

# When Disaster **Hits**, Will You Be **Ready**?

Personal Preparedness in the  
Face of Natural Disasters

Join my “**LIVE**”  
Disaster Preparedness Poll  
**NOW**:

Text to: **22333**

Text message: **nathanaelflo938**

Nathan Flores, Emergency Management Planner  
Cameron County Judge's Office-Division of Emergency Management

Eddie Trevino, Jr., County Judge  
Emergency Management Director

Tom Hushen., Emgy. Mmgnt. Coordinator  
Chief Emergency Officer

XXXXX128082008

Date

Time

Alarms

28/08/2008

13:27:55

0



## Caller Details

Phone No.

Name

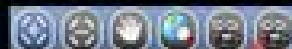
Area

Source

## Hays County 9-1-1 Call

2015 "Memorial Day" Weekend  
Severe Thunderstorm  
In Wimberley, Texas (Blanco River)

McComb Family from Corpus Christi



## Active Events List

ID	Actual Time	Address	Owner			
000140127082008	8/27/2008 11:55:29 AM	Lat: 25.86, Long: 50.41	OD COPS			
000130127082008	8/27/2008 11:43:39 AM	Seef Mall, 428, Seef, Capital	OD COPS			
000120127082008	8/27/2008 10:20:47 AM	Seef Mall, 428, Seef, Capital	OD COPS			
000110127082008	8/27/2008 10:19:57 AM	00047, 101, 102, Hidd Town, Muhammad	OD COPS			
000100107082008	8/7/2008 12:34:40 PM	Al Jazeera Supermarket - Al Jufair, 340, Juffair, Capital	OD COPS			



# Ready or Not?

- Disasters can occur...anytime...anywhere
- Disasters occur daily...somewhere
- Disasters don't give warnings...mostly
- The question is not “IF” and “WHEN” a disaster will occur, the question you should ask yourself:
  - When disaster hits, **will I be ready?**

# The Death Toll in Texas of 27 For the Memorial Day Flooding Includes members of the McComb Family

- Laura Schulz McComb, 34
- William Randall Charba, 42
- Michelle Marie Carey-Charba, 43
- Ralph Hugh Carey, 73
- Sue McNeil Carey, 71
- William Charba, 6
- Andrew McComb, 6
- Leighton McComb, 4



**Prevention  
(Mitigation)**

**Prevention: Actions taken to reduce or eliminate the effects of an emergency or disaster**

**Recovery: Actions taken to recover from an emergency or disaster**

**Recovery**

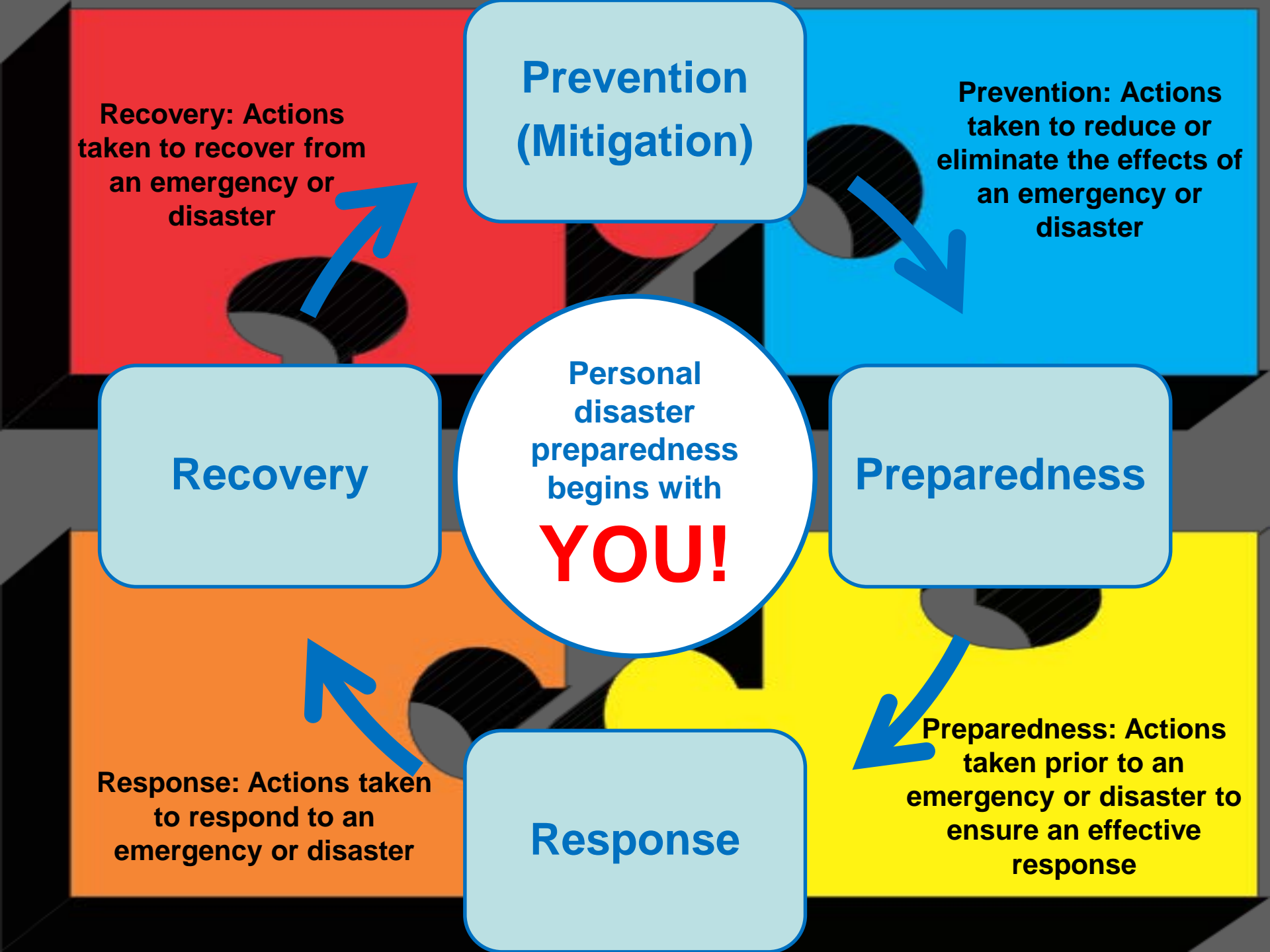
**Personal  
disaster  
preparedness  
begins with  
**YOU!****

**Preparedness**

**Preparedness: Actions taken prior to an emergency or disaster to ensure an effective response**

**Response**

**Response: Actions taken to respond to an emergency or disaster**





# Cameron County Judge's Office

## Division of Emergency Management



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Facebook: [camerontyem](https://www.facebook.com/camerontyem)

Twitter/Instagram: [cameron\\_county](https://twitter.com/cameron_county)

# Disaster Preparedness Poll

(via Text Messaging)

text (message):

**nathanaelflo938**

to (recipient):

**22333**

received information about disaster preparedness  
the past 12 months?

A.  
YES

B.  
NO

New activity

Logout

**Start the presentation to activate live content**

If you see this message in presentation mode, install the add-in or get help at [PollEv.com/app](https://PollEv.com/app)



# Do you have an Emergency Supply Kit?

A.  
YES **A**

B.  
NO **B**

**Start the presentation to activate live content**

If you see this message in presentation mode, install the add-in or get help at [PollEv.com/app](https://PollEv.com/app)



# Have you created a family emergency plan?



A.  
YES

B.  
NO



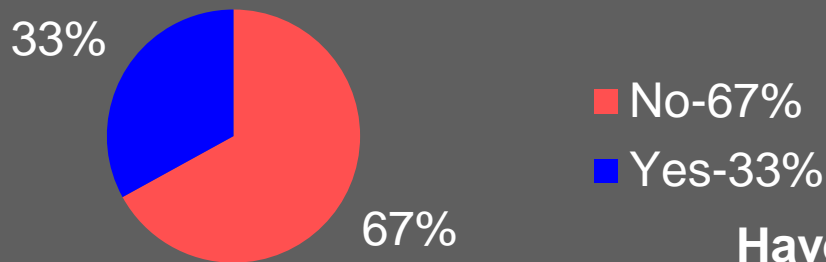
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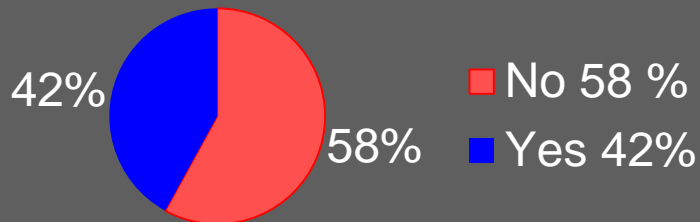
If you see this message in presentation mode, install the add-in or get help at [Pollev.com/app](https://Pollev.com/app)

# National Disaster Readiness Survey \*

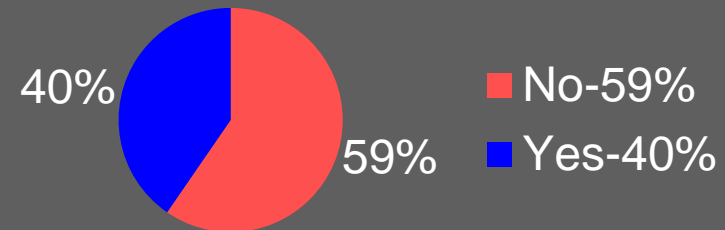
**Have you received  
information about disaster  
preparedness in the past  
12 months?**




**Do you have an  
Emergency Supply Kit?**




**Have you created a  
family emergency plan?**







When you think about the word "natural disasters" (as opposed to human-made or man-made disasters), name one type of disaster that comes to mind.




**Start the presentation to activate live content**




If you see this message in presentation mode, install the add-in or get help at [Pollev.com/app](https://Pollev.com/app)

Temperature  
Rain Heavy Emergency  
Freezing Winter Floods Wildfire  
Natural Earthquake  
Hail  
Hurricane Ice disasters  
Snow Tornado Volcano Cold  
Drought Thunderstorm Tsunami  
Lightning Storm



You think about the words "disaster preparedness"  
name one supply that comes to mind.



**Start the presentation to activate live content**



If you see this message in presentation mode, install the add-in or get help at [Pollev.com/app](https://Pollev.com/app)





The United Nations Office for Disaster Risk Reduction

Survey data and information accessed on 27 September 2013.

# Disaster

“Occurrence or imminent threat of widespread or severe:

1. damage,
2. injury, or
3. loss of life or property

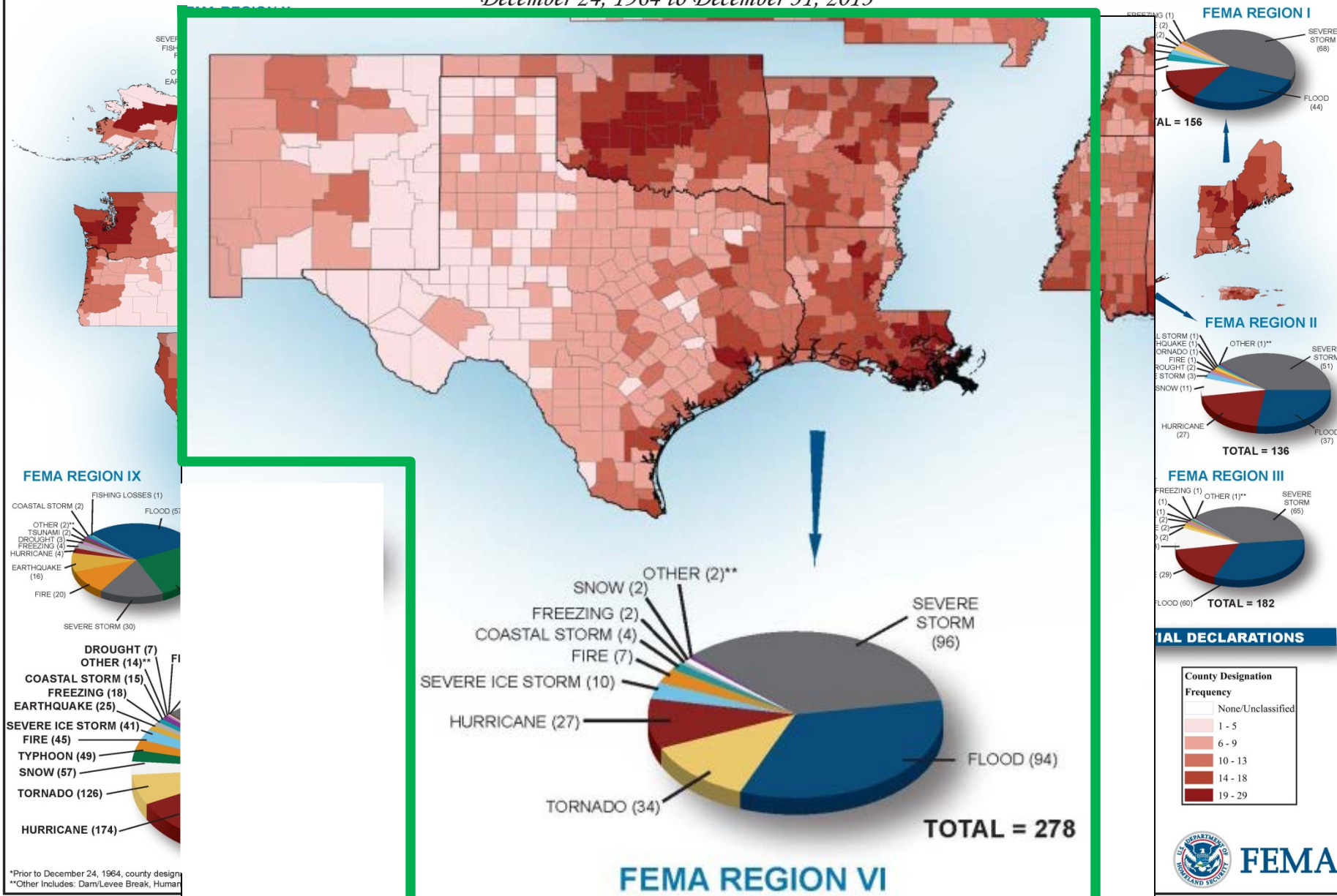
resulting from any natural or man-made cause...requiring emergency action...”

