



Coalition Meeting Agenda
Thursday, June 16, 2022 - 9 am to Noon
Virtual Only

<https://global.gotomeeting.com/meeting/join/684815309>

Use speakers or call in at 1 (626) 521-0015, Access Code: 684-815-309, Meeting ID:684-815-309

NOTE: This meeting will be recorded

Time	Topic
9:00 – 9:10 am	<p>Welcome, Introductions & Announcements – Eric Alberts, 2022 Board Chair</p> <p>Please confirm your attendance by putting your name and organization name in the chat function, or by emailing your name and organization to info@centralfladisaster.org</p>
9:10- 9:45 am	<p>CFDMC Updates:</p> <ul style="list-style-type: none"> • 2022 Accomplishments to Date - Reginald Kornegay • 2022-2024 Work Plan and Budget: Clint Sperber & Lynda W.G. Mason
9:45 - 10:15 am	Hurricane Season Briefing: Kevin Rodriguez, National Weather Service, Melbourne
10:15 - 10:45 am	Radiation Injury Treatment Network - Eric Alberts
10-45 - 11 am	<p>Coalition Wrap-up – Eric Alberts</p> <ul style="list-style-type: none"> • Other Announcements • Next Meeting: • Meeting Evaluation (e-survey following meeting)
11 am - Noon	<p>Stress First Aid Training</p> <p>Patricia Watson, PhD</p> <p>National Center for PTSD</p>

6-16-22 CFDMC Member Meeting

Participants: See attached participants

See attached PPTs for additional information on each presentation.

Welcome, Introductions and Announcement: Eric Alberts welcomed everyone and announced that the meeting is being recorded. He reviewed the meeting etiquette rules and asked that participants provide their names and organizations. Eric asked members to consider choosing the Central Florida Disaster Medical Team as a charity in the Amazon Smile program. When doing so, a small amount of each purchase is donated by Amazon to our team. In the first quarter of this program, the team received \$92. Eric welcomed Jim Judge, Volusia County Emergency Manager, back as a Board member, and welcomed Michael Adams as the new long-term care board member.

CFDMC Updates: Reginald Kornegay shared the CFDMC's accomplishments to date for 2022, and thanked the Executive Committee, Board, and all of the workgroups that made these possible. Reggie discussed the new two-year Coalition contract with the state and the work plan which focuses on continuing to build capabilities. Lynda D. W. G. Mason reviewed the budget for the next two years. Once the new contract is finalized, the workplan and budget will be posted to the website.

Radiation Injury Treatment Network (RITN): Eric presented on the RITN. The threats are real, and the federal government has stockpiled medications to respond to a radiation event in the SNS (Strategic National Stockpile). RITN is a collaborative effort lead by 74 hospitals across the nation with expertise in treating these injuries, including Orlando Health. He reviewed acute radiation syndrome (ARS) and injuries and movement of patients and referral guidelines. RITN provides training and exercise materials.

Hurricane Season Briefing: Kevin Rodriguez from the National Weather Service in Melbourne shared an overview of the NWS, and a briefing on the coming hurricane season. The forecast for 2022 is conditions are favorable with La Nina for an above normal season with 21 named storms, 6 hurricanes and 3 being major hurricanes. He noted that every storm and hurricane is different so all should have an extensive plan and be prepared to activate it. Eric thanked Kevin and stressed the need for preparedness.

Meeting Wrap-up: Eric reminded everyone of the importance of participating in the upcoming Everbridge communication drill this week. Eric advised the next meeting will be September 15. We are monitoring the Central COVID risk rating and will include a face-to-face component if the risk rating is low. Eric encouraged all to participate in the meeting evaluation which will be sent out electronically following the meeting.

Stress First Aid Training: Eric welcomed Dr Patricia Watson from the National Center for Post Traumatic Stress Disaster and Dr. Jim Shultz from the University of Miami DEEP Center. He thanked Dr. Shultz for finding and bringing this program to Florida and stated that it is much needed. Dr. Shultz stated that stress first aid has been in place for 15 years and fosters resiliency and recovery in high stress jobs. Dr. Watson presented the stress first aid for healthcare worker training. Lynne thanked Dr. Watson and Dr. Shultz for providing a SFA train-the-trainer program to 30 coalition representatives across Florida; this will enable us to continue to provide this training to the healthcare workforce.

Meeting Attendees:

<u>Name</u>	<u>Organization</u>	<u>Member Type</u>
Aaron Kissler	DOH-Lake	Public Health
Alan Harris	Seminole Emergency Management	Emergency Management
Alexander Peterson	AdventHealth Central Division, Emergency Management	Hospital
Ana Scuteri	DOH	Public Health
Ann Culley	NHC Home Care	Home Health
Avi Bryan	City of Altamonte Springs	Emergency Management
Beverly Cook	CFDMC	
Cecila Taracate	Florida Homecare Specialists	Home Health
Cheryl Modica	Sand Lake Surgery Center	Outpatient Healthcare
Chief Chris Kammel	Martin EMS	EMS
Chris Dorans	DOH-Volusia	Public Health
Christina Proulx	Cleveland Clinic-Martin-St. Lucie	Hospital
Clint Sperber	DOH-St. Lucie	Public Health
Deborah Collinge	DOH-Orange	Public Health
Donna Walsh	DOH-Seminole	Public Health
Dr. Peter Pappas	Health First	Hospital
Dr. Vincent Hsu	Advent Health Orlando	Hospital
Edward Bradley	DOH-Martin	Public Health
Eric Alberts	Orlando Health	Hospital
Georgianne Kirk	Florida Community Health Centers, Inc.	Outpatient Healthcare
Ihab Osman	DOH-Orange	Public Health
Jan Miller	Halifax Health Hospice	Skilled Nursing/LTC
Jason Coons?	Atlantic Care Home Health	Home Health
Jennifer Jensen	Orange County EMS	EMS
Jennifer Mills	DOH-Lake	Public Health
Jim Judge	Volusia Emergency Management	Emergency Management
Jody Gregory	Orlando Health Bayfront Health	Hospital
Joey T	Treasure Coast Community Health	Outpatient Healthcare
John Corfield	Orlando Health	Hospital
Judy Head	Northland Church	Behavioral/Mental Health
Kelley Jenkins	HCA Florida Lawnwood	Hospital
Ken Peach	Health Council of East Central Florida	Non-governmental
Laura Burke	Kindred Hospital	Hospital
Lea Collins		

Linda Dudley	Treasure Coast Urology Center	Outpatient Healthcare
Loretta Goggin	FCRT	
Lori Happe	Orlando Health South Lake Hospital	Hospital
Lydia Williams	DOH-St. Lucie	Public Health
Lynda D. W. G. Mason	Northland Church	Behavioral/Mental Health
Lynne Drawdy	CFDMC	
Lynsey Collier-Graham	Oviedo Medical Center	Hospital
Ma Minette Mangune	AdventHealth Surgery Center, Mills Park	Outpatient Healthcare
Marcie Carter	AZA Health	Outpatient Healthcare
Matt Meyers	CFDMC	
Michael Adams	Courtenay Springs Village	Skilled Nursing/LTC
Michelle Rud	HCA Florida Osceola	Hospital
Miles Butler	Orlando Health	Hospital
Molly Ferguson	Community Health Centers	Outpatient Healthcare
Nancy Handweg	Universal Health Services	Behavioral/Mental Health
Rachel Reid	Orlando Health	Hospital
Rachel Shaull	Amadysis Home Health	Home Health
Rebecca Hale	Halifax Health Hospice	Skilled Nursing/LTC
Reginald Kornegay	Orlando VA	Hospital
Robert Feus	FDOH-Orange	Public Health
Shawn Treloar	Sanford Fire Department	EMS
Sheri Blanton	District 9/25 Medical Examiner	Jurisdictional
Stephen Civitelli	DOH-Volusia	Public Health
Tim Finlan	Nemours	Hospital
Valerie Risher	DOH Special Needs Shelter	Public Health
Vianca McCluskey	DOH-Osceola	Public Health
Wayne Smith	Davita	Dialysis Center



Central Florida Disaster Medical Coalition (CFDMC) Member Meeting

June 16, 2022 – 9 am to Noon

Note: Meeting is being recorded



- ▶ Please place your phone on mute when not speaking
- ▶ Don't place your phone on hold
- ▶ Use either computer audio and mic, or phone, not both – this can cause feedback noise
- ▶ Use the chat feature to raise issues or ask questions
- ▶ We may need to mute all lines. You can unmute yourself by clicking the microphone icon



Eric Alberts, 2022 CFDMC Chair

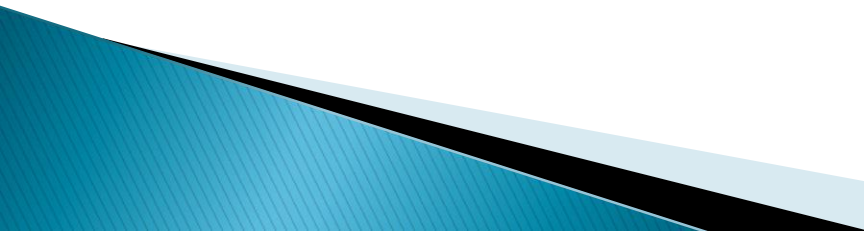
- ▶ Welcome & Announcements
Amazon smile program:
https://www.centralfladisaster.org/_files/ugd/8d7960_2ca353468e574155b20c9895487b4b5e.pdf
- ▶ For those on webinar, please submit your name and organization in chat.
- ▶ For those on the phone, please email your name and organization to info@centralfladisaster.org

2022 Accomplishments to Date

Reginald Kornegay, Board Vice Chair



What We've Done Since January...

- ▶ Plans: New Crisis Standards of Care guidance; updated all regional plans. Thanks to all who provided input! These will be approved by the Board and posted to the website by the end of June.
 - ▶ Trainings: Certified Emergency Healthcare Professional (CHEC) training, three Mental Health First Aid trainings, two NIMS trainings, two COOP workshops, sponsored statewide Stress First Aid train-the-trainer program, and participated in Region 5 Integrated Preparedness Planning Workshop
 - ▶ Equipment: Provided decon package to two hospitals; replaced expiring equipment to keep all Region 5 hospitals at minimum readiness standards
- 

And...

Exercises:

- ▶ January – Great Tornado Drill
- ▶ March – FAC Response Team and Florida Crisis Response Team participated in the Daytona International Airport Exercise
- ▶ March – AdventHealth East participated in the Florida Infectious Disease Transportation Network exercise
- ▶ April – More than 200 organizations participated in the regional full-scale medical surge exercise. A special thanks to Rachel Reid and the Exercise Planning Team
- ▶ May – Operation Generate Confidence Drill

Contract: Closing out 5-year contract on June 30 – all deliverables met!

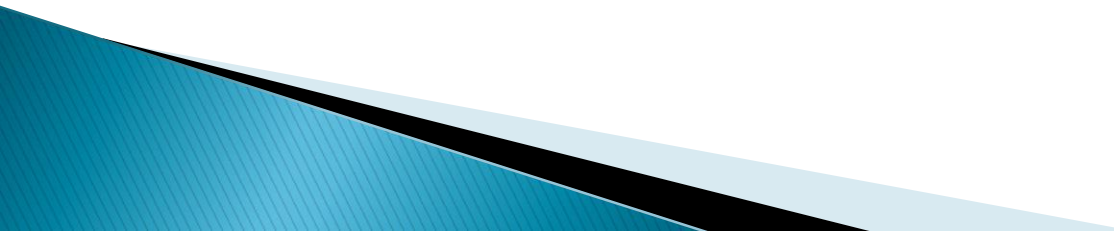
Recognizing Those Who Make It Happen!

Committees and Workgroups and Project Teams!
Oh My!



Executive Committee

Oversight of Coalition operations; meets bi-monthly

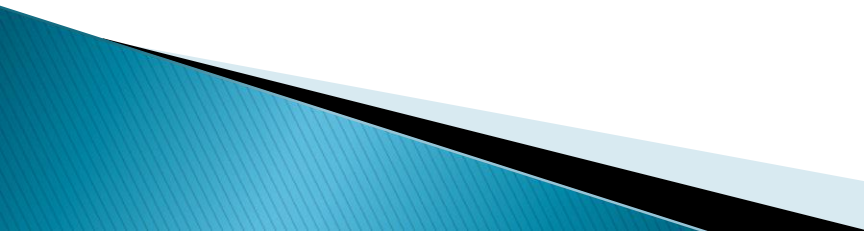
- ▶ Eric Alberts, Board Chair
 - ▶ Reggie Kornegay, Vice Chair
 - ▶ Lynda D. W. G. Mason, Treasurer
 - ▶ Clint Sperber, Health and Medical Co-Chair
 - ▶ Lynne Drawdy, Executive Director
- 

CFDMC Board

Responsible for strategic direction, budget, approval of all deliverables; meets bi-monthly

- ▶ **Michael Adams** (Brevard/Nursing Home)
- ▶ **Sheri Blanton** (Orange /Osceola Medical Examiner)
- ▶ **Alan Harris** (Seminole Emergency Manager)
- ▶ **Dr. Vincent Hsu** (Advent Health)
- ▶ **Jim Judge** (Volusia Emergency Manager)
- ▶ **Georganna Kirk** (Florida Community Health Centers)
- ▶ **Aaron Kissler** (DOH-Lake)
- ▶ **Chief Chris Kammel** (Martin Fire/Rescue)
- ▶ **Bob McPartlan** (DCF)
- ▶ **Dr. Peter Pappas** (Trauma Clinical Champion)
- ▶ **Kenneth Peach** (Health Council of East Central Florida)
- ▶ **Christina Proulx** (Cleveland Clinic/Martin Health)
- ▶ **Chief William (Aaron) Rhodes** (Orlando Fire Department)
- ▶ **Susan Saleeb** (CVS Pharmacy)
- ▶ **Wayne Smith** (Davita)

Communications Workgroup

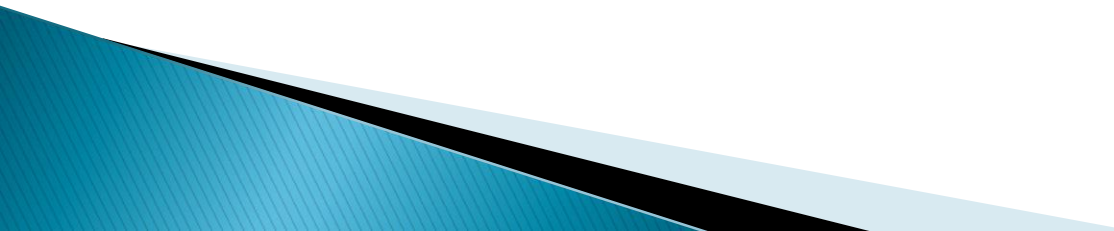
- ▶ Planning & Implementation of Juvare pilot
 - ▶ Lead by: John Wilgis, Florida Hospital Association & Matt Meyers, CFDMC
 - ▶ Champions:
 - Bill Litton, Emergency Management
 - Daniel Ruth, EMS
 - John Corfield, Hospitals
 - Lydia Williams, Public Health
 - ▶ Participants: Hospitals, EM, EMS, Public Health
- 

Crisis Standards of Care Workgroup

Created new Crisis Standards of Care Guidelines

- ▶ John Corfield, Orlando Health
 - ▶ Dr. Danielle DiCesare, Orange County EMS
 - ▶ Kelley Jenkins, Lawnwood Regional Medical Center
 - ▶ Salvatore Gintoli, SMA Healthcare
 - ▶ Alexander Peterson, Orlando Health
 - ▶ William A Rhode, Orlando Fire Rescues
 - ▶ Michelle Rud, HCA Florida Osceola Hospital
 - ▶ Jennifer Tomazinis, Kindred Hospital
 - ▶ Matt Winter, AdventHealth Central Division
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Emerging Infectious Disease (EID) Collaborative

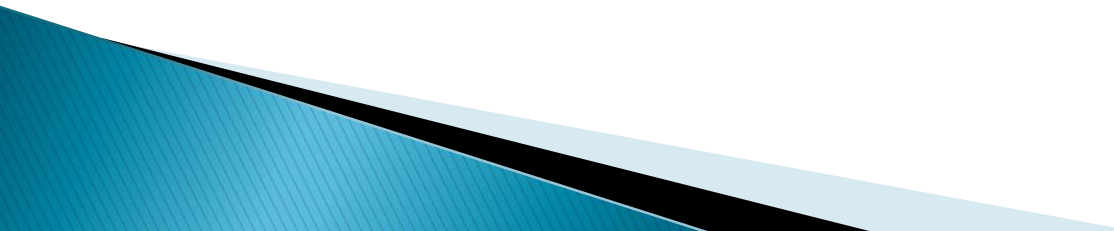
- ▶ Completed 2nd COVID After Action Report; updated Infectious Disease Annex
 - ▶ Champion: Dr. Vincent Hsu
 - ▶ More than 90 individuals, including Hospitals, Emergency Management, ESF8, EMS, Public Health and other Coalition members (members are individually listed in the Annex)
- 

Family Assistance Center Workgroup

- ▶ Participated in FAC Response at Daytona International Airport & Updated FAC Response Plan
- ▶ More than 40 members (listed in plan)
- ▶ Special thanks to:

Paula Bass	***	Sheri Blanton	***	Georgianne Cherry
John Corfield	***	Judy Head	***	Bill Litton
Matt Meyers	***	Christine Mouton	***	Dan Niederman
Beth Rossman	***	Lynda W.G. Mason	***	Matt Winter

Hospital Committee

- ▶ All Region 5 Hospitals
 - ▶ Meets Monthly
 - ▶ Purpose is to share information, address common concerns, share best practices, review & update minimum readiness standards
- 

Mass Fatality Workgroup

- ▶ Reviewed & updated Mass Fatality Plan
- ▶ Finalizing MOUs among the region's medical examiners
- ▶ Chaired by Sheri Blanton
- ▶ Workgroup Members:
 - Lindsey Bayer
 - Karla Orozco
 - Julie McLeod
 - L. Carrol

Pediatric Workgroup

- ▶ Assessed regional pediatric capabilities, updated pediatric surge plan, participated in shelter planning for medically complex children, working on reunification of unaccompanied minors
- ▶ Chaired by Robin Ritola, Pediatric Champion
- ▶ Workgroup Members:

Eric Alberts	***	Shane Friedman	***	Jodie Gregory
Jackie Hop	***	Kelley Jenkins	***	Jason Klein
Sven Normann	***	Cat Sullivan	***	Beth Tucker
Liz Todak	***	Beth Tucker	***	Erica Westerholm

Regional Medical Assistance Team

- ▶ Provides medical surge capability.
Training/exercises by supporting community events
- ▶ Commander: Nick Pachota
- ▶ More than 500 team members
- ▶ Events:
 - January – ACS at Disney Marathon
 - February – First Aid Station at Hamcation
 - February – Event strike team at Disney Princess Half Marathon
 - May – Event strike team at Boy Scout Camp

Regional Trauma Advisory Board

- ▶ Lead by Dr. Peter Pappas, Executive Director
- ▶ Executive Committee (11 members, co-chaired by a trauma center and an EMS agency, with trauma centers, EMS, acute care hospital, public health; focus on coordination and sharing of information to improve the trauma system)
- ▶ Clinical Leadership Committee (Chaired by Dr. John McPherson, with Trauma and EMS Medical Directors; coordinates regional trauma guidelines)
- ▶ System Support Committee (Chaired by Tina Wallace, with Injury Prevention stakeholders, shares injury prevention best practices, resources)
- ▶ Preparedness Committee (chaired by Eric Alberts, responsible for Regional Trauma Coordination Center plan and exercise. Special thanks to Dr. Tracy Bilski for her leadership in the RTCC plan and exercise)
- ▶ Whole Blood Committee (chaired by Chief Kammel, developed implementation guidelines for use of whole blood on ambulances)

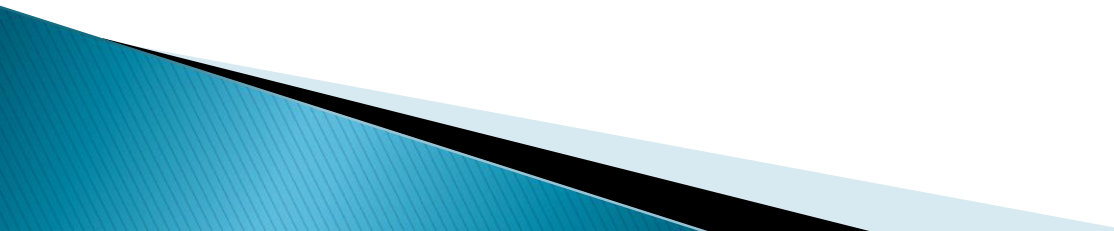
2022–2024 Work Plan

Clint Sperber, RDSTF Health and Medical Co–Chair, St. Lucie County Health Officer, CFDMC Executive Committee & Board Member

- ▶ New Two–Year Contract effective July 1
- ▶ Draft Work Plan approved by Board
- ▶ Work plan Continues Building Regional Capabilities
- ▶ New Projects Include: Coalition Sustainability Report, Regional Healthcare Resource Assessment, Chemical and Radiation Surge Annexes, and Chemical, Radiation, Pediatric and Crisis Standards of Care exercises. A new project for our coalition this year is the addition of emergency operations plan (EOP) training and software for our member organizations. We are also preparing for new RMAT warehouse this year

2022–2024 Budget

Lynda D. W.G. Mason, Board Treasurer

- ▶ Annual Budget for Next 2 Years: \$1,113,562
(an increase of \$109,000 annually)
 - ▶ Personnel: \$164,753
 - ▶ Travel: \$41,000
 - ▶ Equipment: \$90,000
 - ▶ Supplies: \$481,714
 - ▶ Other: \$336,095
- 

2022 Hurricane Season Briefing

Kevin Rodriguez, National Weather Service, Melbourne



Radiation Injury Treatment Network® Eric Alberts

As of July 2018



- **Questions?**
- **Other Announcements**
- **Next Meeting: September 15**
- **Reminder – Please Respond to This Week’s Everbridge Drill**
- ▶ **Meeting Evaluation (e-survey following meeting)**

Stress First Aid for Healthcare Workers

Dr. Patricia Watson, National Center for PTSD

Dr. Jim Shultz, University of Miami DEEP Center





-Fortuna Favet Paratis-

est. 2006

Radiation Injury Treatment Network®

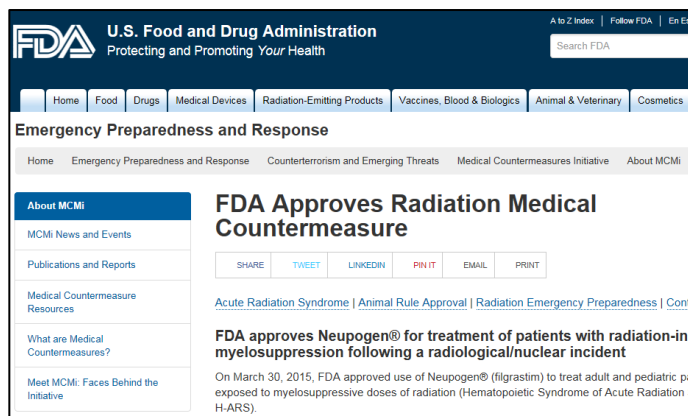
Eric Alberts

Refer to notes for talking points and draft script.

As of February 2022

Why Everyone Should Care

- Government Is Not Taking the Threat Lightly
- FDA Approves for treatment of ARS
 - Filgrastim (March 2015)
 - Pegfilgrastim (Nov 2015)
 - Sargramostim (March 2018)
 - Romiplostim (January 2021)
- These drugs being added to Strategic National Stockpile for a disaster



Agenda

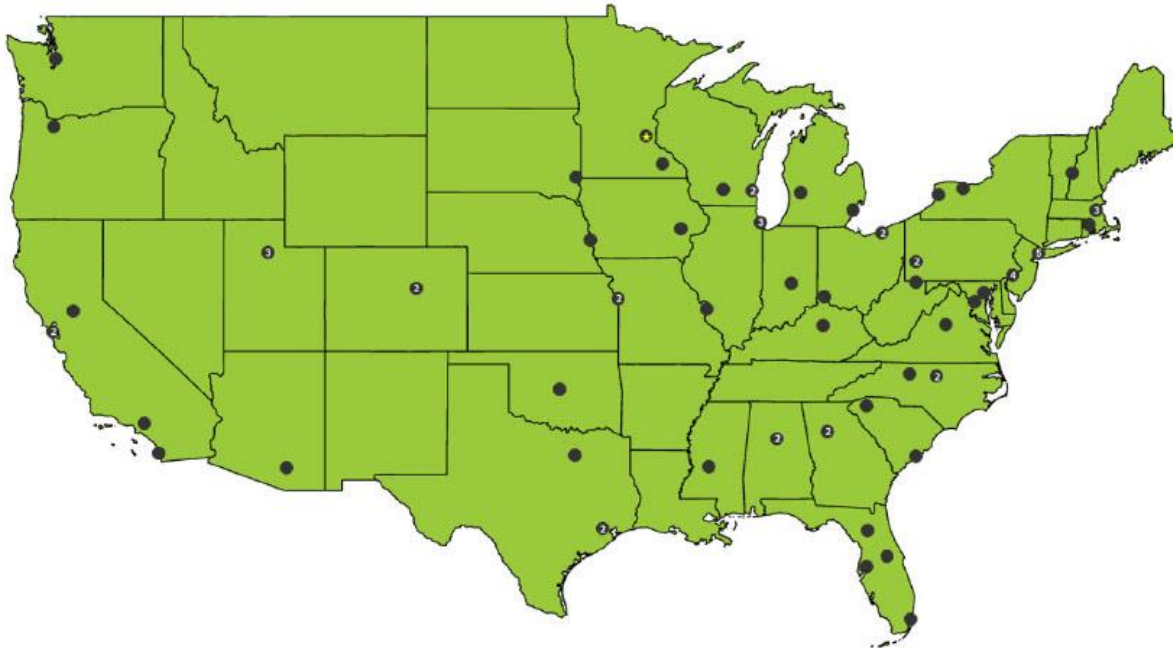
- What is RITN?
- What is RITN preparing for?
- How RITN fits into the response
- Casualty Profile & Care
- Preparedness Initiatives
- Resources

What is RITN?

