

2004 Hurricane Season Safety Brief



Purpose

- ◆ Provide personnel with the following information:
 - Predictions for 2004 hurricane season
 - Discuss Hazards of hurricanes
 - Explain the five categories of hurricanes including typical damage caused by each
 - Explain Conditions of Readiness (COR) and personnel responsibilities for each
 - Provide list of preparations for hurricanes

Purpose

- ◆ Provide personnel with the following information:
 - Provide list / location of primary shelters
 - Sources of information including:
 - ❖ Broadcast sources
 - ❖ Web based
 - ❖ Important phone numbers

Hurricane Season 2003

- ◆ 1 June – 30 November
- ◆ Predictions / Actual:
 - 12 Named Storms / 14 Named
 - 8 Hurricanes / 7 Hurricanes
 - 3 Major Hurricanes (cat 3-5)/
3 (Fabian, Isabel and Kate)

Hurricane Prediction

2004

- ◆ 1 June – 30 November
- ◆ Predictions:
 - 13 Named Storms
 - 7 Hurricanes
 - 3 major Hurricanes
 - (Average Season: 10 / 6 / 3)

Tropical Cyclone Terms

- ◆ Tropical Cyclone – Generic term for low-pressure system over tropical/sub tropical waters with organized convection.
 - ◆ Tropical Depression - Maximum sustained winds of less than 39 mph (34kt).
 - ◆ Tropical Storm - Maximum sustained winds of 39 – 73 MPH (34 – 64 Kt.)
 - ◆ Hurricane – Maximum sustained winds of 74 MPH or >
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HURRICANE HAZARDS

- ◆ High Winds
 - ◆ Storm Surge
 - ◆ Inland Flooding/ Heavy Rain
 - ◆ Tornadoes
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STORM SURGE

STORM SURGE is a large dome or mound of water created by (1) the force of the wind blowing across a water surface, (2) the low atmospheric pressure in or near the eye, and (3) the slope of the continental shelf.

The main cause or source of storm surge is the wind.



STORM SURGE

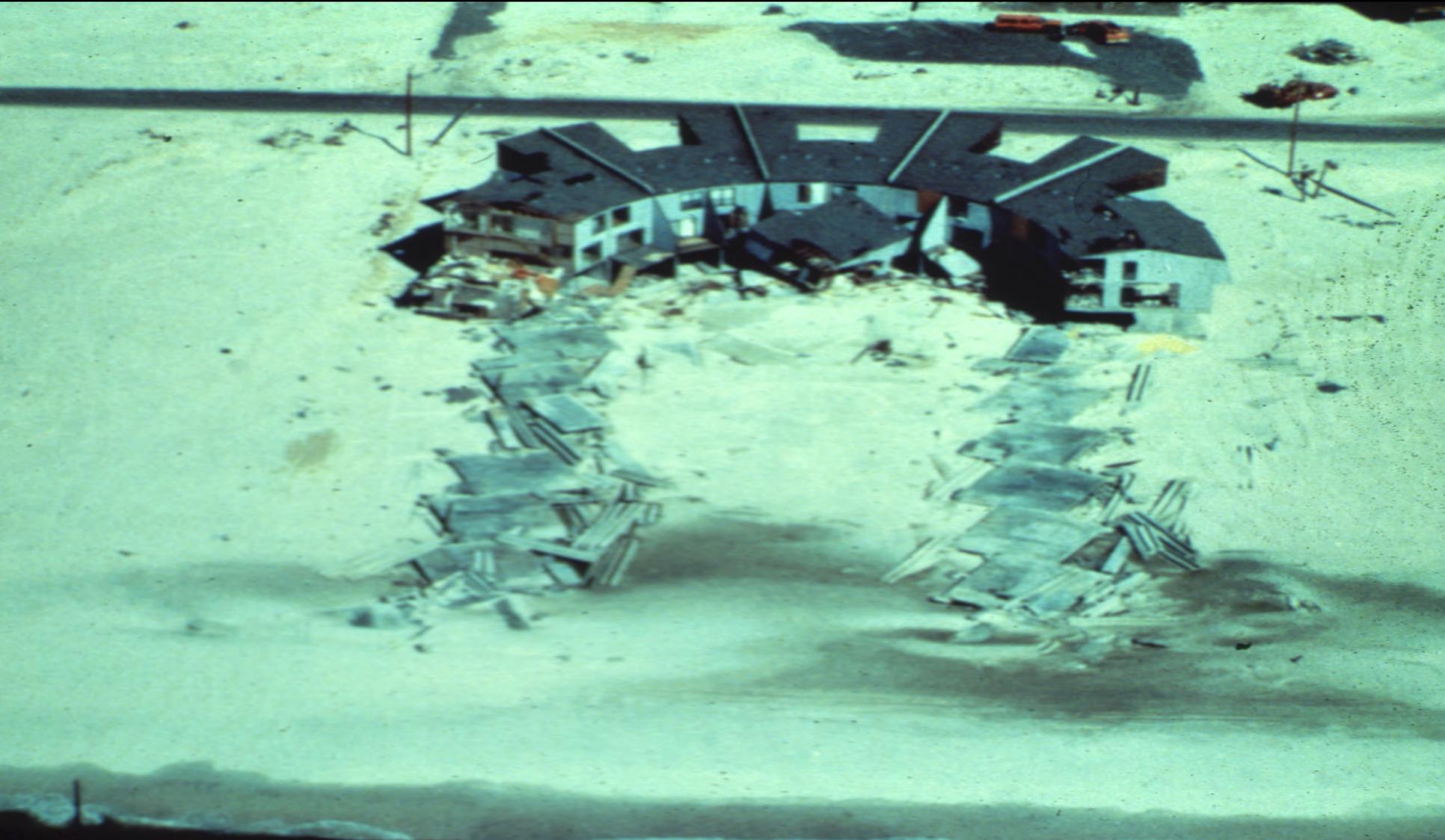
RESPONSIBLE FOR THE MOST DEATHS DURING
HURRICANES!