*Texas Government Code Chapter 418 “Emergency Management”*



# PRESIDENTIAL DISASTER DECLARATIONS

December 24, 1964 to December 31, 2013



# Texas: Most Federally-Recognized State Disaster Declarations



Major  
Disaster  
Declarations

88



Emergency  
Declarations

13



Fire  
Management  
Assistance  
Declarations

235

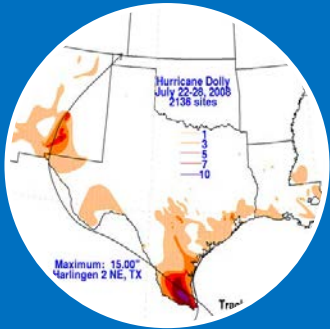
Total of **336** declarations (years of **1953-2014**)

# Nationwide: Weather-related Disasters





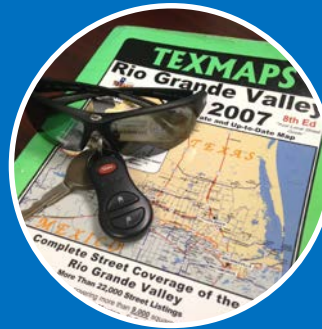
# Why Is There A Need For Disaster Preparedness Awareness?



History of  
Texas  
Hurricanes



Community  
Complacency



New Arrivals  
(Residents,  
Temporary  
Workers and  
Tourists)



**How many hurricanes (Category 1 -- Category 5) have made landfall in Texas between 1851-2017 (166 years)?**

A. 12

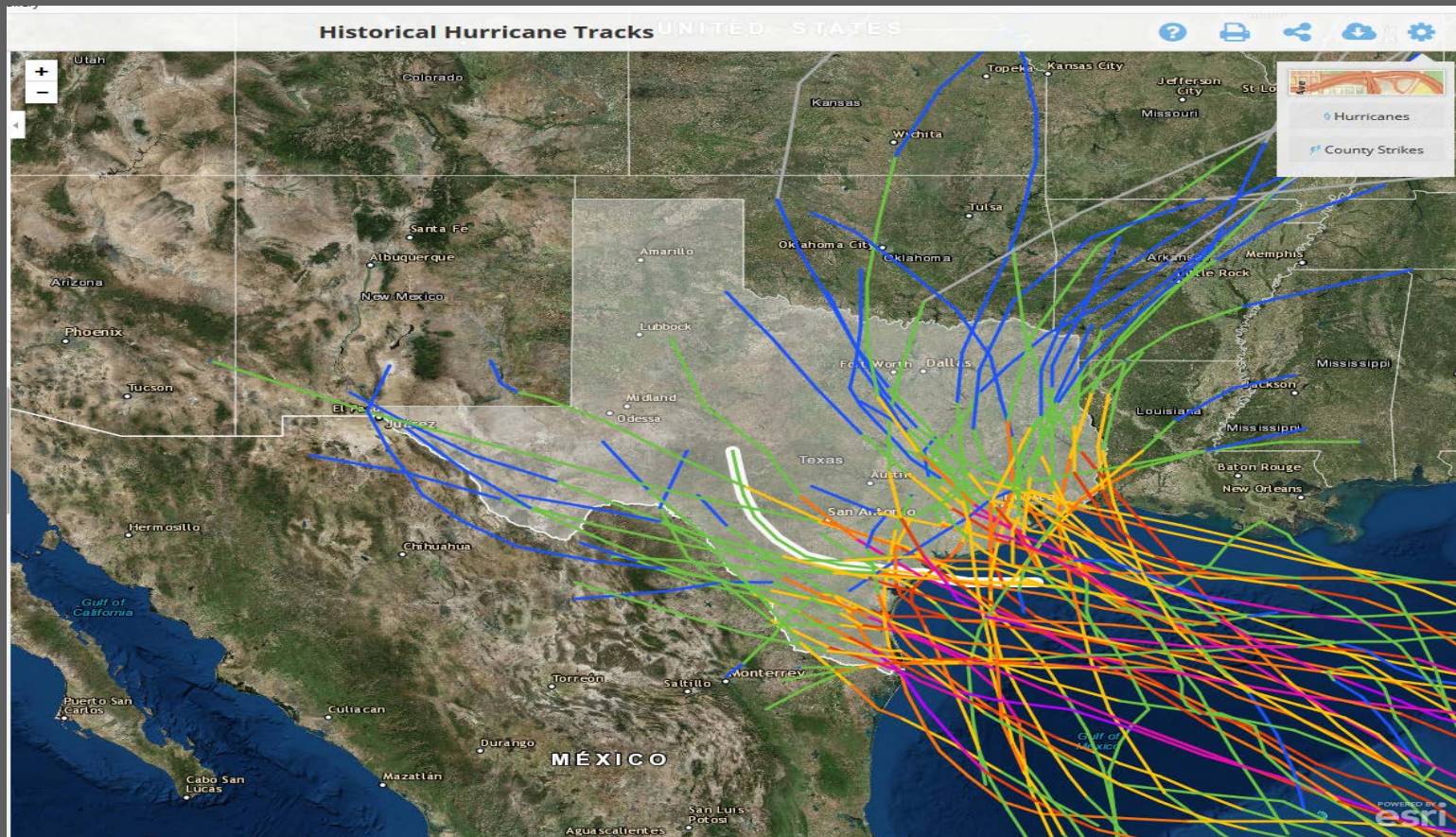
B. 36

C. 59

D. 78



# History of Texas Hurricanes



***A total of 59\* hurricanes from 1851 to 2016 have made landfall in Texas, resulting in an average of 1 hurricane every 3 years.***  
**(\*does not include Hurricane Harvey)**



**How many hurricanes (Category 1 -- Category 5) and tropical storms have made landfall in Texas 1851-2017 (166 years)?**

A. 96

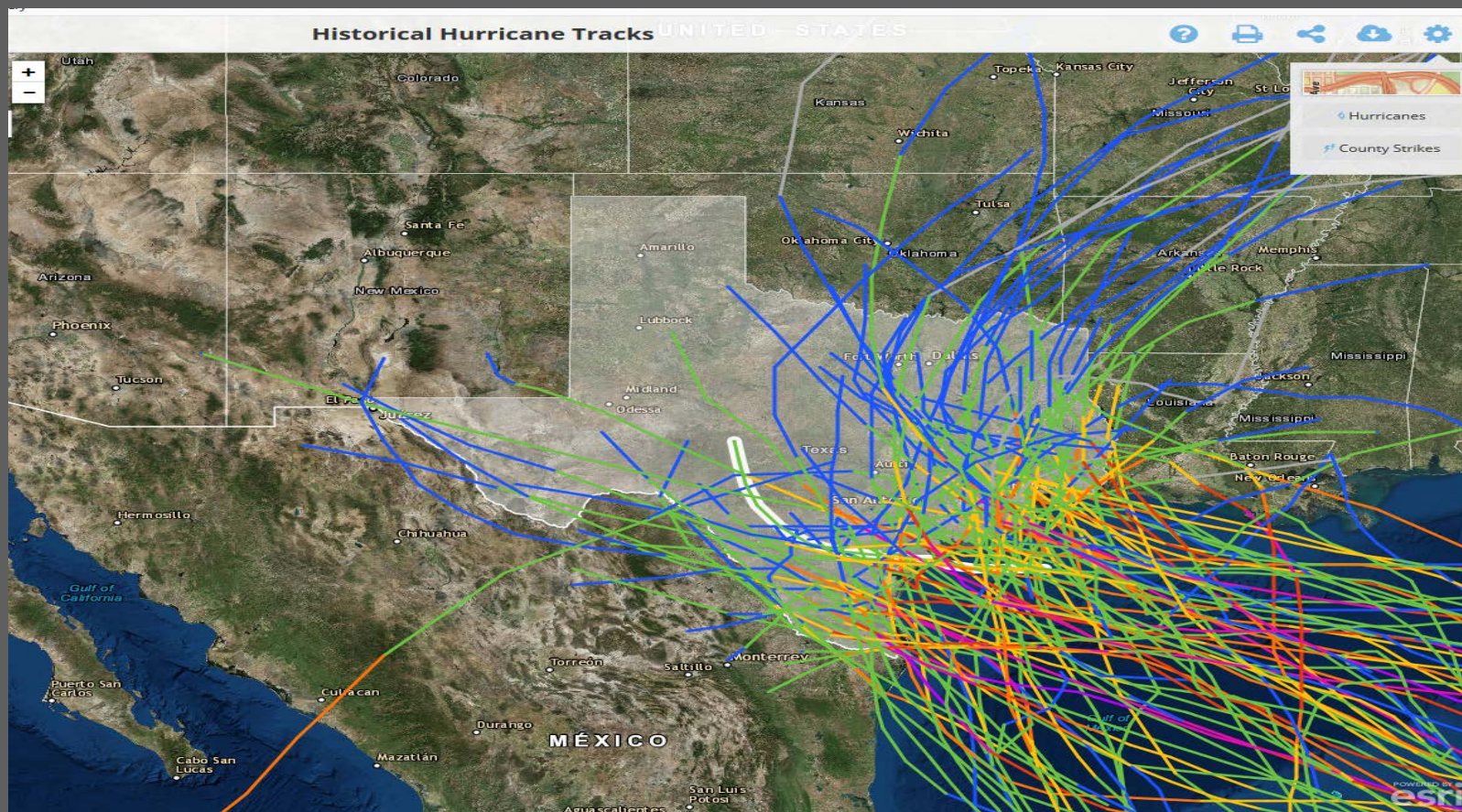
B. 111

C. 128

D. 145

# History of Texas Tropical Cyclones

## (Tropical Storms and Hurricanes)

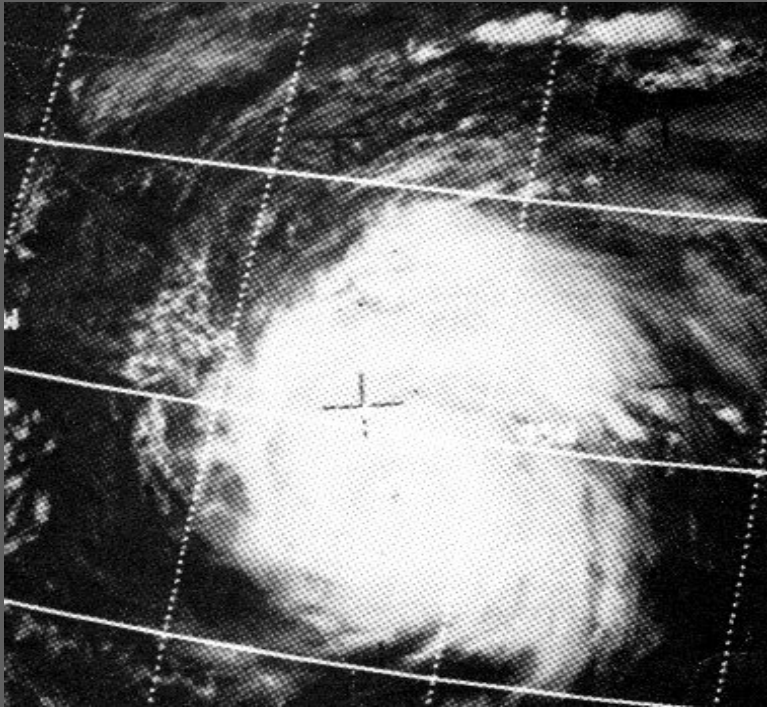


***A total of 111\* hurricanes/tropical storms from 1851 to 2016 have made landfall in Texas, resulting in an average of 1 hurricane every 3 years. (\*does not include Hurricane Harvey)***

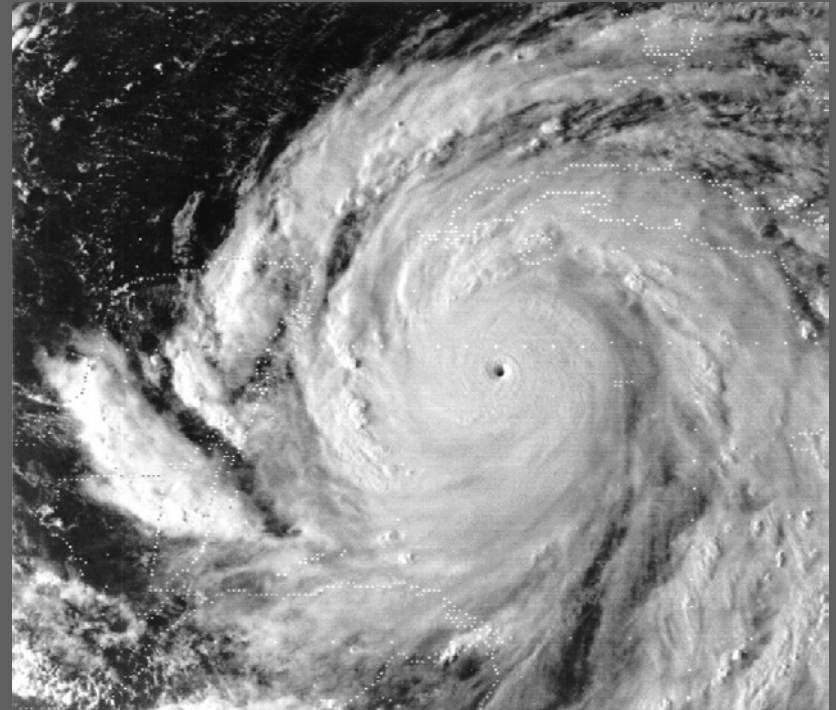


# Community Complacency:

**Beulah**



**Gilberto**



***With time, people forget about the devastating disasters like Hurricane Beulah from 1967 and Hurricane Gilbert from 1988.***

# Community Complacency: Hurricane Beulah (1967;Category 3)



## ***Impacts:***

**109 MPH** *wind gusts*

**10-25 inches**  
*of rainfall, over a 6-day period  
(15" in 24 hours)*

**18-20 ft** *of storm surge*

**115** *tornadoes*

## ***Deaths:***

**19** *in*  
**Mexico**

**15** *in*  
**Texas.**

## ***Economic Losses:***

**\$1.41** *billions (dollars)*

**\$500** *millions (pesos)*

**Thousands** *displaced*



# Hurricane Beulah (1967; Category 3)







Swollen Arroyo waters rise over half way up on the walls of the Elks Lodge and surround Harlingen newspaper building near U. S. 77 bridge.

