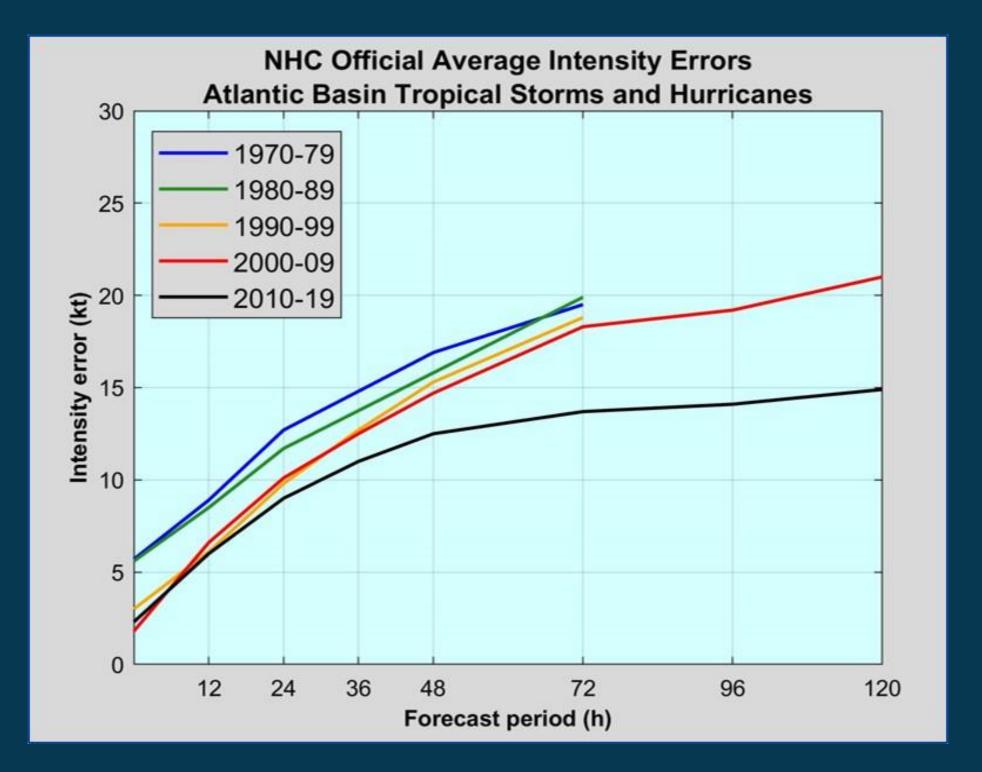
Last update Mon, 15 Jun 2020 18:01:12 UTC

NHC Track and Intensity Improvements

nhc.noaa.gov







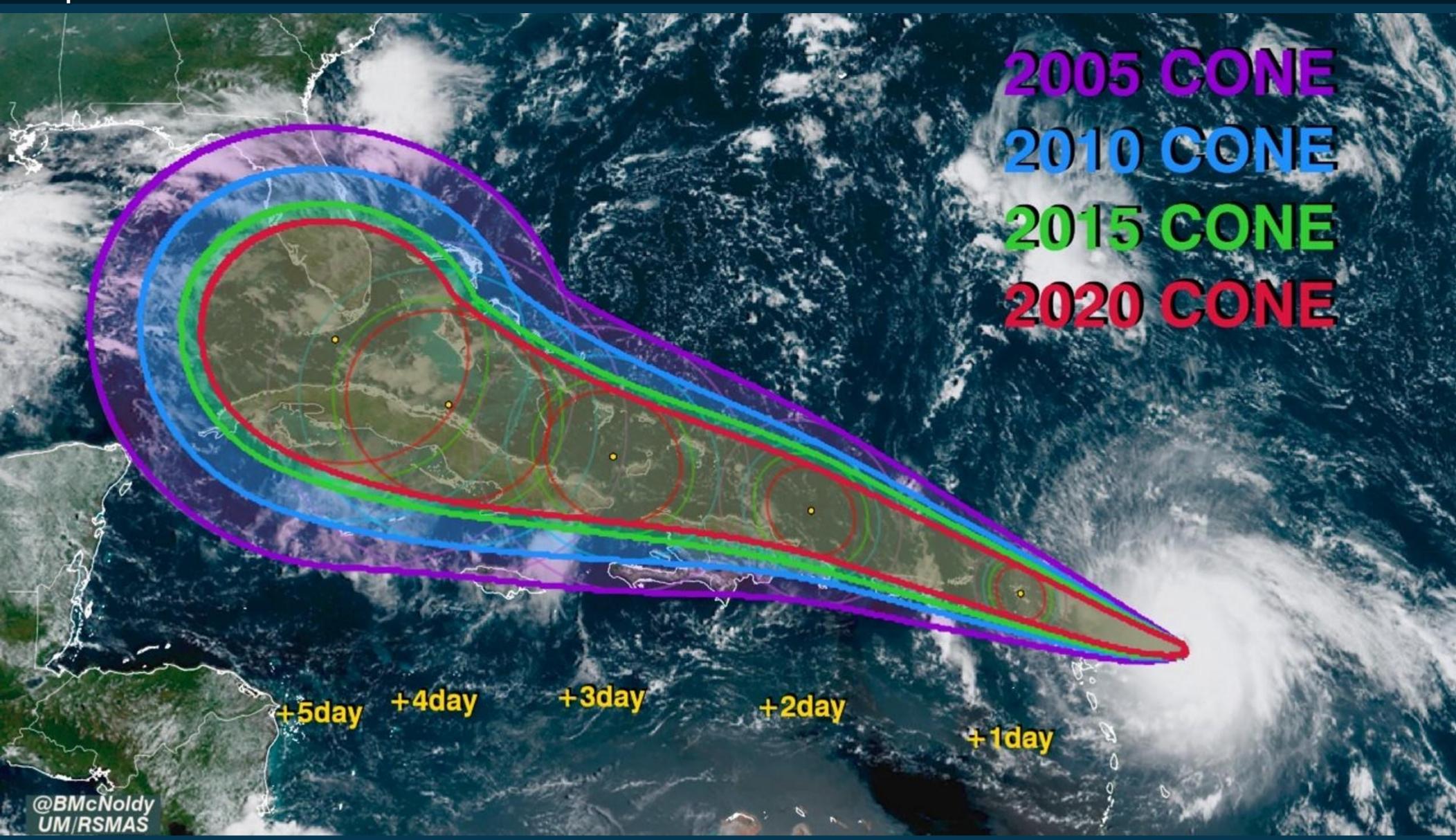
- NHC official track forecast errors are now about a quarter of what they were in 1970s
- Improvements largely driven by advances in numerical modeling, greater data collection and techniques applied by forecasters

 After several decades of little change in intensity forecast errors, errors have begun to decrease in the last decade

NHC "Cone of Uncertainty"

