

Responding to Hurricanes



Hurricane Sandy, 2012



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Agenda

- Introductions
- Hurricanes 101
- ASAR activities in hurricanes
- Community Preparedness: Enhancing Response



H. Matthew, 2016

ASPCA Field Investigations & Response (FIR)



FIR partners with animal welfare organizations, law enforcement and emergency management to respond to natural disasters and animal cruelty across the United States.

Disasters

- Floods
- Hurricanes
- Tornadoes
- Earthquakes
- Fires
- Disease Outbreaks

Cruelty

- Hoarding
- Puppy Mills
- Animal Fighting
- Farm Animals
- Horses
- Single acts of cruelty

Want to deploy with FIR?

<http://aspcapro.org/how-individuals-can-participate>

FIR's 2016 Impact by the Numbers

Twenty Six
Deployments in 2016

7 *disaster*
18 *cruelty*
1 *infectious disease*



54

Investigations



35

Consultations

**Three Hundred
& Fifty Six**
Criminal charges filed



Fourteen
Trainings provided
Impacting
889
attendees

10,578 **Animals impacted**
(animals rescued + animals assisted)



6,346 **Animals assisted**
(consultations + investigations)

4,232 **Animals Rescued**



Nearly 2,000 Unique Responders



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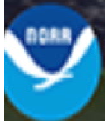