What is RITN? And why create it?



Map of Participating Hospitals



74 medical centers with expertise in the management of bone marrow failure

Legend

- RITN Hospital (# indicates multiple hospitals in the region)
- ★ RITN Control Cell



Why Cancer Centers?

- Bone marrow is the most sensitive organ in the body to ionizing radiation
- Doses >2 Gy** of ionizing radiation can cause Acute Radiation Syndrome (ARS)
- ARS mimics what BMT/hematology/oncology staff see daily while treating patients with blood cancers
- Through cancer treatment process patients are irradiated or given chemotherapy to destroy their immune system (marrow)
- Failure to restore would result in **death**

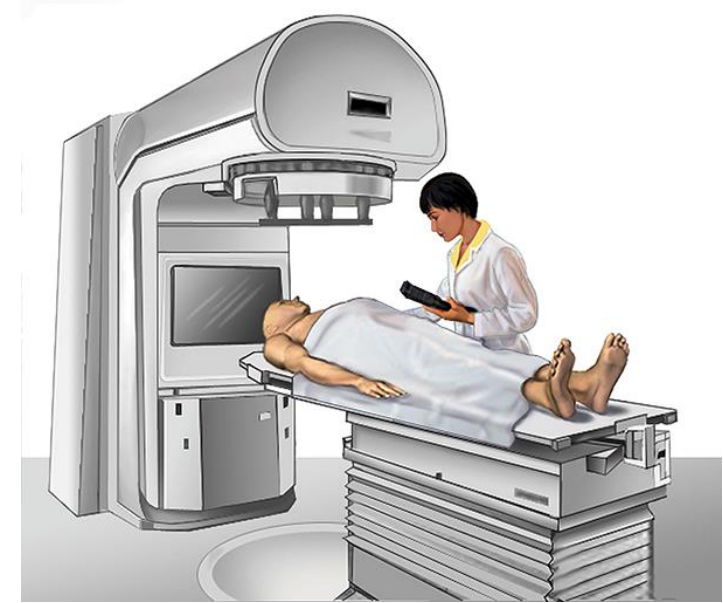


Image Source: NCI <https://www.cancer.gov/about-cancer/treatment/types/radiation-therapy/radiation-fact-sheet> accessed 11/29/16

**Chest CT = 7 mSv : ~ 0.007 Gy == 2 Gy ~ 286 chest CTs

** PET/CT = 25 mSv : ~ 0.025 Gy == 2 Gy ~ 80 PET/CTs

Radiation Injury Treatment Network

Transplant Centers		Adult/Pediatric	Trauma Center	Burn Center	NDMS Hospital	HPP Hospital	Transplant Centers (cont.)		Adult/Pediatric	Trauma Center	Burn Center	NDMS Hospital	HPP Hospital	Transplant Centers (cont.)		Adult/Pediatric	Trauma Center	Burn Center	NDMS Hospital	HPP Hospital
AL	Children's Hospital of Alabama	P	T1	•	•	•	MA	Dana Farber/Partners Cancer Care	P/A					OH	University Hospitals Seidman Cancer Center	P/A	T1	•	•	•
AL	University of Alabama at Birmingham	P/A	T1	•	•	•	MA	Massachusetts General Hospital	A	T1	•	•	•	OK	Oklahoma Univ. Medical Center & Childrens Hosp.	P/A	T1	•	•	•
AZ	Banner University Medical Center	P/A	T1	•	•	•	MD	University of Maryland	A	T1	•	•	•	OR	Oregon Health & Science University	P/A	T1	•	•	•
CA	City of Hope National Medical Center	P/A		•	•	•	MI	Barbara Ann Karmanos Cancer Center	A		•	•	•	PA	AHN Cancer Institute West Penn Hospital	A		•	•	•
CA	Scripps Green Hospital	A		•	•	•	MI	Spectrum Health	P/A	T1	•	•	•	PA	Children's Hospital of Philadelphia	P	T1	•	•	•
CA	Stanford Health Care	P	T1	•	•	•	MN	Mayo Clinic Rochester	P/A	T1	•	•	•	PA	Temple University	A	T1	•	•	•
CA	UC Davis	A	T1	•	•	•	MN	University of Minnesota BMT Program	P/A	T2	•	•	•	PA	Thomas Jefferson University Hospital	A	T1	•	•	•
CA	UCSF Medical Center	P/A		•	•	•	MO	Barnes-Jewish Hospital at Washington	A	T1	•	•	•	PA	University of Pennsylvania Medical Center	A	T1	•	•	•
CO	Presbyterian/St. Lukes Medical Center	A	T4	•	•	•	MO	The Children's Mercy Hospital	P	T1	•	•	•	PA	UPMC	A	T1	•	•	•
CO	University of Colorado (Aurora)	A	T1	•	•	•	MS	University of Mississippi Medical Center	P/A	T1	•	•	•	RI	Roger Williams Medical Center	A		•	•	•
DC	Medstar Georgetown University Hospital	A		•	•	•	NC	Duke University Medical Center	P/A	T1	•	•	•	SC	Greenville Health System	A	T1	•	•	•
FL	H. Lee Moffitt Cancer Center	P/A		•	•	•	NC	UNC Hospitals	P/A	T1	•	•	•	SC	Medical University of South Carolina	P/A	T1	•	•	•
FL	Shands Hospital at the University of Florida	P/A	T1	•	•	•	NC	Wake Forest Baptist Hospital	A	T1	•	•	•	SD	Avera McKennan Transplant Institute	A	T2	•	•	•
FL	U of Miami/Sylvester Comprehensive Cancer Ctr	A		•	•	•	NE	Nebraska Medicine	P/A	T1	•	•	•	TX	Baylor University Medical Center	A	T1	•	•	•
FL	Orlando Regional Medical Center (ORMC)	A	T1	•	•	•	NH	Dartmouth-Hitchcock Medical Center	A	T1	•	•	•	TX	M.D. Anderson Cancer Center	P/A		•	•	•
GA	Emory University	A		•	•	•	NY	Memorial Sloan-Kettering Cancer Center	P/A		•	•	•	TX	Texas Children's Hospital	P	T1	•	•	•
GA	Northside Hospital	A		•	•	•	NY	Mount Sinai Hospital	P/A	T2	•	•	•	UT	LDS Hospital	A		•	•	•
IA	University of Iowa Hospitals and Clinics	P/A	T1	•	•	•	NY	North Shore Medical Center	A	T1	•	•	•	UT	Primary Children's Hospital	P	T1	•	•	•
IL	Northwestern Memorial Hospital	A	T1	•	•	•	NY	NYU Langone Health	A		•	•	•	UT	University of Utah	A	T1	•	•	•
IL	Rush University Medical Center	A		•	•	•	NY	Roswell Park Cancer Institute	P/A		•	•	•	VA	University of Virginia	A	T1	•	•	•
IL	University of Chicago	P/A	T1	•	•	•	NY	Strong Memorial Hospital	P/A	T1	•	•	•	WA	Seattle Cancer Care Alliance	P/A		•	•	•
IN	Franciscan Hospital and Health Centers	A		•	•	•	NY	Westchester Medical Center	P/A	T1	•	•	•	WI	Children's Hosp of WI & Midwest Children's CC	P	T1	•	•	•
KS	University of Kansas Medical Center	A	T1	•	•	•	OH	Cincinnati Children's Hospital Medical Center	P	T1	•	•	•	WI	Froedtert Memorial Lutheran Hospital	A	T1	•	•	•
KY	University of Kentucky	A	T1	•	•	•	OH	Cleveland Clinic Foundation	P/A		•	•	•	WI	University Hospital (Madison)	P/A	T1	•	•	•
MA	Children's Hospital of Boston	P	T1	•	•	•								WV	West Virginia University Hospitals	A	T1	•	•	•



*Please report any corrections to this document to RITN@rmdp.org
As of January 2022

P = Pediatric patient only facility
A = Adult capable facility
B = Burn center
T = Trauma capable facility (# denotes designation)

Total number of RITN centers	74
Total Pediatric or Ped/Adult	38 51%
Total Trauma Centers	53 72%
Total Burn Centers	27 36%
Total NDMS Centers	58 78%
Total HPP Centers	56 89%



Federal Plans Involving the RITN

- White House: Planning Guidance for Response to a Nuclear Detonation
- FEMA: Nuclear/Radiological Incident Annex
- ASPR: Radiological Dispersal Device Playbook
- ASPR: Rad/Nuke Annex to All Hazards Plan
- ASPR: State & Local Planners Playbook for Medical Response to a Nuclear Detonation
- ASPR: Medical Planning and Response Manual for a Nuclear Detonation Incident
- NLM: REMM-RITN Prototype for Adult & Pediatric Medical Orders During a Radiation Incident



FEMA



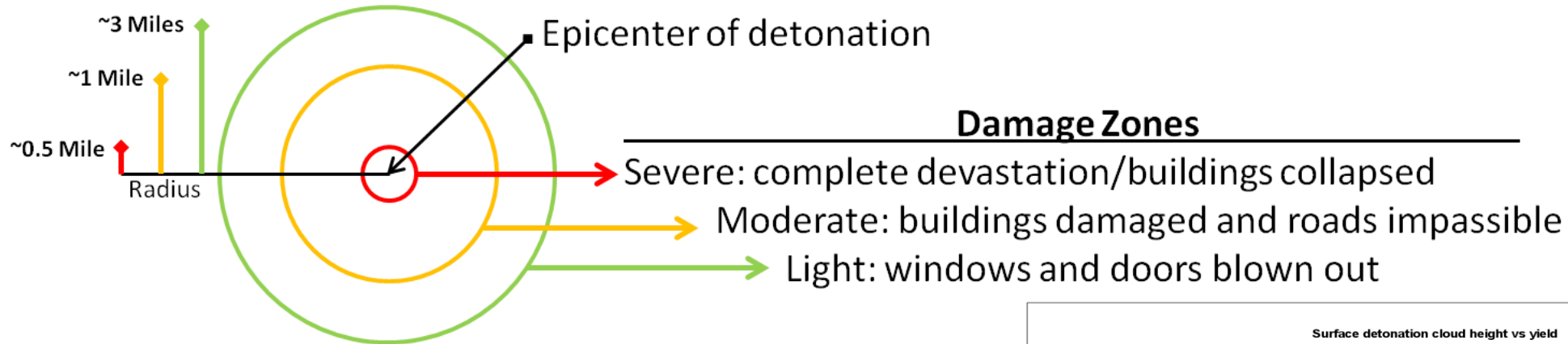
Concept of Operations... ConOps

Wikipedia, June 2011

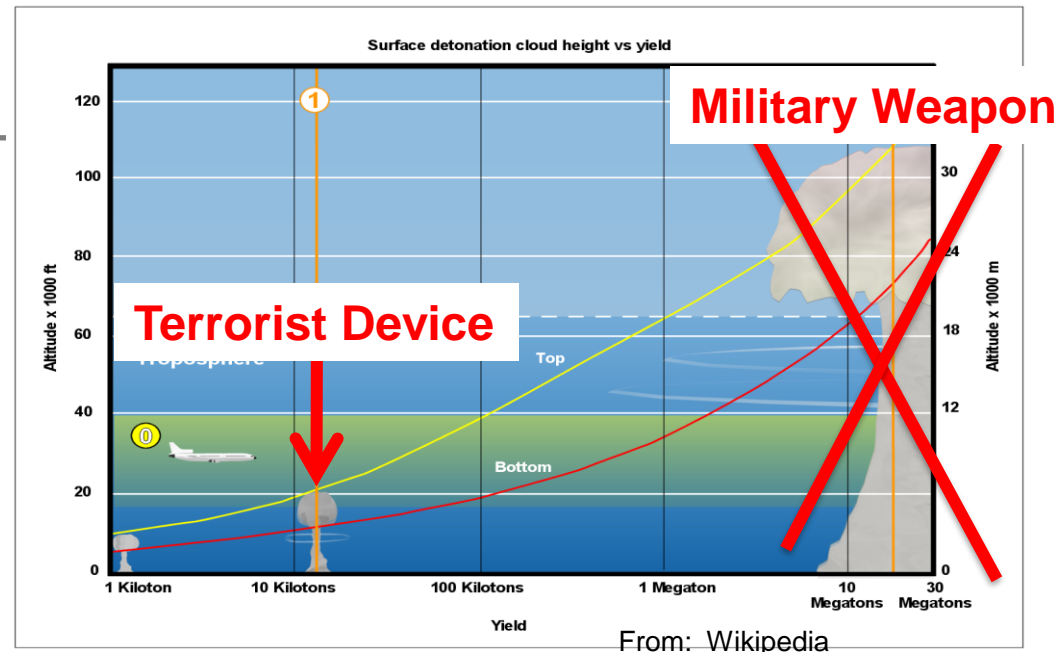


Damage will not be as Catastrophic as a Military Nuclear Weapon

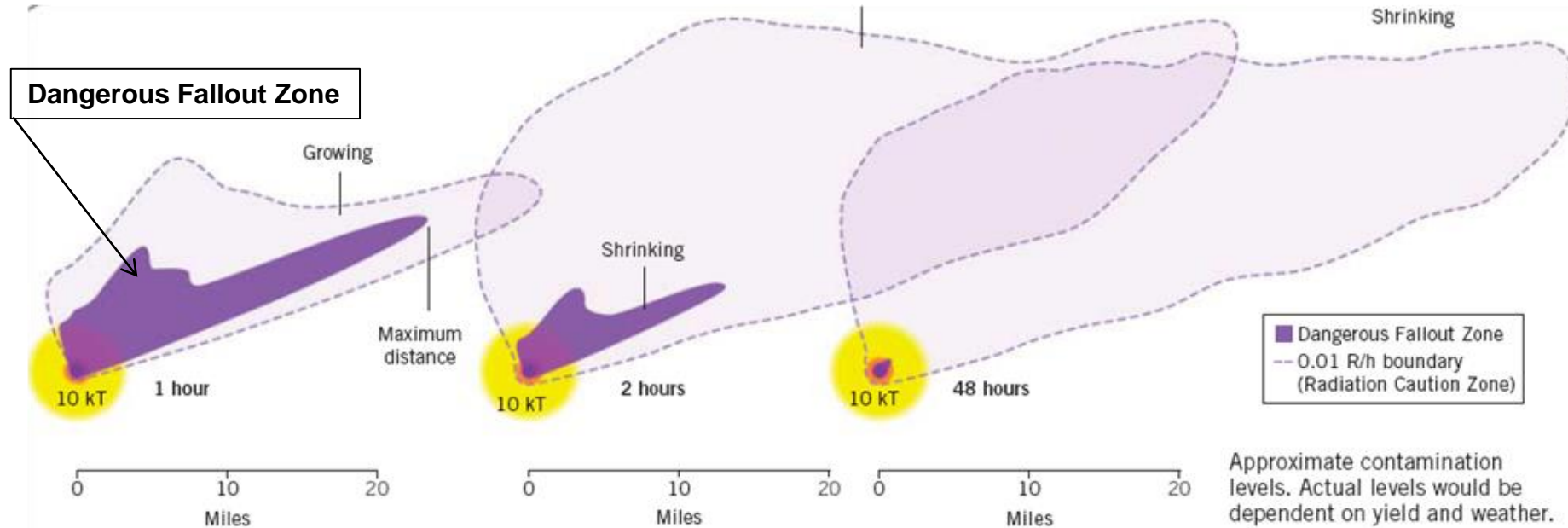
Anticipated Damage Zones from a 10 kT IND



Adapted From: Planning Guidance for Response to a Nuclear Detonation, Second Edition, June 2010



Fallout May Cause the Most Radiation Injuries



- The dose in the Dangerous Fallout zone could cause marrow injury
- Sheltering-in-place is key to reducing dose, as the hazard dissipates relatively quickly

Illustration from: Knebel AR, Coleman CN, Cliffer KD; et al. Allocation of scarce resources after a nuclear detonation: setting the context. *Disaster Med Public Health Prep.* 2011;5 (Suppl 1):S20-S31

ARS Casualties from 10kT IND

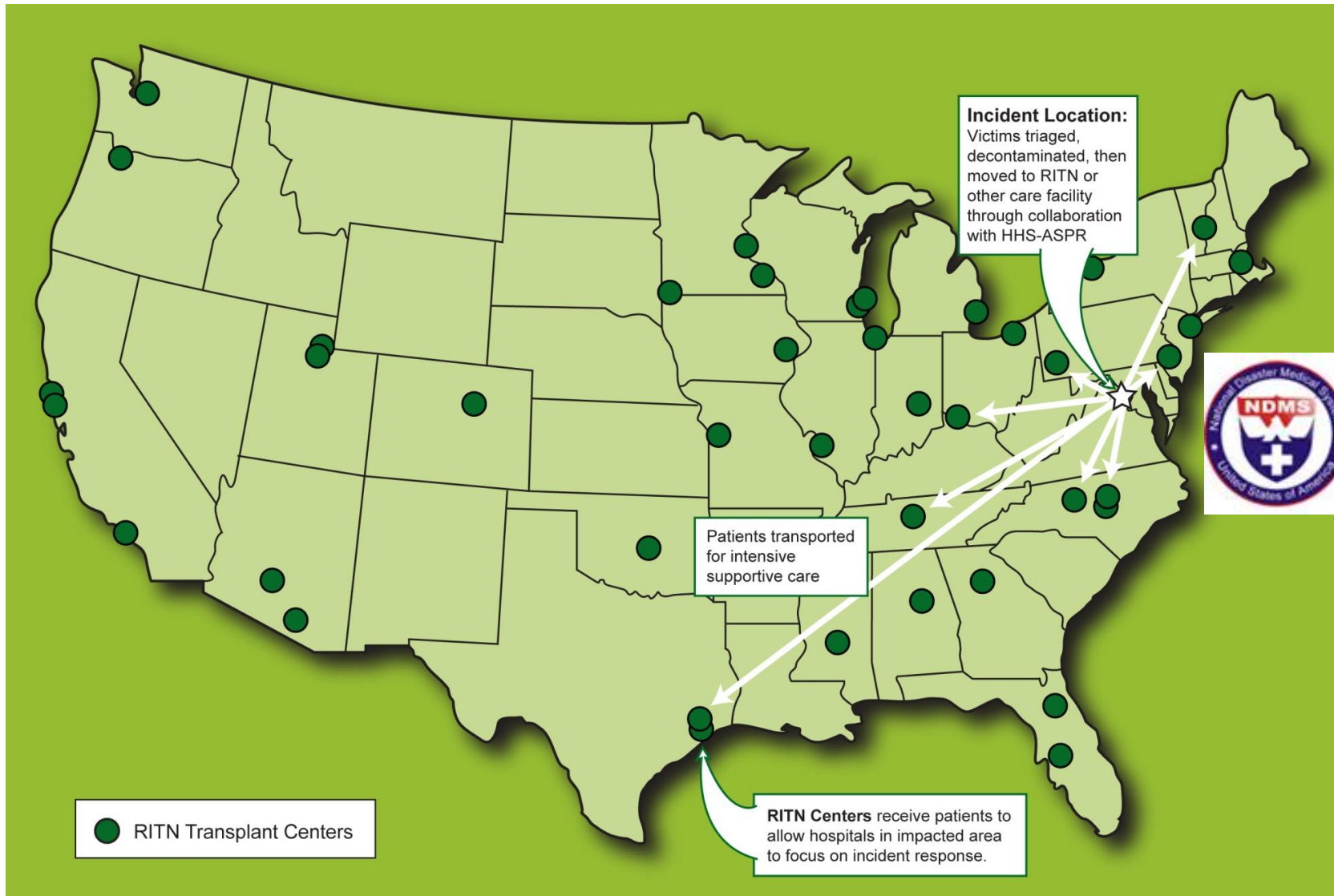
Table adapted from: Knebel AR, Coleman CN, Cliffer KD; et al. Allocation of scarce resources after a nuclear detonation: setting the context. Disaster Med Public Health Prep. 2011;5 (Suppl 1):S20-S31

Radiation Dose (Gy)	Care Requirement	Casualty Estimate
Mild (0.75-1.5)	Self Recover and Monitoring	91,000
Moderate (1.5-5.3)	Outpatient Monitoring And Specialized Supportive Care	51,000
Severe (5.3-8.3)	Specialized Supportive Care and Possible Transplant	12,000
Expectant (>8.3)	Comfort Care	47,000
Combined Injury and Radiation (>1.5)	Stabilization and monitoring, pending resource availability	44,000

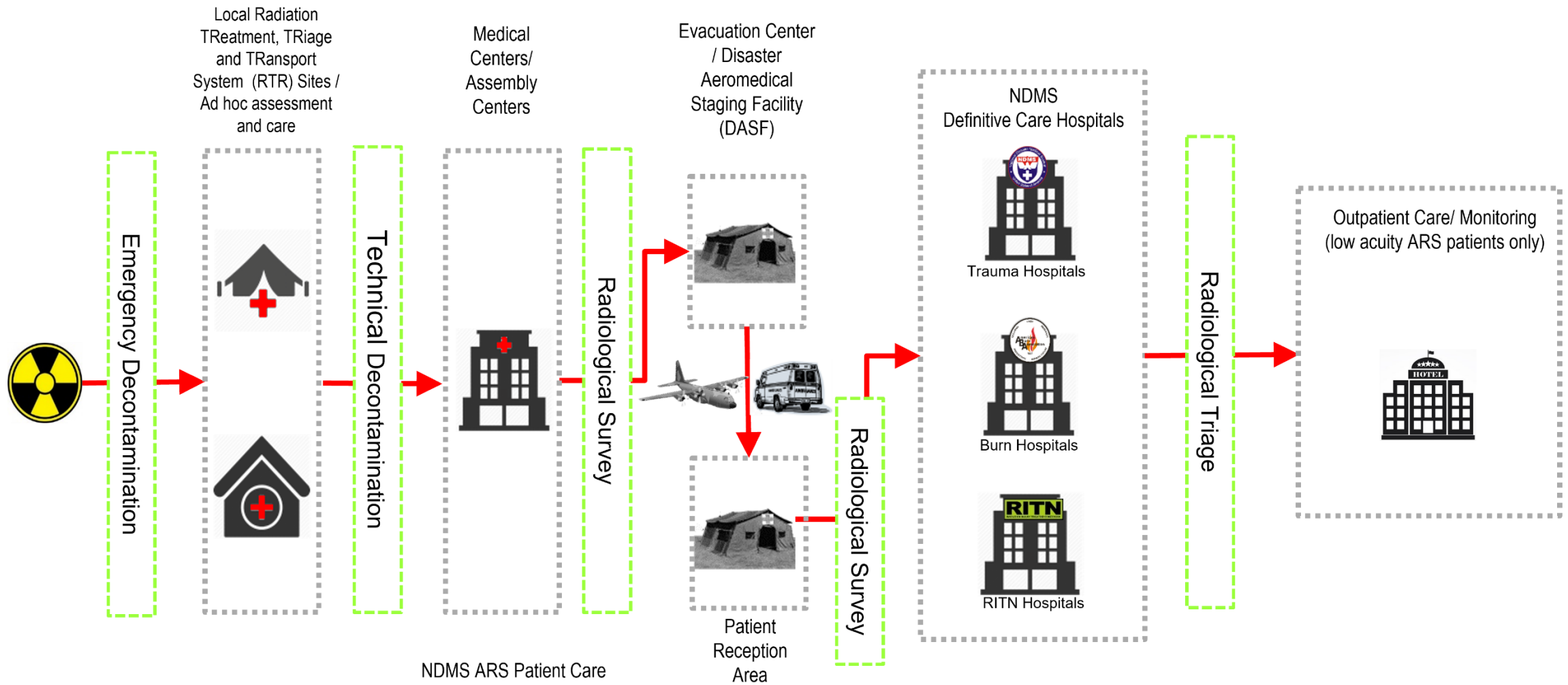
**Estimate of
63,000
casualties
for RITN**

**It is not the Cold
War..... Nor is it a
futile effort**

Movement of patients through NDMS

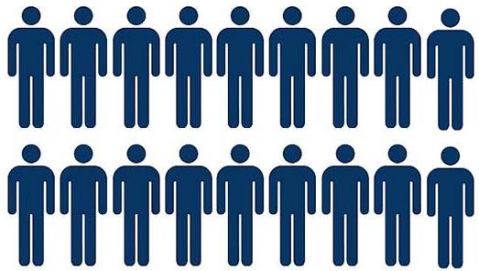


ARS Patient Movement



ARS Patient Profile

Total IND Casualties

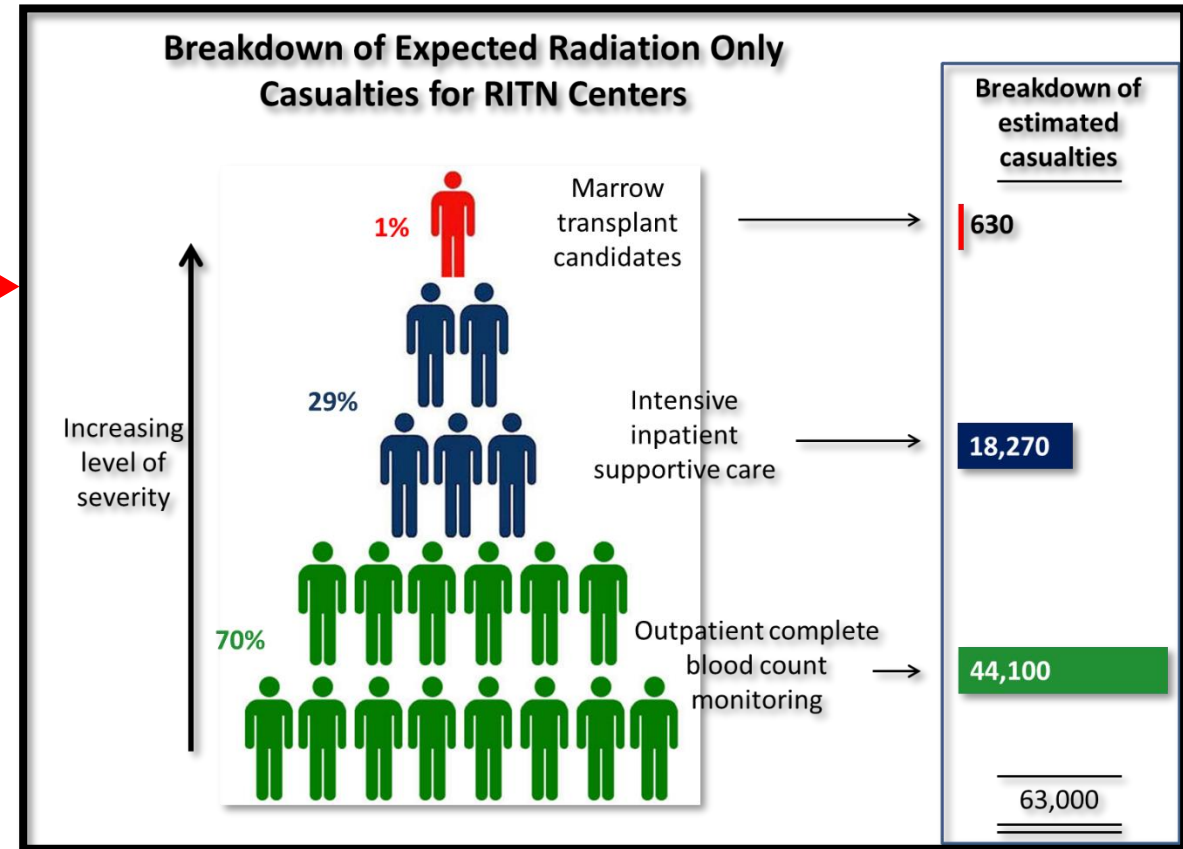


90% of casualties will have **trauma or combined injuries** and receive treatment elsewhere



Approximately 10% will have **radiation only (ARS)** injuries and be sent to RITN centers for definitive medical care

Expected Patient Care Requirements for RITN Patients



Casualty Estimates adapted from: Knebel AR, Coleman CN, Cliffer KD; et al. Allocation of scarce resources after a nuclear detonation: setting the context. Disaster Med Public Health Prep. 2011;5 (Suppl 1):S20-S31

- **Follow standard approaches for patients with bone marrow toxicity from chemotherapy**
- **Based on severity of cytopenias and presence of complications (e.g. neutropenic fever)**
 - Irradiated, leukoreduced transfusions
 - Antibiotics
 - IV fluid and other support
 - G-CSF
 - Hospitalization when indicated
- **Daily CBCs to determine clinical need for treatment**
- **Biodosimetry**
 - Using online algorithms (REMM & BAT)
 - Blood counts (before and after arrival at RITN centers)
 - Geographic dosimetry
 - Opportunity to apply new biodosimetry approaches

**Only a small
percentage would
benefit from a
transplant**

Accomplishments & Resources

RITN Preparedness Efforts... Exercises, Training and More...