Improved forecasts result in narrower cone

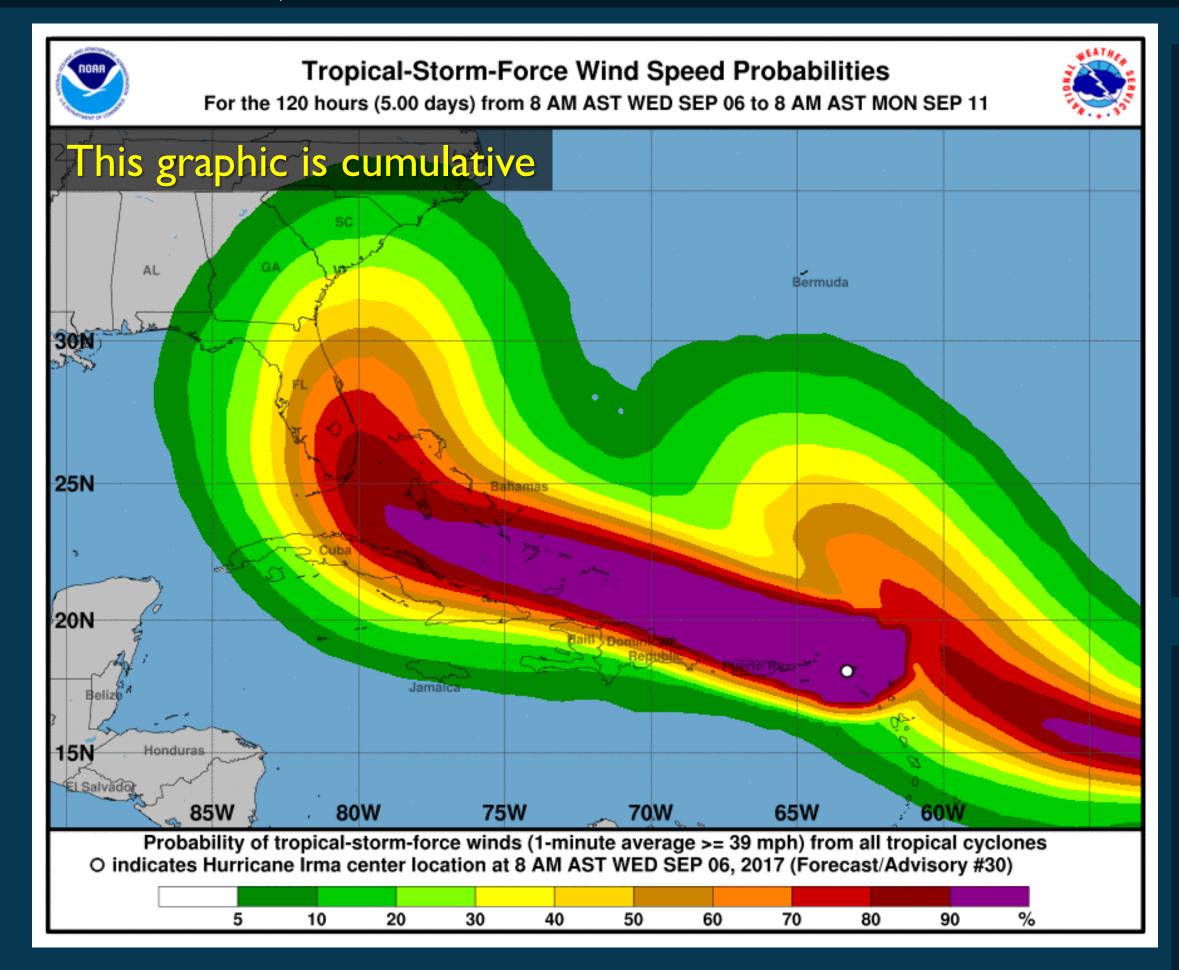




NHC Wind Speed Probabilities

Based on 1,000 realistic scenarios around the "Official NHC Forecast"





Wind Speed Probability values are created for: 34kt (39mph), 50kt (58mph), and 64kt (74mph)

Based Upon:

- Various tracks
- Various intensities
- Various forward speeds
- Various storm sizes

Results Drive:

- TS, Strong TS and Hurricane wind probabilities
- TS arrival times
- Input to probabilistic storm surge inundations

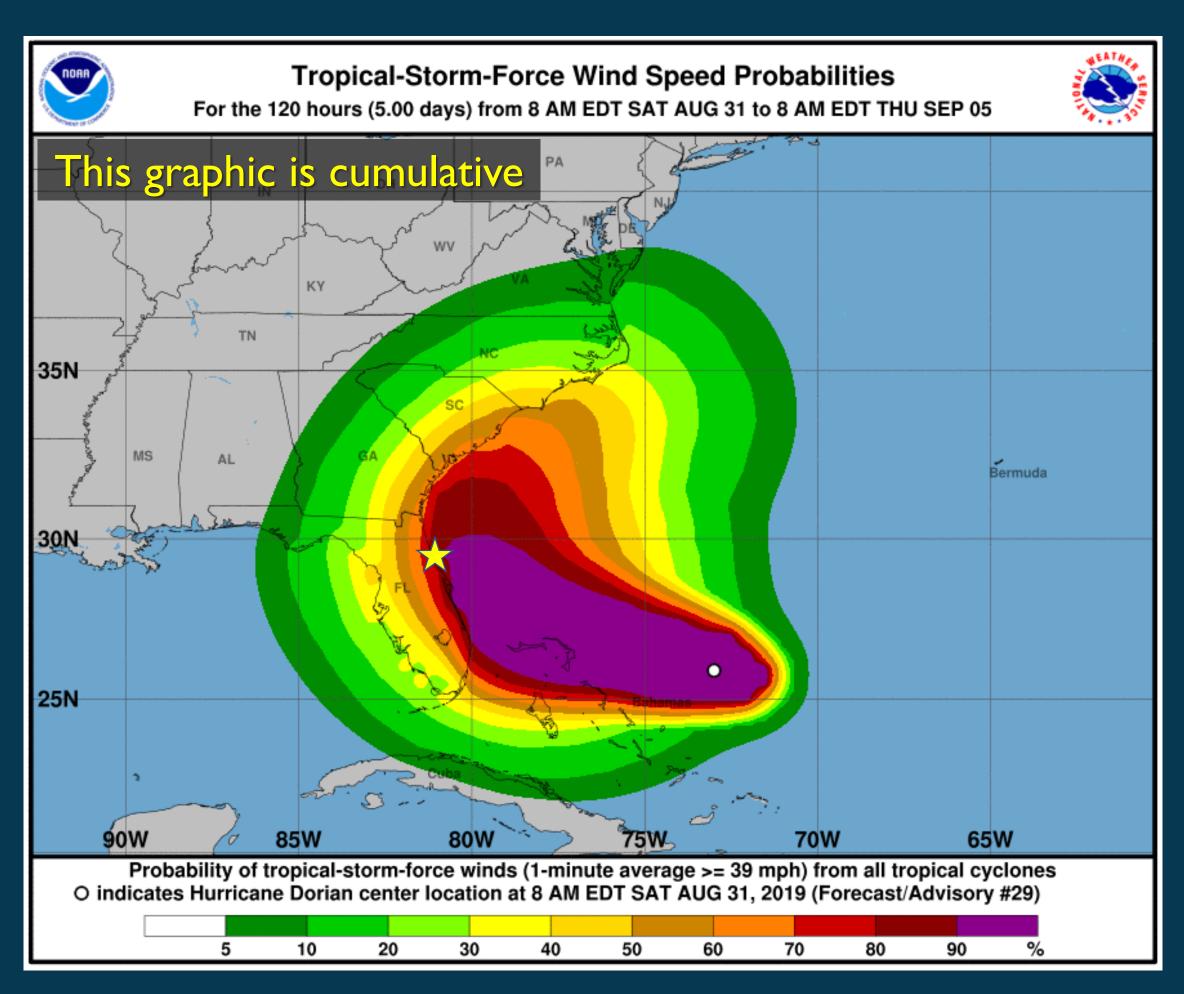
Cumulative (graphical, text) — overall probability the event will occur sometime during the specified cumulative forecast period (0-6 hours, 0-12, 0-18, etc.)

Incremental (text only) – probability the event will start sometime during the specified individual forecast period (0-6 hours, 6-12, 12-18, etc.)