Hotel on Wheels

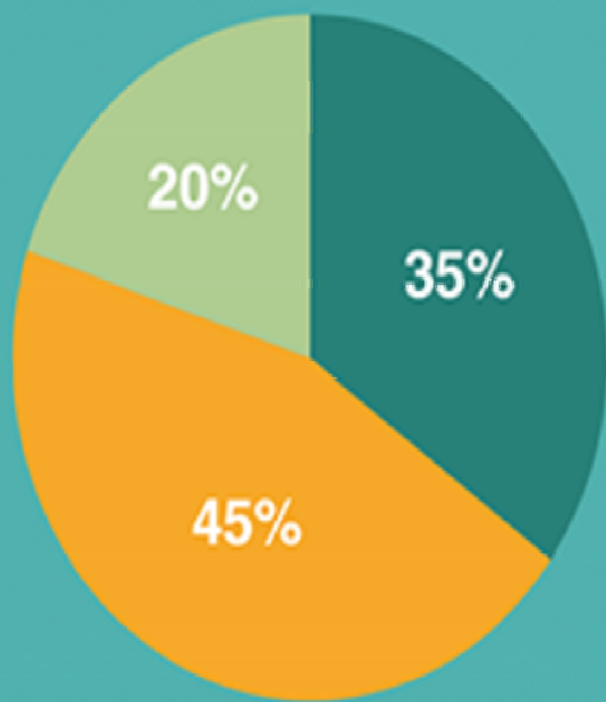


Tropical cyclone distribution





2017 Atlantic Hurricane Season Outlook



■ Above-normal ■ Near-normal ■ Below-normal season

Season probability

Named storms

11-17

Hurricanes

5-9

Major Hurricanes

2-4

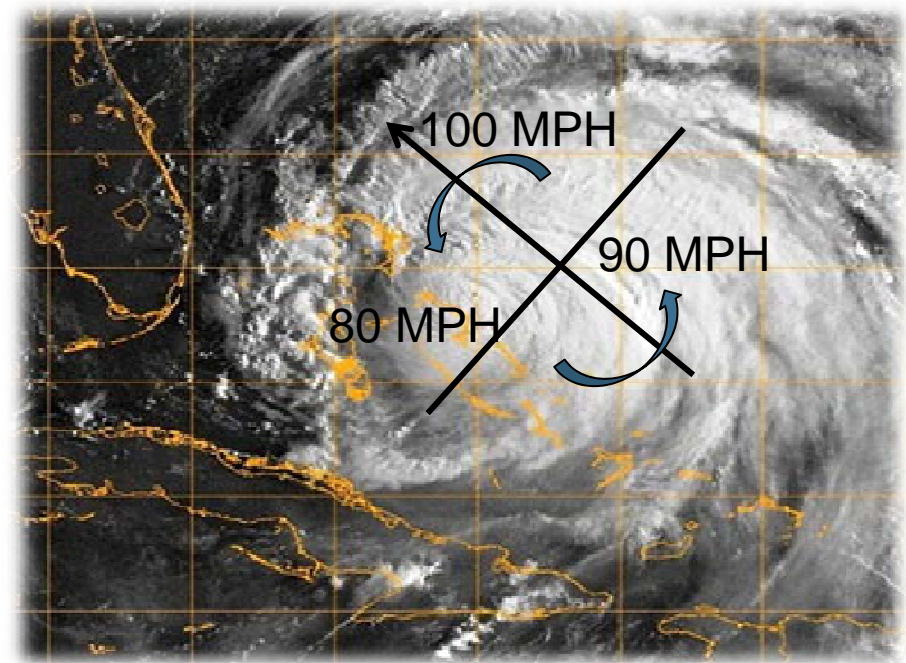
Be prepared: Visit hurricanes.gov and follow @NWS and @NHC_Atlantic on Twitter.

May 25, 2017

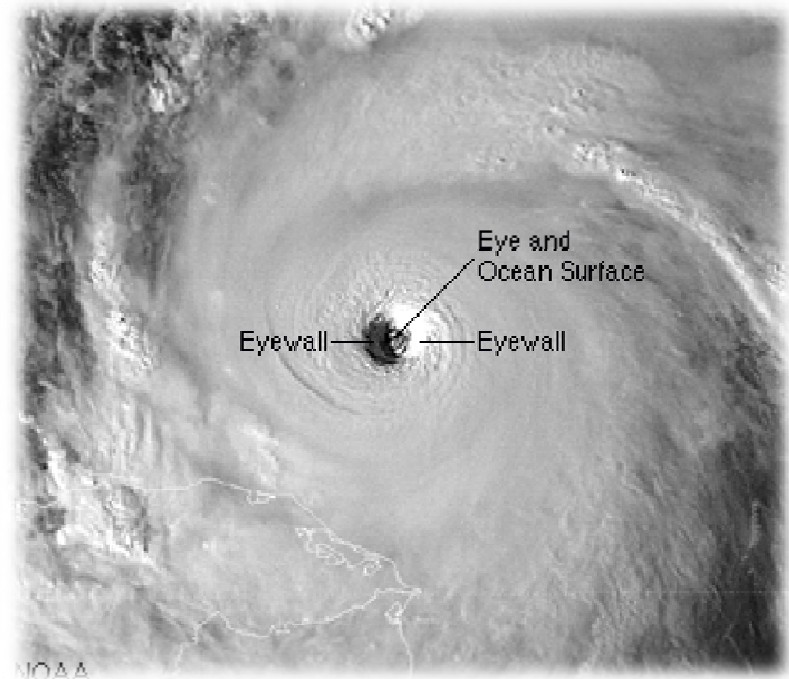
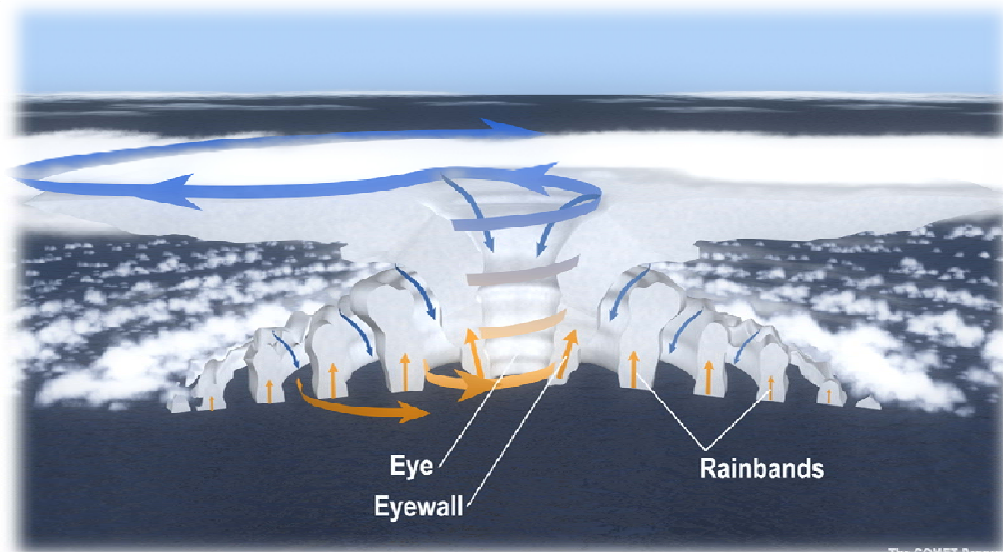
Hurricanes