*(Harvey Aerial Photo)*





Harlingen Municipal Golf Course (upper left) could have become a boat club. U. S. Expressway 83 overpass is shown in center and "F" Street area in background.

*(Harvey Aerial Photo)*





Only the rooftops were visible in Harlingen's Parkwood and Arroyo Estates sections along the flooding stream.

*(Harvey Aerial Photo)*





Water lapped at the very bottom of the U. S.

NOT • 67



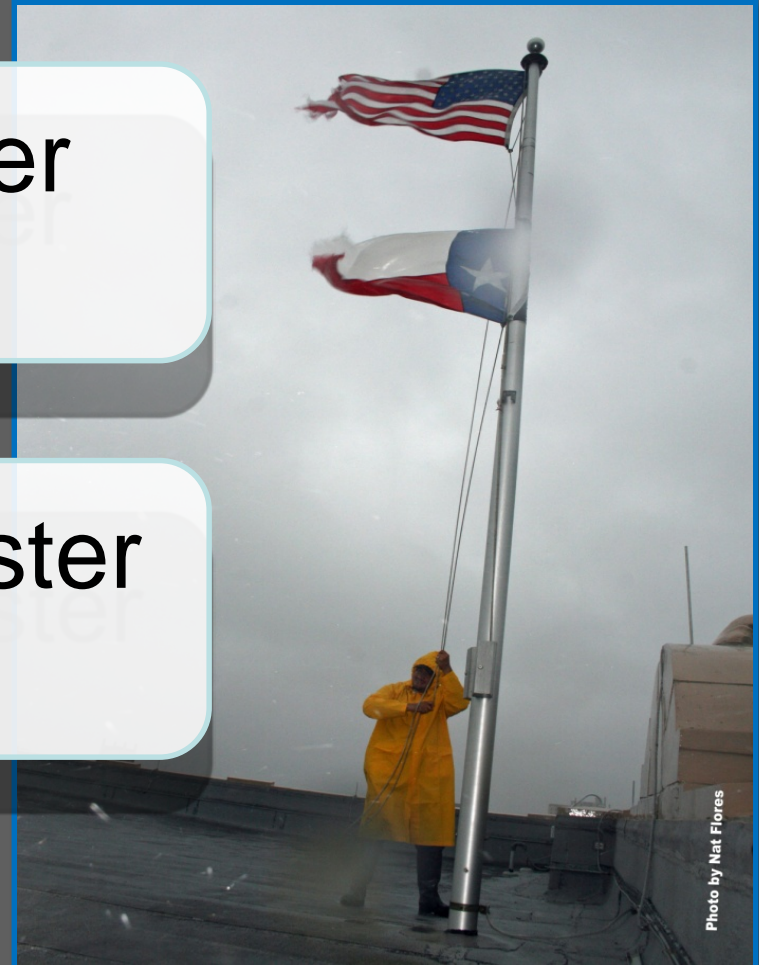
# Presentation Objectives

1

- Natural Disaster Impacts

2

- Personal Disaster Preparedness





1

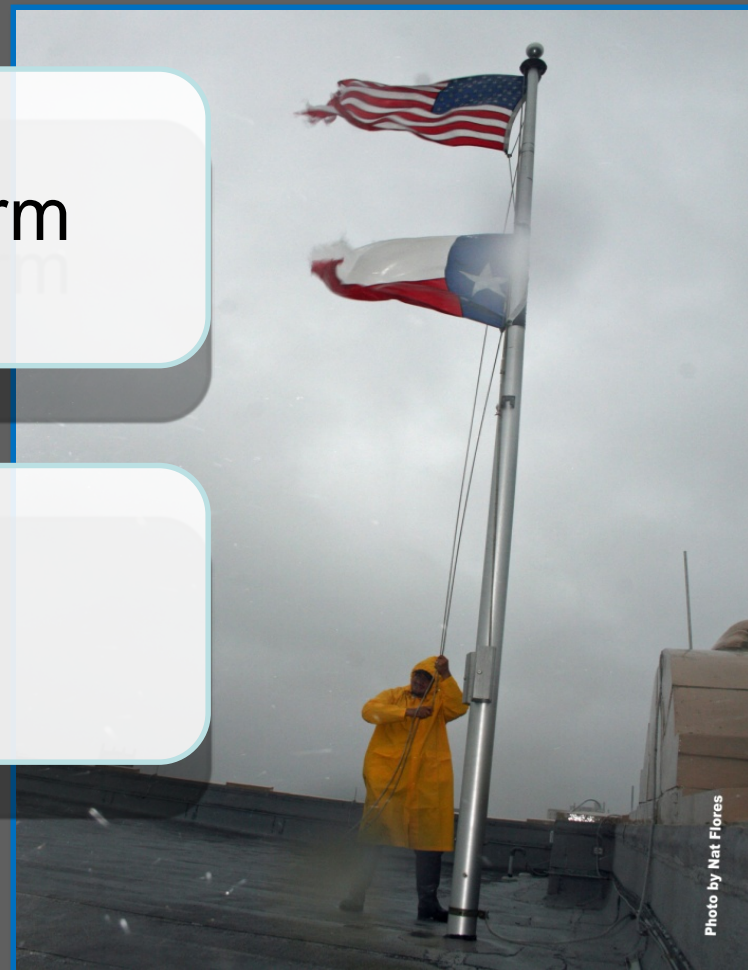
- Objective #1: Natural Disaster Impacts Caused by Severe Weather

1

- Severe Thunderstorm

2

- Tropical Cyclone (Hurricane/Tropical Storm)



# Severe Weather Impacts:

1

- Floods-both thunderstorms & tropical cyclones

2

- Winds-both thunderstorms & tropical cyclones

3

- Lightning (mostly thunderstorms)

4

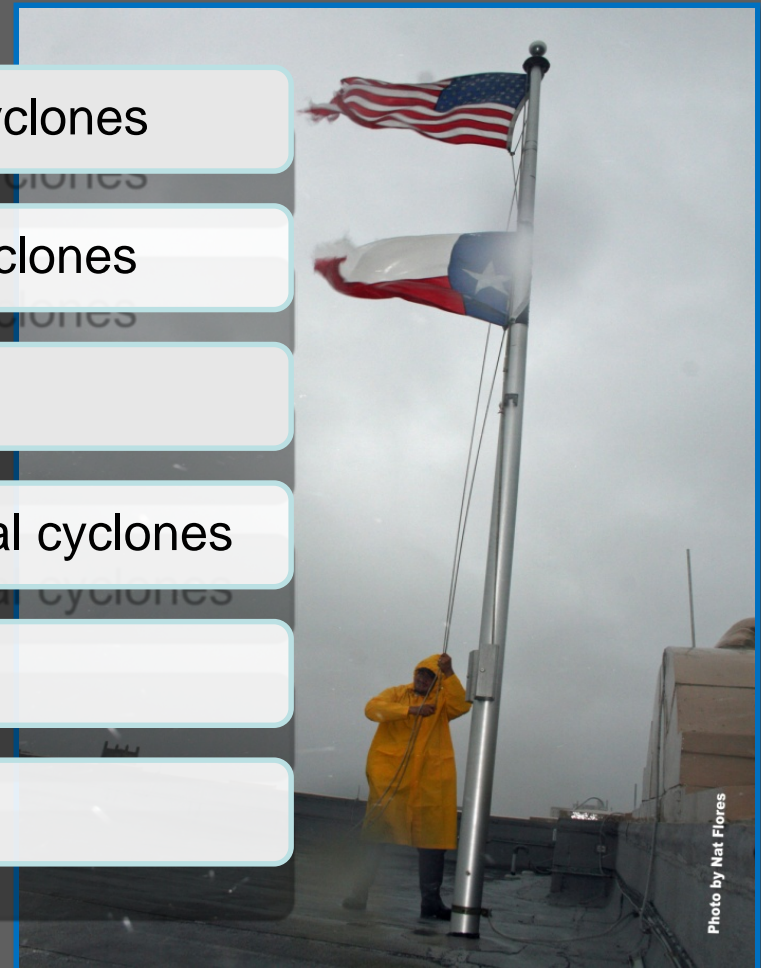
- Tornadoes-both thunderstorms & tropical cyclones

5

- Hail (only with thunderstorms)

6

- Storm Surge (only with hurricanes)



# Natural Disaster Impacts: The Death Toll

Average Annual Deaths Related to Severe Weather\*

1

- 85 = Floods

2

- 75 = Tornadoes

3

- 51 = Lightning

4

- 47 = Hurricanes



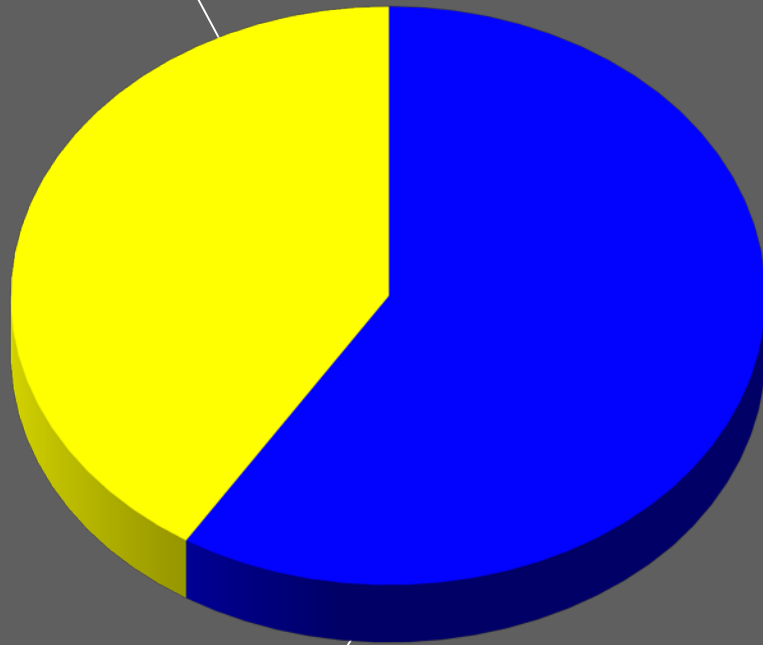
\*Source: National Weather Service (1984-2014)

# Natural Disaster Impacts: Floods

(1970-1999 Hurricane-related Deaths\*)

**ALL PEOPLE**

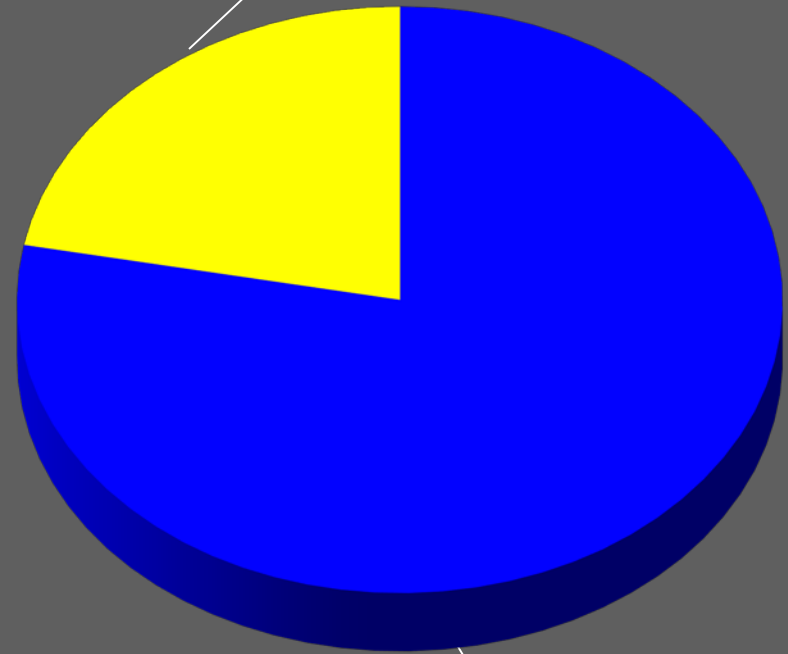
**OTHER 41%**



**FRESHWATER FLOOD 59%**

**CHILDREN (UNDER AGE 13)**

**OTHER 22%**



**FRESHWATER FLOOD 78%**





# Natural Disaster Impacts: Floods

(Hurricane Dolly; 2008; Category 2)