Since 2006



881 exercises

***All exercise materials available on [RITN.net/exercises](https://www.RITN.net/exercises)



19,716 medical staff trained

***Free web-based courses available on [RITN.net](https://www.RITN.net)



Doses on-hand

16,700+ G-CSF & 1100+ GM-CSF doses

1600+ Romiplostim doses

***Fluctuates throughout year, is sum of inventory at each RITN hospital



7,388 Adult & 2,425 ped ARS

beds w/in 24 hrs *** as of February 2022



74 hospitals and cancer centers

Accomplishments

- Medical Guidance www.RITN.net/treatment
 - ARS Treatment Guidelines
 - Referral Guidelines
 - Adult and Pediatric Medical Orders in collaboration with REMM
- Training www.RITN.net/training
 - Mobile REAC/TS course
 - ARS Medical Grandrounds training
 - Web based training courses (basic radiation, ConOps, etc...)
 - Non-medical Radiation Awareness Course Adopted by NNSA for USAID staff
- Operations
 - Exercises
 - Web based data collection for ARS patients
 - RITN hospital “bed report +” integrated into GEO Health

RITN-REMM Adult and Pediatric Medical Orders on REMM.NLM.gov & RITN.net/treatment

U.S. Department of Health & Human Services
REMM RADIATION EMERGENCY MEDICAL MANAGEMENT

Prototype for Adult Medical Orders During a Radiation Incident
Version: April 17, 2017

Cautions

- Authored by [REMM](#) and [RITN](#) physicians, this set of orders is a prototype only.
- **Orders must be customized for each patient and incident.**
- Specific drugs are suggested for function only. Patients may not need any/every category of drug listed.
- No HHS, CDC, FDA, or other US government entity endorsement of specific drugs or drug doses is intended or implied by inclusion in this order set.
- Consult the notes at the end of this document for additional, key information.

Internal contamination (decorporation treatments)

- This **Adult Orders Prototype** lists only FDA-approved medications as radioisotope countermeasures.
- Some, but not all of these drugs are currently in the [Strategic National Stockpile](#).
- Prescribers should consult the FDA drug label for complete prescribing information.

Adult & Pediatric Medical Orders on REMM.NLM.gov & RITN.net/treatment

Prototype for Adult Medical Orders During a Radiation Incident

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- Prescribers should consult the FDA drug label for complete prescribing information.
- Decorporation drugs should be used in children with great caution.
- The online version of REMM has additional recommendations about [additional countermeasure drugs that may be considered](#).
- This prototype does **not** address threshold levels of [internal contamination](#) that would trigger initiation, continuation, or discontinuation of decorporation treatment. See [REMM Countermeasures Caution and Comment](#), which discusses this issue

Drug dosages

- All adult drug doses in this prototype are based on a 70 kg adult with normal renal and hepatic function.
- Appropriate dose adjustments should be made based on age, weight, drug-drug interactions, nutritional status, renal, and hepatic function.

- After a mass casualty incident, practitioners may encounter counterfeit drugs. This

U.S. Department of Health & Human Services

REMM RADIATION
EMERGENCY
MEDICAL
MANAGEMENT



RADIATION INJURY TREATMENT NETWORK

Prototype for Pediatric Medical Orders During a Radiation Incident

Version: April 17, 2017

Cautions

- Authored by [REMM](#) and [RITN](#) physicians, this set of orders is a prototype only.
- **Orders must be customized for each patient and incident.**
- Specific drugs are suggested for function only. Patients may not need any/every category of drug listed.
- No HHS, CDC, FDA, or other US government entity endorsement of specific drugs or drug doses is intended or implied by inclusion in this order set.
- Consult the notes at the end of this document for additional, key information.

Internal contamination (decorporation treatments)

- This **Pediatric Orders Prototype** lists only FDA-approved medications as radioisotope countermeasures.
- Some, but not all of these drugs are currently in the [Strategic National Stockpile](#).
- Prescribers should consult the FDA drug label for complete prescribing information.
- Decorporation drugs should be used in children with great caution.
- The online version of REMM has additional recommendations about [additional countermeasure drugs that may be considered](#).
- This prototype does **not** address threshold levels of [internal contamination](#) that would trigger initiation, continuation, or discontinuation of decorporation treatment. See [REMM Countermeasures Caution and Comment](#), which discusses this issue.

Treatment Guidelines on RITN.net/treatment



RITN Acute Radiation Syndrome Treatment Guidelines

October 2020

Table of Contents

Principles of ARS management at RITN centers	Page 2
Crisis standards after a nuclear detonation	Page 5
Acute Radiation Syndrome (ARS)	Page 9
Casualty triage after a nuclear detonation	Page 11
ARS management	Page 23
Stem cell support: when to HLA type casualties	Page 25
Additional Resources	Page 28

Decision to perform HLA typing and recruitment of a donor

Factors favoring HLA typing*

- Estimated whole body dose > 3 Gy
- Neutrophil count < 100/ μ l by day 6
- Rapid drop of platelets
- Expected to survive other injuries

Expedited HLA typing will be available using buccal swab, with high resolution DNA typing of HLA-A, -B, -C, -DRB1, and -DQB1

*Guidance for obtaining HLA-typing can be obtained by contacting the NMDP or the closest RITN center:

- NMDP HLA-typing guidance: 1 (800) MARROW2 or (612) 627-5800
- For an updated map and list of RITN centers: <http://www.ritn.net/About/>
- RITN Participating Centers General Contact Directory: <http://www.ritn.net/Contact/>

Decision to recruit a donor for evaluation

- If patient remains aplastic for >14 days
- Suitable donor is available:
 - 8/8 match (HLA-A, B-C, DRB1) using bone marrow or PBSCs
 - Alternatives, if a matched donor is unavailable:
 - At least 4/6 matched umbilical cord blood of adequate cell number (potentially 2 cord blood units for adults, 1 cord blood unit for children)
 - Haploidentical donor who has not had radiation exposure
 - Mismatched, related or unrelated donor with T-cell depletion

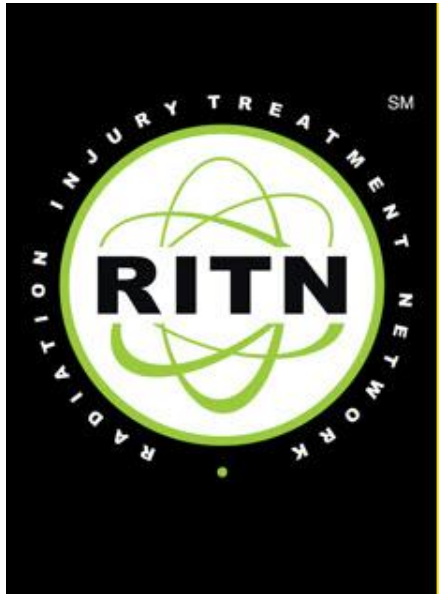




Guidelines for Identifying Radiation Injury and Considering Transfer to a Specialized Facility

- 1) **Purpose:** to provide hospitals with a concise guide for identifying casualties in the aftermath of a radiation incident who may have received a clinically significant dose of radiation.
- 2) **Regional RITN hospital contact information for specialized consultation:**
 - Hospital Name: [Click here to enter text.](#)
 - Department: [Click here to enter text.](#)
 - Phone: [Click here to enter text.](#) Email: [Click here to enter text.](#)
- 3) **Overview:** Ionizing radiation affects the hematopoietic system even at very low doses; hematology and oncology medical staff treat these effects daily. Irradiated patients may develop severe organ dysfunction over time and require intense and specialized management.
- 4) **For extensive information on the acute radiation syndrome** (hematologic, gastrointestinal, cutaneous, central nervous system), types of radiation incidents, and radiation decontamination, see: www.remm.nlm.gov (Radiation Emergency Medical Management (REMM) website)
- 5) **CONSULTATION/REFERRAL CRITERIA:** Any patient suspected of having a radiation injury can be discussed with your local RITN center. The ability to accept referrals will depend on the size of the incident and the capacity of regional RITN center(s).
 - a. **Criteria for considering RITN center consultation/referral include:**
 - i. Absolute neutrophil count less than 1,000/ μ L
 - ii. Absolute lymphocyte count less than 1,000/ μ L
 - iii. Severe nausea, vomiting and/or anorexia
 - iv. A localized cutaneous radiation injury that requiring extensive management
 - v. Suspected or known internal contamination (*e.g.* involving a wound, the lung or GI tract)
 - vi. Current facility not equipped to provide irradiated, leukoreduced blood products
 - b. **Manage comorbidities and possible sequelae of irradiation:**





Medical Response to Radiation Exposure: the Role of Hematologists

Agenda

- Radiation Injury Treatment Network
- Radiological Event Scenarios
- Radiation Biology
- Dosimetry
- Acute Radiation Syndrome
- Mitigation and Treatment
- Available resources

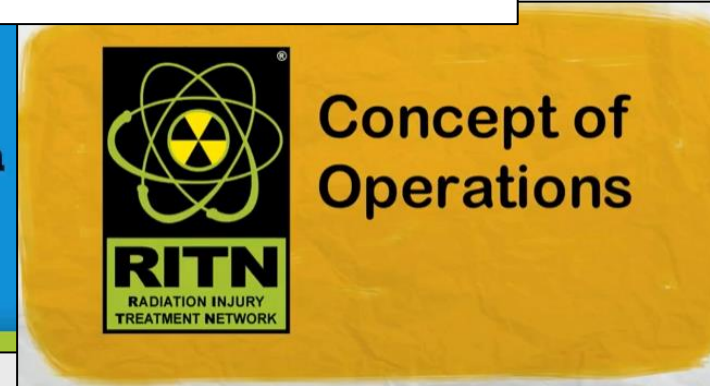
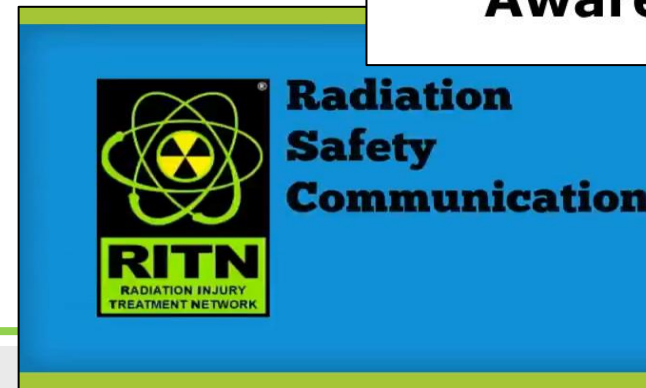
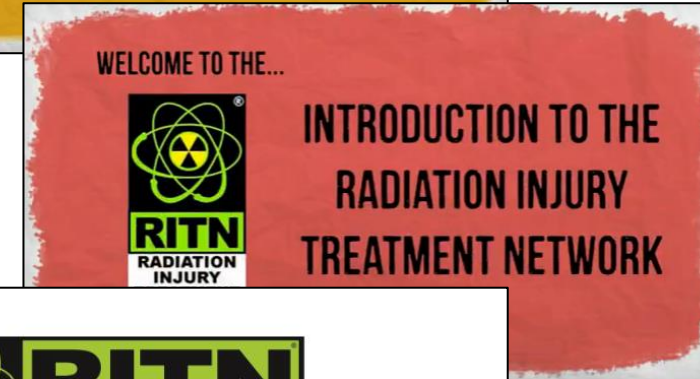
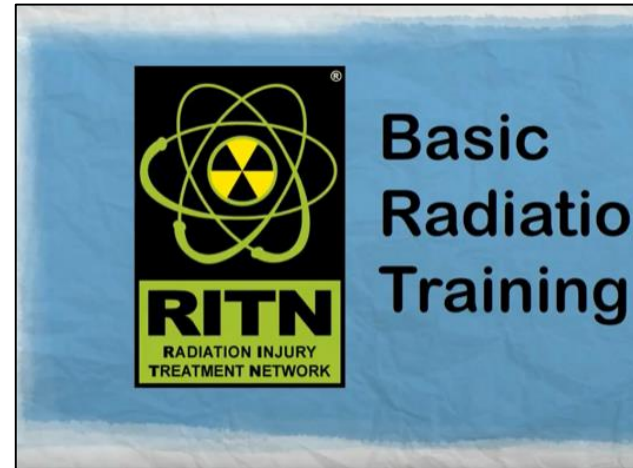
Web Based Training on RITN.net/training (FREE TRAINING)

- Web based training

- Intro to RITN
- Basic Radiation Training
- RITN Concept of Operations
- Radiation Safety Communication
- GETS Card 101
- Non-Medical Radiation Awareness Training (ESL)

Adopted by NNSA
for USAID training

- Medical Grand Rounds training



Exercise Materials on RITN.net/exercises

- Tabletop SITMANs (16 years of exercises and results)
- Regional Tabletop and Full-scale exercise materials
- Data from exercises
- AARs

Full-Scale Exercises (FSX)

*NOTE: All RITN center full-scale exercises are HSEEP compliant and are not an 'exercise-in-a-box.' Due diligence is required to obtain materials pertinent to the user. The exercises are posted for participating institutions for better preparedness. We only ask that RITN be used.

- 2012 Memorial Sloan Kettering Cancer Care
 - [Controller/Evaluator Handbook](#)
 - [Exercise Concept of Operations](#)
 - [Exercise Plan - Draft](#)
 - [Master Inject Form](#)
 - [Player Guide](#)
 - [Victim Card Blank](#)

- 2013 Mayo Clinic Rochester
 - [Controller/Evaluator Handbook](#)
 - [Evaluation](#)
 - [Exercise Plan](#)
 - [MSEL](#)
 - [Player Information](#)

- 2014 Dana Farber Cancer Institute
 - [Clinician Playbook](#)
 - [Exercise Plan](#)
 - [After Action Report \(AAR\)](#)

Annual TTX

Tabletop Exercises (TTX)

*NOTE: Raw data available to appropriate facilities upon request.

- [2006 RITN Tabletop exercise scenario and questions](#)
- [2007 RITN Tabletop exercise scenario and questions](#)
- [2008 RITN Tabletop exercise scenario and questions](#)
- [2009 RITN Tabletop exercise scenario and questions](#)
 - [2009 RITN Tabletop exercise results - charts](#)
- [2010 RITN Tabletop exercise scenario and questions](#)
 - [2010 RITN Tabletop exercise results - charts](#)
- [2011 RITN Tabletop exercise scenario and questions](#)
 - [2011 RITN Tabletop exercise results - charts](#)
- 2012 RITN Tabletop exercise scenario and questions ([PDF](#))
- 2013 RITN Tabletop exercise scenario and questions ([PDF](#))
 - 2013 RITN TTX Executive Summary ([PDF](#))
- 2014 RITN Tabletop exercise scenario and questions ([PDF](#))
 - 2014 RITN TTX Executive Summary ([PDF](#))



RITN Midwest Coordination & Treatment of a Radiation Mass Casualty Incident Tabletop Exercise

After-Action Report/Improvement Plan
August 2013

Big Rad Apple
10 Kiloton Nuclear Explosion
Regional Radiation Injury Treatment Network Tabletop Exercise

June 23, 2014

AFTER ACTION REPORT/IMPROVEMENT PLAN

FINAL DRAFT – August 21, 2014



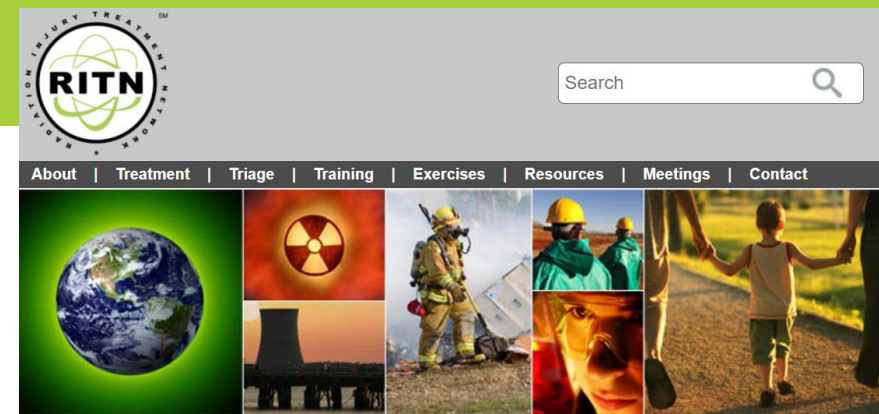
- RITN What You Need to Know ([Video](#)): 4 min overview video



+

- Exercise videos
- Just-in-Time Training videos

A screenshot of the RITN YouTube channel page. The page features a search bar at the top with the YouTube logo on the left and navigation icons on the right. Below the search bar are tabs for HOME, VIDEOS, PLAYLISTS, CHANNELS, DISCUSSION, and ABOUT. The 'VIDEOS' tab is selected. Underneath, there is a 'Sort by' dropdown menu. The main content area displays a grid of video uploads. Each video thumbnail includes a duration timer in the bottom right corner. The first video is 'RITN-Wake Forest Baptist Health Exercise 2015' (16:48). The second is 'RITN-City of Hope Exercise 2016' (2:25). The third is 'Emory Operation Gateway Radiation Response Exercise' (4:09). The fourth is 'RITN What You Need to Know' (4:18), which includes a list of key points: 'RITN serves radiation-only patients', 'Patients have been decontaminated', and 'RITN's radiation-only patients are safe'. The fifth video is 'RITN-RUMC Exercise 2017' (6:48).



U.S. Department of Health & Human Services
REMM RADIATION EMERGENCY MEDICAL MANAGEMENT
Guidance on Diagnosis and Treatment for Healthcare Providers

- Understand Radiation
- Plan Ahead
- Practice Teamwork
- Work Safety

Interactive Clinical Tools ▾ Diagnosis & Treatment ▾ Reference & Data ▾ **Overview ▾** Get REMM App

What Kind of Emergency?	Patient Management	Initial Incident Activities
<ul style="list-style-type: none">> Nuclear Detonation: Weapons, Improvised Nuclear Devices> Radiological Dispersal Devices, Dirty Bombs> Nuclear Power Plant/ Reactor Incidents> Radiological Exposure Devices> Transportation Incidents	<ul style="list-style-type: none">> Choose Appropriate Algorithm> Contamination> Exposure (Acute Radiation Syndrome)> Exposure + Contamination> Triage Guidelines> Hospital Orders Template	<ul style="list-style-type: none">> Discovering an Incident> Describing an Incident > On-site Activities> Triage Guidelines> Transport Victims> Hospital Activities
Management Modifiers	Practical Guidance	Other Audiences
<ul style="list-style-type: none">> Radiation + Trauma> Burn Triage and Treatment> Mass Casualty	<ul style="list-style-type: none">> Use of Blood Products> Population Monitoring> Decontamination Procedures	<ul style="list-style-type: none">> First Responders> Mental Health Professionals> Hospital Staff

www.REMM.NLM.gov



Download the phone App or the entire site to your computer

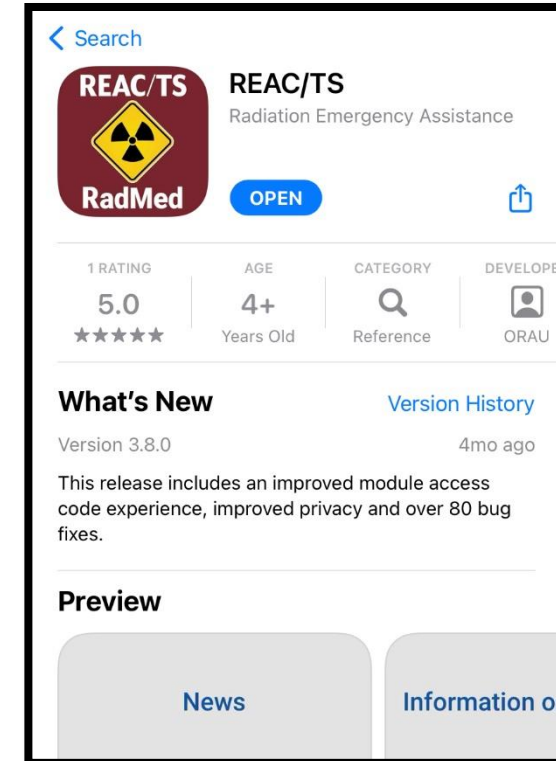


Radiation Emergency Assistance Center/ Training Site (REAC/TS)

[www. https://orise.orau.gov/reacts/index.html](https://orise.orau.gov/reacts/index.html)



Downloadable from Google
Play or the App Store



Critical to Success

Partners

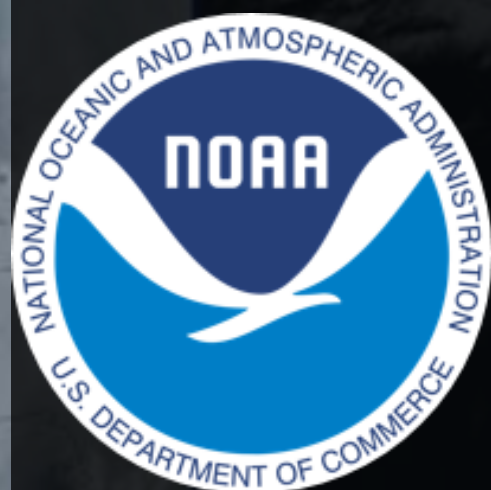


National Institute of Allergy and Infectious Diseases (NIAID), Radiation and Nuclear Countermeasures Development Program (RNCP)

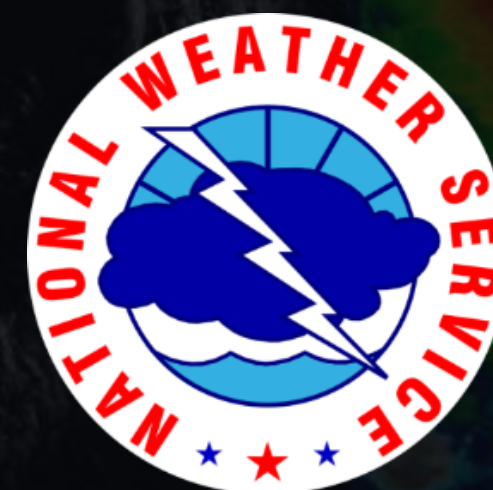




2022 Hurricane Season Outlook
Central Florida Disaster Medical Coalition

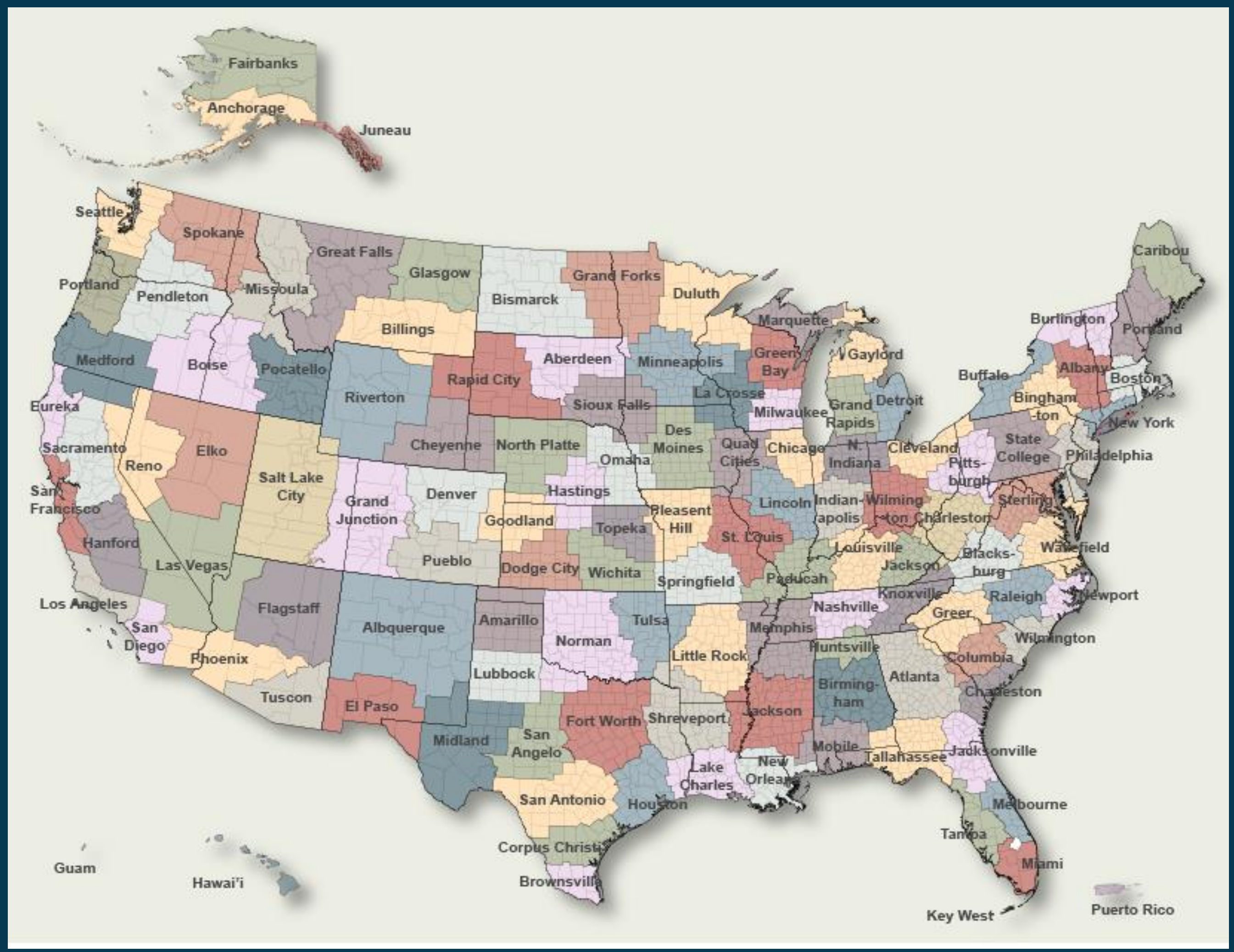


Kevin Rodriguez
Meteorologist
kevin.rodriguez@noaa.gov
National Weather Service – Melbourne, FL



National Weather Service

Melbourne Weather Forecast Office (WFO)



Thursday, June 16, 2022



weather.gov/melbourne

Tropical Cyclones

Basics & Classifications

Definition: A rotating, organized system of clouds and thunderstorms that starts over tropical or subtropical waters and has a closed circulation near the surface.