The wind flow of hurricanes in northern hemisphere is counterclockwise - southern hemisphere is clockwise

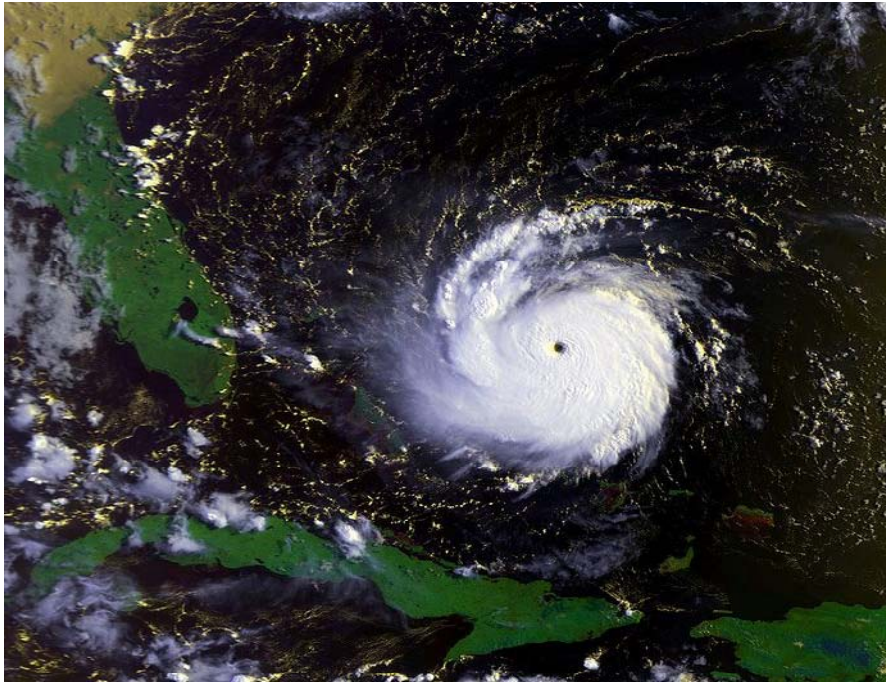
Highest wind speeds are typically in the upper right quadrant (relative to direction of motion) and most rainfall in the upper left quadrant or near the eye.



Three Parts to a Hurricane



Eye Wall Replacement



H. Andrew 92



H. Katrina 05

CONTINENTAL UNITED STATES HURRICANE STRIKES 1950 - 2013*

Saffir-Simpson Hurricane Categories (at Strike or Landfall)

Sustained
Winds (MPH)