NHC Wind Speed Probabilities

Based on 1,000 realistic scenarios around the "Official NHC Forecast"





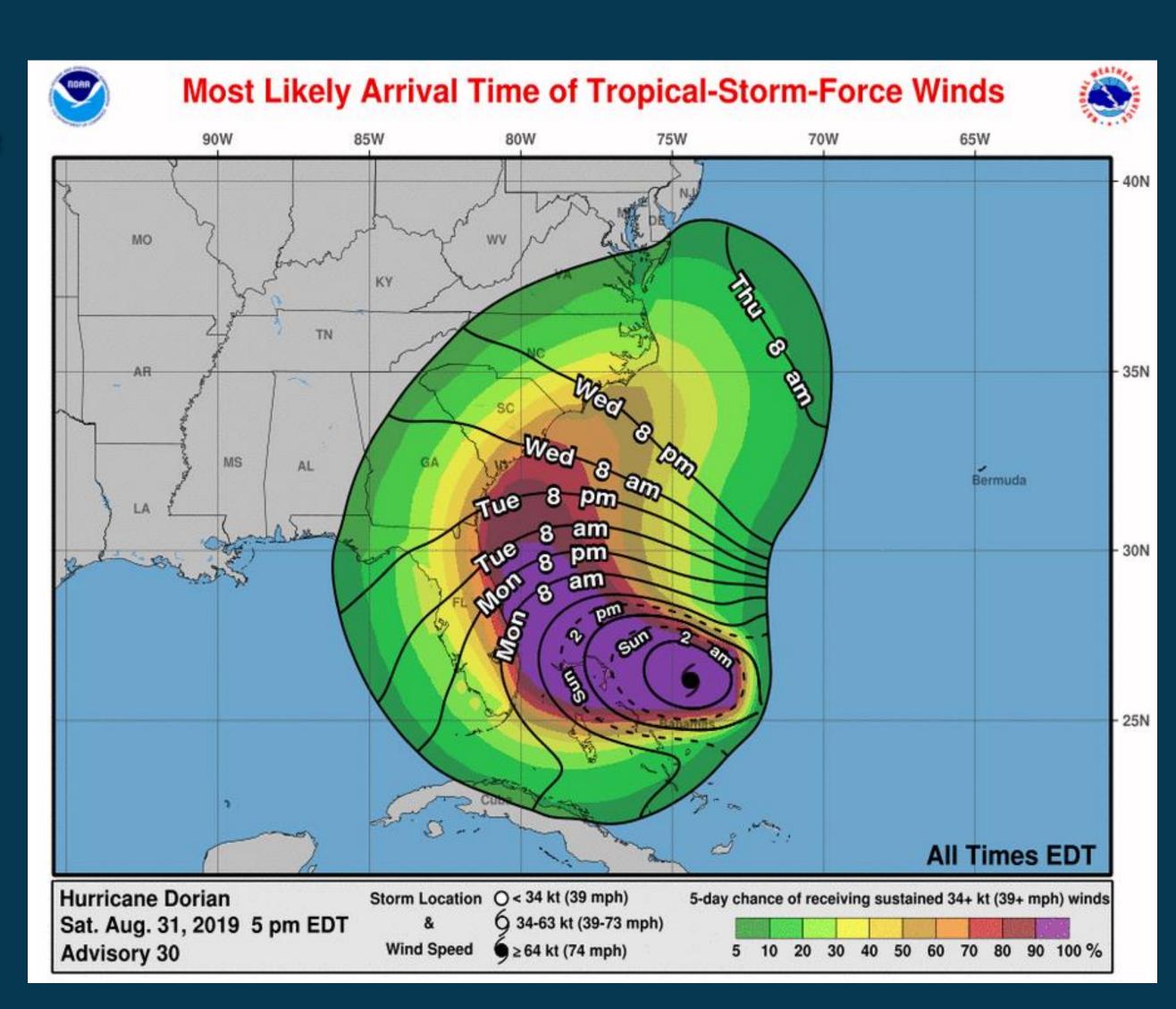
WIND	SPEED	PROBABI	LITIES FO	OR SELECT	TED LOCAT	TIONS	
PERIODS	TO	FROM 00Z SUN TO 12Z SUN	TO	то	ТО	FROM 12Z TUE TO 12Z WED	то
FORECAST HOUR	(12	(24)	(36)	(48)	(72)	(96)	(120)
LOCATION GAINESVILLE FL GAINESVILLE FL GAINESVILLE FL	. 50)	X(X) X(X) X(X)	X(X)	X(X)	1(1)		1(13)
DAYTONA BEACH DAYTONA BEACH DAYTONA BEACH	50)	(1(1) (X(X) (X(X)	X(X)	1(1)			3 <mark>(78)</mark> 2(42) X(15)
THE VILLAGES THE VILLAGES THE VILLAGES	50)	X(X) X(X) X(X)	X(X)		4(4)		1(18)
ORLANDO FL ORLANDO FL ORLANDO FL	50)	(1(1) (X(X) (X(X)	X(X)	6(10) 1(1) X(X)	31(41) 10(11) 3(3)	25(66) 20(31) 11(14)	1(67) 1(32) 1(15)
COCOA BEACH FL COCOA BEACH FL COCOA BEACH FL	. 50)	2(2) X(X) X(X)	1(1)	28(42) 6(7) 1(1)	32(39)	12(91) 22(61) 19(35)	1(62)
PATRICK AFB PATRICK AFB PATRICK AFB	50)	(1(1) (X(X) (X(X)	1(1)	13(19) 3(4) 1(1)	21(25)	19(81) 22(47) 11(21)	1(48)
FT PIERCE FL FT PIERCE FL FT PIERCE FL	50)	3(3) (X(X) (X(X)	3(3)	13(16)	33(49)	5(91) 13(62) 10(36)	1(63)

Most Likely Time of Arrival Graphic

Based on 50% probability of tropical storm wind onset



- Most Likely Arrival Time
- Assumes "perfect forecast!
- Does not take into account increase of forward speed or wind field expansion
- Conditional upon occurrence of TS winds (check probabilities)