Gulf Shores, AL - Before Frederic - 1979



AFTER!!!



Storm Surge

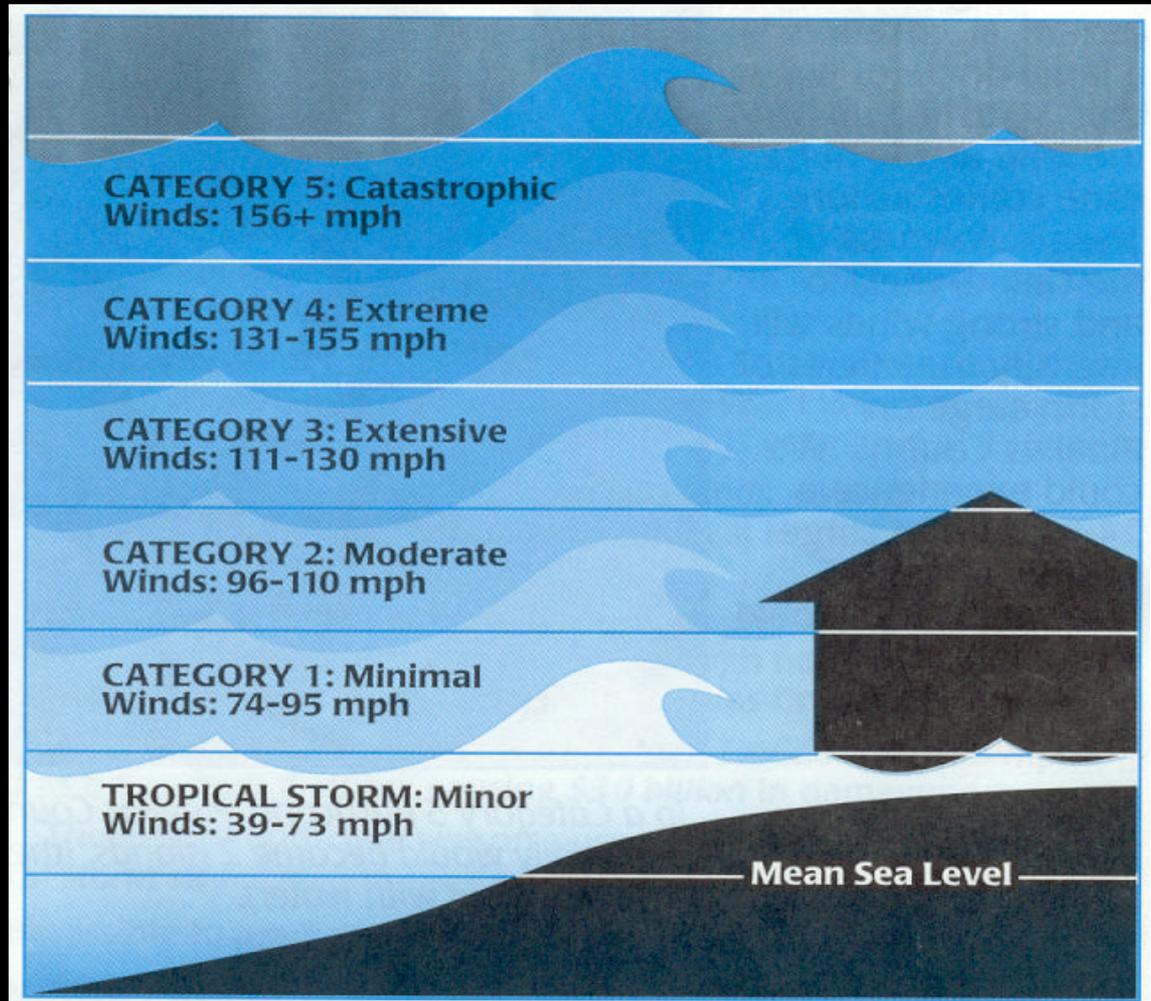
18+ ft surge

13 – 17 ft surge

9 – 12 ft surge

6 – 8 ft surge

4 – 5 ft surge



Hurricane Categories

◆ Category 1

Wind speed 74 – 95 mph

4 – 5 foot storm surge

Typical Damage:

- ❖ **Minor pier damage**
- ❖ **Coastal Flooding**
- ❖ **Damage to trees, some signs, unanchored mobile homes**

Hurricane Categories

Category 2

- Wind speed 96 - 110 mph
- 6 – 8 foot storm surge
- Typical Damage:

Building Damage (doors, windows, some roof material)

**Coastal and low lying escape routes flood
2 – 4 hours prior to arrival of storm center**

Anchored mobile homes

Hurricane Categories

Category 3

- Wind speed 111-130 mph
- 9 – 12 foot storm surge
- Typical Damage:

Structural Damage to residences and utility buildings

Coastal and low lying escape routes flood 3 – 5 hours prior to arrival of storm center

Flooding may reach 8 miles inland (areas <5ft above sea level)

Some anchored mobile homes destroyed

Hurricane Categories

◆ Category 4

- Wind speed 131 - 155 mph
- 13 - 17 foot storm surge
- Typical Damage:
 - ❖ Structural Damage to residences including roof and curtain wall failures
 - ❖ Coastal and low lying escape routes flood 3 – 5 hours prior to arrival of storm center
 - ❖ Flooding may reach 6 miles inland (areas <10ft above sea level)
 - ❖ Complete destruction of mobile homes

Hurricane Categories