74-95

96-110

111-130

131-155

>155

Category 1

Category 2

Category 3

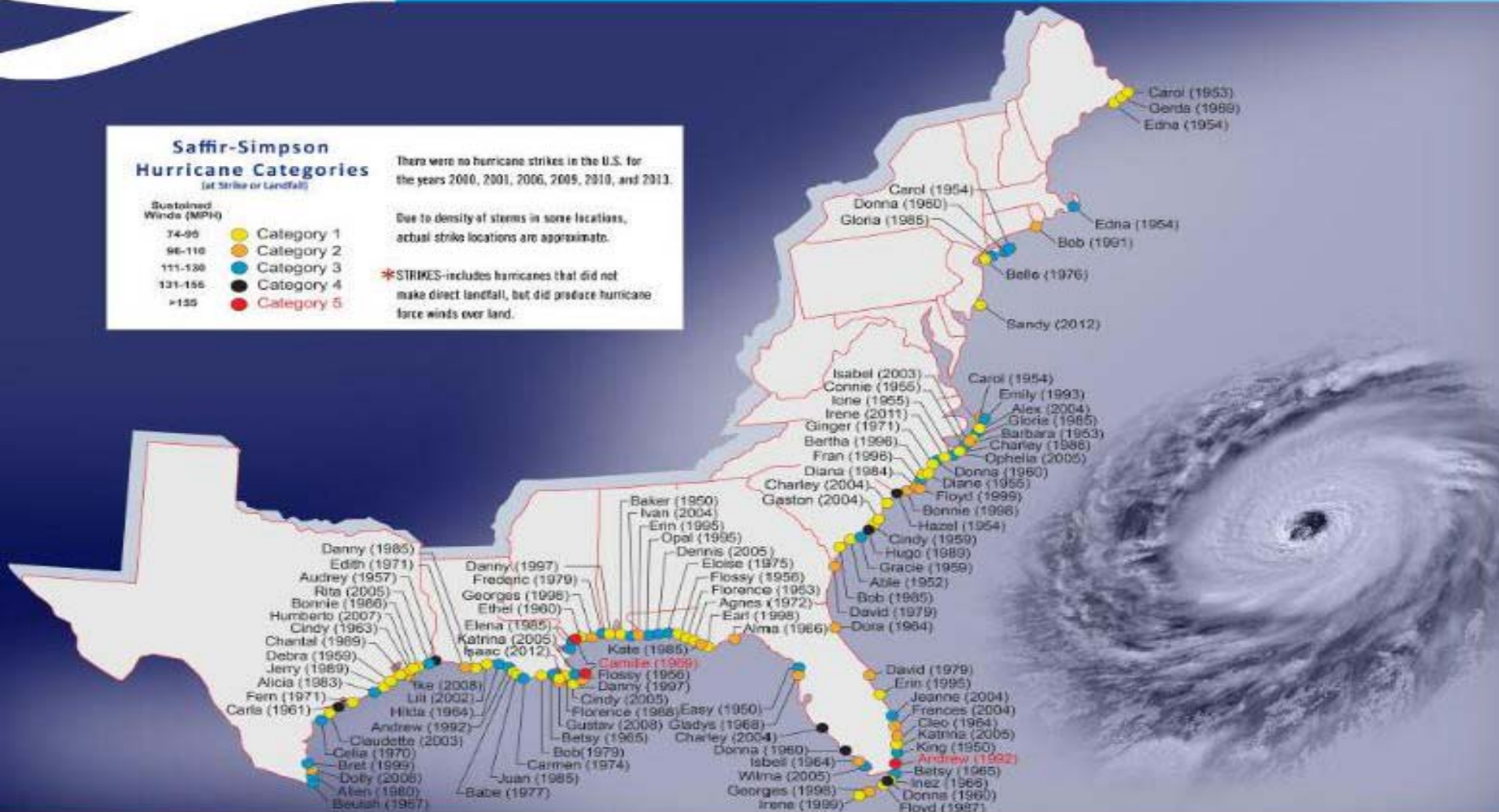
Category 4

Category 5

There were no hurricane strikes in the U.S. for the years 2010, 2001, 2006, 2009, 2010, and 2013.

Due to density of storms in some locations, actual strike locations are approximate.

*STRIKES-includes hurricanes that did not make direct landfall, but did produce hurricane force winds over land.



NOAA'S NATIONAL CLIMATIC DATA CENTER ■ ASHEVILLE, N.C.

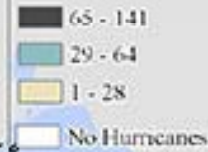


Protecting the past... Revealing the future

Frequency of Hurricane and Tropical Storm Activity by County: 1851-2012*

NOAA/NHC/HURDAT2 database; all classified hurricanes and tropical storms which made landfall within the 50 states; paths by county within a 125 mile band of the center point based on latitude.
Atlantic data from 1851-2012. Pacific data from 1949-2012.