Storm Strength Classifications



< 39
MPH
< 63 KM/H



39-73
MPH
63-118 KM/H



74-95
MPH
119-153 KM/H



96-110
MPH
154-177 KM/H



111-129
MPH
178-208 KM/H



130-156
MPH
209-251 KM/H



157+
MPH
252+ KM/H

Sources: Storm data provided by the National Hurricane Center, a division of the National Weather Service

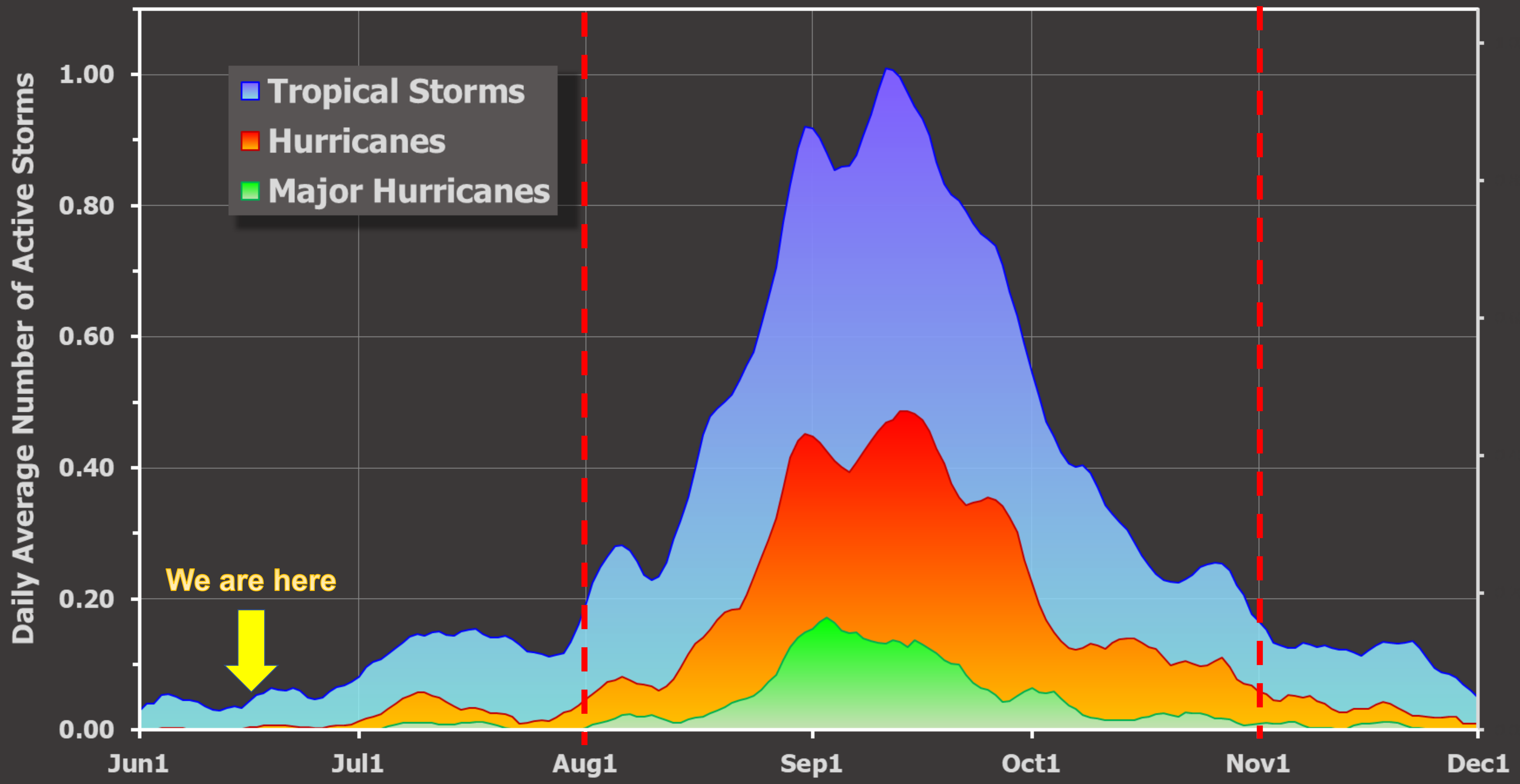
Hurricane Season

Why June 1st to November 30th?



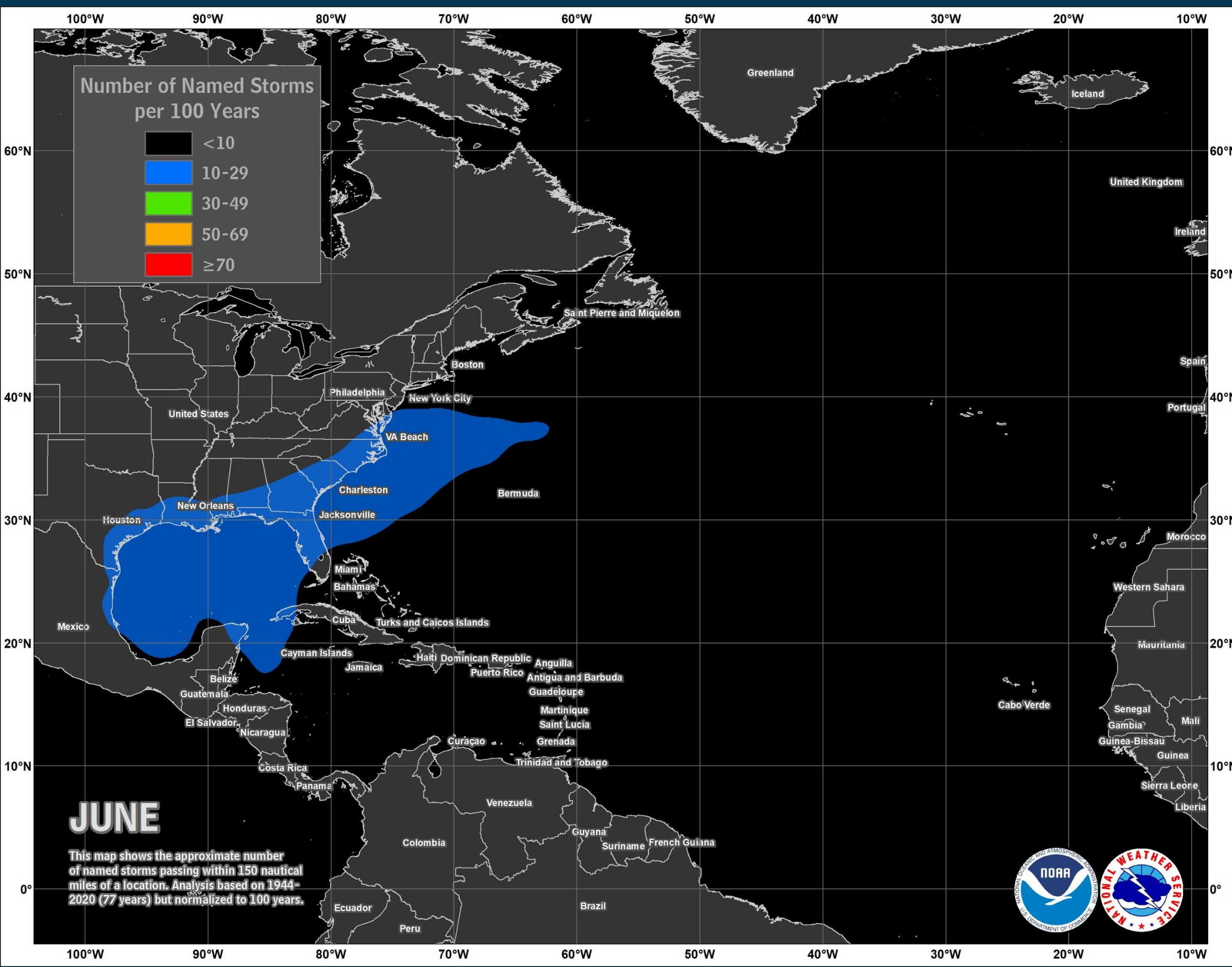
ROSENSTIEL SCHOOL of MARINE & ATMOSPHERIC SCIENCE MIAMI

Atlantic Tropical Cyclone Climatology (1971-2020)

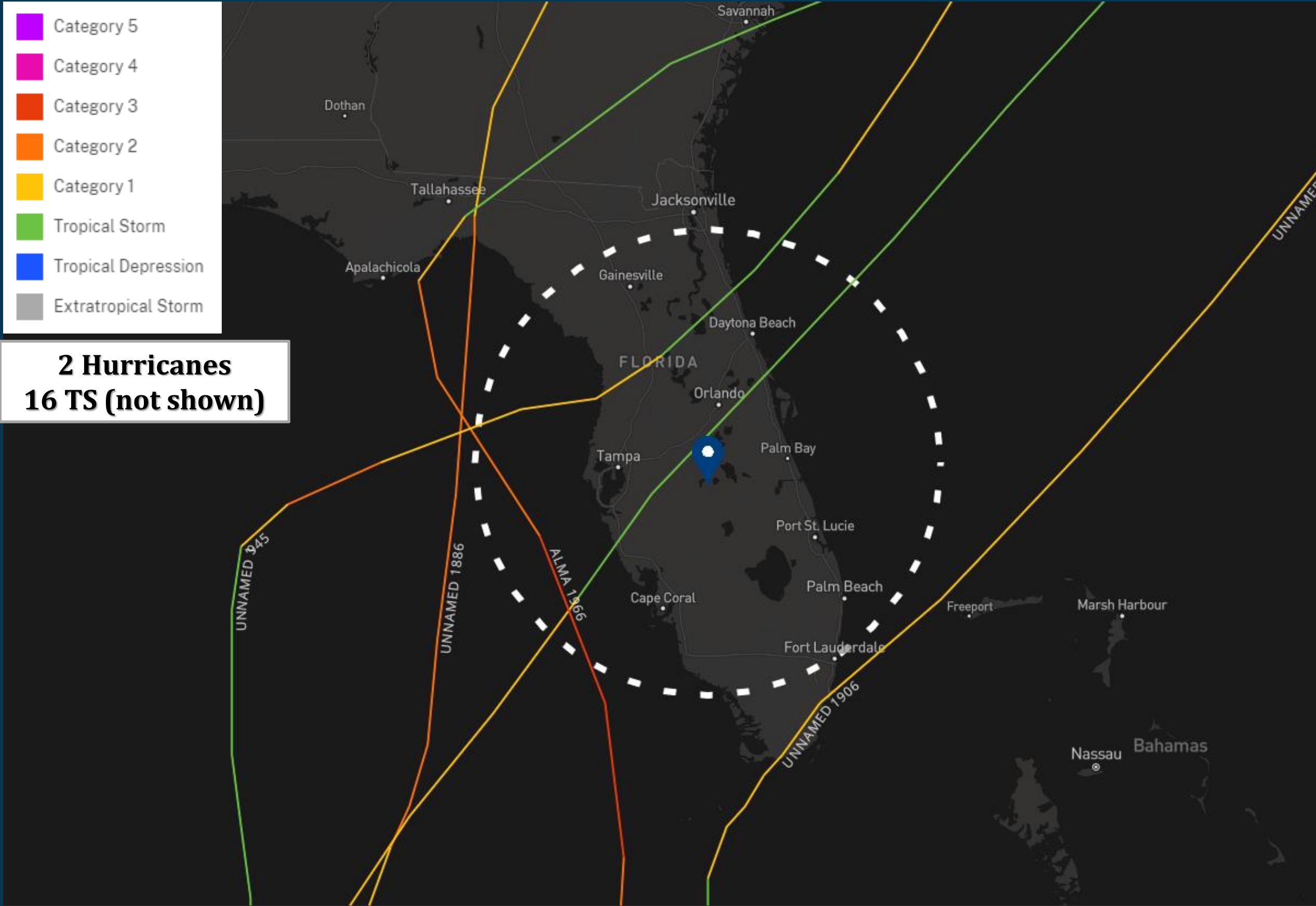


Atlantic Hurricane Climatology

June

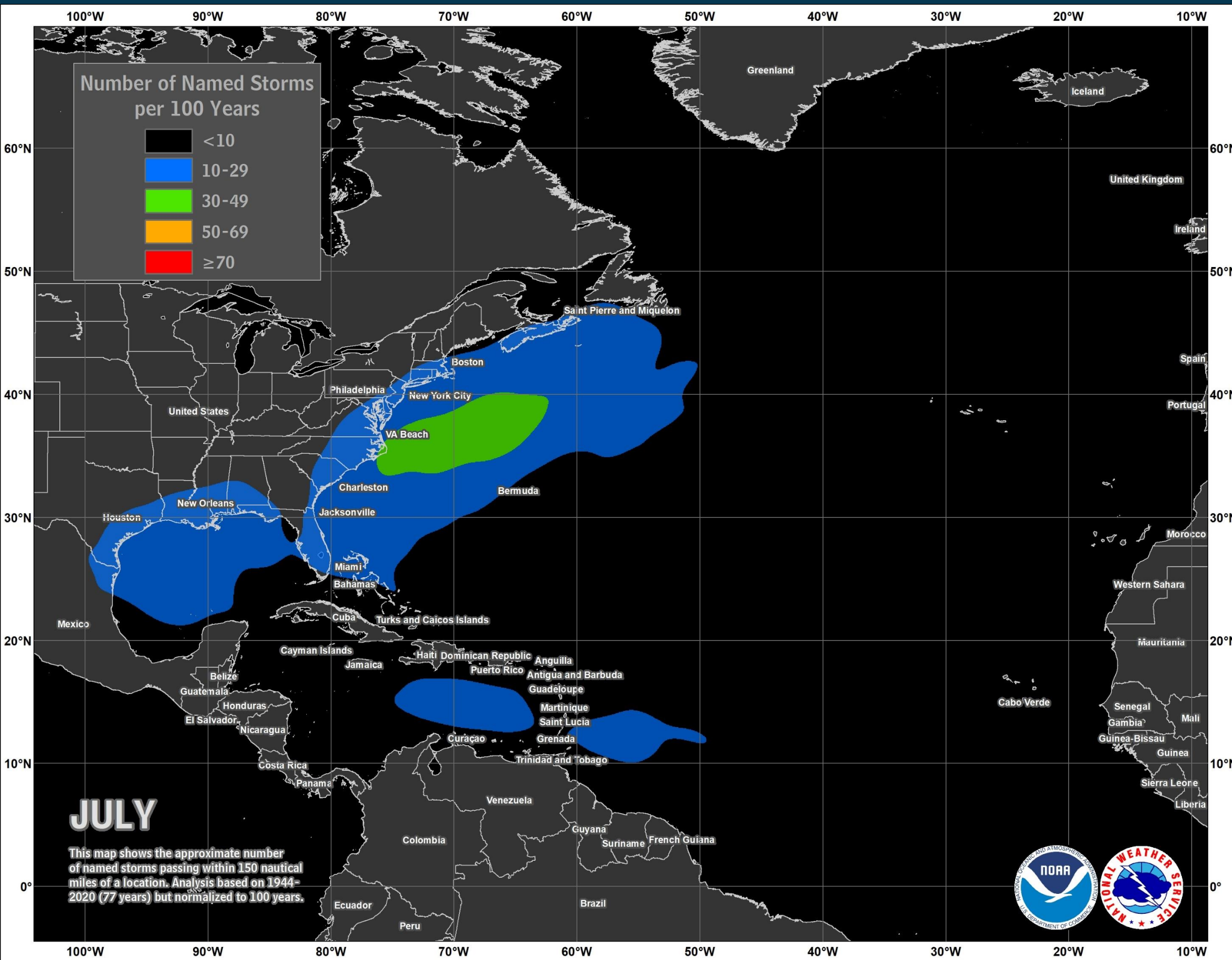


Historic June Hurricanes Passing within 150 nautical miles of Central Florida (1851-2020)

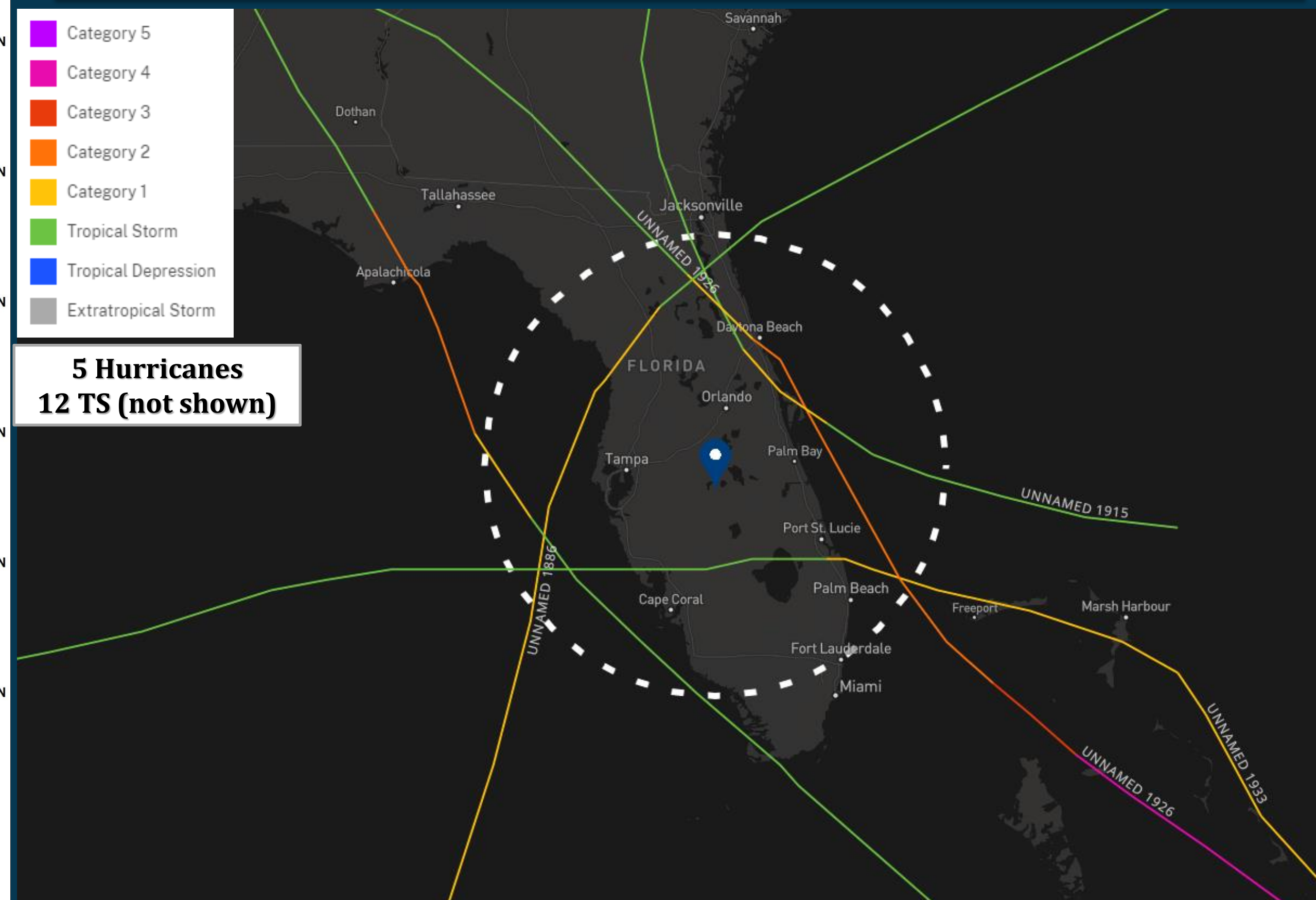


Atlantic Hurricane Climatology

July



Historic July Hurricanes Passing within 150 nautical miles of Central Florida (1851-2020)



Role of Saharan Dust

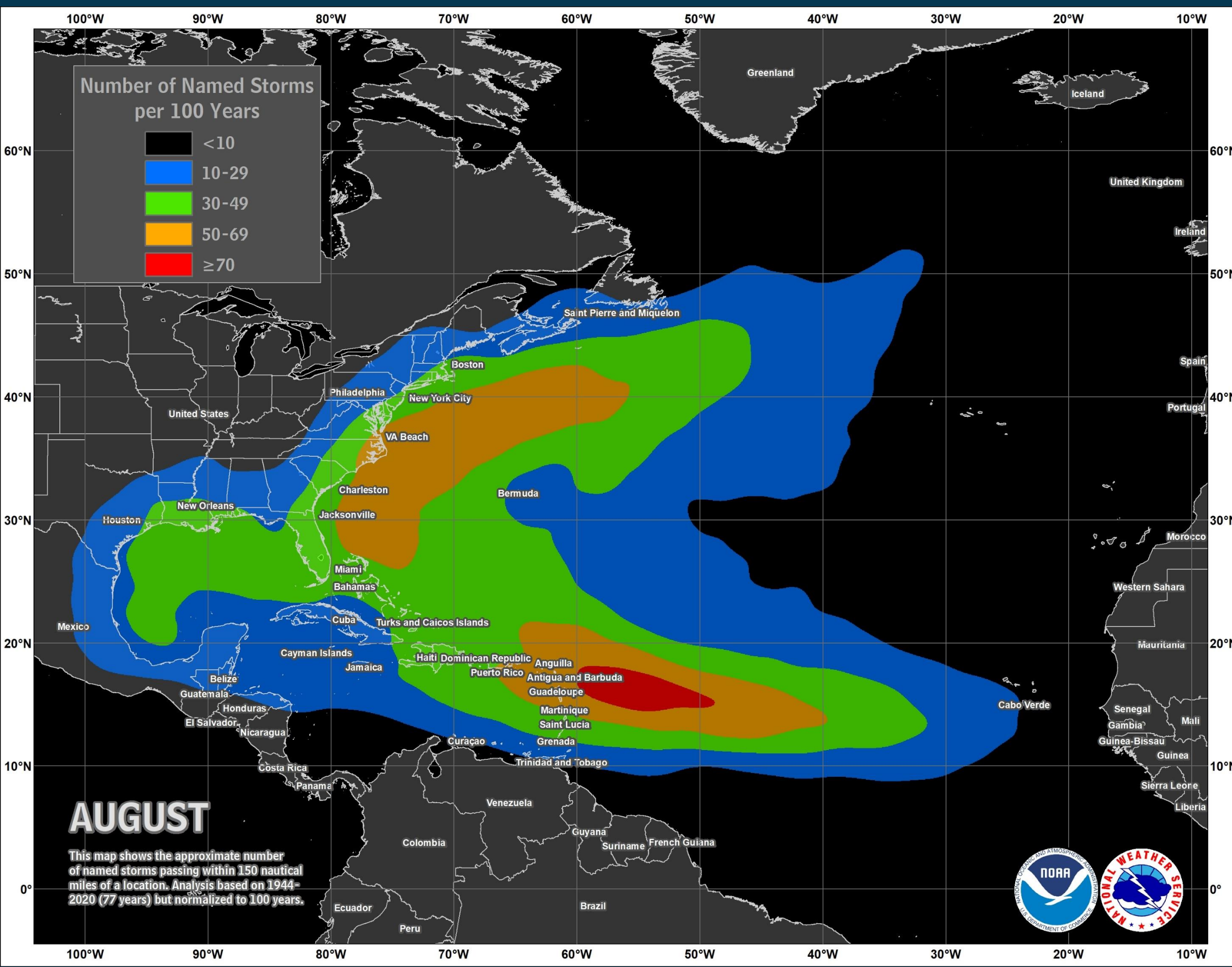
Dust from the Saharan Desert travels across the Atlantic each summer, usually reaching Florida from June through early August