◆ Category 5

- Wind speed 156 + mph
- 18+ foot storm surge
- Typical Damage:
 - ❖ Some complete building failures
 - ❖ Coastal and low lying escape routes flood 3 – 5 hours prior to arrival of storm center
 - ❖ Flooding may reach 10 miles inland (areas <15ft above sea level)
 - ❖ Trees?...Mobile homes?...Haven't seen any

Tropical Cyclone Conditions of Readiness (COR)

- ◆ **Standardized time increments or elements for approach of a storm**
 - ◆ **Based upon expected time a particular type of storm will arrive at a specific location**
 - ◆ **CNRGC sets COR for Pensacola area**
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Conditions of Readiness (COR)

- ◆ COR V - sets Tropical Cyclone season.
 - ◆ COR IV – destructive winds (50+ knots) possible within 72 hours
 - ◆ COR III – destructive winds possible within 48 hours
 - ◆ COR II – destructive winds anticipated within 24 hours
 - ◆ COR I – destructive winds occurring or anticipated within 12 hours
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COR Responsibilities (Overview)

◆ COR IV

- Review local Incident Action Plans**
- Police buildings and surrounding areas and secure possible missile hazards**
- Directorates, DEPT HDS, Tenants, Disaster Prep Assistants provide attainment reports via DPO Website:
[Http://naspensacola.navy.mil/dpo/](http://naspensacola.navy.mil/dpo/)**
- Installation EM report attainment to Region**

COR Responsibilities (Overview)