07.26.2008 16:26





07.27.2008 09:15





07.27.2008 09:16





07.27.2008 09:19





07.27.2008 09:34





07.26.2008 12:08





07.26.2008 12:12





07.26.2008 12:14

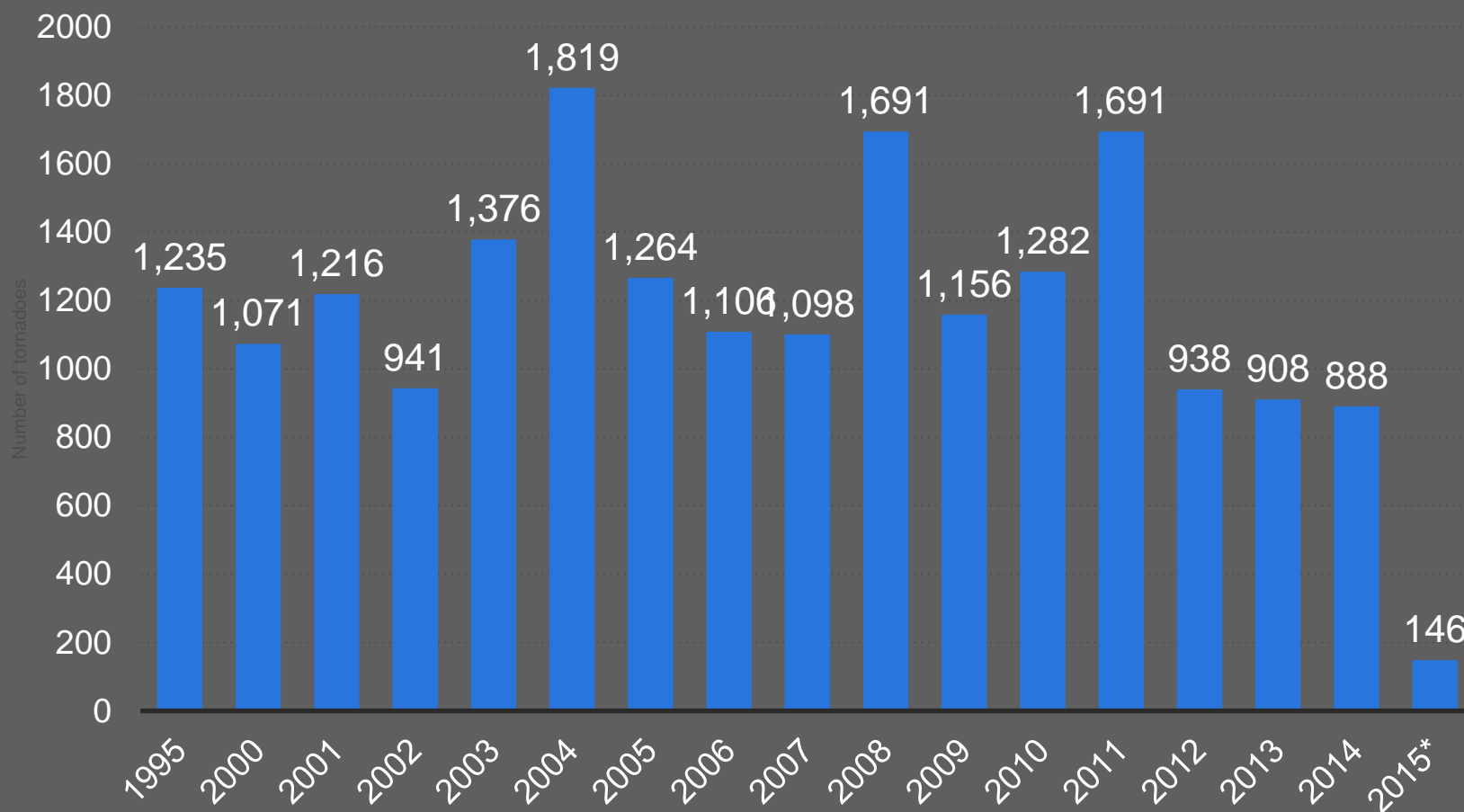




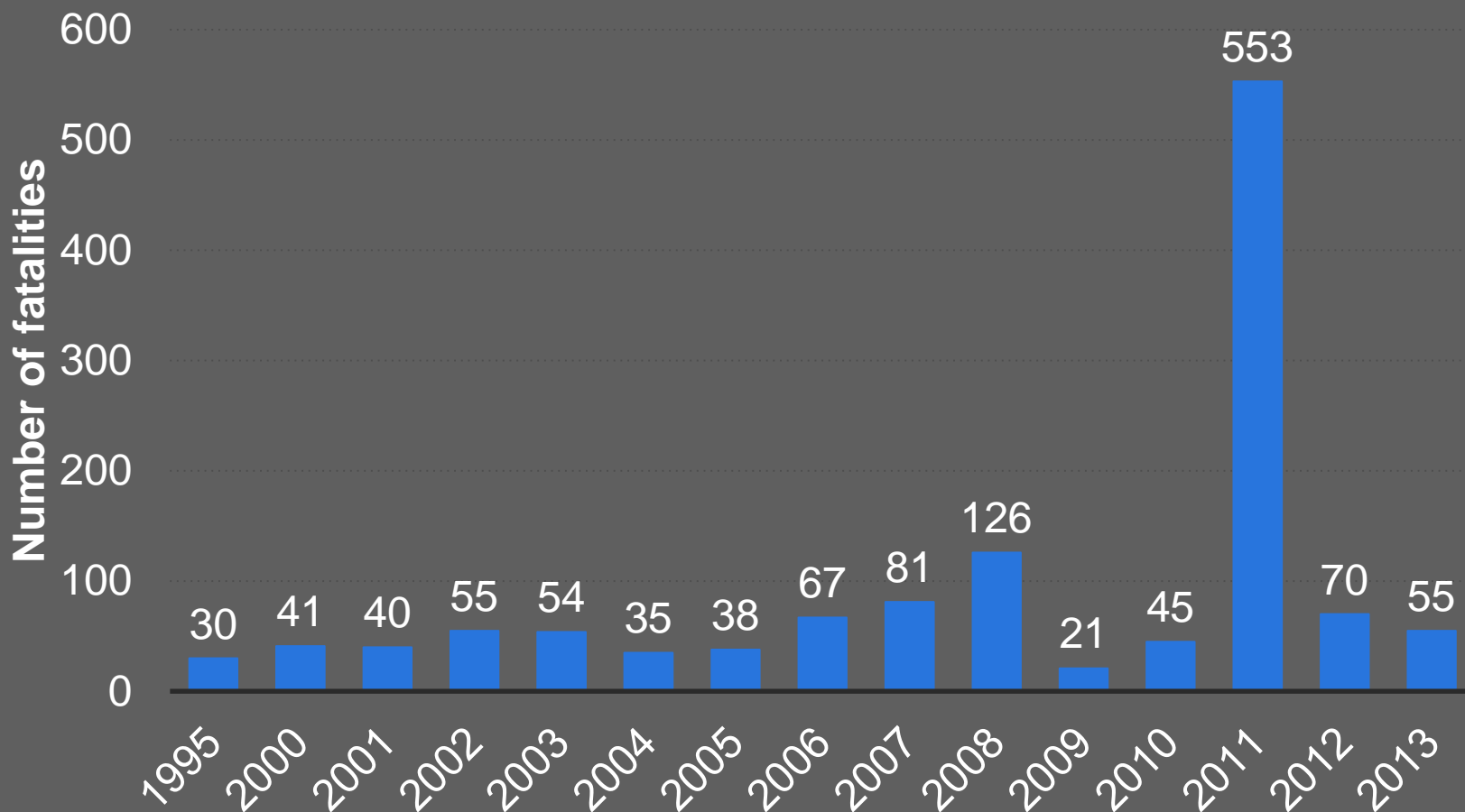
# Natural Disaster Impacts: Tornadoes



## Number of tornadoes in the U.S. from 1995 to 2015\*



## Number of lives lost due to tornadoes in the U.S. from 1995 to 2013



TEXAS

# Natural Disaster Impacts: Winds (Hurricane)

MEXICO

DOLLY

GULF  
OF  
MEXICO

geographical reference





# Natural Disaster Impacts: Winds (Hurricane)

Categories	Speeds (MPH)	Damages
Tropical Storm	39 - 73	Less than minimal
Hurricane - Category 1	74 – 95	Minimal
Hurricane – Category 2	96 – 110	Extensive
Hurricane – Category 3	111 – 129	Devastating
Hurricane – Category 4	130 – 156	Catastrophic
Hurricane - Category 5	157 =/>	Catastrophic

**An annual average of 47 deaths related to hurricanes (1984- 2013; <http://www.nws.noaa.gov/om/hazstats.shtml>)**

# Hurricane Impacts: Winds

(Hurricane Dolly; 2008; Category 2)



Photo: City of McAllen

## South Padre Island











# North Cameron County







07.26.2008 12:37





07.26.2008 12:41





07.26.2008 15:51





07.27.2008 11:09





07.27.2008 11:14





**Brownsville**



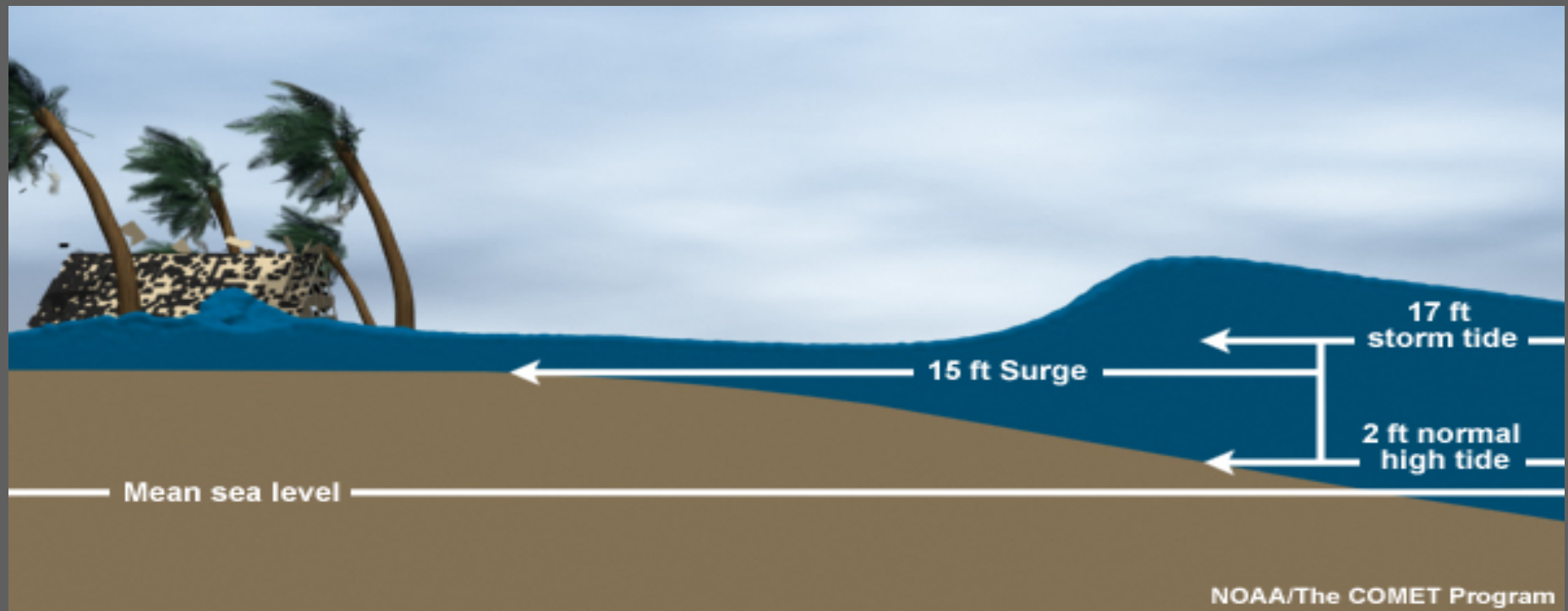
# Hurricane Impacts: Storm Surge



# Hurricane Impacts: Storm Surge

**Storm Surge:** Sea water that is pushed by a hurricane or tropical storm and that is over and above the astronomical tide (high tide) level.

**Storm Tide:** water level rise during a storm due to the combination of storm surge and the astronomical tide (high tide).





# Storm Surge: Historical Facts

Storm Name and Year	Category at Landfall	Storm Surge in Feet	Death toll (missing)	Cost of Destruction*
Hurricane Charley (2004)	4	6 – 8 ft.	10	\$15.1 billion
Hurricane Irene (2011)	1	8 – 11 ft.	49	\$15.6 billion
Hurricane Ivan (2004)	3	12 ft.	54	\$18 .8 billion
Hurricane Sandy (2012)	1	19 ft.	73	\$65 billion
Hurricane Ike (2008)	2	15 -- 20 ft.	112 (23)	\$29.5 billion
Hurricane Katrina (2005)	3	25 -- 28 ft.	1,836; mostly indirect (135)	\$108 billion

\*[http://en.wikipedia.org/wiki/Hurricane\\_Katrina#cite\\_note-SandyTCR-76](http://en.wikipedia.org/wiki/Hurricane_Katrina#cite_note-SandyTCR-76)

Storm Surge :Hurricane Katrina (2005)





# Storm Surge:

Fictional Example-Hurricane Carly

Harlingen

Harlingen Airport

Arroyo City

San Benito

G.V. Farms

Laureles

Bayview

County Airport

Indian Lake

Laguna Vista

Rancho Viejo

Los Fresnos

Laguna Heights

S.P.I.

Olmito

Del Mar Heights

Port Isabel

San Pedro

Cameron Park

Brownsville

BRO/SPI Airport

Port of Bro.