Not only can this cause air quality problems, but it can limit tropical cyclone development

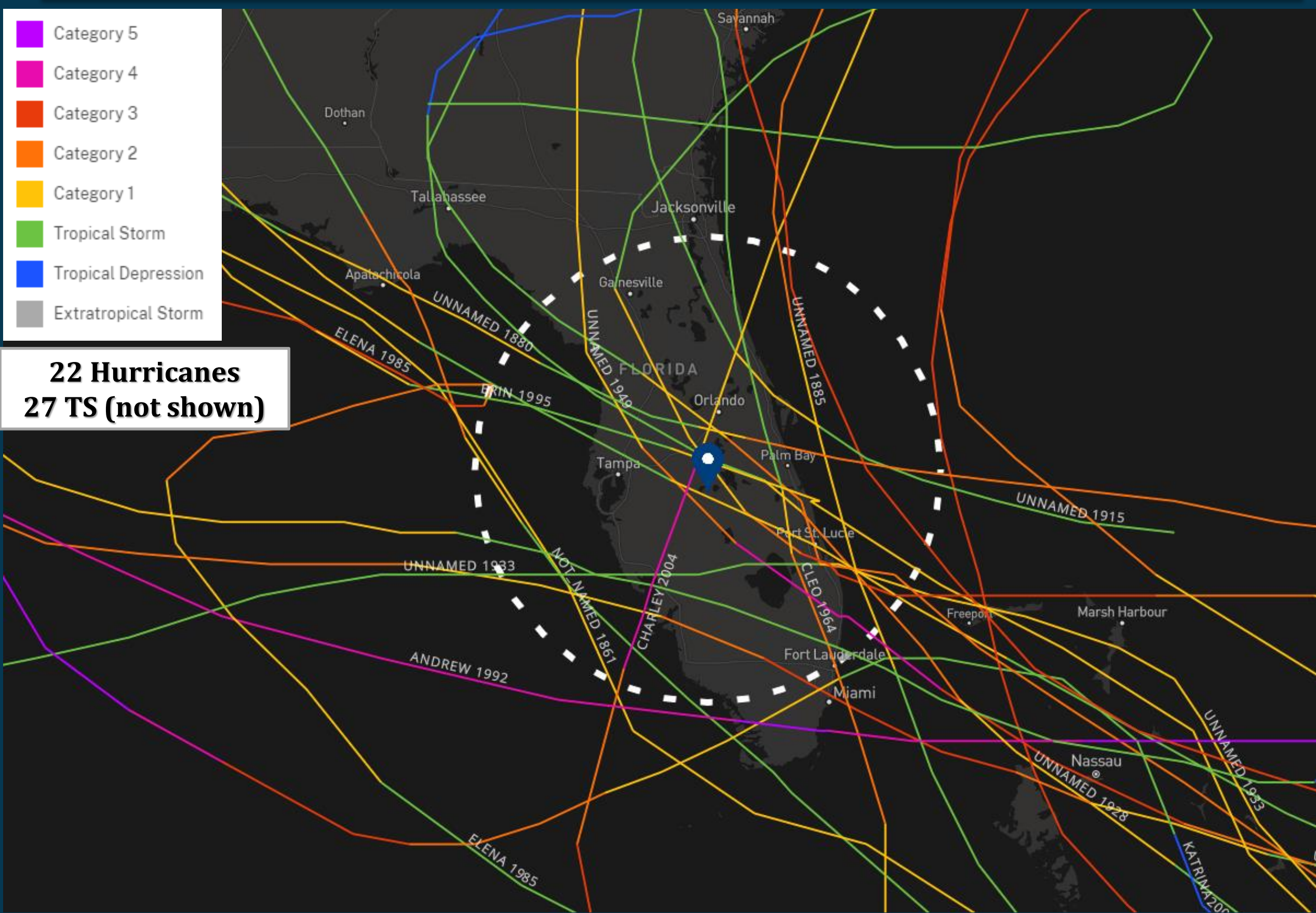


Atlantic Hurricane Climatology

August



Historic August Hurricanes Passing within 150 nautical miles of Central Florida (1851-2020)

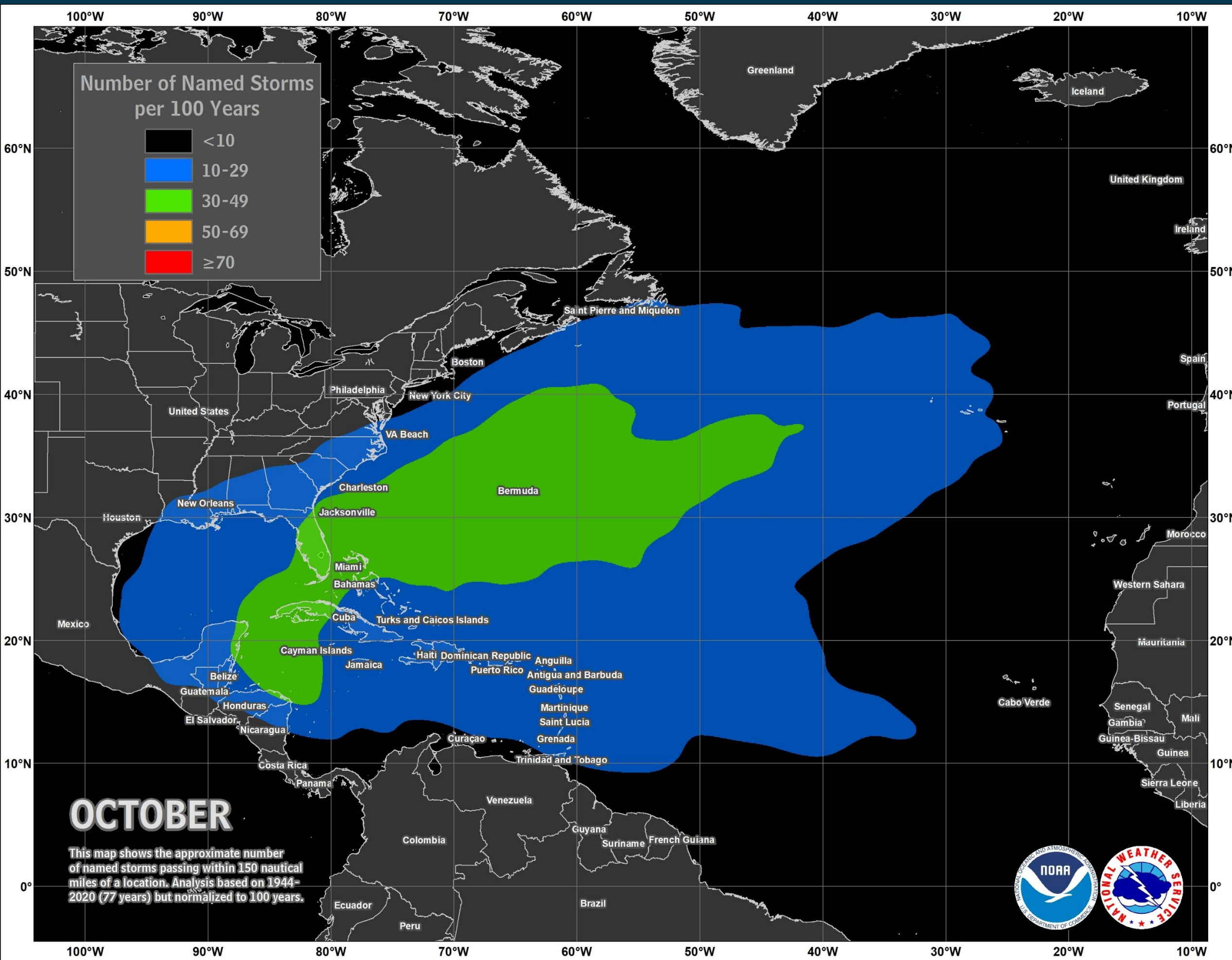


Atlantic Hurricane Climatology

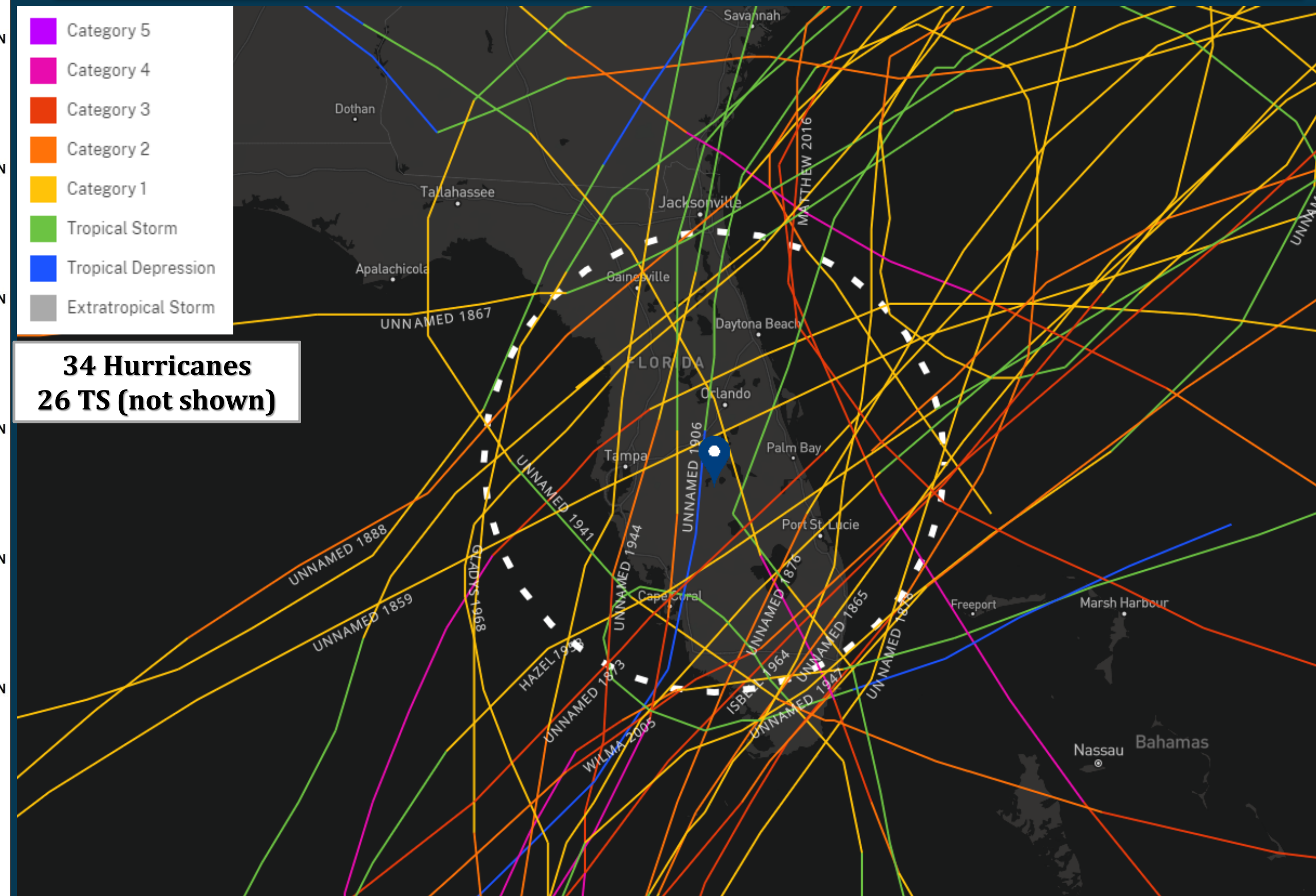
October



Melbourne
WEATHER FORECAST OFFICE



Historic **October** Hurricanes Passing within 150 nautical miles of Central Florida (1851-2020)

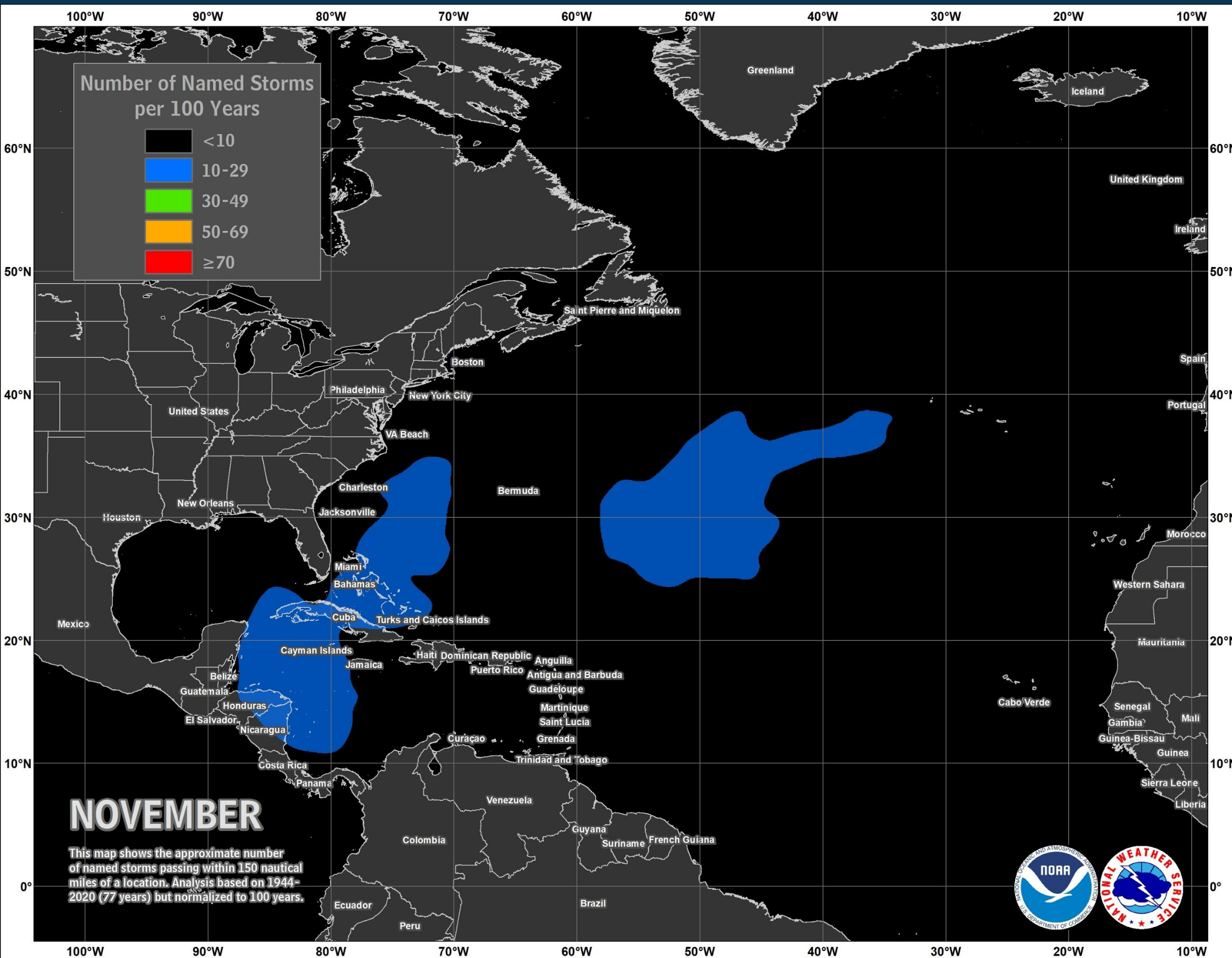


Atlantic Hurricane Climatology

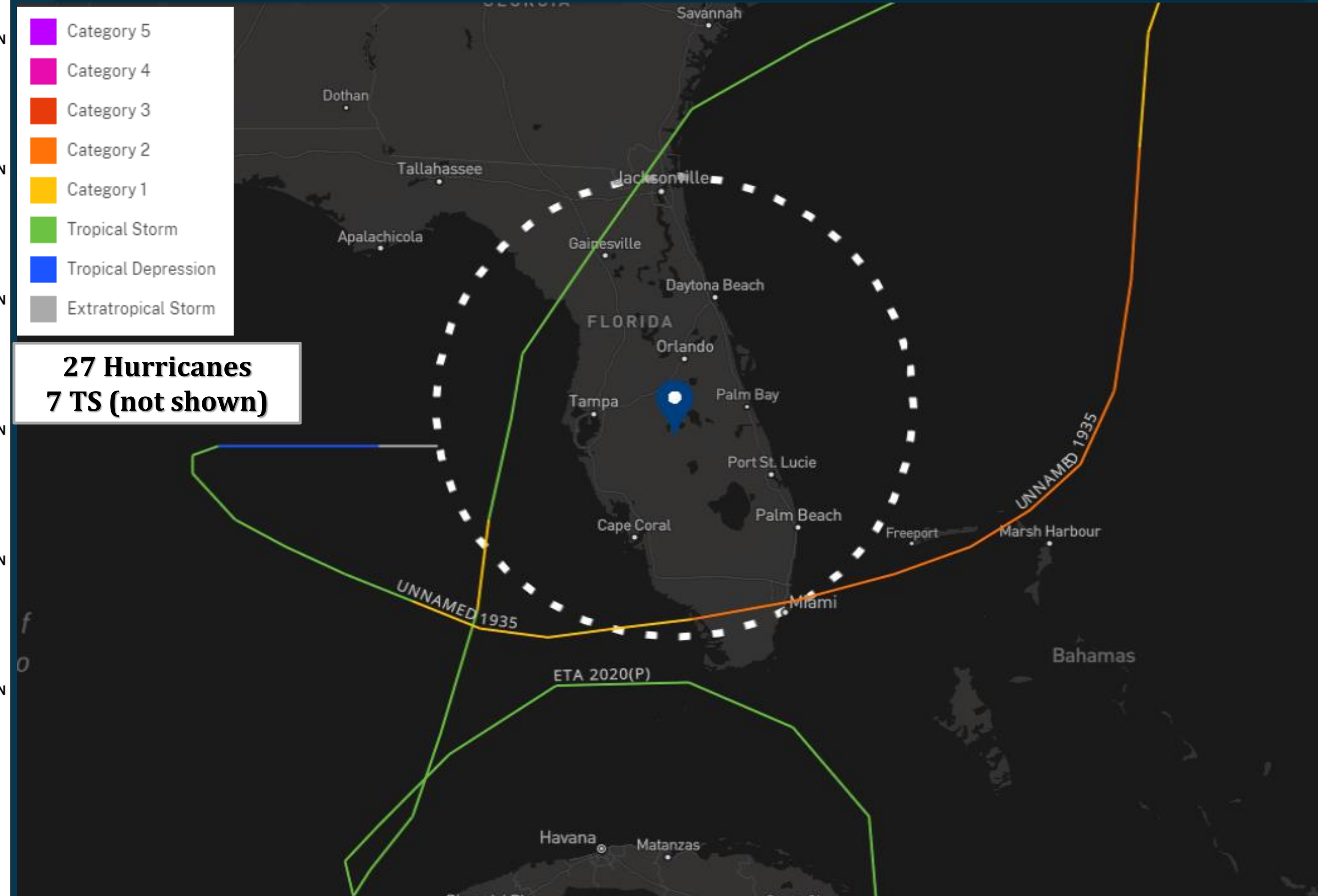
November



Melbourne
WEATHER FORECAST OFFICE



Historic **November** Hurricanes Passing within 150 nautical miles of Central Florida (1851-2020)



Historical Out Of Season Tropical Systems

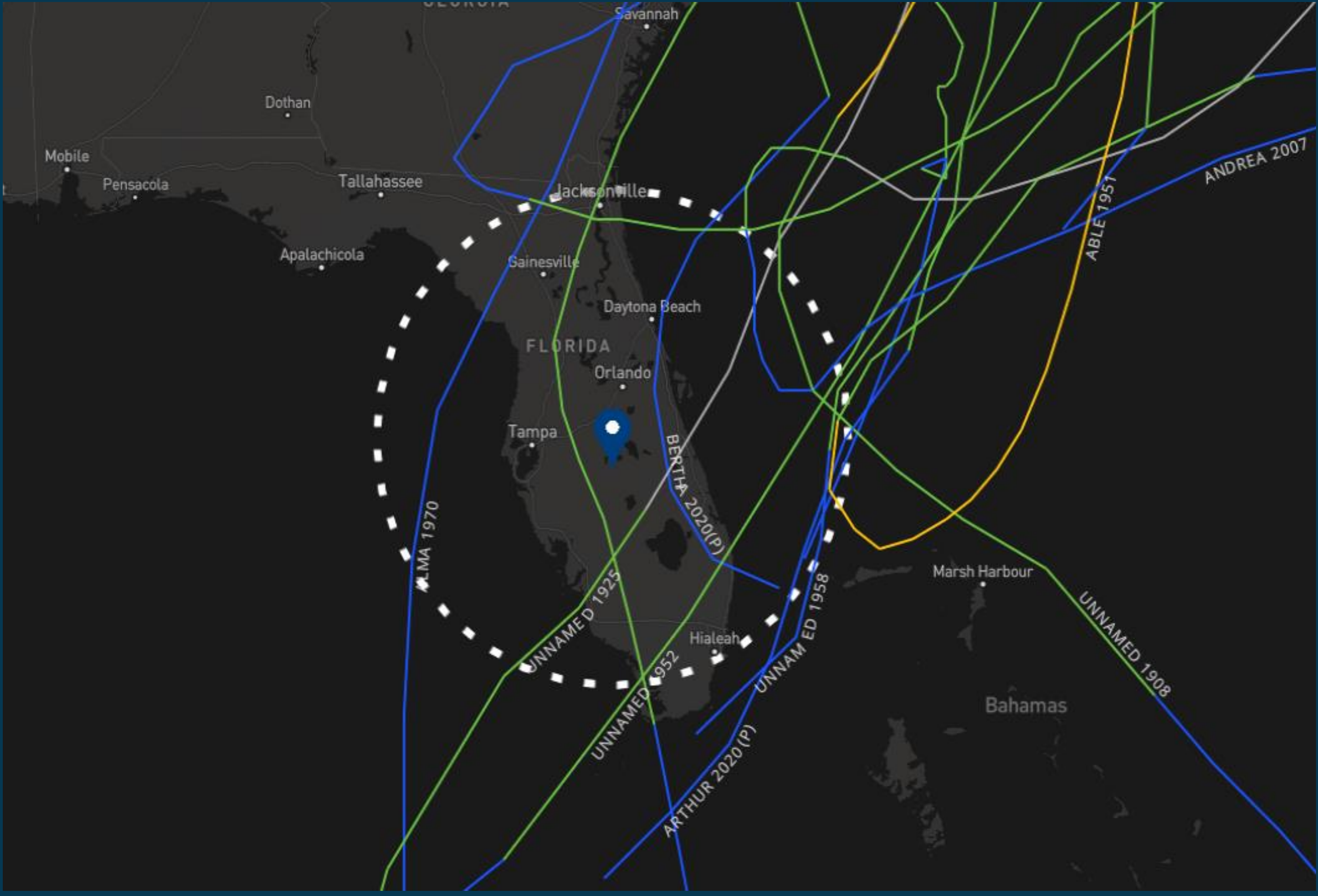
Passing within 150 nautical miles of Central Florida (1851-2020)



Melbourne
WEATHER FORECAST OFFICE

1 Hurricane (May)
8 TS (Dec, Feb, May)
3 TD (May)

- Category 5
- Category 4
- Category 3
- Category 2
- Category 1
- Tropical Storm
- Tropical Depression
- Extratropical Storm



Four Types of Impacts

All tropical cyclones can produce one or combination of these

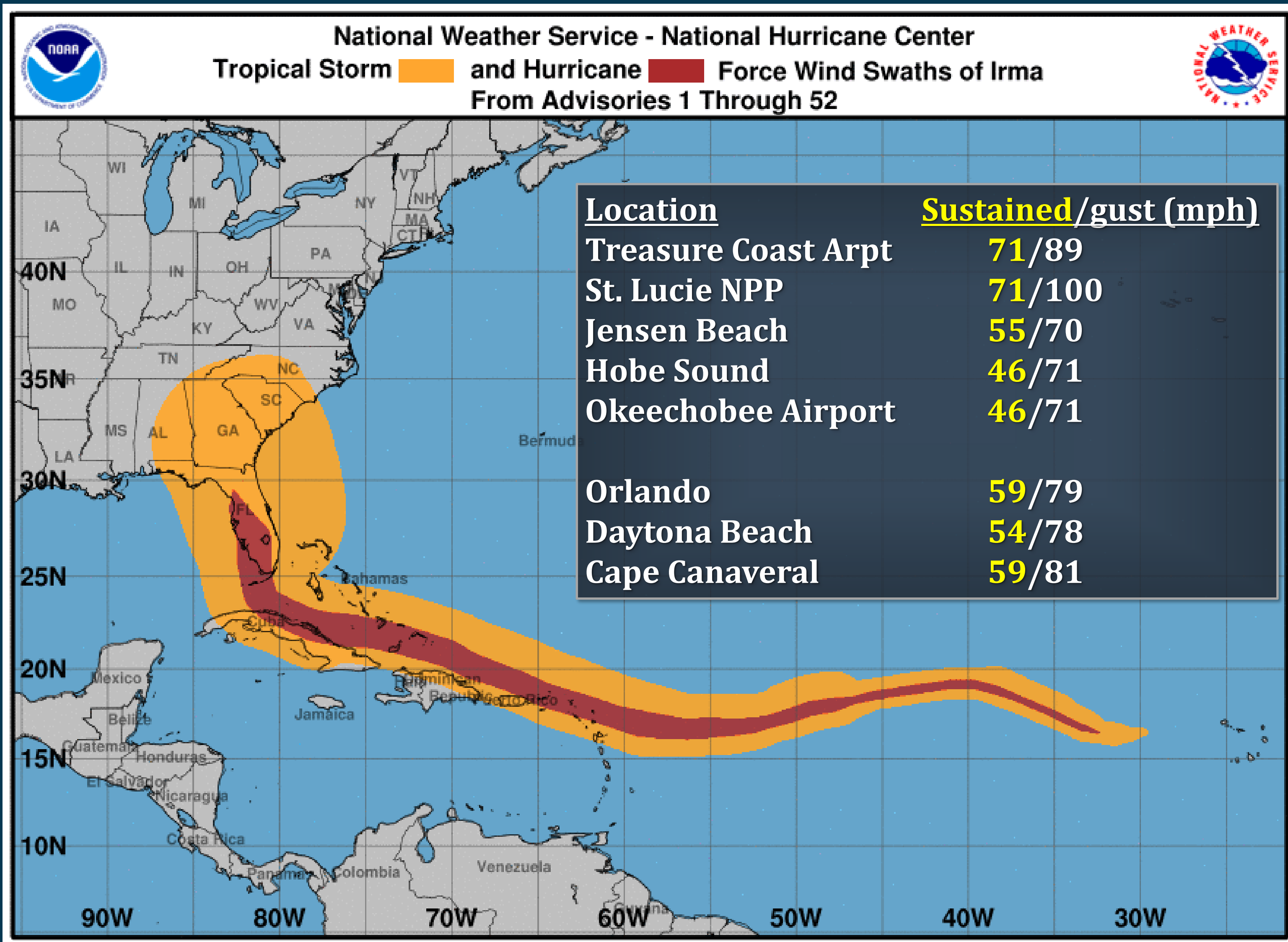


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WEATHER FORECAST OFFICE



Hurricane Wind Impacts

Hurricane Irma (2017) Wind Swaths



Destructive winds occur within the eyewall (just outside of the eye)

Winds within outer rain-bands also produce damage, but usually not extreme.