◆ COR III

- Review local Incident Action Plans
- Ensure all government vehicles have at least $\frac{3}{4}$ full tank
- Secure all exterior work and materials
- Ensure generator fuel tanks are full
- Directorates, DEPT HDS, Tenants, Disaster Prep Assistants provide attainment reports via DPO website.
- Installation EM report attainment to Region

COR Responsibilities (Overview)

◆ COR II

- Review local Incident Action Plans**
 - Ensure material in and around all buildings properly secured**
 - Unplug and cover all ADP/electronic equipment**
 - Evacuate personnel when ordered to do so**
 - Directorates, DEPT HDS, Tenants, Disaster Prep Assistants provide attainment reports to via DPO website.**
 - Installation EM report attainment to Region**
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COR Responsibilities (Overview)

◆ COR I

- Review local Incident Action Plans**
 - Take measures to ensure personnel and material are not exposed to the environment .**
 - Directorates, DEPT HDS, Tenants, Disaster Prep Assistants provide attainment reports via DPO website.**
 - EM report attainment to Region**
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NASP EVACUATION POLICY

- ◆ Voluntary – Discretion of activity/HRO
- ◆ Selected - Low-lying areas/flood zones. **As directed by Base CO.**
- ◆ **Mandatory – Directed by Base CO.**
 - **Base Occupation limited to Shelters, Emergency-Essential Personnel, Emergency Responders**

OFF-BASE EVACUATION

- ◆ Voluntary

Know your area! Are you in a storm surge area or flood plain?

Have a plan!

- ◆ Mandatory – County EM will determine which areas will evacuate – usually coastal and low-lying areas.

HURRICANE OPAL EVACUATION



POST STORM ENTRY

- ◆ When all Clear is issued.
- ◆ Base roads are safe.
- ◆ Personnel with Green Stickers will be allowed to enter to assess damage and begin recovery efforts.
- ◆ Only personnel with Orange Stickers are authorized to remain on base during mandatory evacuation!!

BE PREPARED!!

- ◆ Develop a Family Plan
- ◆ Create a Disaster Supply Kit
- ◆ Have a place to go
- ◆ Secure your home
- ◆ Have a family pet plan

FAMILY DISASTER PLAN

- ◆ Know your home's vulnerabilities to storm surge, flooding and wind.
 - ◆ Locate a safe room or safest area for each hurricane hazard. The safest area may not be your home!
 - ◆ Determine escape routes from your home and places to meet.
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FAMILY DISASTER PLAN

- ◆ Have an out-of-state family or friend contact point.
- ◆ Make a plan NOW for what to do with your pets if you evacuate. Most shelters/hotels do not allow pets!
- ◆ Prepare a disaster supply kit.
- ◆ Use a NOAA weather radio. Remember to check batteries!!

Disaster Supply Kit/Supplies

◆ Home Preparations

– Containers for water

- ❖ 5 gal per person
- ❖ Fill, date, and store in cool, dry location

– Sewage containers

- ❖ 5 gal
- ❖ At least 2
- ❖ Air tight seals



Hurricane Preparations

◆ Home Preparations

- Heavy duty trash bags
- Bleach
- Water purification tablets
- Non-perishable food (pre-packaged or canned)
- Manual can opener

Hurricane Preparations

◆ Home Preparations

- Emergency / Camping equipment and fuel
- Matches / Lighters
- Portable Cooler
- Rope / Duct tape
- Tarp
- Portable fire extinguisher
- Pet carrier and supplies

Hurricane Preparations

- ◆ Home Preparations (COR 3 – COR 1)
 - Clean w/bleach then fill bathtubs with water
 - Set refrigerator to coldest settings
 - Freeze water in jugs
 - Fill fuel tanks (car, propane)
 - Begin boarding up house
 - Get extra cash
 - Place valuables in water tight bags / containers

Hurricane Preparations

- ◆ Home Preparations (COR 3 – COR 1)
 - Secure yard equipment (grills, swings, etc.)
 - Protect electronics
 - ❖ Bag them
 - ❖ Move to interior locations off the floor if possible

Evacuating To Shelters

- ◆ Items to take to Shelters
 - Military Shelters
 - ❖ Enough food for first 24 hours
 - First meal – sandwich, chips, etc
 - Second meal – canned goods, crackers, etc