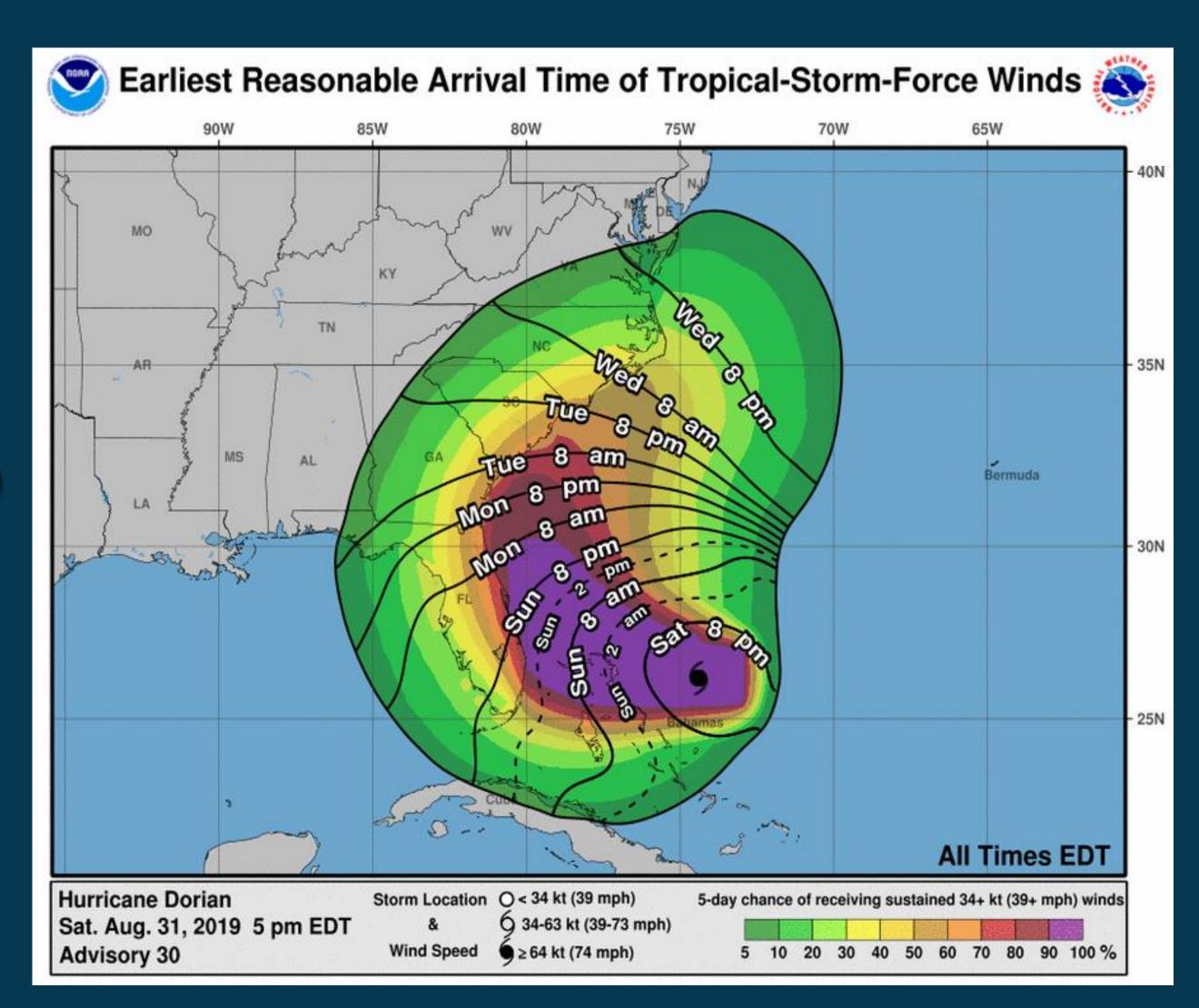


Earliest Reasonable Time of Arrival Graphic

Based on 10% probability of tropical storm wind onset



- Earliest Reasonable
 Arrival Time
 (preparations should be completed by this time)
- Incorporates
 uncertainty; only I-in-I0
 (I0%) chance of earlier
 onset; 90% chance of
 later onset
- Conditional
- Used for planning

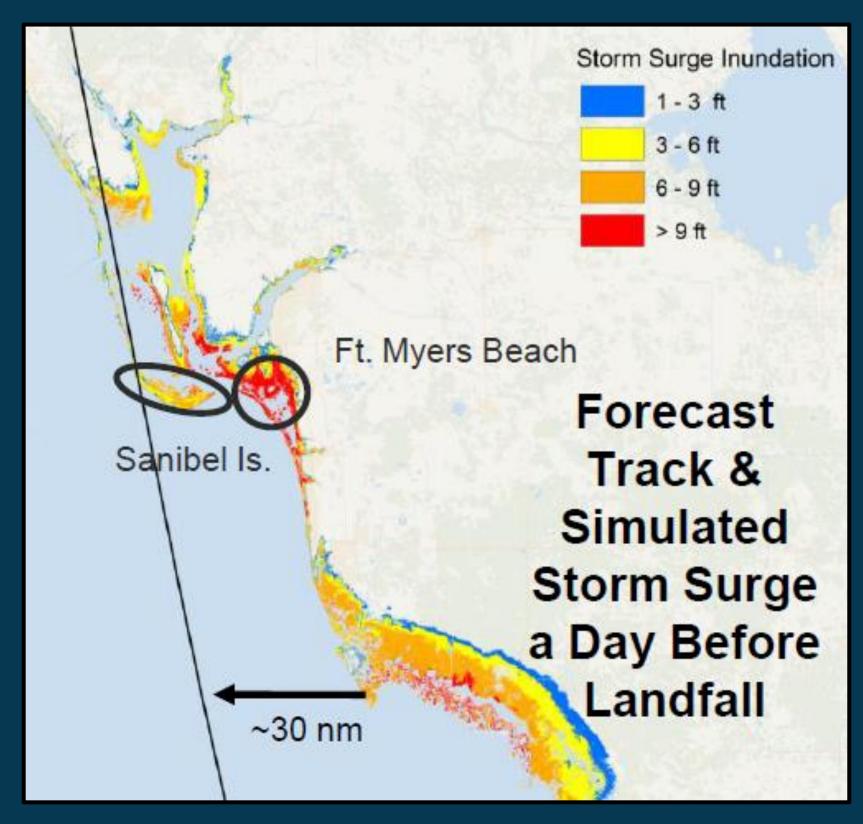


The Realities of Storm Surge

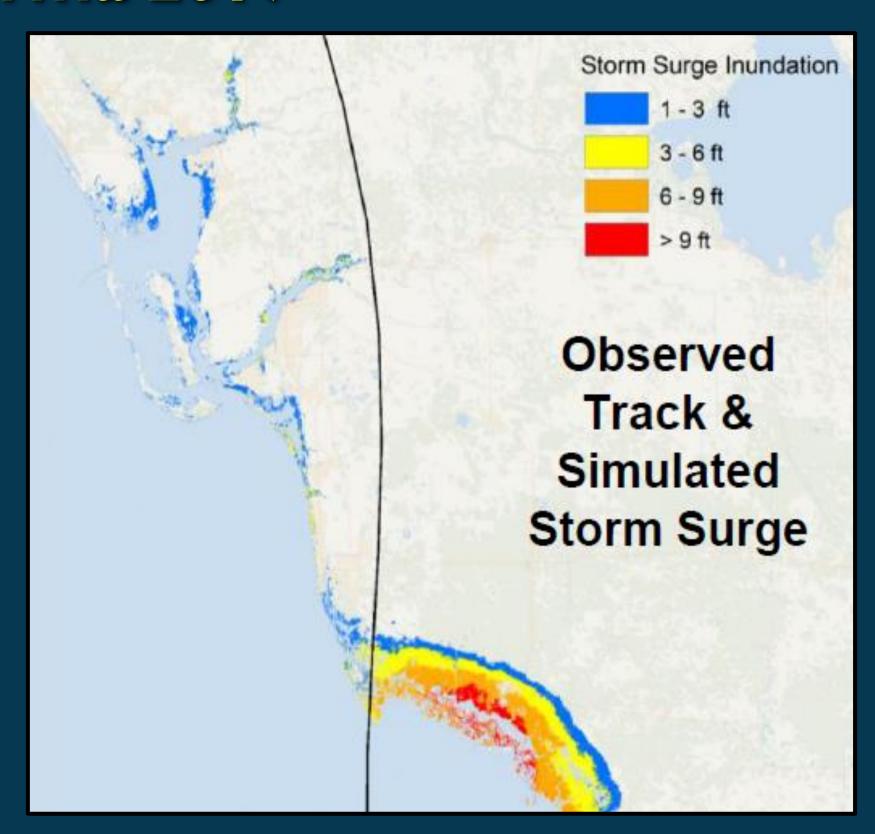
Why we use probabilities to err on the side of caution for evacuations