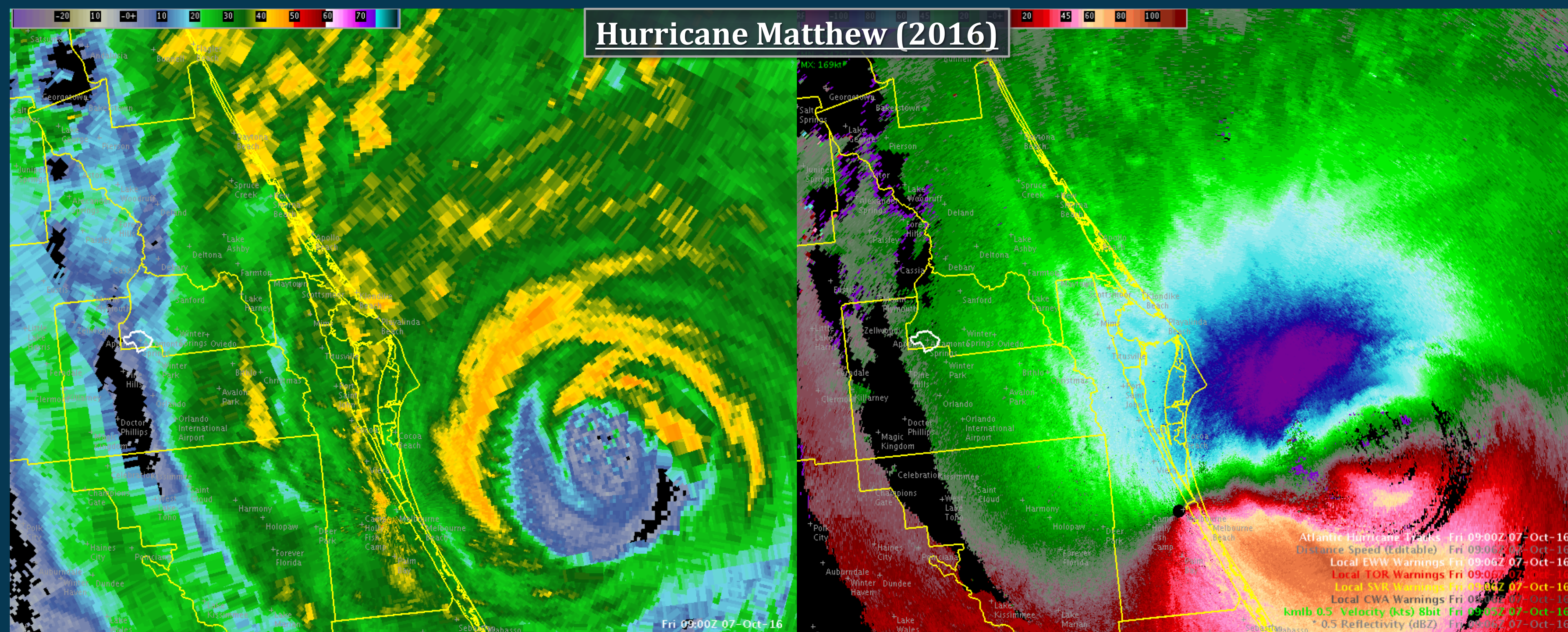
Weather radar estimates suggest sustained winds of **50-70 mph** with **gusts of 75-95 mph** impacted much of the east-central Florida coast.

A few locations experienced **peak wind gusts near 100 mph**, associated with the strongest rain band squalls.

Nature of Extreme Hurricane Winds

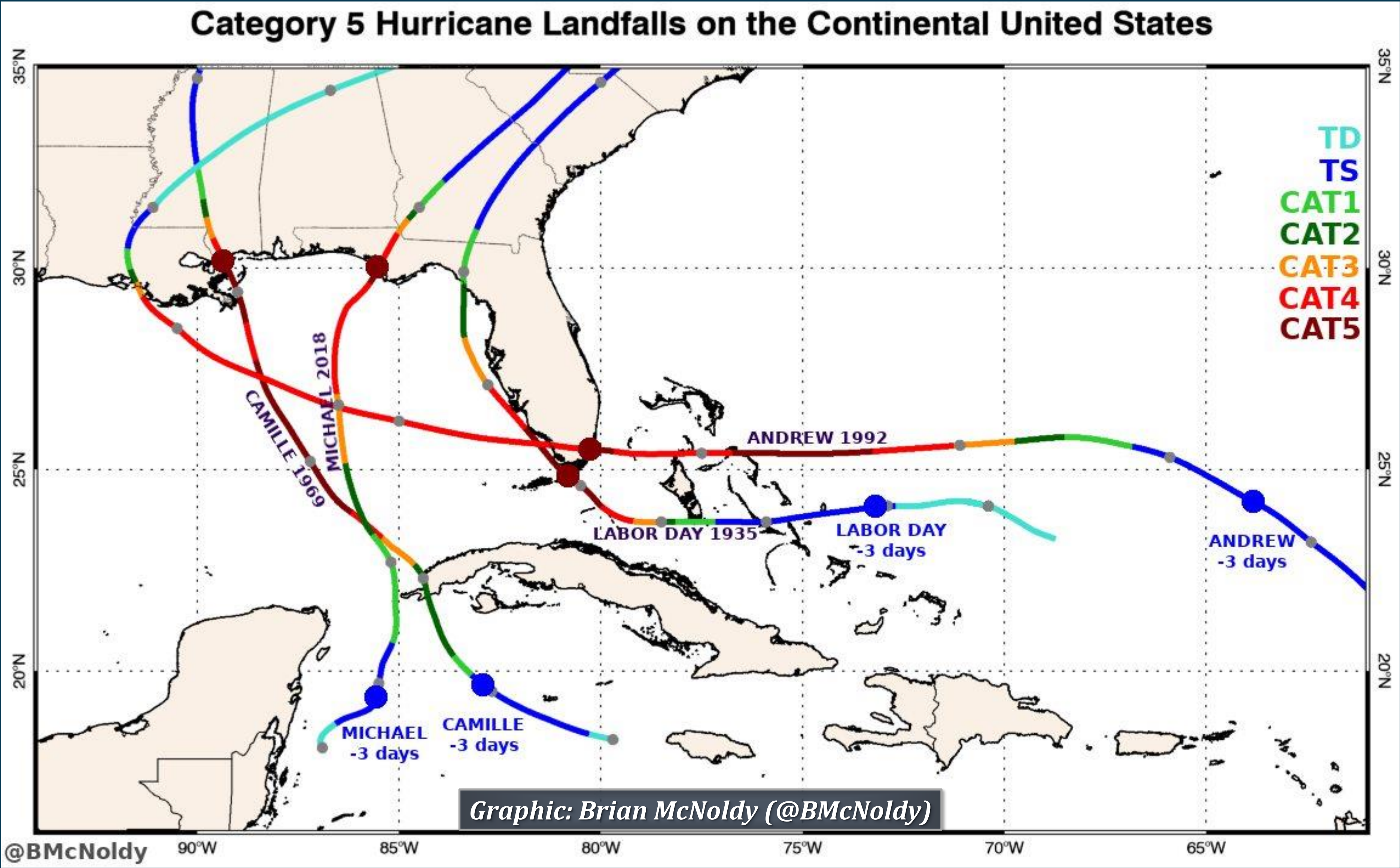
Equivalent in Strength to a Strong to Violent Tornado

- 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.



U.S. Category 5 Landfalls

Rapid Intensification A Common Factor





Understanding Storm Surge Flooding

Storm surge flooding is often the greatest threat to life and property and directly accounts for about half of the deaths associated with tropical storms and hurricanes in the U.S. NOAA coastal flooding forecasts are expressed as feet above ground level to best account for variations in land elevation and features, and to focus on potential impacts.

FLOOD INUNDATION
Normally dry ground can be inundated as a result of storm surge.

storm surge

normal high tide

Nice
Weather
Day

Areas above high tide are normally dry.

normal high tide



weather.gov
hurricanes.gov



Storm Surge Impacts

October 2018
Hurricane Michael
Mexico Beach, FL

Melbourne Beach



Hurricane Irma (2017)

Storm Surge Impacts in East Central Florida

Daytona Beach



Fort Pierce



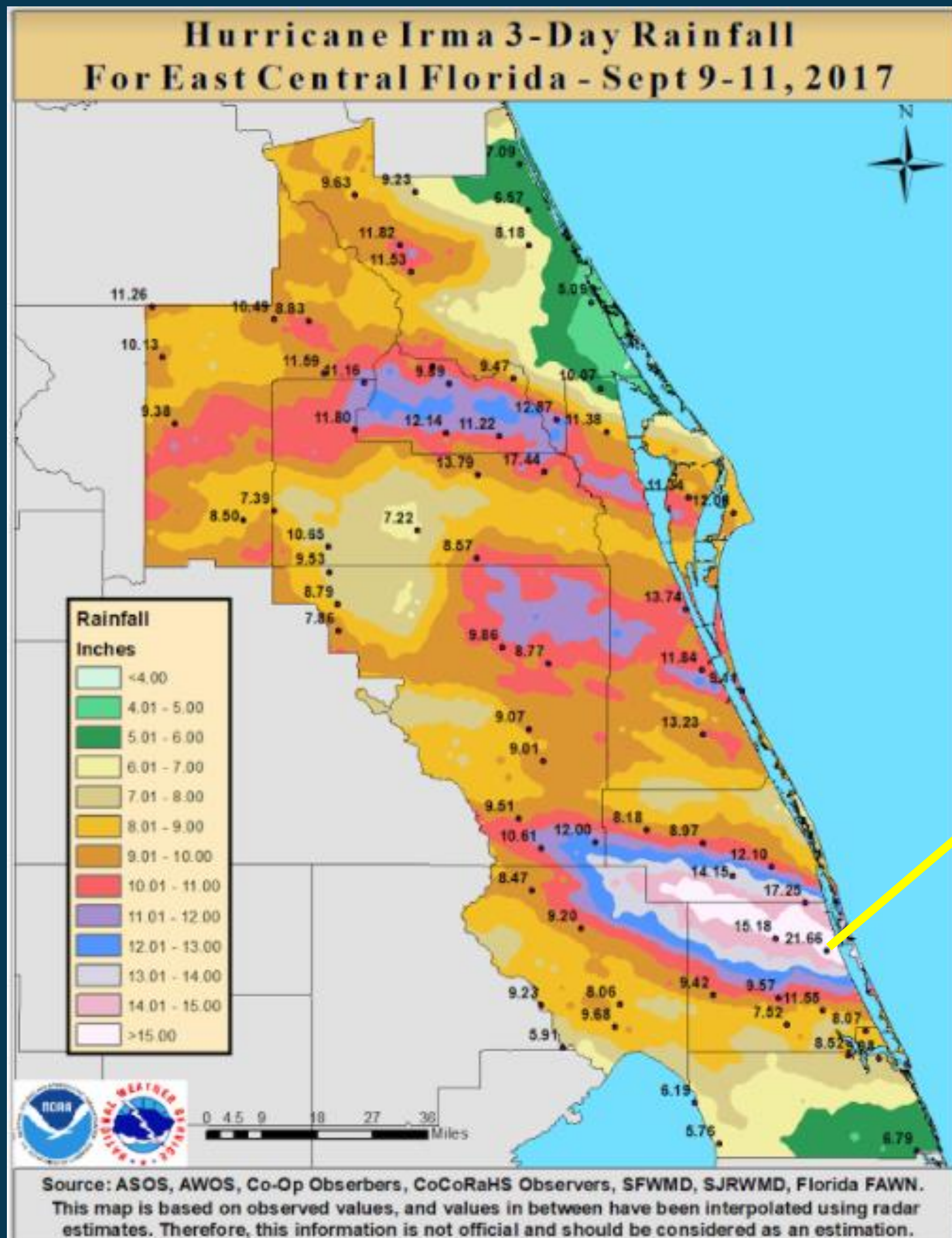
Satellite Beach

Flooding Rain Impacts

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

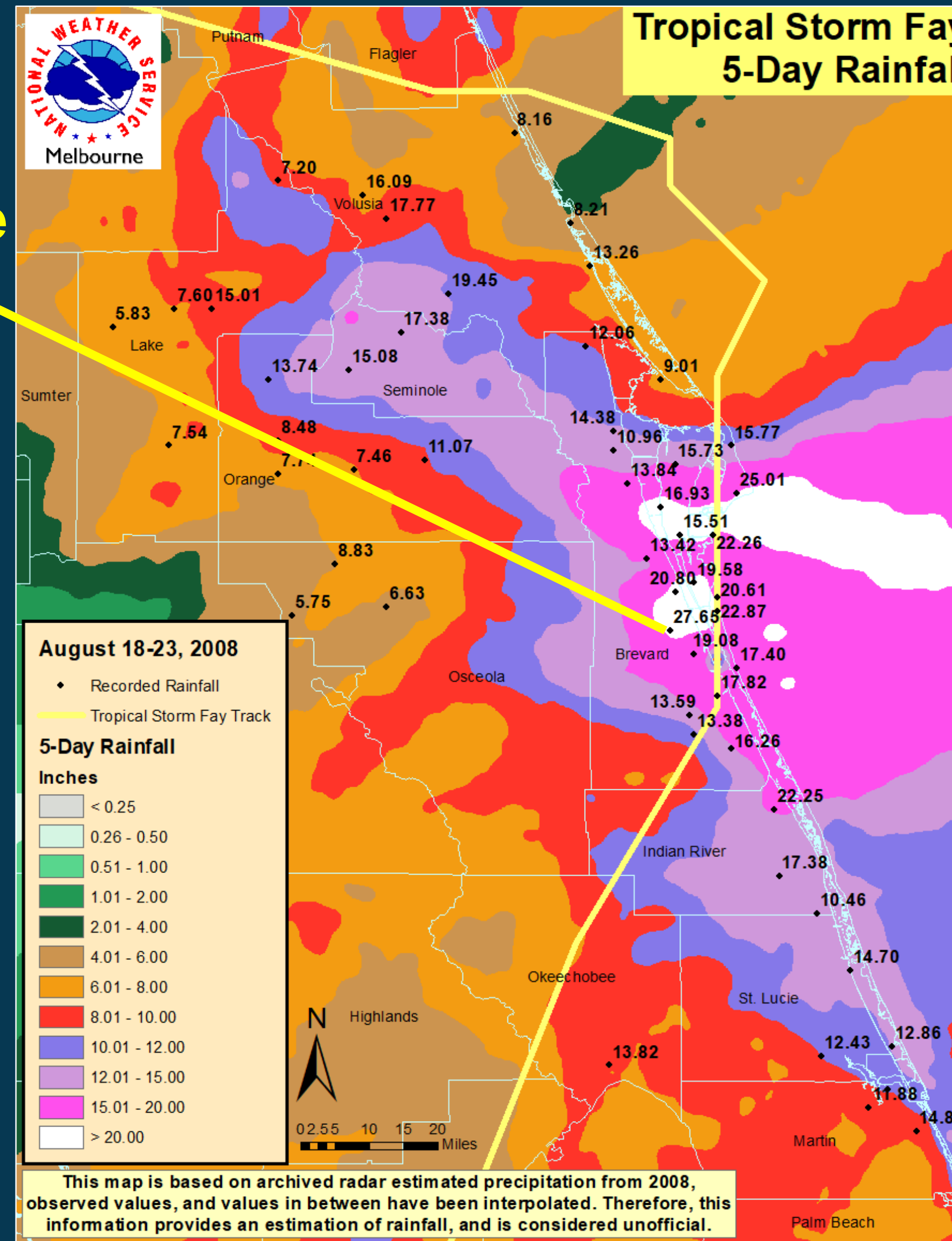


Melbourne
WEATHER FORECAST OFFICE



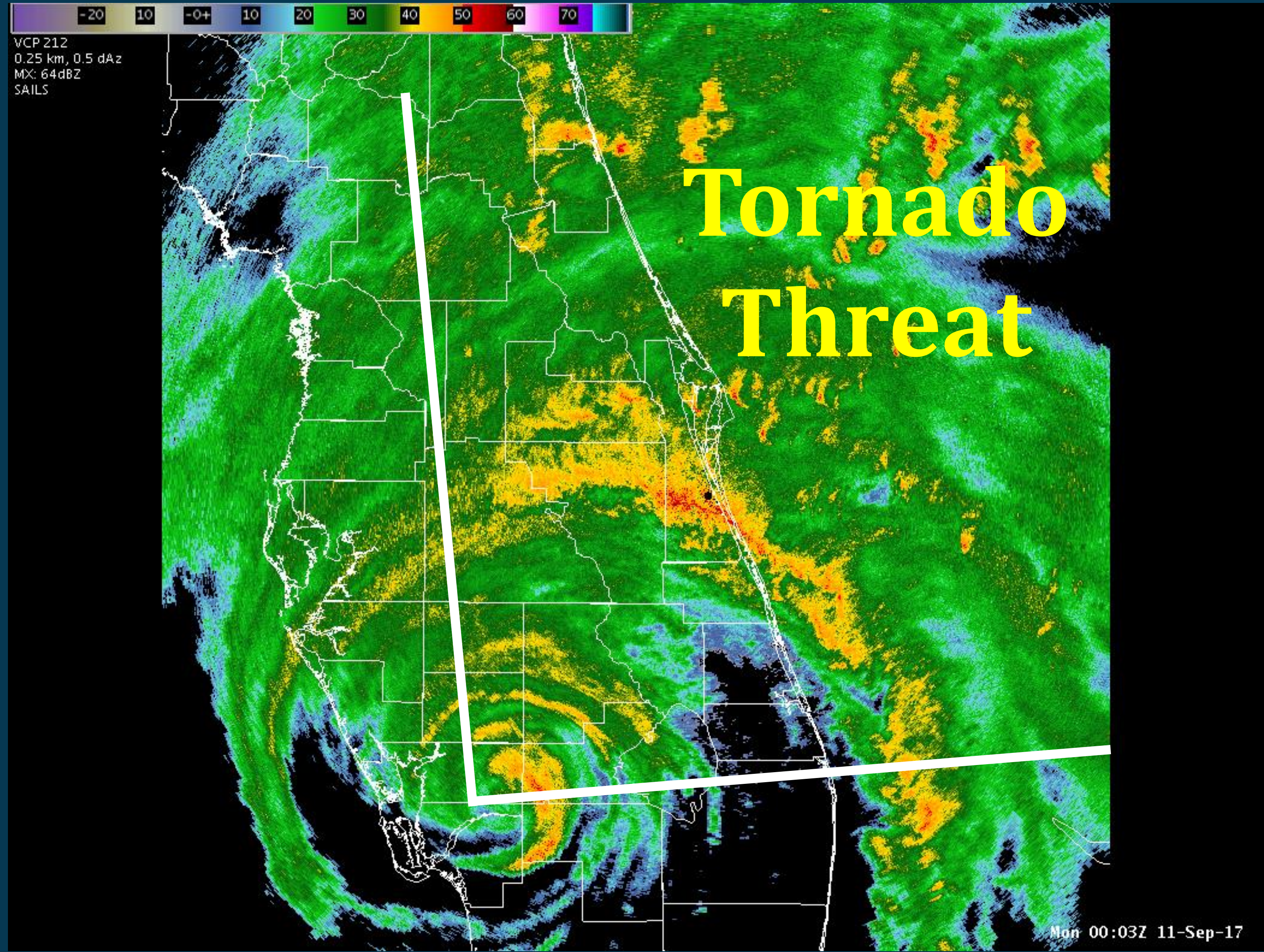
27.65"
Melbourne

21.66"
Ft. Pierce



Hurricane Irma (2017)