Evacuating To Shelters

◆ Items to take to Shelters

– Military and Civilian Shelters

- ❖ Sleeping bags / cots (shelters don't provide cots anymore)
- ❖ Baby food and supplies and any special dietary requirements
- ❖ Extra prescription medication
- ❖ Flashlights / Radio / Batteries
- ❖ List of important phone numbers
- ❖ Important documents (insurance papers, titles)
- ❖ Blankets / Pillows
- ❖ Toiletries
- ❖ Insect repellent
- ❖ Cash
- ❖ Special dietary needs

Off-Base Shelters

Escambia County

<u>Shelter Name</u>	<u>Address</u>
◆ Bailey Middle School	4110 Bauer Rd
◆ Beulah Elementary School	6201 Helms Rd.
◆ Civic Center	201 E. Gregory Street
◆ Jim Allen Elementary School	1051 Hwy 95A, Cantonment
◆ Lipscomb Elementary	10200 Ashton Brosnaham Rd
◆ Northview High School	4100 W. Highway 4, Century
◆ Tate High	1771 Tate Rd

OFF-BASE SHELTERS SANTA ROSA COUNTY

Shelter Name

Address

- | | |
|-----------------------------|-----------------------------------|
| ◆ Milton Community Ctr | 5629 Byrom St, Milton |
| ◆ S.S. Dixon Inter. School | 5540 Education Drive, Pace |
| ◆ Avalon Middle School
– | 5445 King Arthur's Way,
Milton |
| ◆ Sims Middle School | 5500 Education Drive, Pace |

On Base Sheltering

CORRY

CAT 1

Mobile Home
Navy Lodge
Campgrounds

All Sheltering will be
at Corry Station

CAT 2

BEQ
NASC
North Ave.
Family Housing
NATTC Medical

CAT 3

NAS Branch Medical
Corry Students

BOQ

CAT 4-5

ALL



512 (GUNN Hall)
Center for Cryptology

511 (KIDDER Hall)
NASC

1099 (KIDD Hall)
Center for Cryptology

3744 (CARMICHAEL Hall)
Center for Cryptology

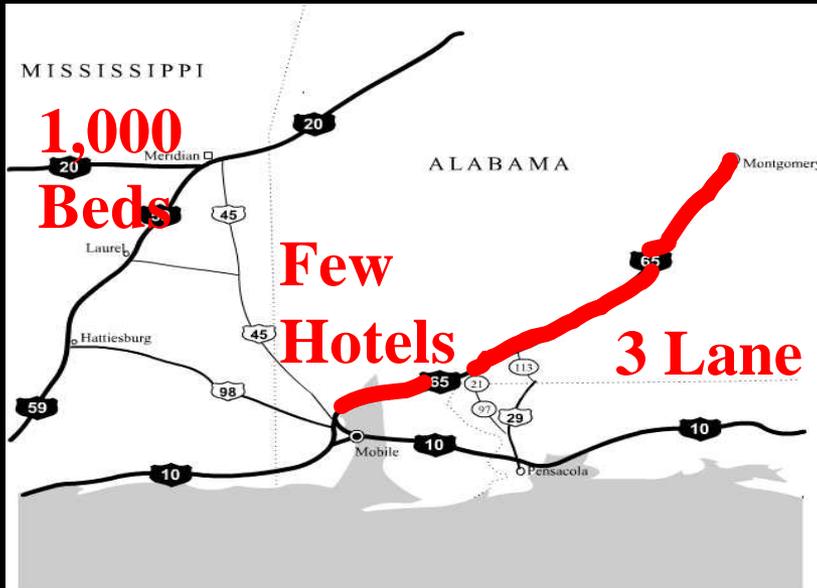
516 (PEDERSON Hall)
Center for Cryptology

3711 (Gym)
NASC

Corry Station Shelters

- ## **Corry Advantages**
- **Wind Resistant Buildings**
 - **Parking Availability**
 - **Existing Emergency Power Feeding 5 of 8 Buildings**
 - **Galley with Facility Emergency Generator**

Area Evacuation



- ◆ Only one North/South bound interstate
- ◆ Many bottlenecks in Pensacola area
- ◆ Approximately 3 hour transit from NAS to I-10
- ◆ If choosing to evacuate, do so EARLY

Information Sources

◆ Broadcasts

- WEAR-TV Channel 3
- WKGR-TV Channel 5
- WNAS-TV Channel 4 (NAS base television)
- WXBM 102.7 FM
- WCOA 1370 AM