Hurricane and Tropical Storm Frequency Per County From 1851-2012*



Since 1851, the top three states for hurricane landfalls are **Florida (114)**, **Texas (63)** and **Louisiana (54)**



NAMED STORM FREQUENCY

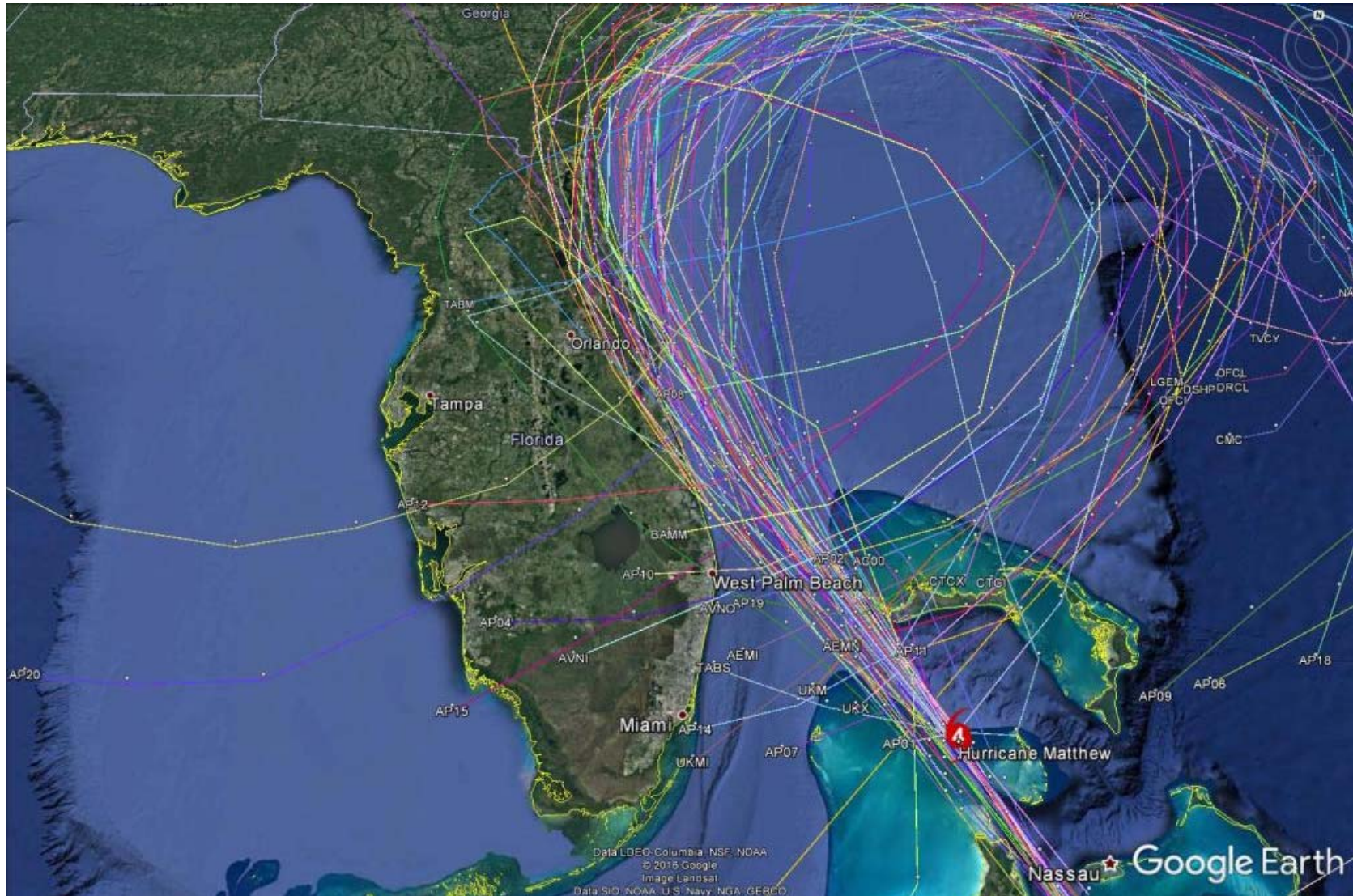
ATLANTIC

TROPICAL STORMS

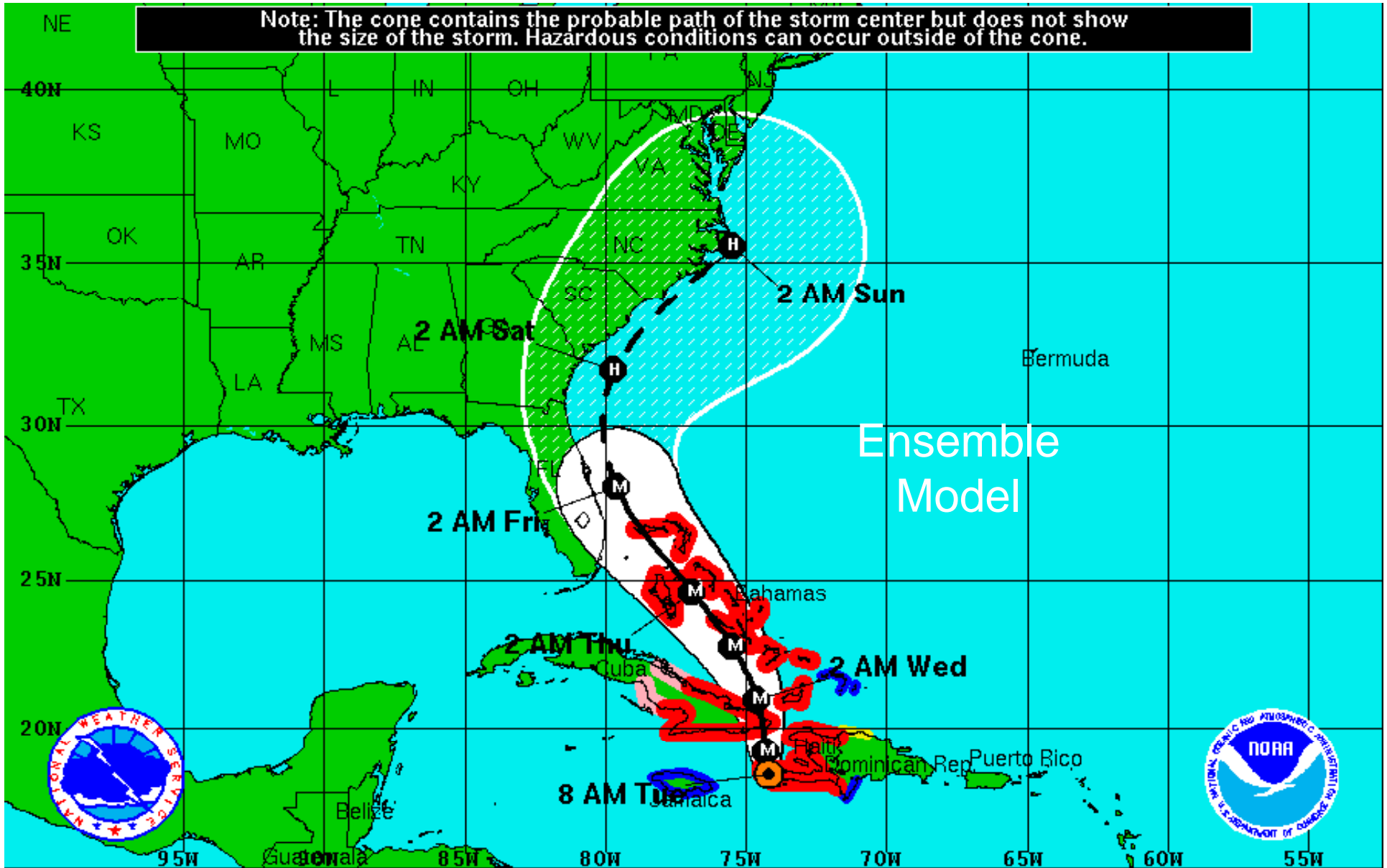
HURRICANES



Tracking Storms: Spaghetti!



Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.



Hurricane Matthew

Tuesday October 4, 2016
 8 AM EDT Intermediate Advisory 25A
 NWS National Hurricane Center

Current Information: ●
 Center Location 18.4 N 74.2 W
 Max Sustained Wind 145 mph
 Movement N at 9 mph

Forecast Positions:
 ● Tropical Cyclone ○ Post-Tropical
 Sustained Winds: D < 39 mph
 S 39-73 mph H 74-110 mph M > 110mph

Potential Track Area:

Watches:

Warnings:

Hurricane Hazards

- Hazardous driving conditions
- Flying debris
- Lightning
- Exhaustion, heat and dehydration
- Falling objects such as tree limbs
- Sharp objects including nails and broken glass
- Electrical hazards from downed power lines
- Flooding (and what is under the water!)



H. Isaac, 2012

Personal Safety



- Have an evacuation plan - identify a safe shelter & route
- Stock up on emergency supplies including food, water, protective clothing, medications, batteries, flashlights, important documents, road maps, **and a full tank of gas**
- Battery operated radio
- If unable to evacuate:
 - Stay inside the most secure building possible and stay away from windows
 - A lull often signifies the storm's eye—not its end Wait for authorities to announce that it's safe to venture out
 - Keep pets kenneled and livestock inside

Agency Safety and COOP

- Shelter-owned animals relocated pre-storm
- Determine shelter evacuation threshold
- Establish an Evacuation Team – pet/animal identification
- Shelter coverage pre-, during, and post-storm
- Protecting documents/supplies and preparing for re-entry
- Think about rescue needs
 - phone line, forms, credentials



H. Wilma, 05

Animal Challenges/Priorities

Pre-storm

- Encouraging AND facilitating evacuation
- CTNs
- Hard to move animals

During storm

- Shelter staff and animals

Post-storm

- Requests
- At-risk (animal and rescuer)
- Reunification



Evacuations*

- Critical Transportation Needs (CTN)
- Parish/County pick-up points
- Keep families together
- Documentation
- Distance to co-located sheltering
- Vet care on both ends and along route
- Pre, during, and post-event public messaging

*NASAAEP Evacuation and Transportation BPWG

<http://www.cfsph.iastate.edu/Emergency-Response/bpwg.php>



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Animal Search and Rescue

- Request for Assistance – Activation
- Assessment
- Rescue: owner request, incidental (at-risk), community
- SAR challenges
- Extrication or SIP
- Field intake
- Field staging
- Transport
- Shelter intake
- Emergency sheltering
- Reunification



Field Rescue Work

- Land/water navigation
- Compromised structure
- Confined space
- Floodwater
- Accessing homes
- Protective clothing
- Lighting
- Comms
- Boats



Authority Having Jurisdiction

- All disasters occur and are managed locally **unless delegated**
- In most jurisdictions, animals “belong” to animal control
- If a County is overwhelmed, they can submit a request for outside resources
 - Interlocal
 - CARTs
 - Local/national NGOs
 - State → Federal



Thou shall not self-deploy!