Ship Channel

Mouth of the R.G. River

Matamoros

Palm Grove

Cameron County





Harlingen

Harlingen Airport

Arroyo City

San Benito

G.V. Farms

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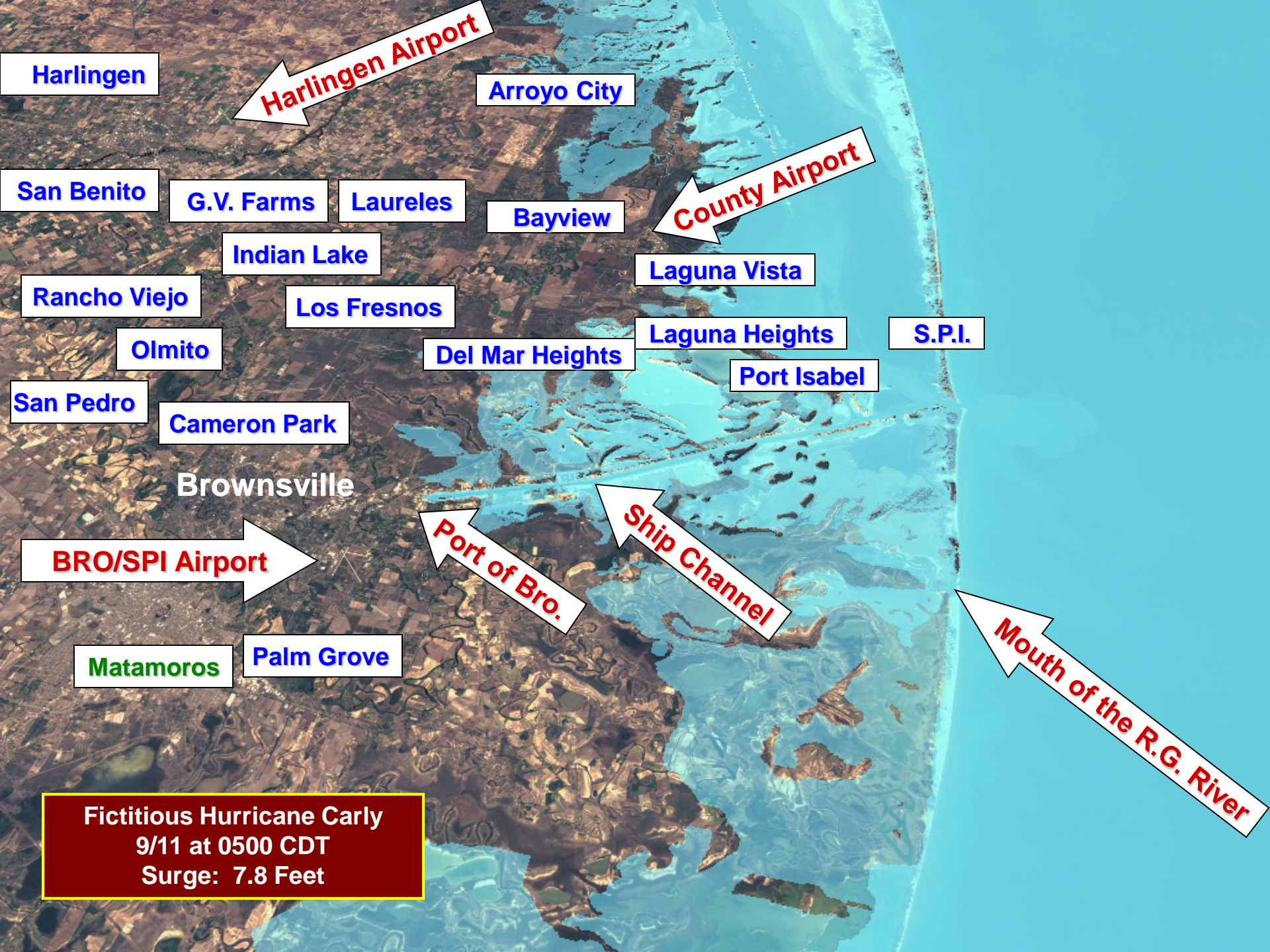
Mouth of the R.G. River

Matamoros

Palm Grove

Fictitious Hurricane Carly  
9/11 at 0100 CDT  
Surge: 4.3 Feet





Harlingen

Harlingen Airport

Arroyo City

San Benito

G.V. Farms

Laureles

Bayview

County Airport

Indian Lake

Rancho Viejo

Los Fresnos

Laguna Vista

Laguna Heights

S.P.I.

Port Isabel

Del Mar Heights

Olmito

San Pedro

Cameron Park

Brownsville

BRO/SPI Airport

Port of Bro.

Ship Channel

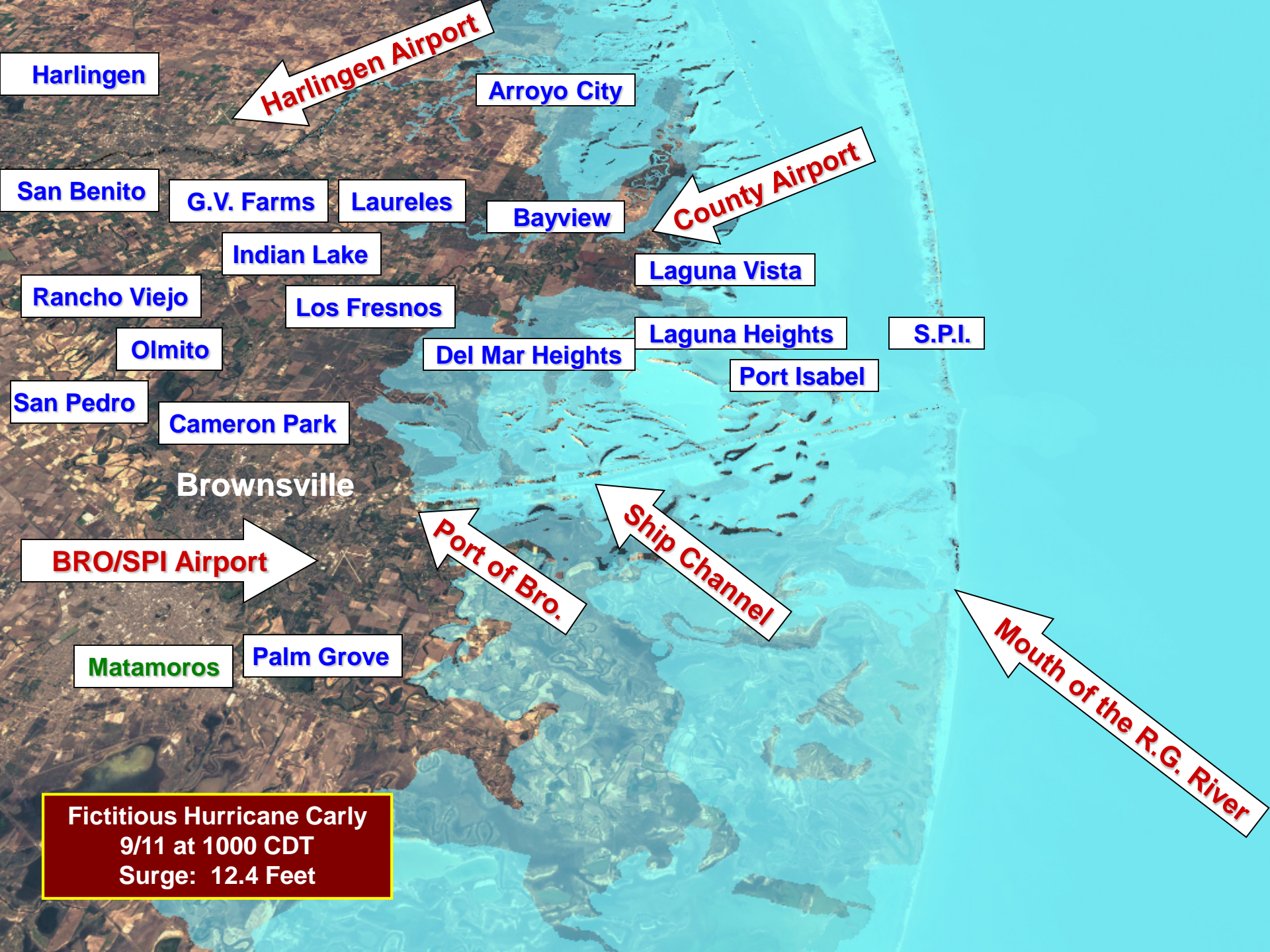
Mouth of the R.G. River

Matamoros

Palm Grove

Fictitious Hurricane Carly  
9/11 at 0500 CDT  
Surge: 7.8 Feet





Harlingen

Harlingen Airport

Arroyo City

San Benito

G.V. Farms

Laureles

Bayview

County Airport

Indian Lake

Laguna Vista

Rancho Viejo

Los Fresnos

Laguna Heights

S.P.I.

Olmito

Del Mar Heights

Port Isabel

San Pedro

Cameron Park

Brownsville

BRO/SPI Airport

Port of Bro.

Ship Channel

Mouth of the R.G. River

Matamoros

Palm Grove

Fictitious Hurricane Carly  
9/11 at 1000 CDT  
Surge: 12.4 Feet





Harlingen

Harlingen Airport

Arroyo City

San Benito

G.V. Farms

Laureles

Bayview

County Airport

Indian Lake

Laguna Vista

Rancho Viejo

Los Fresnos

Laguna Heights

S.P.I.

Olmito

Del Mar Heights

Port Isabel

San Pedro

Cameron Park

Brownsville

BRO/SPI Airport

Port of Bro.

Ship Channel

Mouth of the R.G. River

Matamoros

Palm Grove

Fictitious Hurricane Carly  
9/11 at 1500 CDT  
Surge: 17.3 Feet

- Objective #2: Personal Disaster Preparedness



# Personal Disaster Preparedness: Actions & Supplies

1

- Actions

2

- Emergency Supply Kit

3

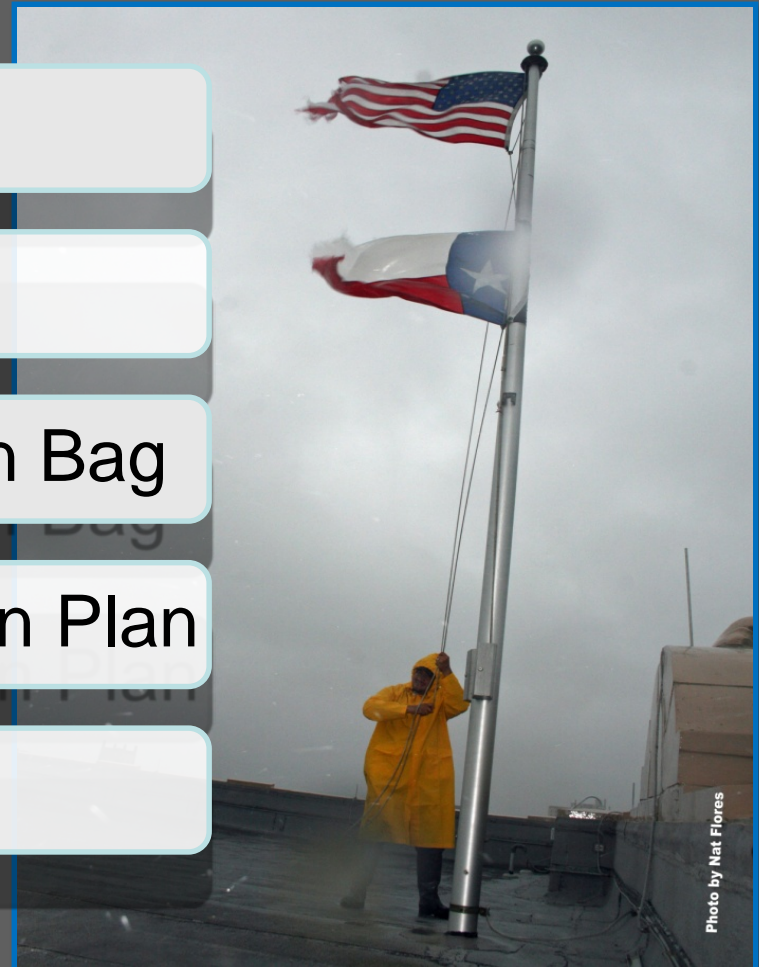
- Emergency Documentation Bag

4

- Emergency Communication Plan

5

- Pet Evacuation Kit



# Actions: General

1

- Make A Plan

2

- Build A Kit

3

- Get Informed



# 1<sup>st</sup> Action: Make A Plan

1

- Create Your Family Emergency Plan

2

- Jot down Your Emergency Point of Contacts (printed form)

3

- Choose A Meeting Place (in-town & out-of-town)

4

- Create an Evacuation Plan (out-of-town)

5.

- Plan for the Needs of Elderly, Disabled, Children & Pets

6.

- Share Your Family Emergency Plan

# Evacuation Materials: Emergency Communication

- Sometimes, hurricanes or other disaster destroy local telephone lines and cellular towers; at other times, local calls are not possible because communication networks are jammed with local calls. In addition, power failures within the impacted area may affect one's ability to charge mobile phones.
- Share with your family now the name of a relative or friend (& phone number) outside the Valley or outside the State who will serve as the family's Point of Contact (POC).
- Call that person before you leave the area, providing details of your route and final destination.
- When you arrive to your final destination, call that person.
- Additionally (but not a replacement for a telephone contact), social media platforms — Facebook, Twitter, Instagram — can help you stay in contact.





# Family Emergency Plan : (texasprepares.org)



## Family Emergency Plan



Texas Department of State  
Health Services | TEXAS  
Health and Human  
Services

Make sure your family has a plan in case of an emergency. Before an emergency happens, sit down together and decide how you will get in contact with each other, where you will go and what you will do in an emergency. Keep a copy of this plan in your emergency essentials kit or another safe place where you can access it in the event of a disaster.

Out-of-Town Contact Name: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
E-mail: \_\_\_\_\_ Cell Phone Number: \_\_\_\_\_  
  
Local Contact Name: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
E-mail: \_\_\_\_\_ Cell Phone Number: \_\_\_\_\_  
  
Neighborhood Meeting Place: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
Out-of-Town Meeting Place: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Fill out the following information for each family member and keep it up to date.