Storm Surge Highly Sensitive to Track! Hurricane Irma 2017



~200,000 people with 3+ foot surge



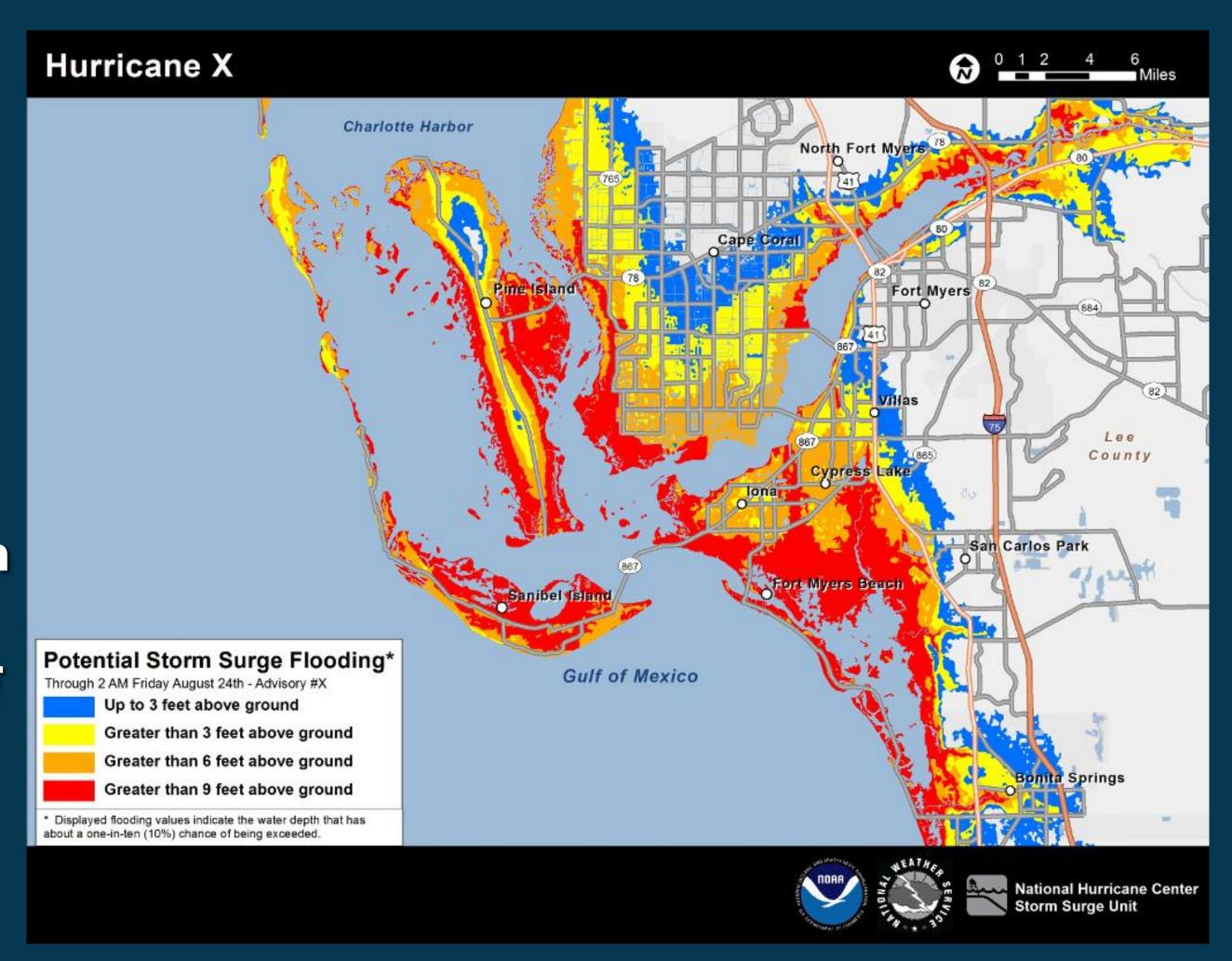
~50,000 people with 3+ foot surge

Probabilistic Storm Surge

"Reasonable Worst Case Scenario" – based on 10% Exceedance



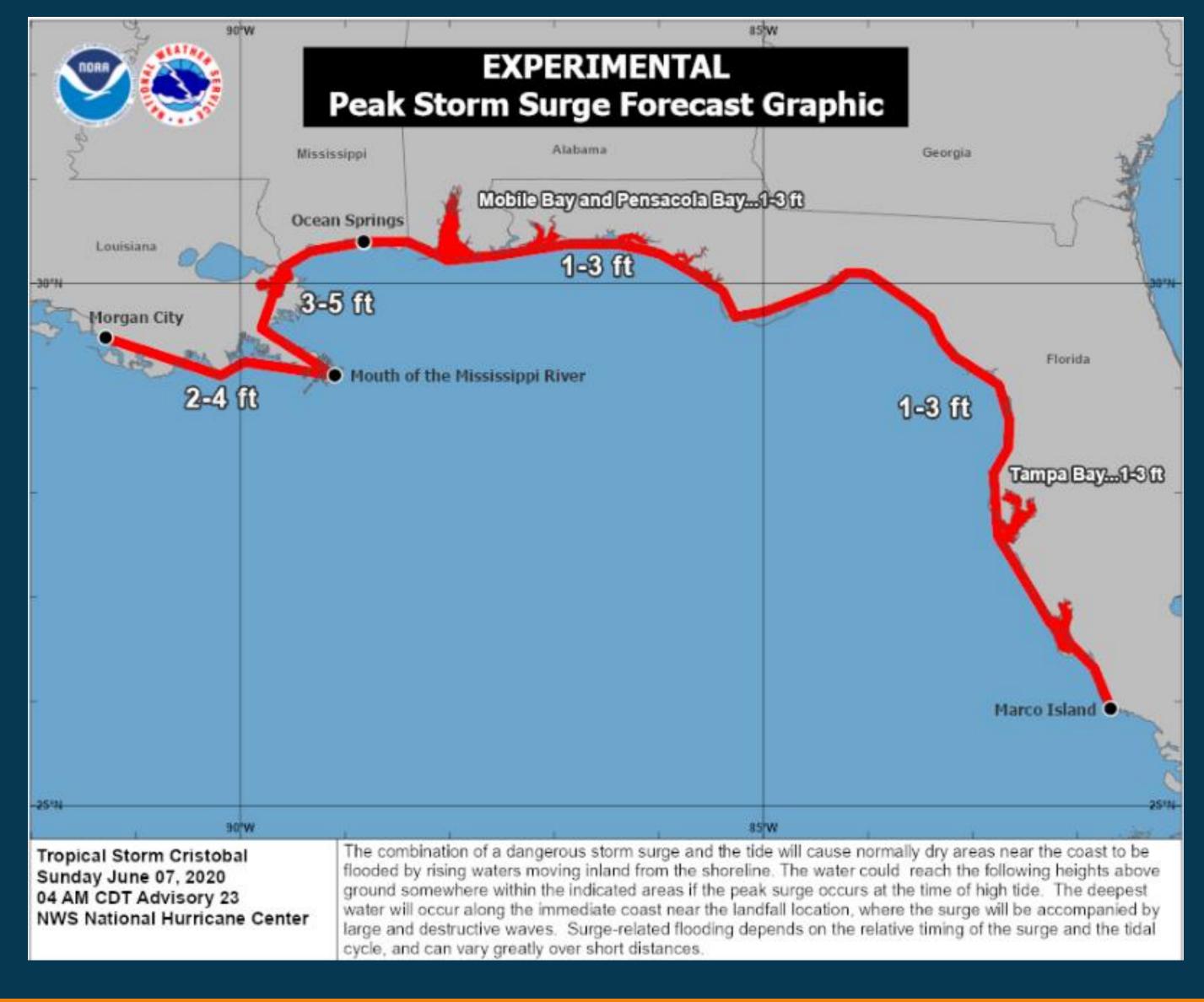
- Need to plan based on "potential" inundation
 (AGL) to allow safety
 margin
- Incorporates
 uncertainty and errs on
 side of caution; only a
 I-in-IO (IO%) chance of
 being exceeded; 90%
 chance of being lower