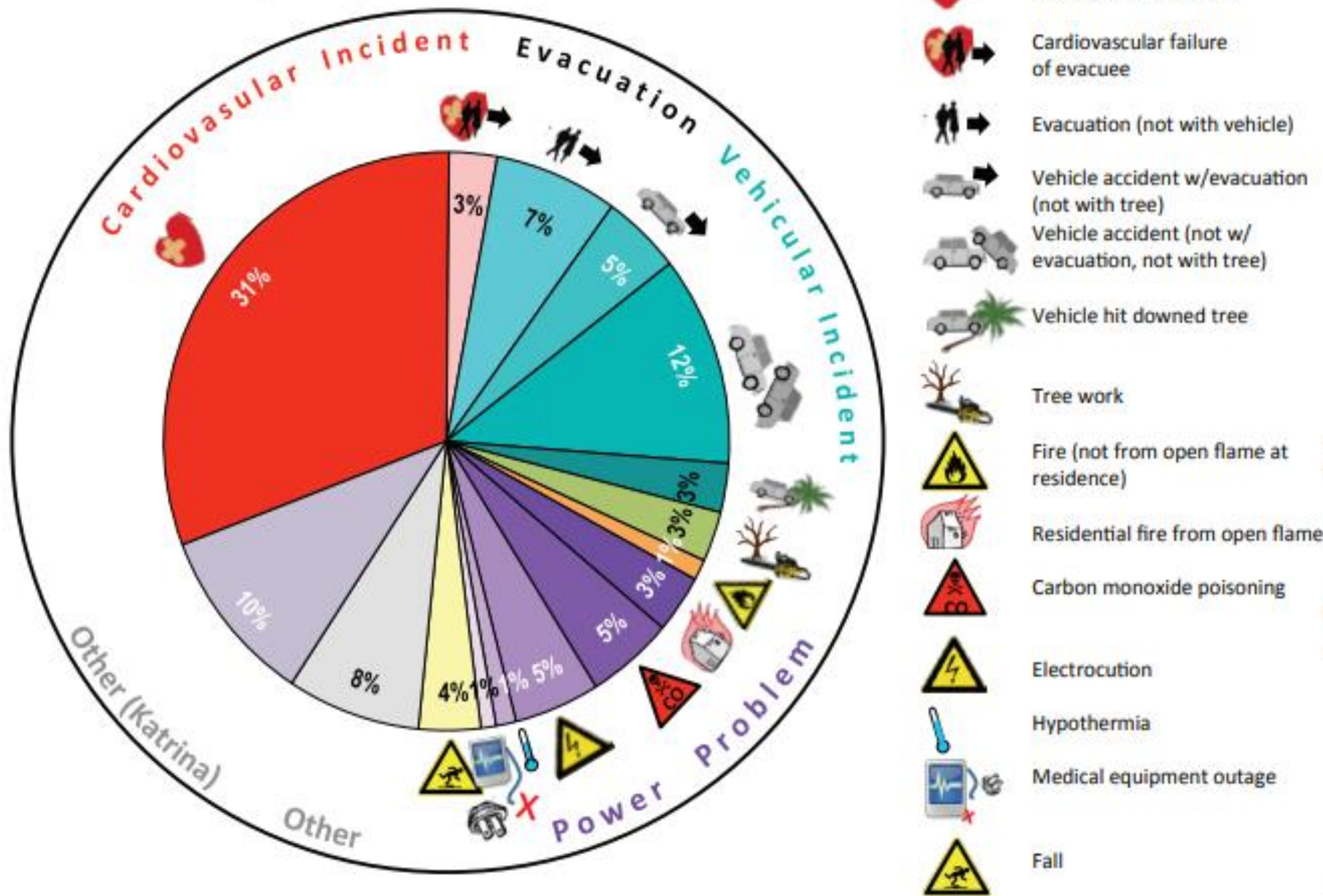
Tornado Impacts



Indirect Fatalities

Longer-Term Impacts

U.S. Atlantic Tropical Cyclone Indirect Deaths, 1963-2012



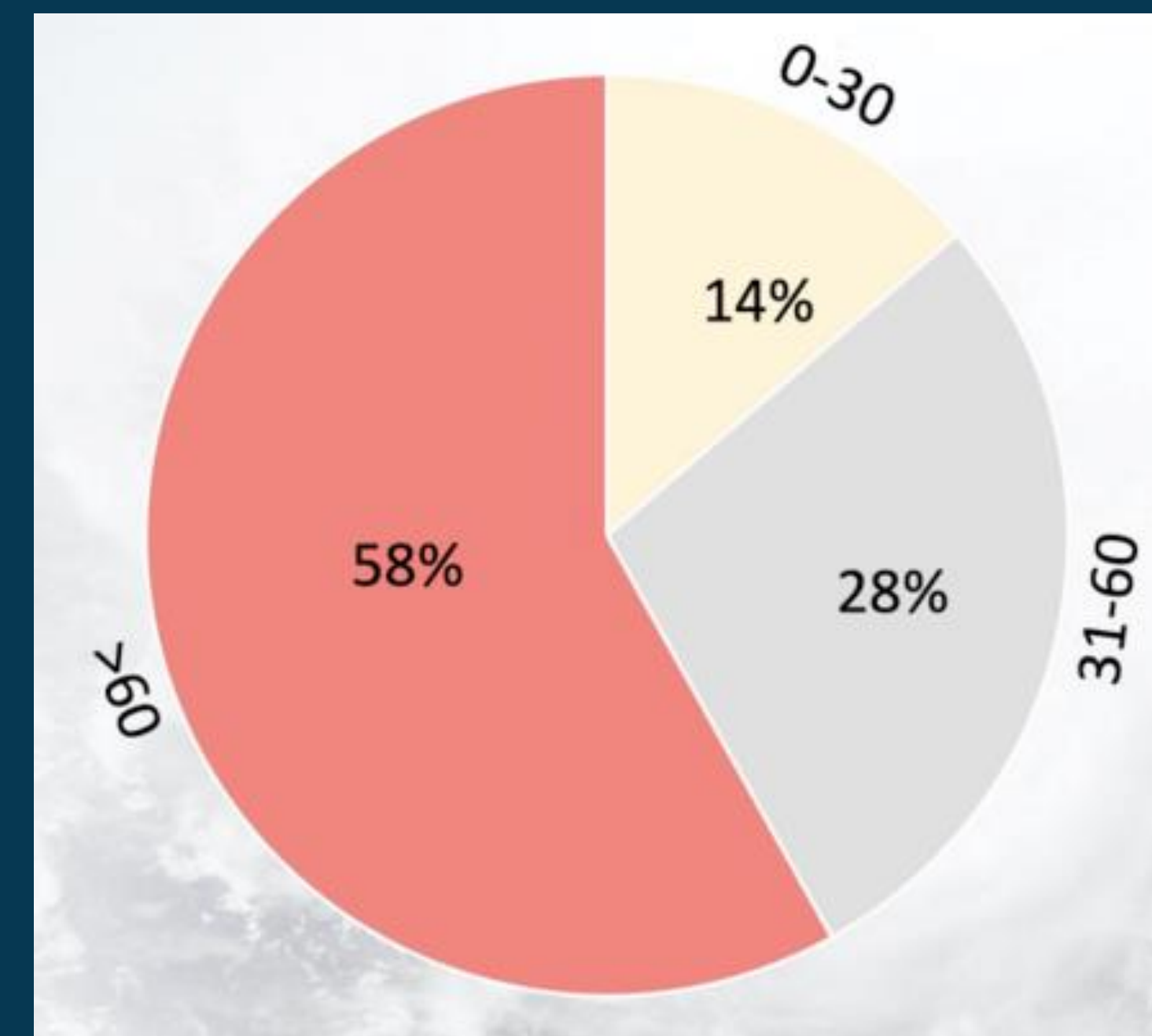
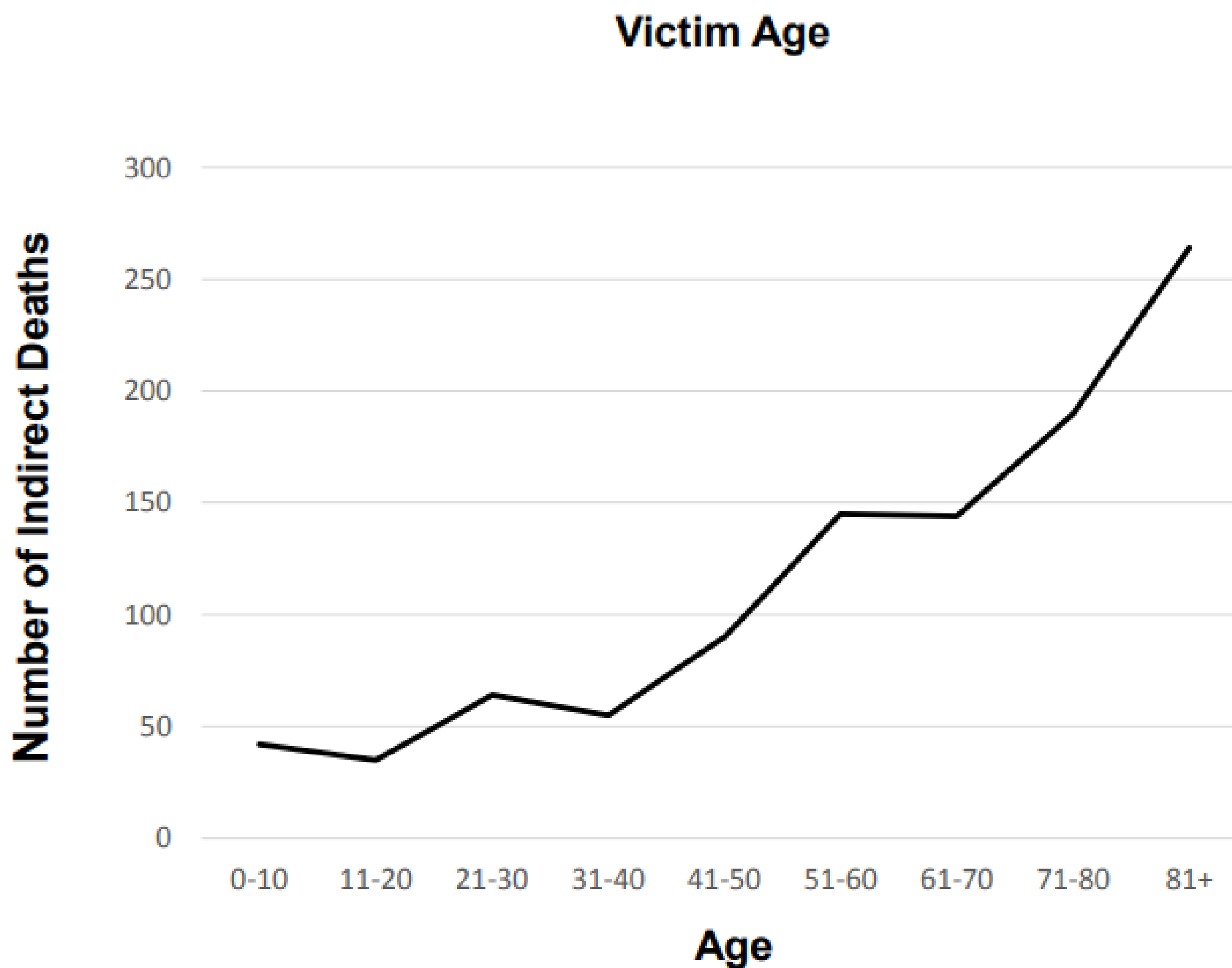
- Most frequent factors**
- Cardiovascular
 - Loss of electricity
 - Vehicle accident
 - Evacuation

Indirect Fatalities

Longer-Term Impacts



U.S. INDIRECT DEATHS (1963-2012)



Number increases generally with age

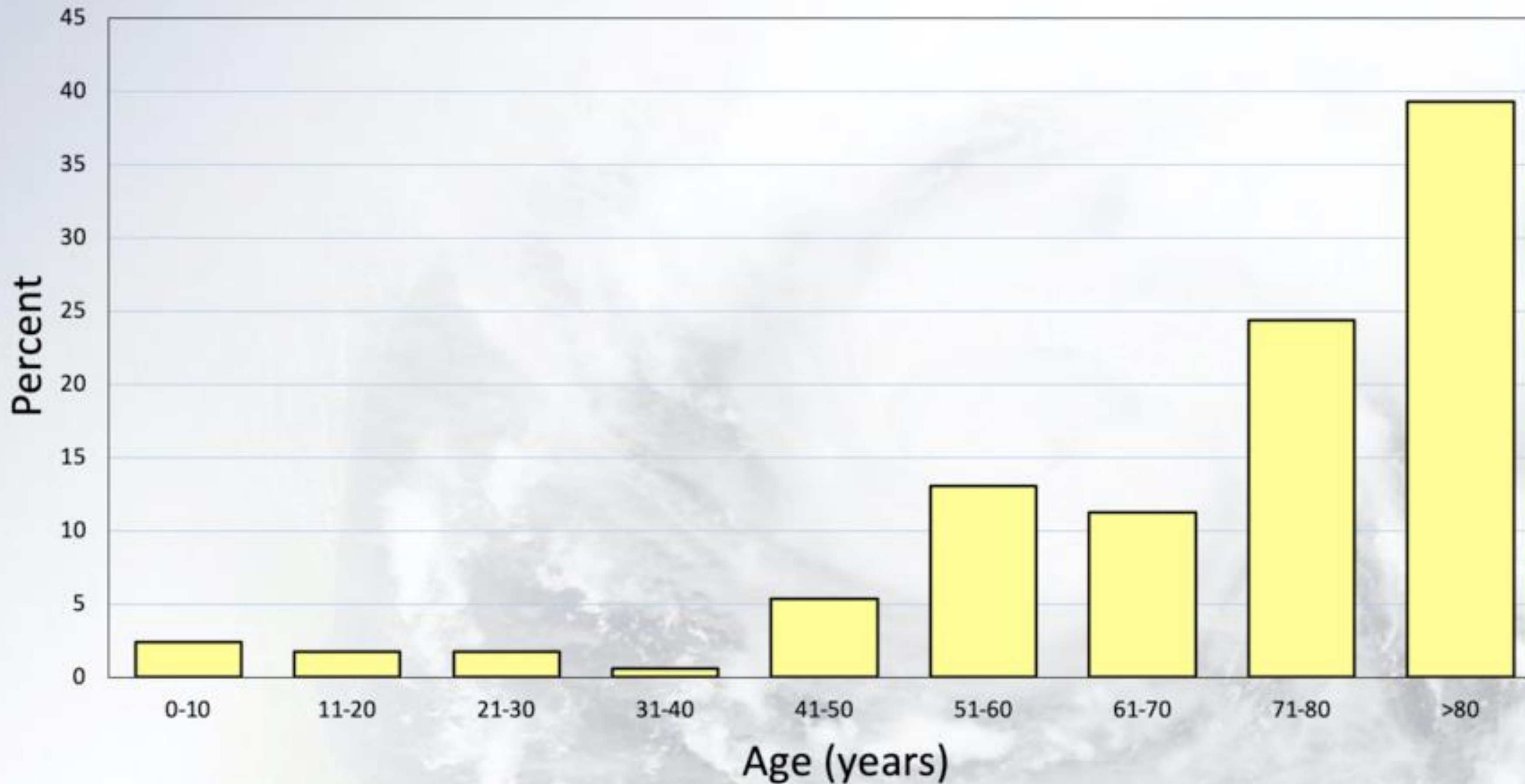
Eight times as many victims over 70 years old as under 21 (influence of heart attacks)

Indirect Fatalities

Longer-Term Impacts



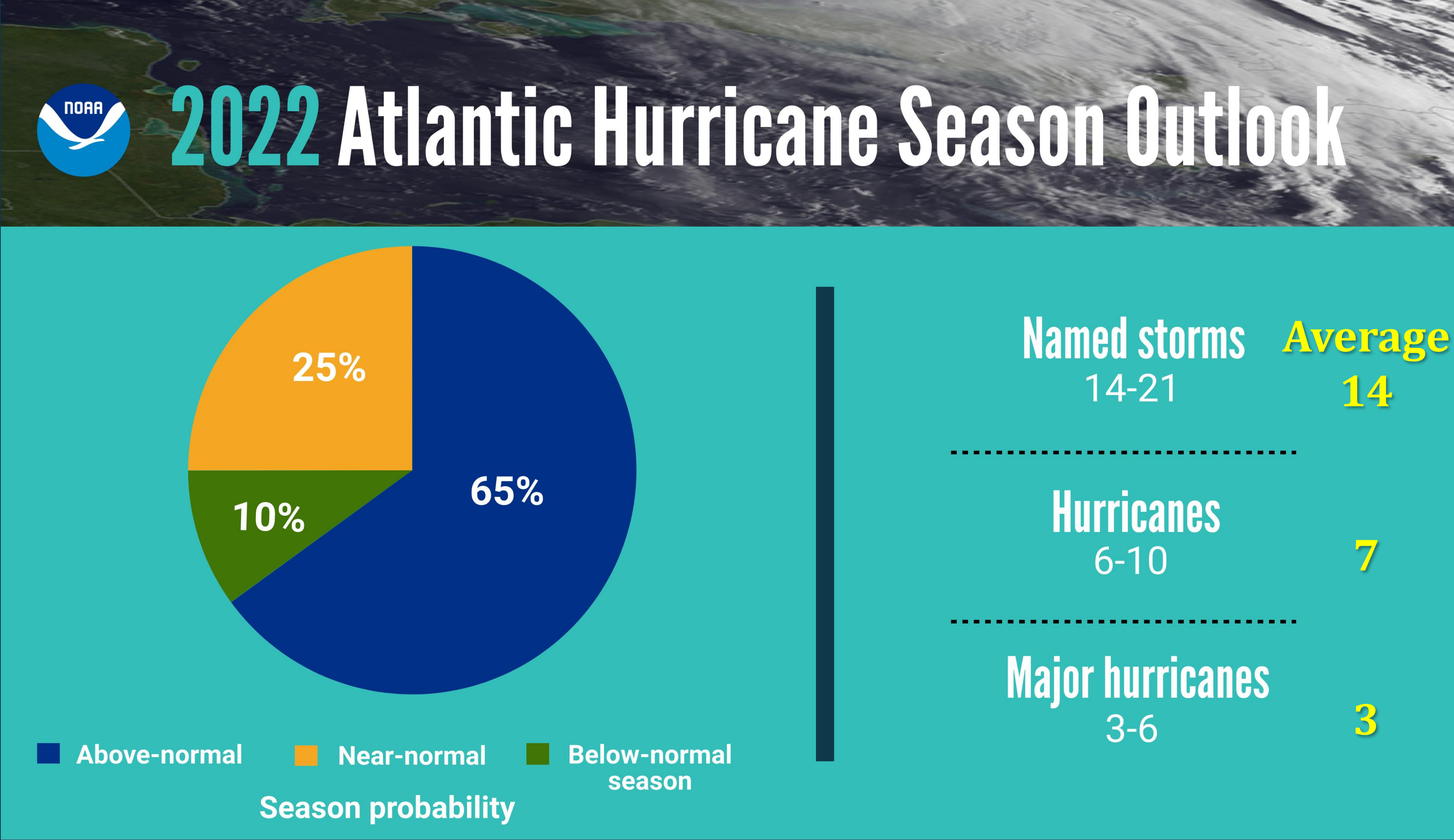
U.S. Tropical Cyclone Indirect Deaths associated with Evacuation (Total = 168)



Based on Rappaport and Blanchard (2016)

2022 Atlantic Hurricane Season Outlook

For the Atlantic, Caribbean Sea, and Gulf of Mexico (June-November)



NOAA

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

May 2022

2022 Atlantic Hurricane Season Outlook

For the Atlantic, Caribbean Sea, and Gulf of Mexico (June-November)



Melbourne
WEATHER FORECAST OFFICE



2022 Atlantic Tropical Cyclone Names

~~Alex~~
Bonnie
Colin
Danielle
Earl
Fiona
Gaston

Hermine
Ian
Julia
Karl
Lisa
Martin
Nicole

Owen
Paula
Richard
Shary
Tobias
Virginie
Walter

Names provided by the World Meteorological Organization

NOAA

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

May 2022

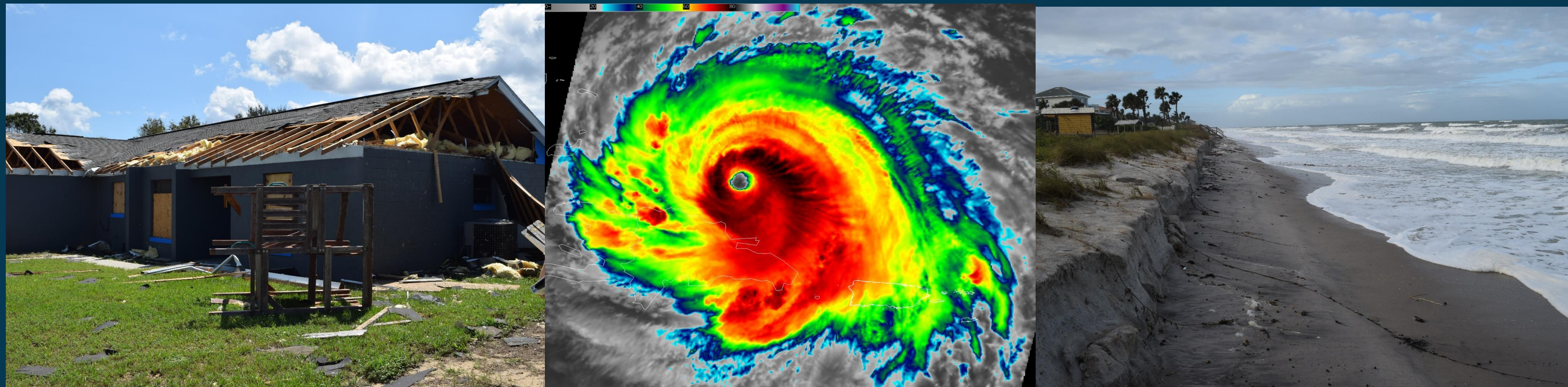


Hurricane Season Reminder...

Every Storm Is Different When It Comes To Impacts

Don't let past experiences determine your future actions

Plan, Prepare, and Follow Through



2022 Hurricane Season Outlook Central Florida Disaster Medical Coalition

Sally

Paulette

Rene



Kevin Rodriguez

Meteorologist

kevin.rodriguez@noaa.gov

National Weather Service – Melbourne, FL



Vicky

Teddy

Stress First Aid

- Patricia Watson
- National Center for PTSD



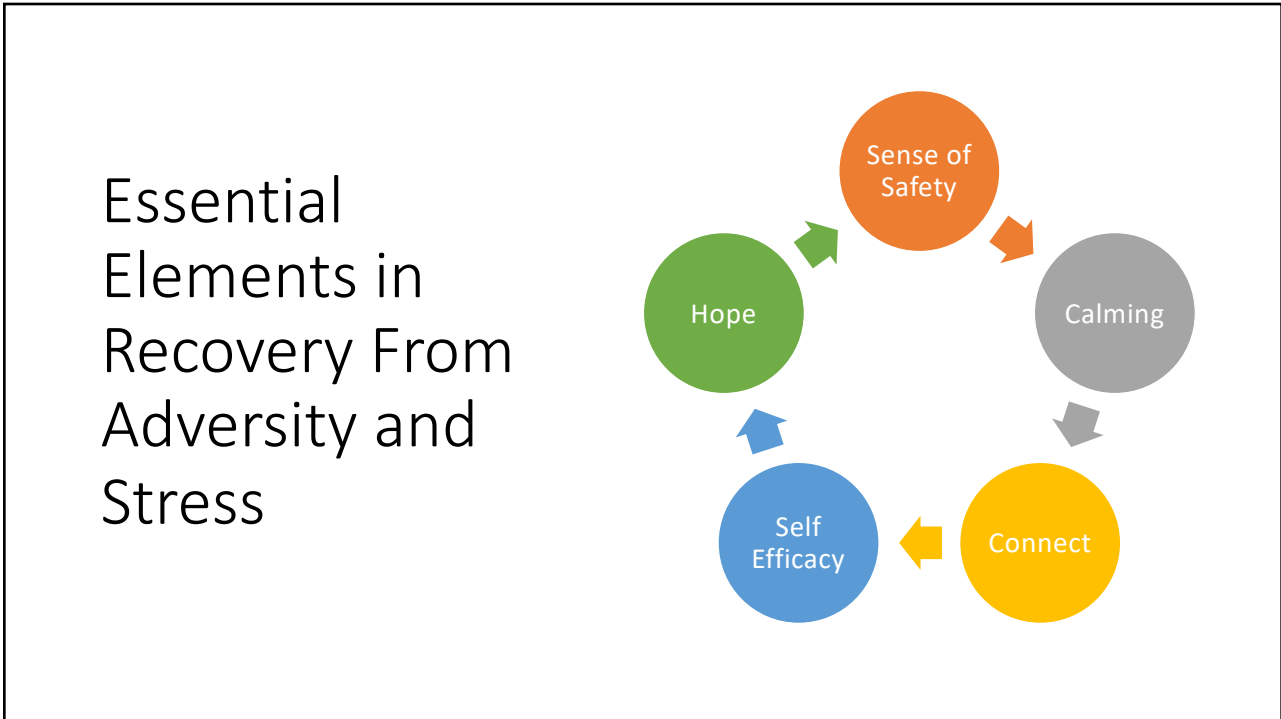
1

What is Stress First Aid (SFA)?



- **SFA is a flexible framework of actions that foster resilience and recovery in high-stress jobs:**
 - It is designed to mitigate stress reactions in oneself and coworkers.
- **SFA is evidence informed:**
 - It is based on expert consensus and research which have identified five elements that are related to better recovery from different types of ongoing adversity.
- **SFA validates existing supports and resources:**
 - It aims to complement and validate existing organizational support such as mentorship, peer support, and positive leadership.
- **SFA is practical and makes sense:**
 - The potential actions identified within each of the core functions of SFA were derived via focus groups with those judged to be good leaders, coworkers, and mentors.

2



3

Stress First Aid Adaptations

The first SFA model, Combat Operational Stress First Aid (COSFA), developed for Marines Corps and Navy personnel, has been adapted for:

- Fire / EMS Professionals
- Rail workers
- Wildland Firefighters
- Law Enforcement Professionals
- Pretrial / Probation Officers
- Healthcare Workers

4

Stress First Aid is NOT:



A replacement for prevention efforts



An event only intervention



A one-time only intervention



A replacement for medical or behavioral health interventions

5

Reasons for Stress First Aid

Acute Stress

- Short-lived
- Might interfere with safety or functioning in the moment
- What you feel after a fatal or other difficult case
- Once the situation is resolved, it diminishes

Chronic Stress

- Long-term burn out
- Might be the result of traumatic or loss events or other ongoing situations
- Feelings may not have been dealt with and chronic stress remains
- Chronic physical health conditions linked to stress

Cost / Longevity

- Lowered morale or absenteeism/presenteeism
- Increased turnover of employees due to burn out
- Increased costs associated with hiring and training new employees due to turnover

6

Self-Care and Coworker Support in Highly Adverse Conditions



toe·hold

/ˈtɔːhəʊld/

noun

a small place where a person's foot can be lodged to support them, especially while climbing.
 • a relatively insignificant position from which further progress may be made.

7

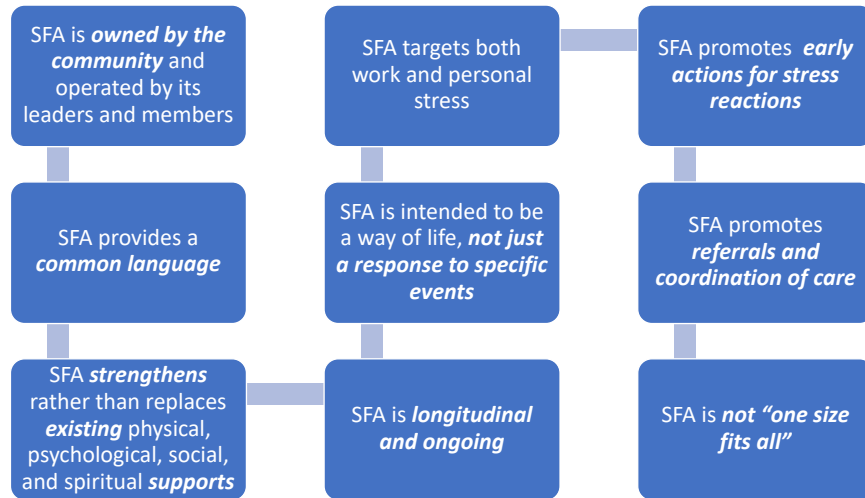
Characteristics of Stress First Aid



- Flexibility and “tiny steps” are emphasized
- Timing and context are important
- Mentoring and problem solving are highlighted
- SFA is not meant to address all ranges of issues
- Bridging to higher care is recommended when indicated

8

Features of Stress First Aid



9

How is Stress First Aid Different?

Rather than telling people *how* they should take care of themselves and support each other

SFA highlights the *importance* of self-care and coworker support

Because helpful support can often only arise with self-reflection, or in the unspoken understandings between those who work together.

It is frequently only in moment-to-moment behaviors or encounters that the right support can happen

If one is aware of its importance and open to being creative in self-care actions, or in accessing and giving support.

10

Double Edged Sword of Values and Ideals

Finding something important and meaningful in your life will help you sustain the effort needed to overcome the particular problems you face.

Placing the welfare of others above one's own welfare	Selflessness	Not seeking help for health problems because personal health is not a priority
Commitment to accomplishing missions and protecting others	Loyalty	Guilt and complicated bereavement after loss of others
Toughness and ability to endure hardships without complaint	Stoicism	Not aware of / acknowledging significant symptoms /suffering
Following an internal moral compass to choose "right" over "wrong"	Moral Code	Feeling frustrated and betrayed when others fail to follow a moral code
Becoming the best and most effective professional possible	Excellence	Feeling ashamed / denial or minimization of imperfections

Stress reactions are simply biological signals designed to nudge you in the direction of beneficial change. They are a sign that something is going unaddressed - a call to action.