Name: _____	Date of Birth: _____	Social Security Number: _____
Important Medical Information: _____		
Name: _____	Date of Birth: _____	Social Security Number: _____
Important Medical Information: _____		
Name: _____	Date of Birth: _____	Social Security Number: _____
Important Medical Information: _____		
Name: _____	Date of Birth: _____	Social Security Number: _____
Important Medical Information: _____		
Name: _____	Date of Birth: _____	Social Security Number: _____
Important Medical Information: _____		
Name: _____	Date of Birth: _____	Social Security Number: _____
Important Medical Information: _____		

Write down where your family spends the most time: work, school and other places you frequent. Schools, daycare providers, workplaces and apartment buildings should all have site-specific emergency plans that you and your family need to know about.

### Work Location One

Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Evacuation Location: \_\_\_\_\_

### School Location One

Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Evacuation Location: \_\_\_\_\_

### Work Location Two

Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Evacuation Location: \_\_\_\_\_

### School Location Two

Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Evacuation Location: \_\_\_\_\_

### Other place you frequent

Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Evacuation Location: \_\_\_\_\_

### Other place you frequent

Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Evacuation Location: \_\_\_\_\_

Important Information	Name	Telephone Number	Policy Number
Doctor(s):			
Other:			
Pharmacist:			
Medical Insurance:			
Homeowners/Rental Insurance:			
Veterinarian/Kennel (for pets):			

Dial 911 for Emergencies



## Emergency Wallet Cards



Texas Department of State  
Health Services | TEXAS  
Health and Human  
Services

Make sure your family has a plan in case of an emergency. Fill out these cards and give one to each member of your family to make sure they know who to call and where to meet in case of an emergency.

**READY OR NOT? HAVE A PLAN**

ADDITIONAL IMPORTANT PHONE NUMBERS & INFORMATION

**Family Emergency Plan**

NEIGHBORHOOD EMERGENCY CONTACT:  
PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_

NEIGHBORHOOD MEETING PLACE:  
PHONE: \_\_\_\_\_

OUT-OF-TOWN EMERGENCY CONTACT:  
PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_

OUT-OF-TOWN MEETING PLACE:  
PHONE: \_\_\_\_\_

DIAL 911 FOR EMERGENCIES VISIT TEXASPREPARES.ORG

**READY OR NOT? HAVE A PLAN**

ADDITIONAL IMPORTANT PHONE NUMBERS & INFORMATION

**Family Emergency Plan**

NEIGHBORHOOD EMERGENCY CONTACT:  
PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_

NEIGHBORHOOD MEETING PLACE:  
PHONE: \_\_\_\_\_

OUT-OF-TOWN EMERGENCY CONTACT:  
PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_

OUT-OF-TOWN MEETING PLACE:  
PHONE: \_\_\_\_\_

DIAL 911 FOR EMERGENCIES VISIT TEXASPREPARES.ORG

**READY OR NOT? HAVE A PLAN**

ADDITIONAL IMPORTANT PHONE NUMBERS & INFORMATION

**Family Emergency Plan**

NEIGHBORHOOD EMERGENCY CONTACT:  
PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_

NEIGHBORHOOD MEETING PLACE:  
PHONE: \_\_\_\_\_

OUT-OF-TOWN EMERGENCY CONTACT:  
PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_

OUT-OF-TOWN MEETING PLACE:  
PHONE: \_\_\_\_\_

DIAL 911 FOR EMERGENCIES VISIT TEXASPREPARES.ORG

**READY OR NOT? HAVE A PLAN**

ADDITIONAL IMPORTANT PHONE NUMBERS & INFORMATION

**Family Emergency Plan**

NEIGHBORHOOD EMERGENCY CONTACT:  
PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_

NEIGHBORHOOD MEETING PLACE:  
PHONE: \_\_\_\_\_

OUT-OF-TOWN EMERGENCY CONTACT:  
PHONE: \_\_\_\_\_ CELL: \_\_\_\_\_

OUT-OF-TOWN MEETING PLACE:  
PHONE: \_\_\_\_\_

DIAL 911 FOR EMERGENCIES VISIT TEXASPREPARES.ORG

## 2<sup>nd</sup> Action: Build A Kit

1

- Create a Checklist of Essential Supplies

2

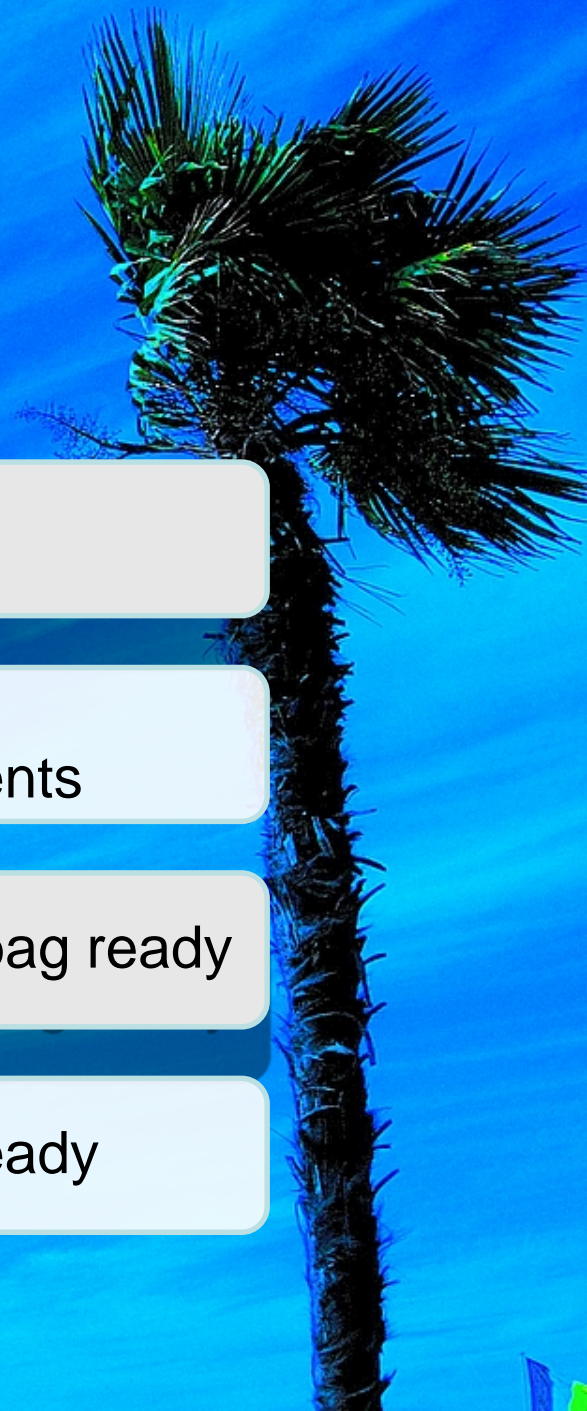
- Create a Checklist of Important Documents

3

- Have a “Disaster Supply Kit” container/bag ready

4.

- Have an “Emergency Document Bag” ready





Evacuation Materials:  
Disaster Supply Kit\*



- First aid Kit
- Bottled Water
- Food & Snacks
- Extra Changes of Clothing
- Medication (including prescription)
- Eyeglasses/hearing aids
- Portable medical equipment
- Radio (battery or crank)
- Pillows & Blankets
- Pet Supplies
- Flashlight
- Batteries

\* This list is not all-inclusive; your kit may differ.

# Evacuation Materials: Pet Evacuation Kit\*



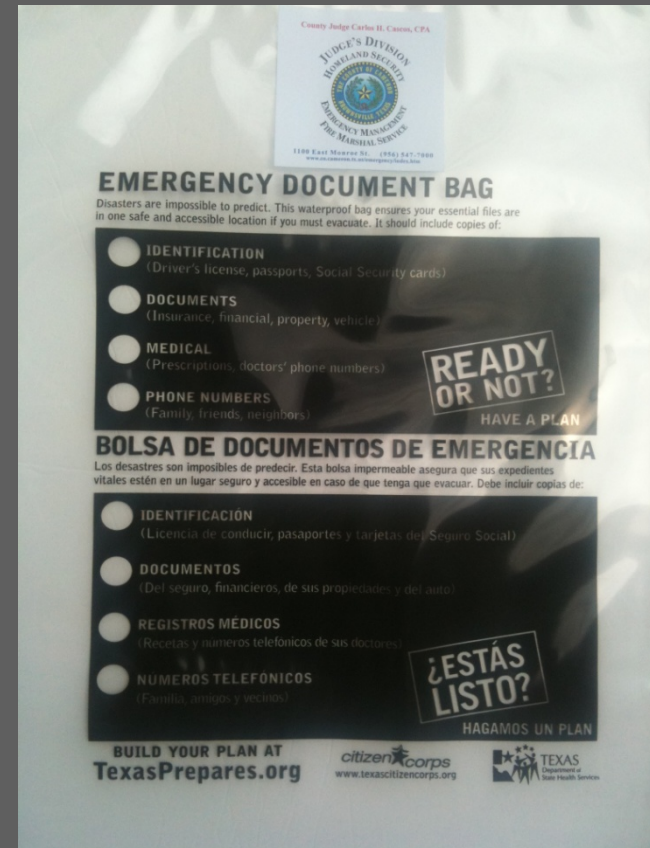
- Food
- Water
- Medicines
- First aid kit for pets
- Pet carrier
- Sanitation kit
- Picture with pet
- Familiar items (toys)

\* This list is not all-inclusive; your kit may differ.



# Evacuation Materials: Emergency Document Bag\*

- Identification
- Property Ownership Documents
- Medical documents
- Emergency Contacts
  - Establish a Point of Contact (POC) from outside of area
  - Share POC with loved ones



This list is not all-inclusive; your kit may differ.

# 3<sup>rd</sup> Action: Get Informed

1

- Know the types of possible disasters in your area

2

- Stay informed about the emergency/disaster

3

- Learn the Difference Between “Watch” vs. “Warning”

4.

- Have different sources of information (online, mobile phone weather app, television, radio, NOAA Weather Radio)



# Helpful Web sites & Mobile Apps

## Weather Information

- Web sites
  - [www.weather.gov/bro](http://www.weather.gov/bro)
  - [www.weather.gov/rgv](http://www.weather.gov/rgv)
  - [www.nhc.noaa.gov](http://www.nhc.noaa.gov)
- Mobile Apps (Apple & Android)
  - WeatherChannel
  - MyRadar
  - Weather Radio by WDT

## Preparedness Information

### Web sites

- [co.cameron.tx.us](http://co.cameron.tx.us)
- (>>administration>>emergency management)
- [www.texasprepares.org](http://www.texasprepares.org)
- [www.fema.gov](http://www.fema.gov)

### Mobile Apps (Apple & Android)

- FEMA
- Emergency: Alerts  
(American Red Cross)

# Emergency Notification System: \*Reverse 911 (**only** in Cameron County)

- When activated\* by local emergency officials, landline phones, which are automatically registered, would receive a recorded emergency notifications.
- Mobile phone owners (and email users) must subscribe manually:
  1. 855-879-1911
  2. [www.cameroncounty911.com](http://www.cameroncounty911.com)

\*

Because of the unforeseen nature of some emergencies, no one can fully guarantee that you will receive a notification every time. Please keep yourself informed by continuing to monitor other public safety warning and information systems (such as television and radio) whenever possible.





# Emergency Notification System:\*

## Other Jurisdictions

- CodeRED (McAllen & Weslaco)
- Everbridge (Pharr & San Juan)
- E-Dalgo/Everbridge (Hidalgo County)
- Blackboard MyConnect (Edinburg)

\* Because of the unforeseen nature of some emergencies, no one can fully guarantee that you will receive a notification every time. Please keep yourself informed by continuing to monitor other public safety warning and information systems (such as television and radio) whenever possible.