NHC Storm Surge Forecast Graphic

Beginning in 2020 – Experimental

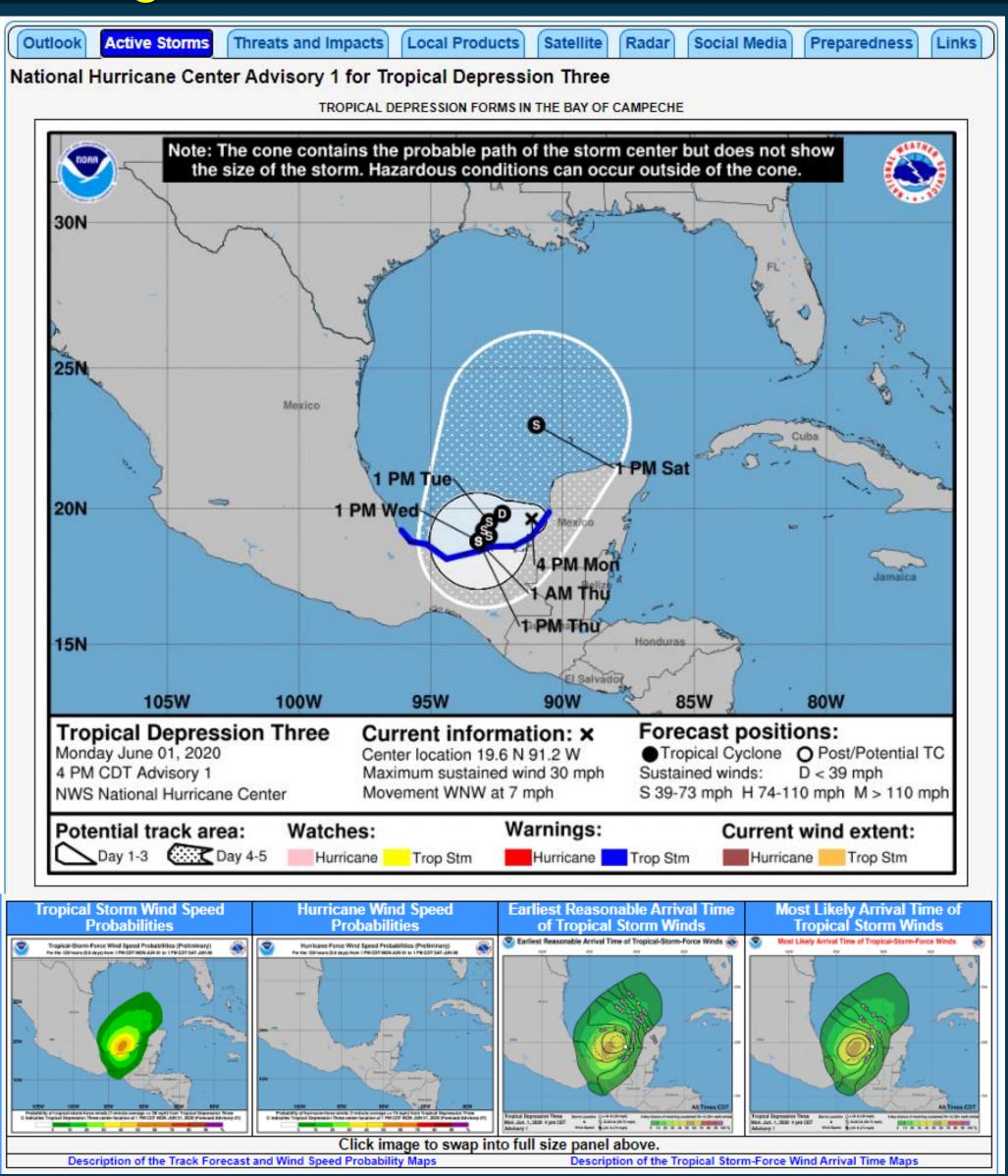




NWS Tropical Webpages — for LOCAL info

weather.gov/melbourne





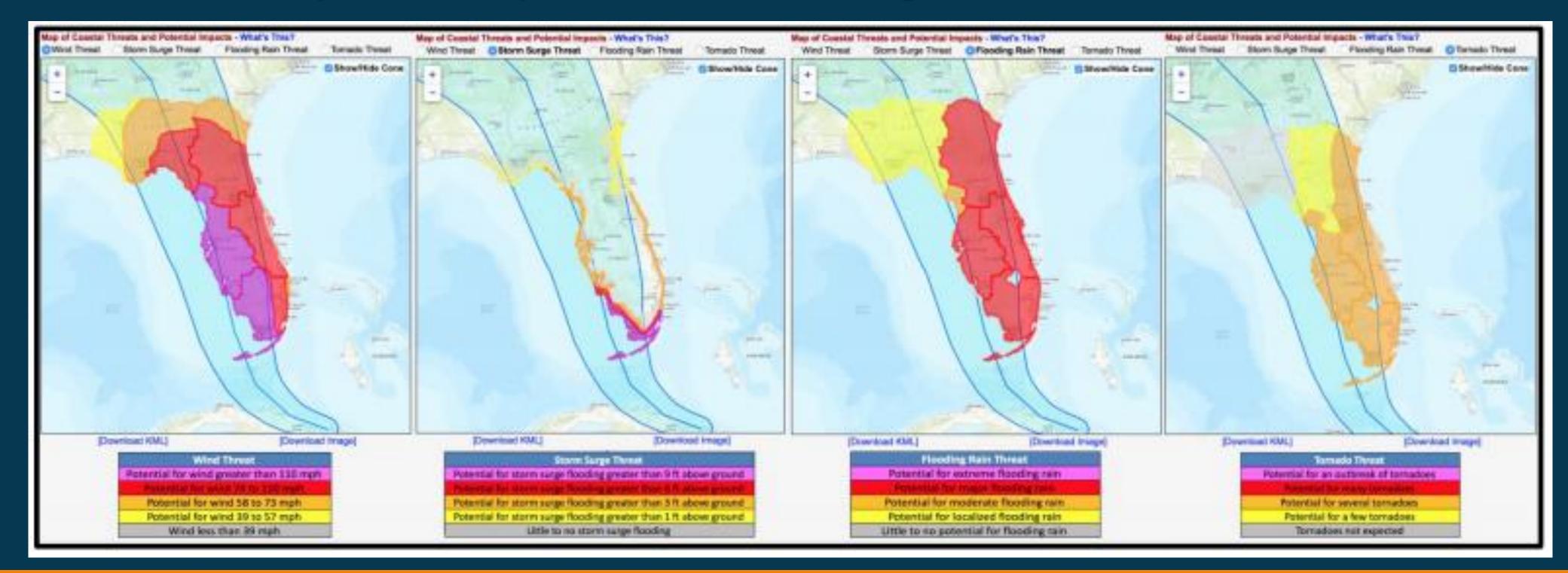
- One-stop shop for all tropicalrelated local forecast information
- Active Storms tab appears when NHC initiates tropical cyclone advisories
- NHC information "downscaled" by NWS Office to sub-county scale forecasts. Best source of info during Watch/Warning periods

NWS Tropical Webpages — for LOCAL info

Melbourne WEATHER FORECAST OFFICE

weather.gov/melbourne

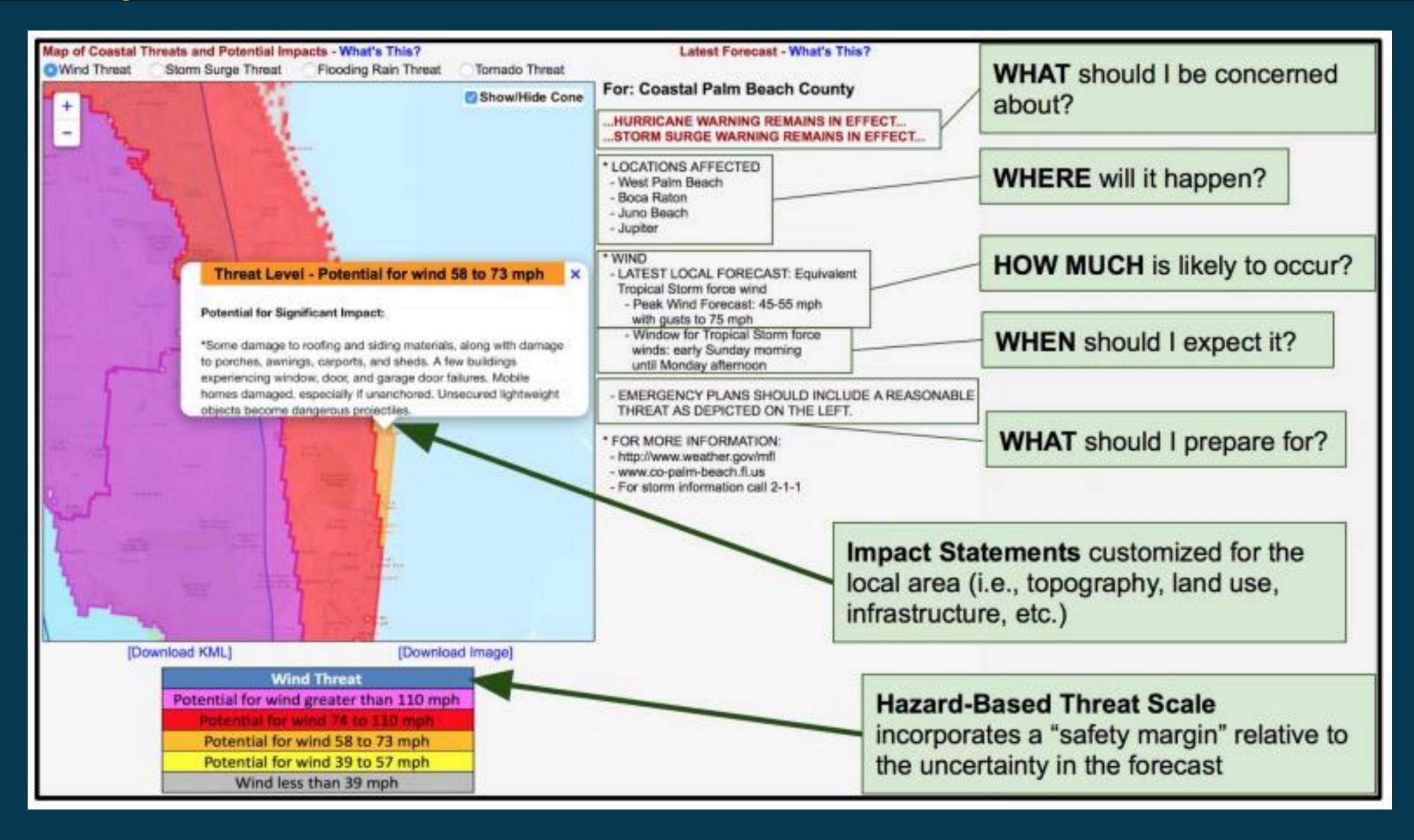
- Sub-county scale planning forecast "reasonable worst case scenario"
- Factors in historical uncertainties related to track, intensity and size to develop wind, storm surge, flooding and tornadoes to err on the side of caution
- Available only when tropical watches/warnings are in effect