Information Sources

◆ NAVLANTMETOCEN

- <https://www.nlmoc.navy.mil>
 - ❖ Home Page
 - ❖ Various weather related links
- <https://www.nlmoc.navy.mil/cgi-bin/main.pl?tropical>
 - ❖ Weather Messages & Graphics
- <https://www.ntmof.navy.mil>
- Local weather information
- Weather Instant Messaging e-mail service

Information Sources

◆ Internet

– www.escambia-emergency.com

- ❖ Escambia County Emergency Management website
- ❖ Contains lists of all active emergencies in county area
- ❖ Contains great hurricane prep tips page
- ❖ Escambia County Storm Surge Vulnerabilities
- ❖ Evacuation Routes

Information Sources

◆ Internet

- www.srh.noaa.gov/mob
 - ❖ NOAA weather conditions site for Mobile / Pensacola region
 - ❖ Contains local warnings, local weather radar imaging
- www.nhc.noaa.gov
 - ❖ Tropical Cyclone Prediction Products
 - ❖ Hurricane Preparation Tips
 - ❖ Weather Instant Messaging Service

Information Sources

◆ Internet

– www.weather.com

- ❖ Weather Channel website
- ❖ Links to local forecasts and warnings
- ❖ Contains weather radar, doppler out to 1800 mile radius
 - Updated approximately every 30 minutes

Information Sources

◆ Internet

◆ WWW.FEMA.GOV

- ◆ Hurricane Planning Tips
- ◆ Family Disaster Planning Tips
- ◆ Self-Study Hurricane Planning Courses

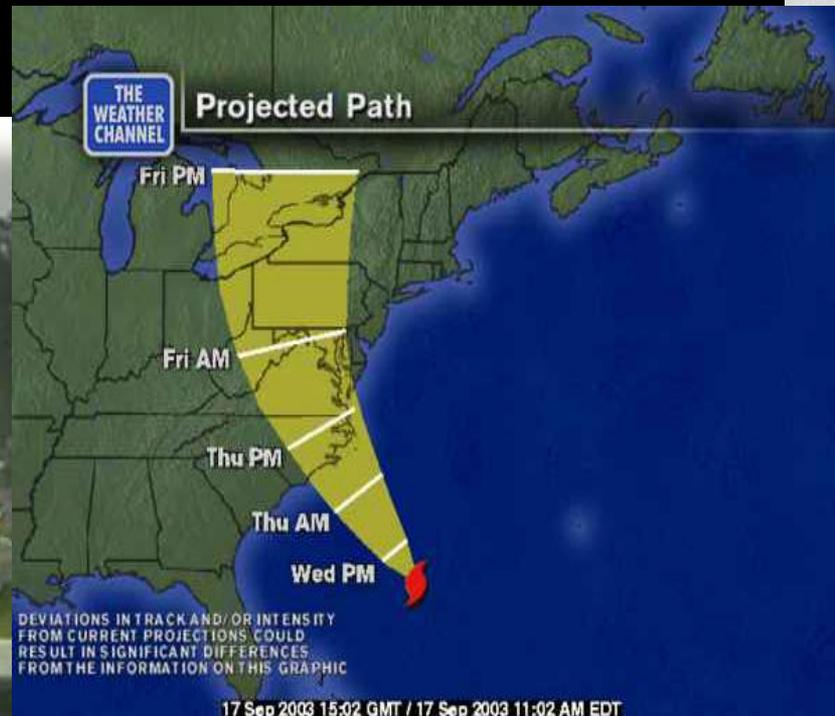


Information Sources

◆ Important Phone Numbers

- NASP COMMAND DUTY OFFICER (CDO)
 - ❖ QUARTERDECK (850)-452-3100 EXT 0
 - ❖ Cell phone – (850)-380-4756
 - ❖ Bunkroom – (850)- 452-5678 FUNCTION 3 BEEPER #376
- NASP EM Ms Cheryl Blas 452- 4481 – Cell 418-5158
- Escambia County Emergency Management
 - ❖ 595-3311
- NAS Emergency Operations Center (EOC)
 - ❖ 452-4481
- NAVTRAMETOCDET weather forecast / warning recording
 - ❖ 452-3882

REMEMBER! The night of the Prom is not the Time to Learn to Dance!!



Evelyn Shanahan

Hurricane Erin
Pensacola, Florida
3 August 1995 - 1045 EDT
GOES-EAST

That's all!

NASA-GSFC GOES Project