# Actions: Floods

1

- Know your flood zone (visit [www.floodsmart.gov](http://www.floodsmart.gov))

2

- Know your evacuation routes out of our neighborhood

3

- Avoid flooded roadways (Turn Around Don't Drown)

4

- Don't allow children TO play near high water, storm drains OR ditches

5

- Be especially cautious at night WHEN it IS harder TO recognize flood dangers

6

- Monitor NOAA Weather Radio OR your local media FOR vital weather related information

7

- Know the difference between flood watch (conditions are possible) vs. flood warning (conditions are expected)



**TURN AROUND DON'T DROWN**



07.26.2008 12:22



# Actions: Tornadoes

1

- If indoors, shelter in the inner-most room

2

- Get away windows and stay low

3

- Put on shoes and a helmet

4

- Keep pets with you on a leash or in a carrier

5

- Don't leave your home\* and try to drive away

6

- Know the difference between tornado watch (conditions are possible) vs. tornado warning (conditions are expected)

7

- If on the road, seek shelter BUT NEVER under an overpass; if not, find a ditch and get down

\*

**If you are in a mobile home, you are not safe to be there.**



# Actions: Hurricanes

1

- Know the category level of tropical cyclones

2

- Know the evacuation zones and evacuation routes

3

- Listen to local officials for evacuation orders

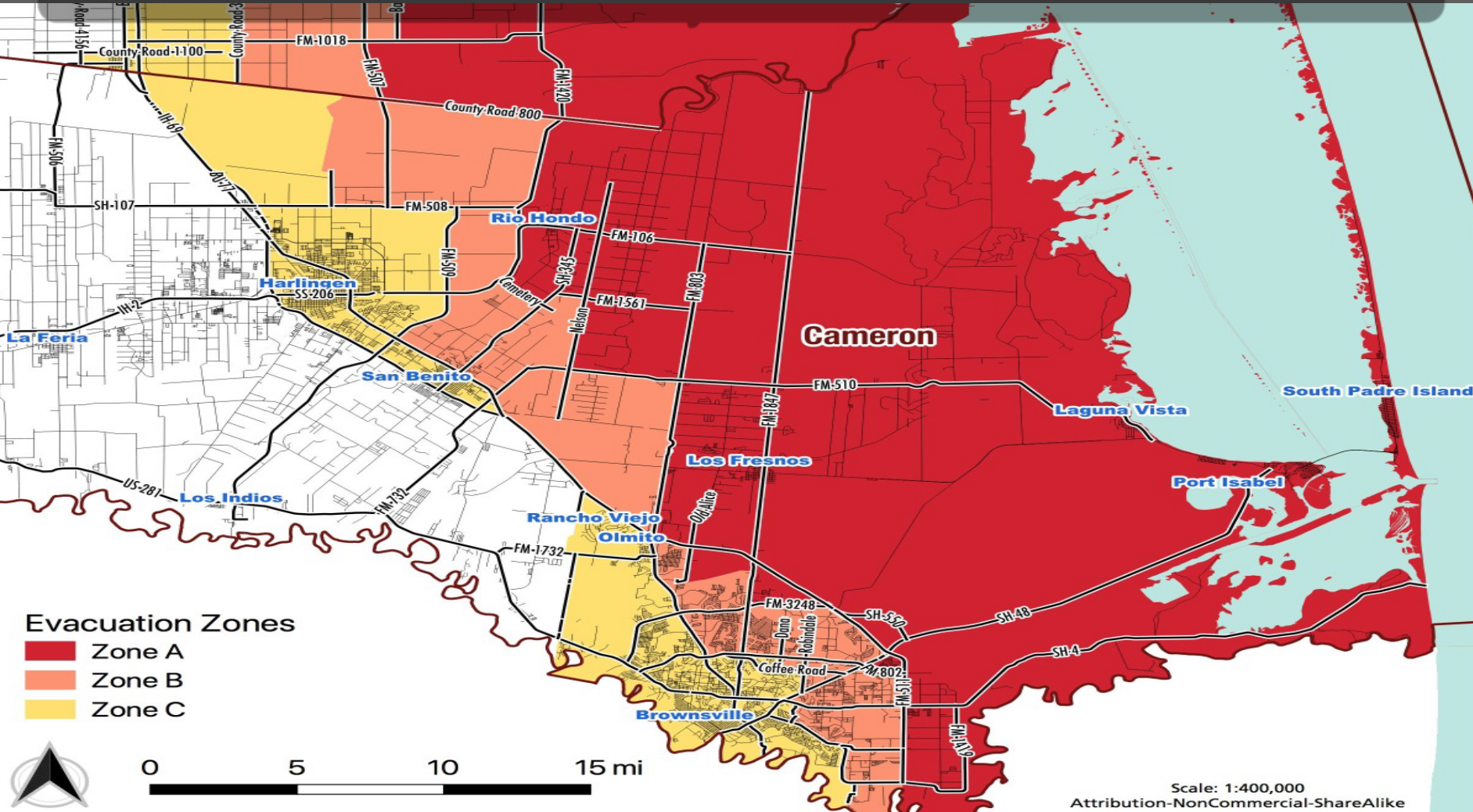
4

- Before evacuating, arrange for sheltering at destination

5

- Know the difference between a hurricane watch and a hurricane warning

# Cameron County Evacuation Zones



## Evacuation Zones in Cameron & Willacy Counties

The evacuation map for Cameron and Willacy Counties was developed by Emergency Management and Public Safety officials as part of the Valley Area Hurricane Evacuation Study with the assistance of the Texas A&M Transportation Institute and Texas A&M Hazard Reduction & Recovery Center. February, 2016.

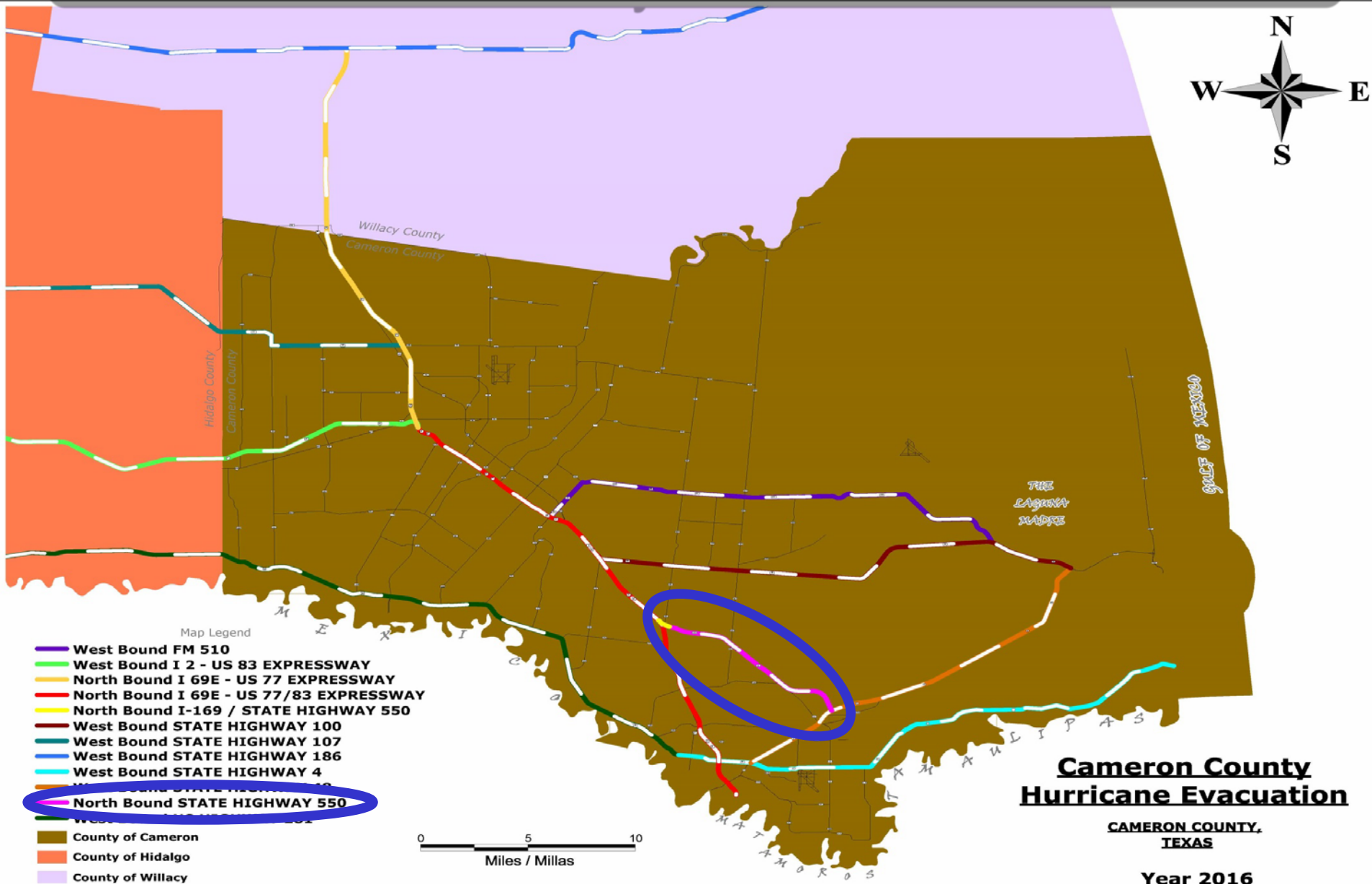
Please note: considering the vulnerable nature of manufactured (mobile) homes for all levels of hurricane winds, it is strongly recommended that all manufactured (mobile) home residents in Willacy and Cameron Counties evacuate and seek safer shelters regardless of their locations whenever voluntary or mandatory evacuations are declared for these counties.

[http://texasatlas.arch.tamu.edu/fv/rgv\\_hes/](http://texasatlas.arch.tamu.edu/fv/rgv_hes/)