NWS Tropical Webpages — for LOCAL info

weather.gov/melbourne





"LIKE US" ON FACEBOOK!



National Weather Service Melbourne



"FOLLOW US" ON TWITTER!



@NWSMelbourne



higher sun angles occur

Ultraviolet radiation is strongest from around

10 am - 3 pm from late spring through summer when

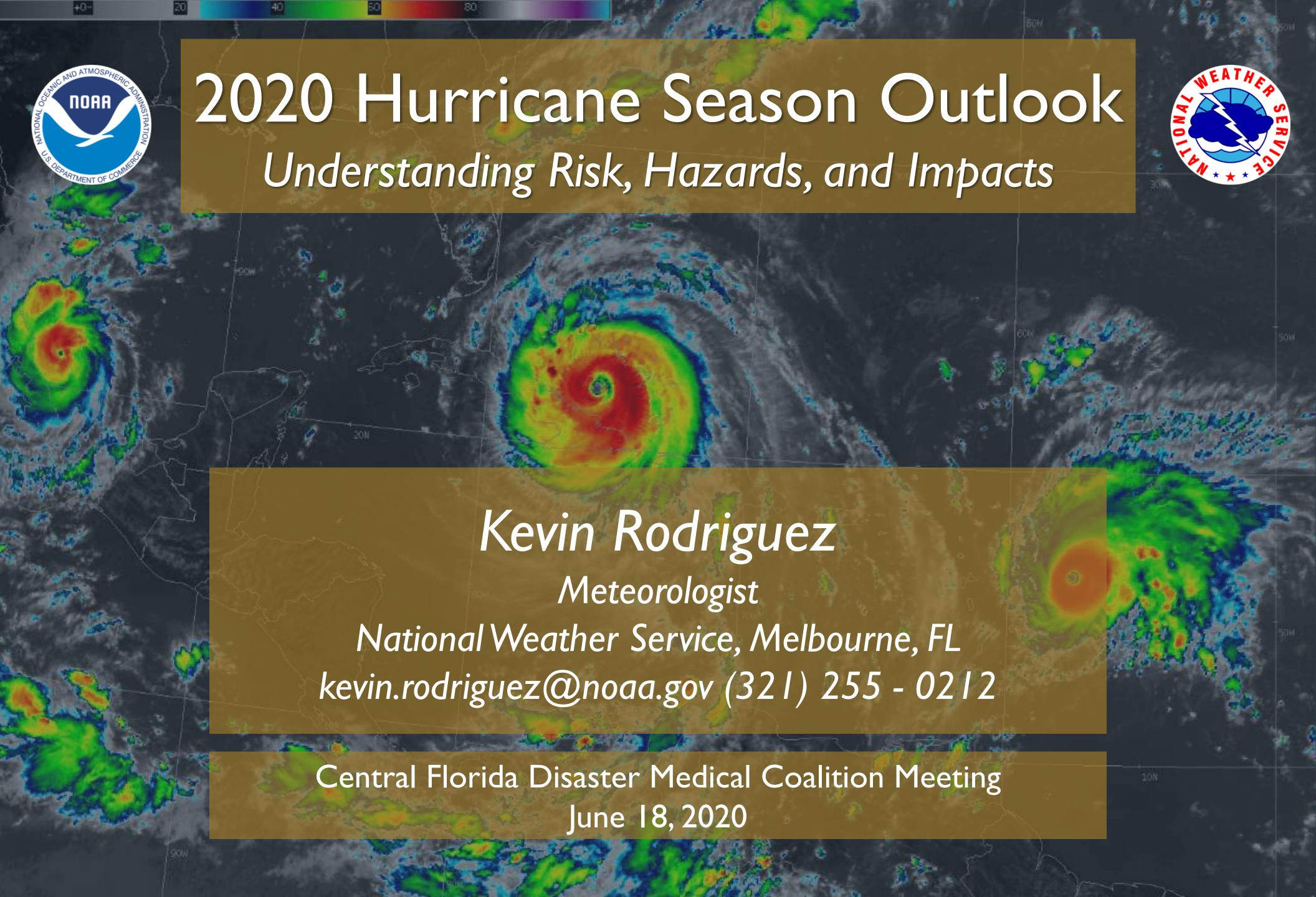
from flammable objects

✓ Avoid being outdoors for extended periods

of time during hot weather, especially

during the hottest time of the day

Trends - Change



LESSONS LEARNED COVID-19 EMS OPERATIONS

Dr. Hezedean A. Smith, Assistant Chief

Lessons Part 1

- Department Operations Center
- Interdisciplinary communication
- ▶ EOC, DOH, CFDMC updates
- ▶ Interagency virtual meetings
- ► Executive policy communications

Lessons Part 2

- ► GIS information (internal and external)
- ▶ Testing of personnel and the community
- National EMS Management Association
- ► Hospital EMS liaisons /Hospital outcomes
- Offload times at local hospitals

Lessons Part 3

- ▶ Mental health peer to peer, virtual meetings
- ▶ 911 center screening "Pandemic"
- Mobile computer terminal (MCT) alerts visual
- ▶ Florida Fire Chiefs Association
- ▶ International Association of Fire Chiefs

THANKS

▶ Appreciate everyone's hard work and collaboration.