Assessment



ASPA - Initial Damage Assessment Form

Date of Assessment:		Requesting Agency & Contact Info:		Assessor & Contact Info:			
GPS or Physical Address:		County/Parish		*EMERGENCY NEEDS* <input type="checkbox"/> NO <input type="checkbox"/> YES			
OWNER/BUSINESS INFORMATION (Last, first, middle or name of business; phone # and/or email)							
1. DISASTER EVENT (NAME OR TYPE, AND DATE)			2. Accessibility: Air Boat Road				
3. ANIMAL DAMAGE INFORMATION							
	Roaming	Injured	Missing	Carcasses	Good	Sustainable	Poor
Pets							
Cattle							
Dairy							
Equine							
Sheep/Goats							
Captive Wildlife							
Exotics/pocket pets							
Comm. Poultry							
Overall Animal Health	(report by species; Good – Sustainable – Poor)						
Water Source	Fresh Water	Flood Water	Salt Water	None			
Animal Food	1 month supply	1 week supply	3 day supply	None			
4. WILDLIFE INTERACTIONS							
Did you experience any wildlife interactions? <input type="checkbox"/> No <input type="checkbox"/> YES If yes, please list species and location and continue below: _____ If YES, was the wildlife activity normal or abnormal for the species? <input type="checkbox"/> NORMAL <input type="checkbox"/> ABNORMAL <input type="checkbox"/> NOT SURE							
5. CROP LOSSES (EXCLUDING TIMBER)							
TOTAL ESTIMATED ACRES DESTROYED IN COUNTY/PARISH: _____							
6. INFRASTRUCTURE LOSSES IN COUNTY/PARISH							
	# Destroyed	# Open for Business					
Private Veterinary Clinics							
Pet Shelters (include city locations under #8)							
Animal Feed & Supply Stores							
Livestock Sale Markets							
Boarding Facilities and Fairgrounds							
Commercial Pet Food & Supplies							
Fencing (report by # of Farms observed)							
7. IMMEDIATE NEEDS							
	# PETS	# LIVESTOCK					
VETERINARY ASSISTANCE							
FOOD							
LIVESTOCK CONTAINMENT EQUIPMENT							
SHELTER							
LIVESTOCK IDENTIFICATION							
8. ASSESSOR RECOMMENDATIONS:							
<input type="checkbox"/> Reassessment in ____ days. <input type="checkbox"/> Send in Task Force of ____ responders with specialized experience in: _____ <input type="checkbox"/> No follow-up needed <input type="checkbox"/> Pet shelter locations (cities): _____							



Prioritizing Rescue

1. Human
2. Human and animal
3. Animal**



Stay out of the flood/hot zone and stay clear of human rescue efforts until you are authorized to enter

Animal Rescue

- Rescue requests
- Dispatch
- Owner requested
- Community concerns
- Incidental (at-risk)
- Field request





**Extricate or
Feed-In-Place?**

Feeding-in-Place







Have a plan!!



Field Rescue Form

Responder _____

ID Number _____

Date/Time _____

(Dept- year-case#-initials-#) (D-2013-03-DG-01)

Address/GPS coordinates _____

Contact info to reclaim animal _____

	Species	Breed	Description/ID	Condition
Animal info:	_____	_____	_____	_____
Animal info:	_____	_____	_____	_____
Animal info:	_____	_____	_____	_____
Animal info:	_____	_____	_____	_____
Animal info:	_____	_____	_____	_____

Know your Access and Field Staging Areas



Field Staging/Lilypad







Transport



Emergency Sheltering



H Matthew 2016



Emergency Sheltering: Lamar-Dixon, 2005



Sheltering Models

Emergency Shelter
Co-located shelter
Co-habitated shelter



H. Gustav, 2008

Advantages and disadvantages

Intake/database

Securing resources when setting up or running a shelter

On-going purchases (agency or EOC)

Decontamination

- Animals
- Equipment
 - Trucks, boats, PPE
- Supplies



Reunification

- Coordination with other rescue groups, local and state agencies
- Social media and agency websites
- Good photography
- Identify first, then show photos
- Photo boards
- Proof of ownership
- ID and contact information
- Release form



Our goal...

To do our part to build stronger, more disaster-resilient communities by enhancing their ***animal response capabilities.***



Community Preparedness Checklist

An animal-specific Preparedness Checklist identifying the components we recognize as being critical for a community to be **disaster resilient**

Areas of Focus:

- Essential infrastructure
- Organization & leadership
- Risk assessment
- Equipment & systems
- Search and rescue
- Personnel, volunteers, training



Is your community ready?

Can you manage a hurricane response in your area today?

- a. Agreements in place
- b. Relationships established
- c. Rescue equipment and safety protocols
- d. Training
- e. Adequate number of trained responders/staff
- f. Caches of supplies

Thank you!

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Andybob Green, 2008