Manson, 2016

11


Stress Continuum: Circumstances and Features

READY	REACTING	INJURED	ILL
<p><i>Circumstances:</i> Well trained Supported</p> <p><i>Optimal functioning:</i> At one's best In control Motivated</p>	<p><i>Circumstances:</i> Responding to multiple stressors at work or home Double-edged sword vulnerabilities</p> <p><i>Mild and transient distress or impairment:</i> Changes in mood Loss of motivation Loss of focus Physical changes</p>	<p><i>Circumstances:</i> Strong or multiple stressors: • Trauma • Loss • Moral injury • Wear and tear</p> <p><i>More severe or persistent distress or impairment:</i> Loss of control No longer feeling like normal self</p>	<p><i>Circumstances:</i> Unhealed orange zone stress Additional stress Risk factors</p> <p><i>Clinical mental disorder:</i> Symptoms persist and worsen Severe distress Functional impairment</p>

12




How Can SFA Reduce Stigma?



[Combat Medics on How to Cope With Stress Simon Sinek 2020 Youtube video](#)

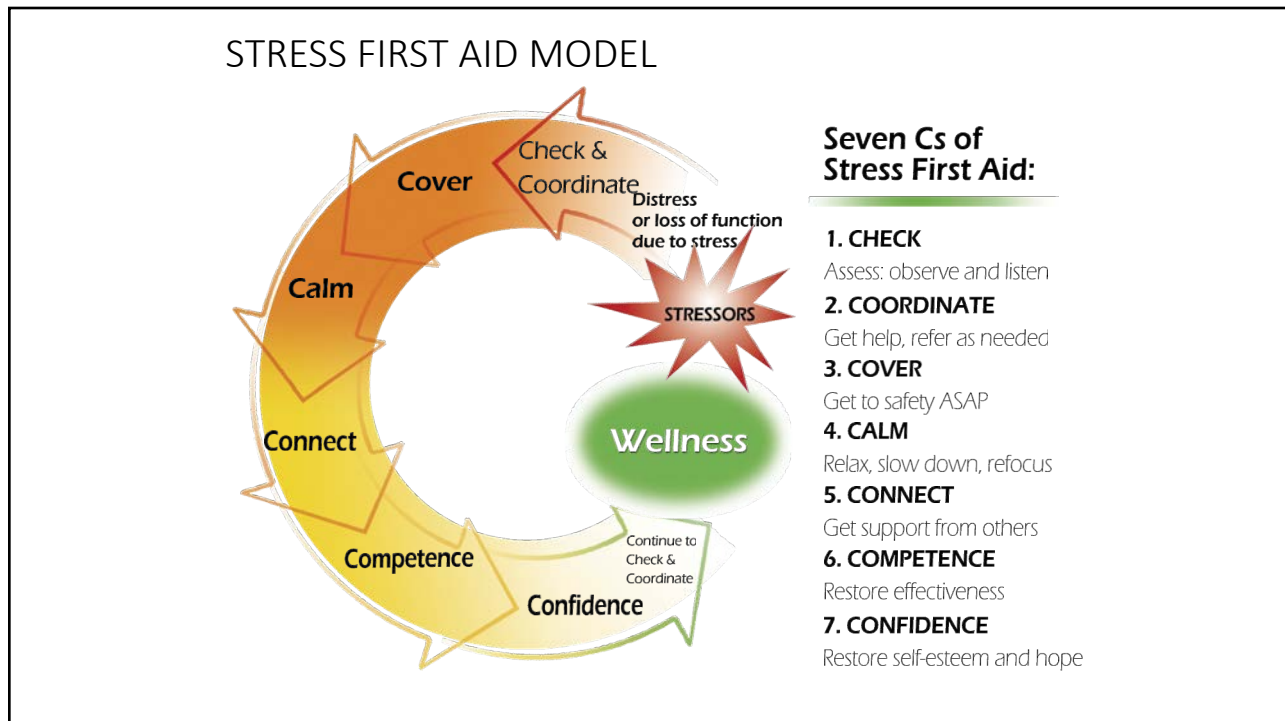
13

Five Essential Elements Translated Into Stress First Aid

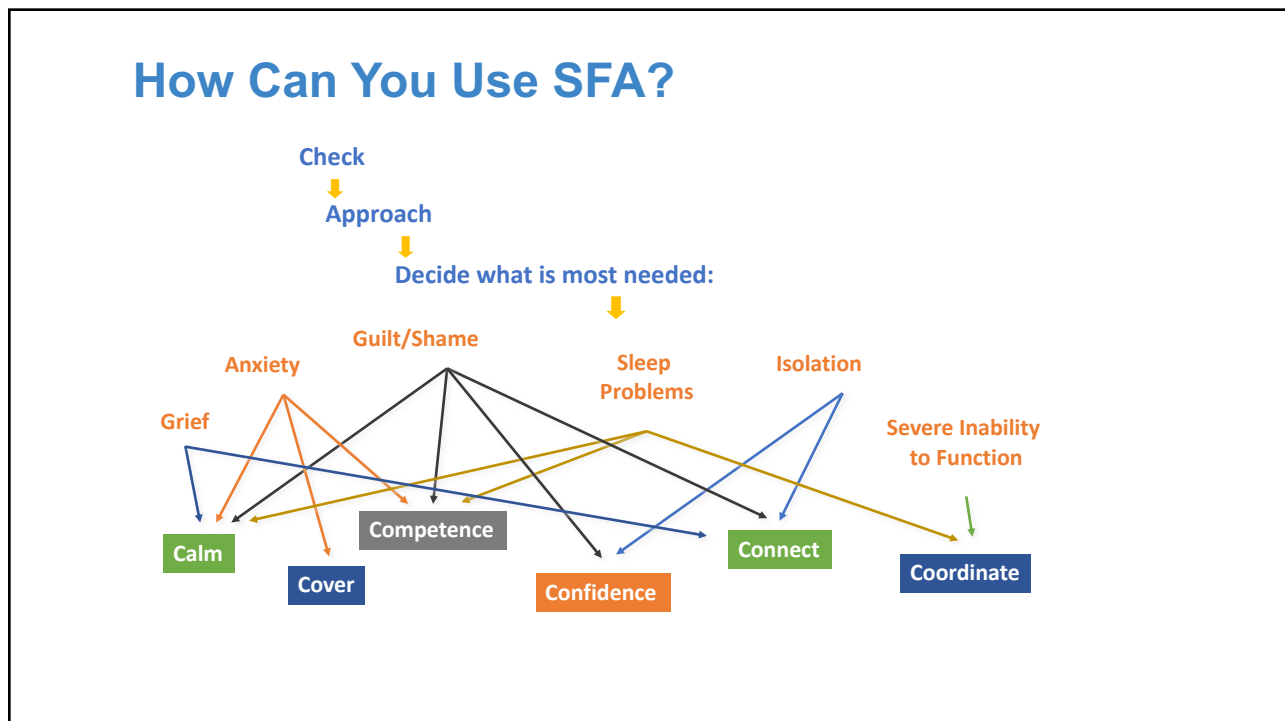


	Check
	Coordinate
Safety	➡ Cover
Calming	➡ Calm
Connectedness	➡ Connect
Self-efficacy	➡ Competence
Hope	➡ Confidence

14



15



16



Essential SFA Skills

Recognize

Recognize when a coworker has a stress injury

Act

Act: If you see something, do or say something

- To the distressed person
- To a trusted support of the distressed person

Know

Know at least 2 trusted resources you would access or offer to a coworker in distress

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Stress First Aid Actions

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Check and Coordinate

- Check and Coordinate are foundational, ongoing, continuous processes.
- **Check:**
 - Become more aware of changes in behavior or functioning that result from stress.
 - Those who are stressed may not be aware of their reactions or risk, or not willing or able to reach out.
- **Coordinate:**
 - Collaborating with others who can help, or who need to know.
 - SFA is not meant to address all ranges of issues.



19

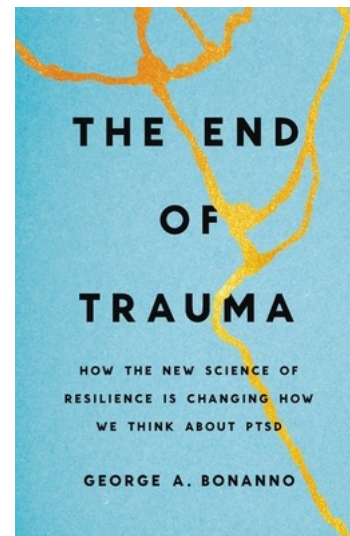
Resilience: Flexibility Mindset

What is happening?

What do I need to do?




What am I able to do?

Is it working?



Bonanno, G. *The End of Trauma: How the New Science of Resilience Is Changing How We Think About PTSD*, 2021


20

Cover Actions

- Stand by ready to assist
- Reduce anything that makes the person feel unsafe
- Reassure that they are safe in the moment
- Educate the person about how to be or feel safer
- Make others safe
- Focus the person on what to do rather than what not to do
- Reduce perceived threat

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Cover Example Coworker Support

“On the whiteboard, we write our name if we think we are in the green zone that day, to give permission for coworkers to approach us for support without worrying about being a burden. We can erase our name if during the day we are no longer in green.”

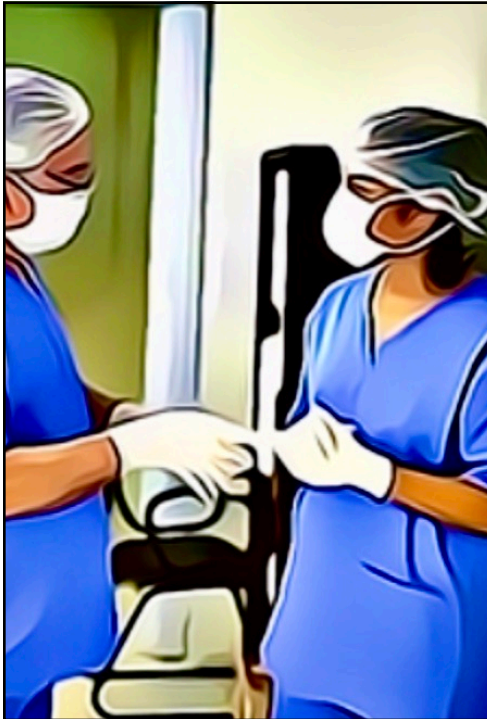
22

Calm Actions

- Maintain a calm presence
- Stop physical exertion and reduce heart rate
- Reassure by authority and presence
- Draw attention outwards to increase composure
- Foster rest and recuperation
- Listen with understanding and validate concerns
- Provide information about reactions and resources
- Provide brief instruction in grounding/breathing
- Role model calming actions and strategies



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Calm: Example

- "If something is going wrong on a unit, someone will say "Orange huddle!"
- That means: "Everyone take breath, we're coming together."
- It's not blaming or shaming. It means there's an issue, we feel it, someone saw it, something is happening, and it's tense.
- It's a shorthand way to say: "Let's all take a breath. What do we need to do? This is the shift from hell, but we'll make it through."

24

Reasons for a Need for Connect

Trust

Stress-related decrements in social skills

Lack of positive feedback or support

Exhaustion

Fear of being misunderstood or being a burden

Avoidance

Orange zone behaviors

Needs for different social support network

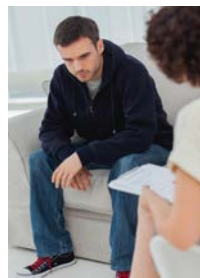
Stigma



25

Connect Actions

-
- Ask about social support
 - Help link with supportive others
 - Provide support yourself
 - Address potential negative social influences



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Connect Examples: Coworker Support



“I try to make my staff laugh as much as possible throughout the day. I also take advantage of any lulls throughout the day to hold round tables with the staff. During these round tables, staff can voice their concerns over anything that bothers them. I also try to make myself available and approachable to staff at all times during the day.”

“I try to help a co-worker who is drowning by giving a medication to a patient or starting an IV - just a simple task to allow them to catch up.”

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Competence Actions

- Improve **occupational skills** to reduce risk of stress reactions in inexperienced staff (Give extra training or mentoring)
- Improve **well-being skills** to deal with stress-reactions (calming, problem-solving, health habits, managing reminders)
- Improve **social skills** to deal with stress-reactions (requesting support, conflict resolution, assertiveness, seeking mentoring)
- Mentor or increase training
- Reassign or temporarily suspend key job duties if necessary
- Reintegrate back into duties when possible



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Competence Example: Coworker Support



“If someone is second-guessing how they did something, I will share how I've done something similar. I think when we can share our experience, how it affected us and how we dealt with something, it probably helps the person to understand, “all right, I'm going to be okay.” It's not permanent and it's a normalizing thing, and it's part of the process.”

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Confidence Actions

- Rebuild **hope, trust and self-confidence** that may have been damaged or lost as a result of stress.
 - Show appreciation and point out strengths
 - Validate and normalize stress reactions
 - Reduce guilt about actions
- Facilitate **meaning-making**, making sense of life, and improved perspective, purpose or faith.



30

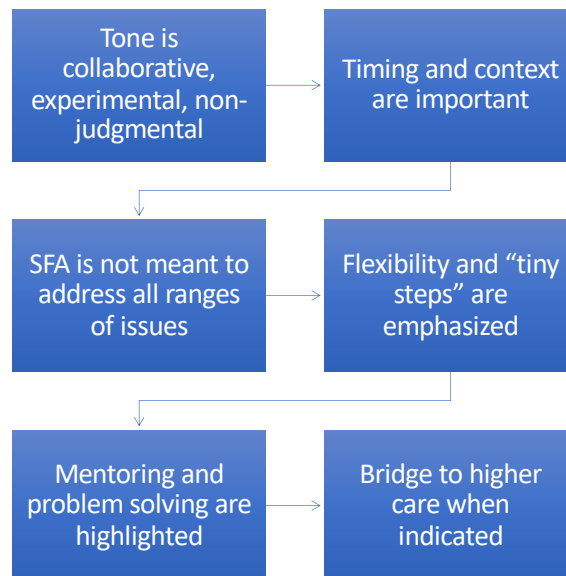
Confidence Example: Coworker Support



“There was a time where I dropped the ball. It was not earth-shattering, but it was significant. I was completely unable to connect the dots at all until one day my supervisor talked to me and said, ‘During that same time period, your mom had been terminally ill and then passed away.’ As obvious as it should have been, I was not able to see the connection until he said that to me.”


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Key Point Emphasis



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SFA can improve employee wellbeing with better self-care, coworker support, and leadership




Reduces stigma and increases longevity

Helps employees feel supported by leadership

Improves an organization's ability to identify issues, come together, and problem solve solutions

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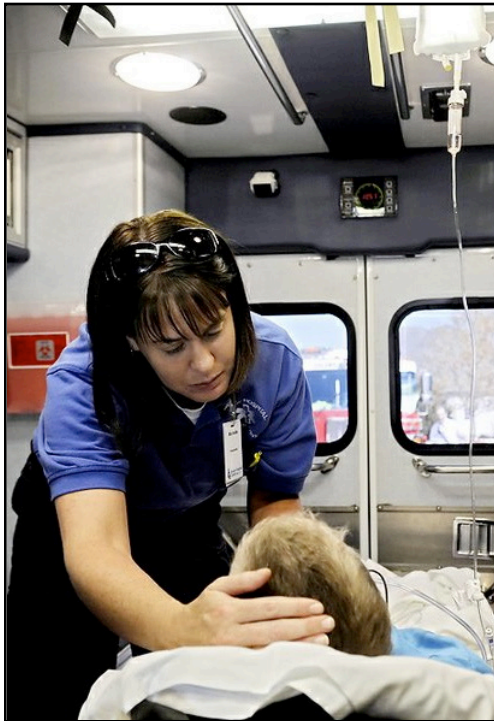
33



Lessons Learned

- Keep it grounded
- Adjust to context
- Adjust to zones of stress
- Keep open
- Keep asking questions
- Adapt in an ongoing, reciprocal, 'living' way

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Person- Centered SFA

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Goals: Person- Centered Stress First Aid

Make a connection in a helpful/respectful way

Restore/support a sense of safety

Calm and orient distressed individuals

Connect individuals to their sources of support

Improve the ability of those affected to address their most critical needs

Foster a sense of hope / limit self-doubt and guilt

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Components of Person- Centered Stress First Aid

Approach	Maintain an approach that conveys respect, care and compassion
Information	Get and give information in helpful ways
Direction	Direct people in a way that focuses them and reduces distress

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Person-Centered Stress First Aid: Key Points



YOU WILL NOT BE REQUIRED TO USE SFA WITH EVERY PATIENT, CLIENT, OR CUSTOMER.



INCORPORATE SFA ACTIONS INTO YOUR DUTIES IN A NATURAL, SEAMLESS WAY



IMPLEMENT SFA ACTIONS ONLY WHEN THEY DO NOT INTERFERE WITH YOUR PRIMARY DUTIES.



THE CONNECTION YOU MAKE CAN HELP PEOPLE RECOVER FROM THE STRESS OF WHAT THEY HAVE BEEN THROUGH.



IF YOU RESPECTFULLY CONVEY THAT PEOPLE MATTER, YOU WILL HELP THEM GET THROUGH THE DIFFICULTIES THEY FACE.

38

What makes an effective champion?



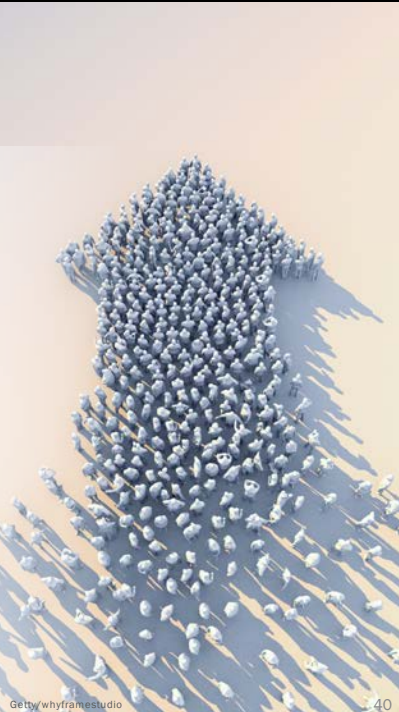
<p>TRAINER</p> <p>Teach and engage HCWs in your organization</p>	<p>SUPPORTER</p> <p>Foster trust and encourage reaching out</p>	<p>CONNECTOR</p> <p>Connect trainees to each other and resources and foster leadership involvement</p>	<p>LEADER</p> <p>Take responsibility for the welfare of your team</p>
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39

Smoothing the way for SFA

- Talking points:
 - SFA is a way to improve how you're already working – not adding a new burden or replacing anything
 - Goals are to create opportunities for people to access resources that already exist.
 - SFA can improve enhance natural skills and processes that are already in place
 - SFA requires engagement by peers and leaders – it is not a solo activity! It is designed to improve how we work together and support each other, top to bottom and side to side.



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SFA NCPTSD Toolkit

https://www.ptsd.va.gov/professional/treat/type/stress_first_aid.asp

VA » Health Care » PTSD: National Center for PTSD » Providers » Treatment » Stress First Aid: Manual and Resources for Health Care Workers

PTSD: National Center for PTSD

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Stress First Aid: Manual and Resources for Health Care Workers

Stress First Aid for HEALTH CARE WORKERS Manual

SFA for Self-Care and Peer Support

Stress First Aid (SFA) is a framework to improve recovery from stress reactions, both in oneself and in coworkers. The model aims to support and validate good friendship, mentorship and leadership actions through core actions that help to identify and address early signs of stress reactions in an ongoing way (not just after "critical incidents").

The goal of SFA is to identify stress reactions in self and others along a continuum and to help reduce the likelihood that stress outcomes develop into more severe or long-term problems. The core actions of SFA are appropriate for many occupational settings during critical events as well as for ongoing care. The manuals, trainings and resources below focus on health care workers; links to information about SFA versions specific to high-risk occupations like military, fire and rescue, law enforcement, and pretrial and probation settings are found under Additional SFA Versions and Manuals.

SFA Manual and Workbook

- Stress First Aid for Health Care Workers Manual (PDF)
- Stress First Aid for Health Care Workers Workbook (PDF)

For Health Care Workers: Training Materials and Other Resources

SFA Instructor Training Materials

4 Hour Training

- SFA 4-Hour Training Slide Deck (PPT)
- SFA 4-Hour Training Instructor Manual (PDF)

30 Minute Training

The SFA 30 minute training is suitable for any setting and is not limited to health care workers.

- SFA 30-Minute Training Slide Deck (PPT)
- SFA 30-Minute Training Instructor Manual (PDF)

National Center for PTSD
POSTTRAUMATIC STRESS DISORDER

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Stress First Aid Implementation Guide
for SFA COACHES

Stress First Aid For HEALTHCARE WORKERS
WORKBOOK

Stress First Aid Group Engagement Strategies

Person-Centered Stress First Aid
For Patients, Clients, and Customers
Manual

National Center for PTSD
POSTTRAUMATIC STRESS DISORDER




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PSYCHOSOCIAL SUPPORT MODELS FOR STRESSFUL TIMES

	PSYCHOLOGICAL FIRST AID (PFA)	SKILLS FOR PSYCHOLOGICAL RECOVERY (SPR)	STRESS FIRST AID (SFA)
GOALS	<ul style="list-style-type: none"> Address immediate needs, concerns and priorities Reduce distress and support healthy functioning 	<ul style="list-style-type: none"> Empower people to learn and practice healthy coping skills 	<ul style="list-style-type: none"> Self-care and peer support for those in high stress occupations Stress management support for clients or the public
WHEN TO USE	<ul style="list-style-type: none"> Immediate aftermath following a disaster or adverse event 	<ul style="list-style-type: none"> Weeks, months or years following a disaster or adverse event Threat is less imminent People have the capacity to build or practice adaptive coping skills 	<ul style="list-style-type: none"> Immediate and long-term support for a broad range of stressful situations
WHO PROVIDES	<ul style="list-style-type: none"> Trained professionals or laypersons 	<ul style="list-style-type: none"> Trained professionals or laypersons 	<ul style="list-style-type: none"> Those who work in high stress occupations (e.g., military, first responders, health care providers) or community and business leaders
HOW TO EMPLOY	<ul style="list-style-type: none"> Make contact and engage people with respect and care Provide safety and comfort Stabilize highly distressed or disoriented people Gather information to decide what is most helpful Foster practical assistance Connect with social support Give information on healthy coping Link with collaborative services and resources 	<ul style="list-style-type: none"> Build problem-solving skills Promote positive activities Manage reactions Promote helpful thinking Rebuild healthy social connections 	<ul style="list-style-type: none"> Check on stress reactions Coordinate with other resources and more intensive support Cover by increasing sense of safety Calm with presence, information and actions Connect with social support Improve Competence by fostering work, social and wellbeing skills Increase Confidence, meaning and hope

Training Material and Manuals:

- PFA: https://www.ptsd.va.gov/professional/treat/type/psych_firstaid_manual.asp
- SPR: https://www.ptsd.va.gov/professional/treat/type/skills_psych_recovery_manual.asp
- SFA: https://www.ptsd.va.gov/professional/treat/type/stress_first_aid.asp






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For Health Care Workers: Training Materials and Other Resources

SFA Instructor Training Materials


Webinars

An Update on How Mental Health Providers Can Care for Themselves and Support Colleagues During the COVID-19 Pandemic (MP4) 


By Patricia Watson, PhD
PTSD Consult Lecture webinar

How Mental Health Providers Can Care for Themselves and Support Colleagues During the COVID-19 Virus Outbreak (MP4)


By Patricia Watson, PhD
PTSD Consult Lecture webinar

Caring for Yourself and Others During the Pandemic: Managing Healthcare Workers' Stress 


By Patricia Watson, PhD,
The Schwartz Center for Compassionate Healthcare webinar

Caring with Compassion: Supporting Patients and Families in a Crisis 


By Patricia Watson, PhD and Richard Westphal, PhD, RN
The Schwartz Center for Compassionate Healthcare webinar

Helping Those Who Serve: How Family Members and Friends Can Support Healthcare Workers During COVID-19 

By Patricia Watson, PhD
Mental Health Forum Series webinar, Harvard T. H. Chan School of Public Health

Early Intervention Following Disasters: Principles of Psychological and Stress First Aid (MP4) 

By Patricia Watson, PhD
PTSD Consult Lecture webinar

Moral Injury in Vietnam Veterans 

By Patricia Watson, PhD and LeAnn Bruce, PhD
National Hospice and Palliative Care Organization webinar

Resources

For Friends and Family: Supporting Essential Workers in Extended Disasters or Public Health Crises (PDF)

Support from close family members and friends can be crucial for essential workers during long-lasting disasters or public health crises. This PDF discusses some practical actions that you can take to help a family member or friend deal with the stress they are feeling.

Grief: Different Reactions and Timelines in the Aftermath of Loss (Article)

After loss, there is no specific way of grieving that is right or wrong, and there is not a "normal" length of time to grieve. Learn about common grief reactions, the process of grieving over time and prolonged or complicated grief reactions that may benefit from mental health treatment.

Grief: Taking Care of Yourself After a Loss (Article)

There are many ways to take care of yourself when you are grieving. Learn about factors that may influence self-care strategies, challenges grieving death resulting from disaster or public health crisis and strategies noted by others to help reduce grief over time.





Grief: Helping Someone Else After a Loss (Article)

In the wake of loss, it can be hard to take care of those you care about who are grieving. There are many possible ways to offer support to someone who is grieving, and a variety of factors that affect how you can offer support.

For Leaders: Helping Employees in the Aftermath of Loss (Article)

Tips to help leaders support grieving employees through communication, flexibility and workplace policies.

Additional SFA Versions and Manuals

- Military:** Combat Operational Stress First Aid Manual (COSFA) 
- Fire and Rescue:** Stress First Aid for Firefighters and Emergency Medical Services Personnel 
- Forest Service:** Stress First Aid for Wildland Firefighters 
- Judicial System:** Stress First Aid for the Streets for Those Who Work in Pre-Trial and Probation Settings 
- Law Enforcement:** Police Officer Toolkit - Stress First Aid Model

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