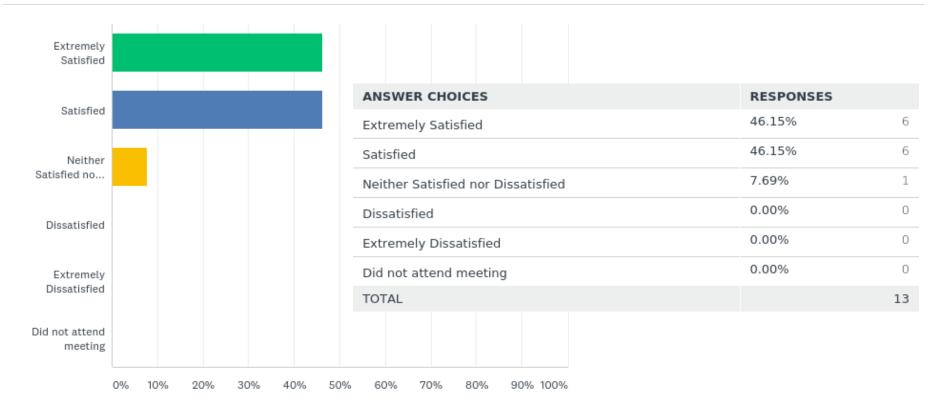
Name	Organization
A. C. Burke	EID Consultant
Amanda Freeman	AdventHealth Central Division
Amy Johnson	AdventHealth New Smyrna
Ana Nieves	DOH
Andre MervilLamour	Orlando Health
Bill Litton	Osceola Emergency Management
Bill Peterson	CFDMT
Bob McPartland	DCF & Board Member
Brenna Young	AdventHealth Central Division
Carl Charette	Lady Lake Specialty Care
Chris Stables	Martin Fire Rescue & Board Member
Clint Sperber	DOH St. Lucie, Co-Chair & Board Member
Dave Freeman	Co-Chair & Board Member
Debra McBride	Parrish
Debra Wallace	Greystone Health & Board Member
Donna Walsh	Seminole CHD
Edward Bradley	DOH Martin
Eric Alberts	Orlando Health & Board Chair
Gabrielle Wright	Orange County Public Schools
Gary Schindele	CFDMT
Gaylen Tips	Health First
Georgianne Cherry	DOH Osceola
Georgianne Kirk	FQHC & Board Member
Gregory Santa Maria	Sanford Health
Heather Pepe	Brevard Health Alliance
Heidi Alberte	Dept of Veteran's Affairs
Hezedean Smith	City of Orlando Fire/Rescue & Board Member
Jason Klein	Nemours
Jeffrey Money	Brevard County Fire Rescue
Jemima Douge	Poison Control
Jennifer Cellabos	Maxim
Jennifer Hulse	Cleveland Clinic Indian River
Jennifer Seibert	
John Corfield	Orlando Health
Karen Clark	DOH
Karen Street	DOH Brevard
Ken Peach	Health Council of Central Florida & Board Member
Kevin Rodriguez	National Weather Service
Kristine Miller	The Gardens at DePugh Nursing Center
Lauren Michalski	UCF Emergency Management
Lianna	
Lori Joseph	South Lake Home Health
Lydia Williams	St. Lucie CHD
Lynda W. G. Mason	Northland & Board Member
Lynne Drawdy	CFDMC
Lynsey Collier-Graham	Oviedo Medical Center

Maria Crumlinch	Halifax Health Hospice
Maria Stahl	DOH Brevard
Matt Meyers	CFDMC
Matthew Winter	AdventHealth Central Division
Maureen Ferguson	CHCFL
Melanie Motiska	AHCA
Melissa Foronda	Good Samaritan
Michelle Thorne	FBI
Nancy Woloshin	DOH
Nita Johnson	Central Florida Kidney Centers
Nita Johnson	CFKC
Pamela Reed	
Patricia Wouters	St. Lucie Surgery Center
Paula Bass	AdventHealth Central Division
Rachel Reid	Orlando Health
Rebecca Hale	Halifax Health Hospice
Rebecca Poston	DOH & Board Member
Reggie Kornegay	Orlando VA & Board Member
Richard Hazel	Seminole CHD
Robert Jones	Palm Point
Ronny Chapman	Greystone Health
Scott Cheatman	
Shane Friedman	Cleveland Clinic Martin Health
Sheri Blanton	District 9/25 Medical Examiner & Board Member
Siju Thomas	The Residence of Stuart
Steve Viola	AdventHealth Deland
Steven Lerner	Seminole County Emergency Management
Sven Normann	Orlando Health
Tammy Rolfe	Hospice of St. Francis
Todd Stalbaum	Orange EMS/ESF8
Tom Cisco	Volusia Emergency Management
Tonya Lyles	Oviedo Medical Center
Valerie Risher	DOH
Wayne Smith	Davita & Board Member
Wayne Struble	Health First
Xiomara Solares	Winter Garden Rehab and Nursing

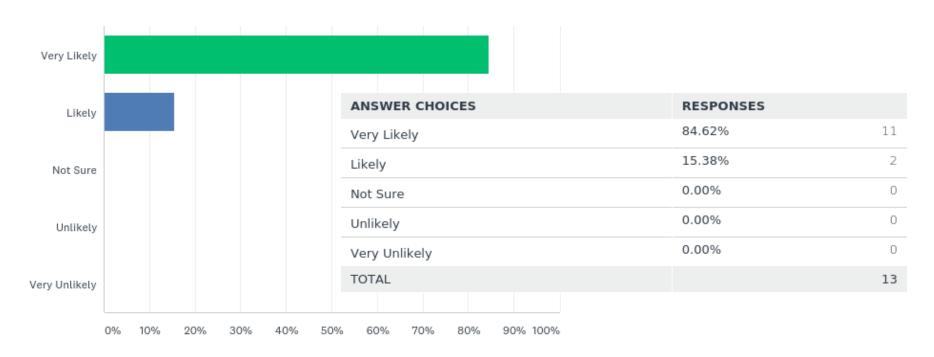
June 2020 CFDMC Meeting Survey Results

13 Respondents

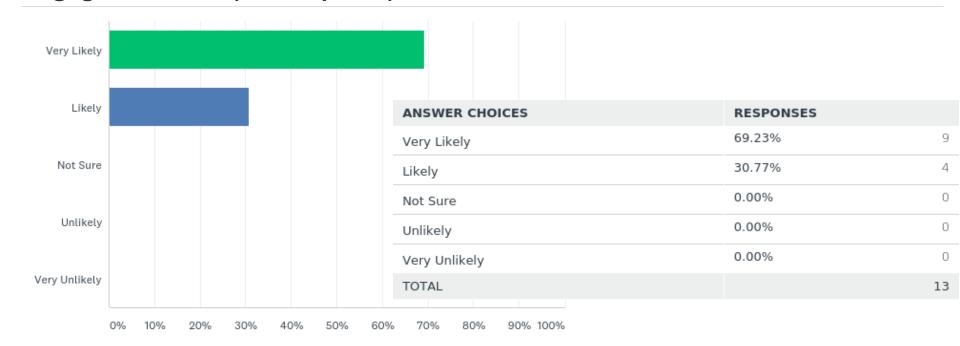
Overall satisfaction with the June 18 Coalition meeting: 92% Satisfaction Rate (46% Top Box)



Likeliness to attend future coalition meetings: 100% Engagement Rate (85% Top Box)



Likeliness to recommend joining the coalition to others: 100% Engagement Rate (69% Top Box)



Most Valuable Part of Meeting:

- Providing details from the field on COVID-19 emergency response activities, challenges, and concerns.
- It was very informative.
- Entire meeting
- Going through all the definitions to help our staff better understand
- briefs from representatives of different sectors
- Share experiences during the COVID-19 response
- Presenters were knowledgeable.
- Personally I enjoyed the NOAA from Melbourne. He is a wealth of knowledge.
- NWS Presentation and Lessons Learned session, but time was an issue because some people did not keep track of their allocated time.
- All was helpful
- · Comprehensive updates in all of the areas.
- Learning all the aspects of disaster management as a new board member.

Suggestions to Make Meetings More Meaningful/Future Topics

- I think we should have discussion about exercises each partner may be conducting and invite observation and support from the CFDMC members.
- n/a
- If we could have them more often
- .Ensure technical aspects are good to go for presenters.
- NA
- We are doing a great job! The main thing is to keep it relevant to current or potential issues:
 COVID, EMS & Hospital experiences with the ongoing protest if they are seeing an influx of these patients, and preparedness
- Some presentations were a bit long and seemed more like 'advertisements' for private enterprises. The Chair appropriately reminded speakers of the 5 minute time limit.
- Too new to have any suggestions