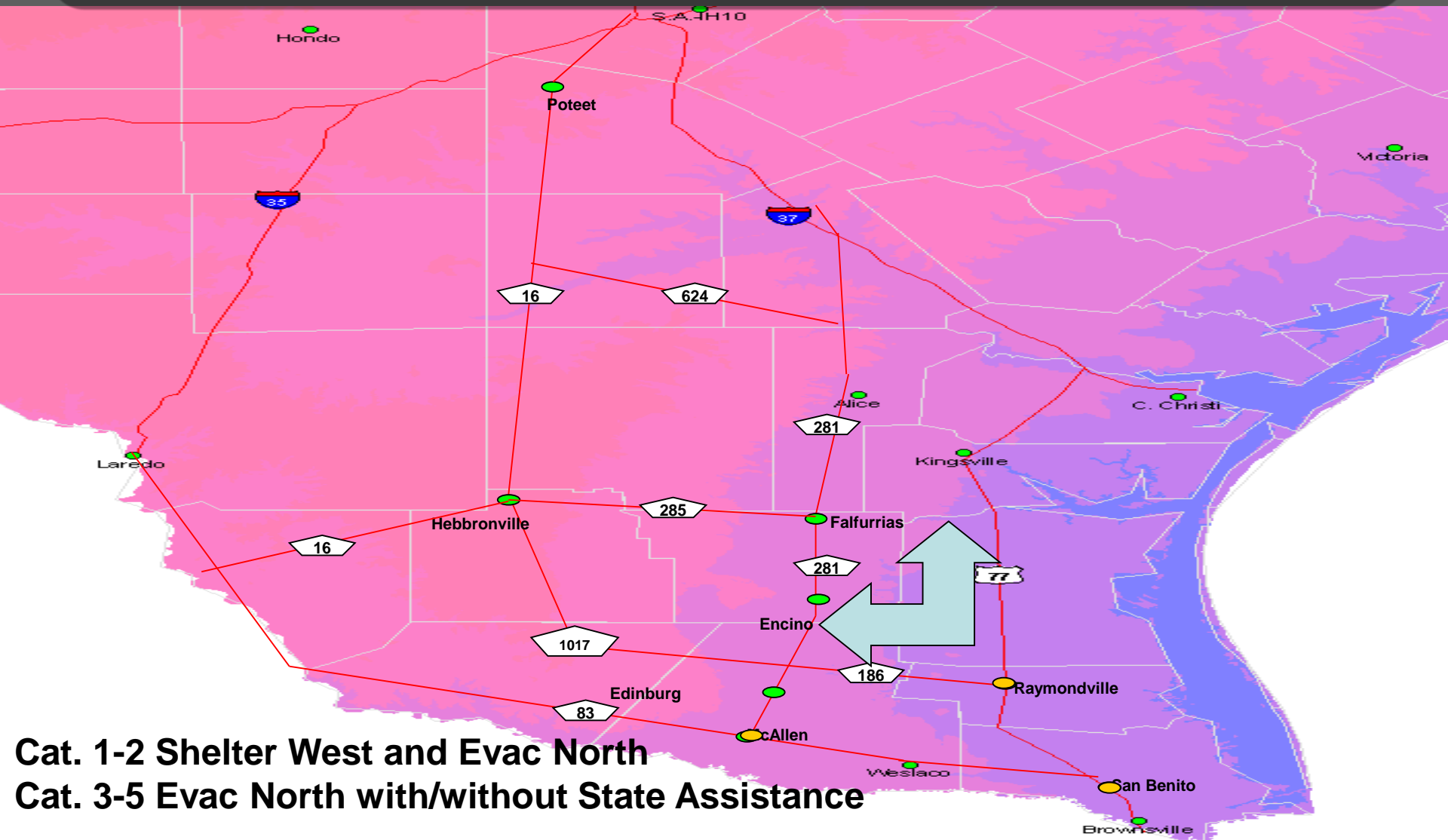
Attribution-NonCommercial-ShareAlike



# Cameron County Evacuation Routes

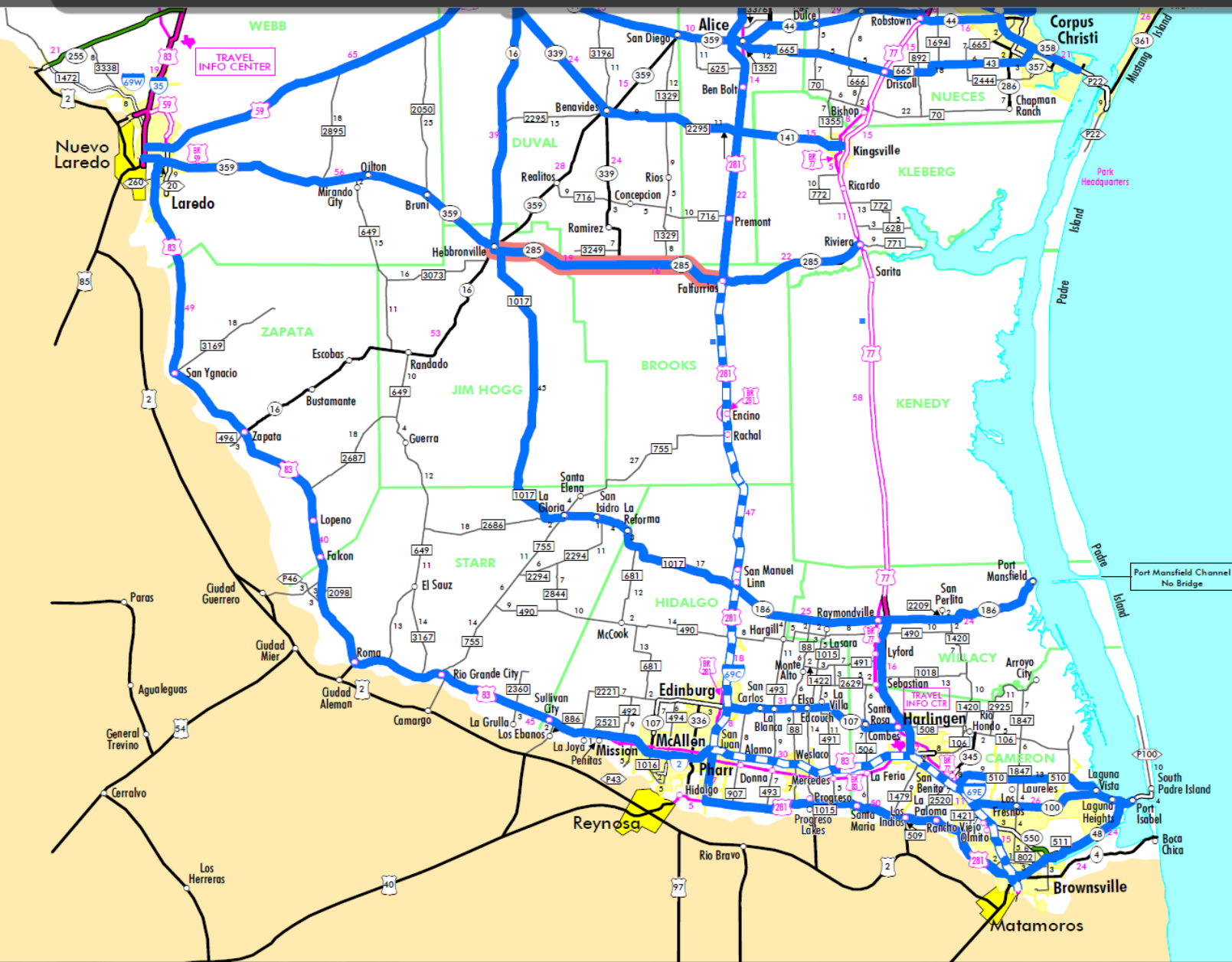


# “Catastrophic Hurricane” Evacuation Direction: North and West

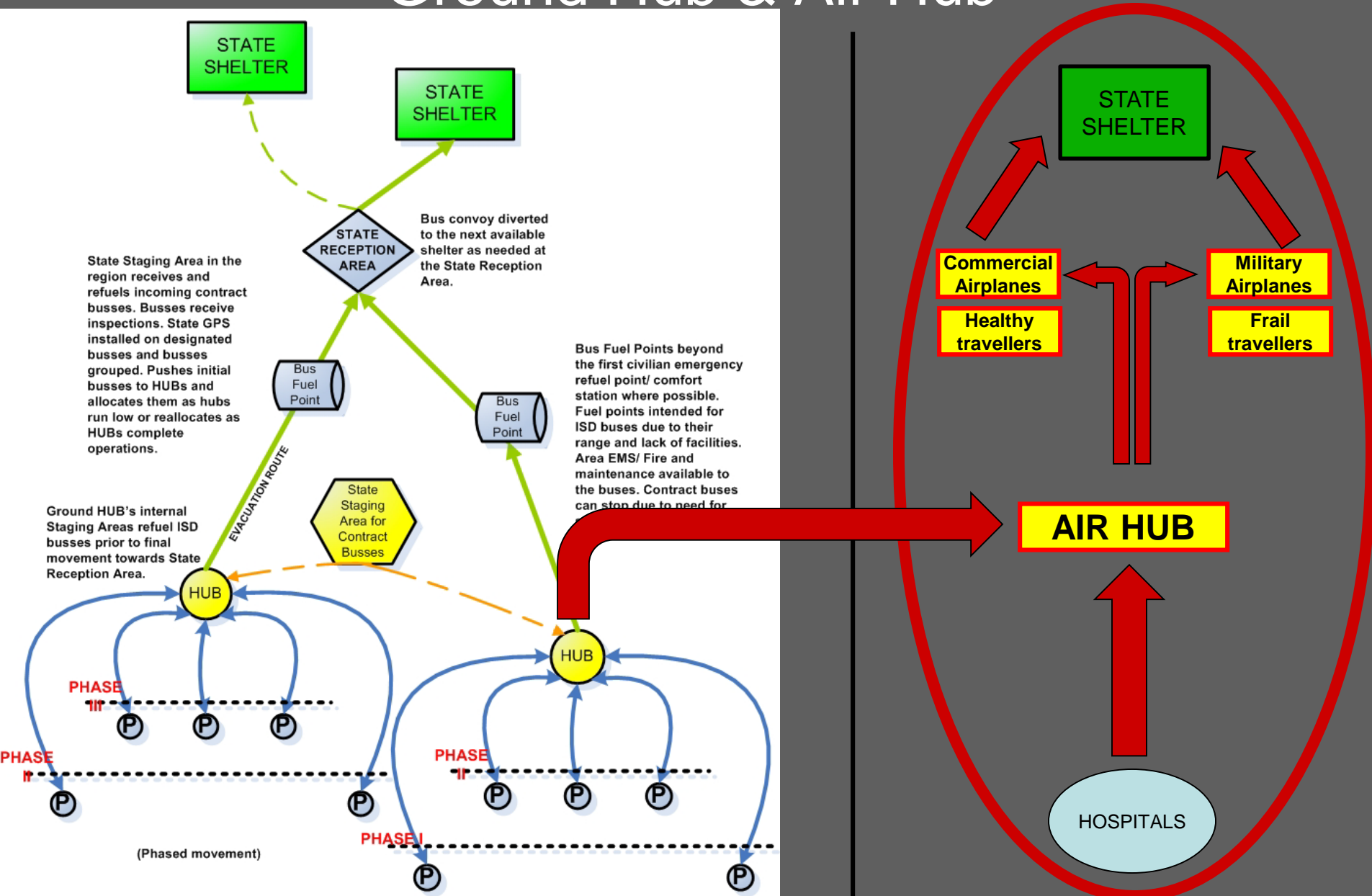




## State/Regional Evacuation Routes



# “Catastrophic Hurricane” Assisted Evacuation : Ground Hub & Air Hub





# Evacuation Transportation Registration: S.T.E.A.R. (211) \*

- Residents needing help to evacuate the area can take advantage of government-assisted transportation.
- The registration totals allows stakeholders to order up transportation assets from the State (e.g. buses, bus drivers, aircraft, military personnel, & sheltering space).

\*Residents need to update registration info annually.

## RESERVE YOUR *RIDE TO SAFETY* IN ADVANCE -- CALL 2-1-1

If you live in a hurricane evacuation zone and you will need assistance to get out before the storm, dial 2-1-1 to register in advance for a ride.

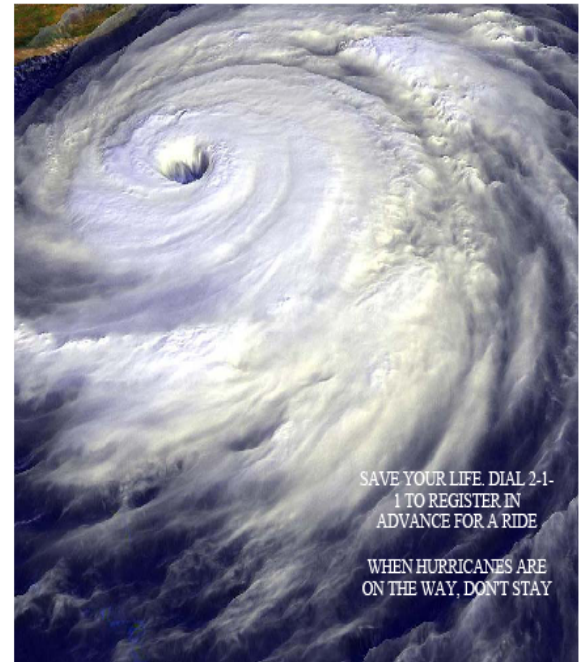
### Dial 2-1-1:

- If you have a disability or special health care need and require assistance to get out.

- If you cannot drive and cannot arrange transportation.

- If you do not have a vehicle and you have no one else to help you evacuate.

- If you want to register and you need to check if you live in an evacuation zone.



CAMERON COUNTY JUDGE'S  
DIVISION OF EMERGENCY MANAGEMENT



GOVERNOR'S DIVISION OF  
EMERGENCY MANAGEMENT

# Self-Evacuation versus Assisted Evacuation\*

Self-Evacuation	Factors to Consider	Assisted* Evacuation (2-1-1 Registry)
You decide	Departure Time	As early as 72-hours prior to arrival of hurricane-force winds
You decide	Destination	Outside of County
You decide	Transportation	bus/ambulance bus
You decide	Lodging	Shelter

- \*Residents needing transportation assistance should register with 2-1-1. In turn, county/cities will have access to this registry. At time of evacuation process, residents without specialized transportation needs will report to one of the many pick up points.
- \*County/Cities will reach out to those with non-ambulatory needs (bed-bound) to ask if they still need assistance. State assets will be used to pick up these evacuees.
- \*If non-ambulatory evacuees (bed-bound) do not take advantage of state transportation at the time they are offered, then such evacuees may have to call 9-1-1 for assistance as state transportation services may not be available.





[www.co.cameron.tx.us](http://www.co.cameron.tx.us)

(Administration>>Emergency Management)

Hurricane  
Preparedness  
Brochure

Personal  
Disaster  
Preparedness  
Videos

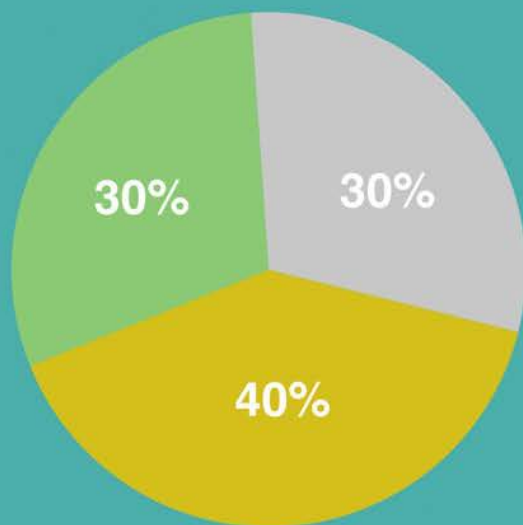
Hurricane  
Evacuation  
Zones &  
Routes

Emergency  
Preparedness  
Tips  
(FEMA)

Cameron  
County  
Reverse 911  
Self-  
Registration  
Portal for  
Mobile Phones



# 2019 Atlantic Ocean Hurricane Season Outlook



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

Season probability

Named storms  
9-15

Hurricanes  
4-8

Major hurricanes  
2-4

Be prepared: Visit [hurricanes.gov](http://hurricanes.gov) and follow @NWS and @NHC\_Atlantic on Twitter.

May 23, 2019

**Cameron County Emergency Management & Fire Marshal Service**

[http://www.co.cameron.tx.us/administration/emergency\\_management/index.php](http://www.co.cameron.tx.us/administration/emergency_management/index.php)







# 2019 Atlantic Ocean Tropical Cyclone Names



~~Andrea~~

Barry

Chantal

Dorian

Erin

Fernand

Gabrielle

Humberto

Imelda

Jerry

Karen

Lorenzo

Melissa

Nestor

Olga

Pablo

Rebekah

Sebastien

Tanya

Van

Wendy



# Atlantic Ocean Hurricane Season\*

(from the Texas Coast to the Maine Coast)

	Annual Average (2008- 2015)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Tropical Storms (winds 39 MPH or more)	14.6	16	9	19	19	19	13	8	11  (forecasted 6-11)	15  (forecasted 10-16)	17  (forecasted 11-17)	15  (forecasted 10-16)	?  (forecasted 9-15)
Hurricanes (winds 74 MPH or more)	7	8	3	12	7	10	2	6	4  (forecasted 3-6)	7  (forecasted 4-8)	10  (forecasted 5-9)	8  (forecasted 5-9)	?  (forecasted 4-8)
Major Hurricanes (winds 111 MPH or more)	3.1	5	2	5	4	2	0	2	2  (forecasted 0-2)	4  (forecasted 4-8)	6  (forecasted2 -4)	2  (forecasted 1-4)	?  (forecasted 2-4)

\*??% Probability of a near-normal tropical cyclone season

\*??% Probability that the number of tropical cyclones above will occur

\*SOURCE: National Ocean and Atmospheric Administration

\*\*SOURCE: Colorado State University





**For the sake of my family, I will personally commit myself to be better prepared for disasters.**

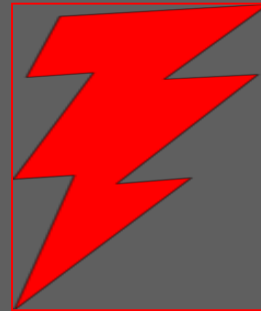
A.  
YES

B.  
NO



# Cameron County Judge's Office

## Division of Emergency Management



Nathan Flores

- Emergency Management Planner



Office: [956.547.7000](tel:956.547.7000)

Web Site: [http://co.cameron.tx.us/administration/emergency\\_management/index.php](http://co.cameron.tx.us/administration/emergency_management/index.php)

Facebook: [cameroncountyem](https://www.facebook.com/cameroncountyem)

Twitter & Instagram: [cameron\\_county](https://twitter.com/cameron_county)

Reverse 911: [855-879-1911](tel:855-879-1911)

[cameroncounty911.org](http://cameroncounty911.org)

# Cameron County Judge's Office

## Division of Emergency Management



Nathan Flores, E.M. Planner  
Office: 956-547-7000  
[nat.flores@co.cameron.tx.us](mailto:nat.flores@co.cameron.tx.us)

Web site: [www.co.cameron.tx.us](http://www.co.cameron.tx.us)

Facebook: [cameroncountyem](https://www.facebook.com/cameroncountyem)

Twitter/Instagram: [cameron\\_county](https://twitter.com/cameron_county)

Reverse 911: 855-979-1911

[cameroncounty911.com](http://cameroncounty911.com)