

# 17 Days with Harvey

Catastrophic Medical Operations Center



# Who We Are

- 501(C3) non-profit, tax-exempt organization
- The organized under 1989 Omnibus Rural Health Care Rescue Act.
- SETRAC is one of 22 Regional Advisory Councils (RAC) currently functioning within the State of Texas.



# Simple Definition of a Coalition:

1. A group of people, groups, or countries who have joined together for a common purpose
2. The action or process of joining together with another or others for a common purpose

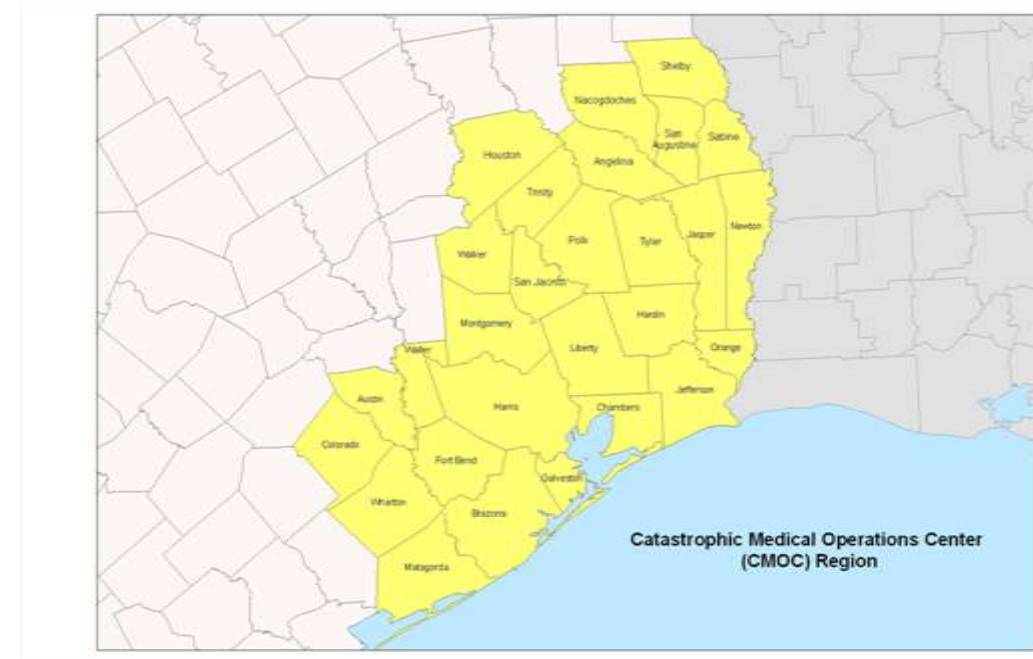


# Regional Healthcare Preparedness Coalition

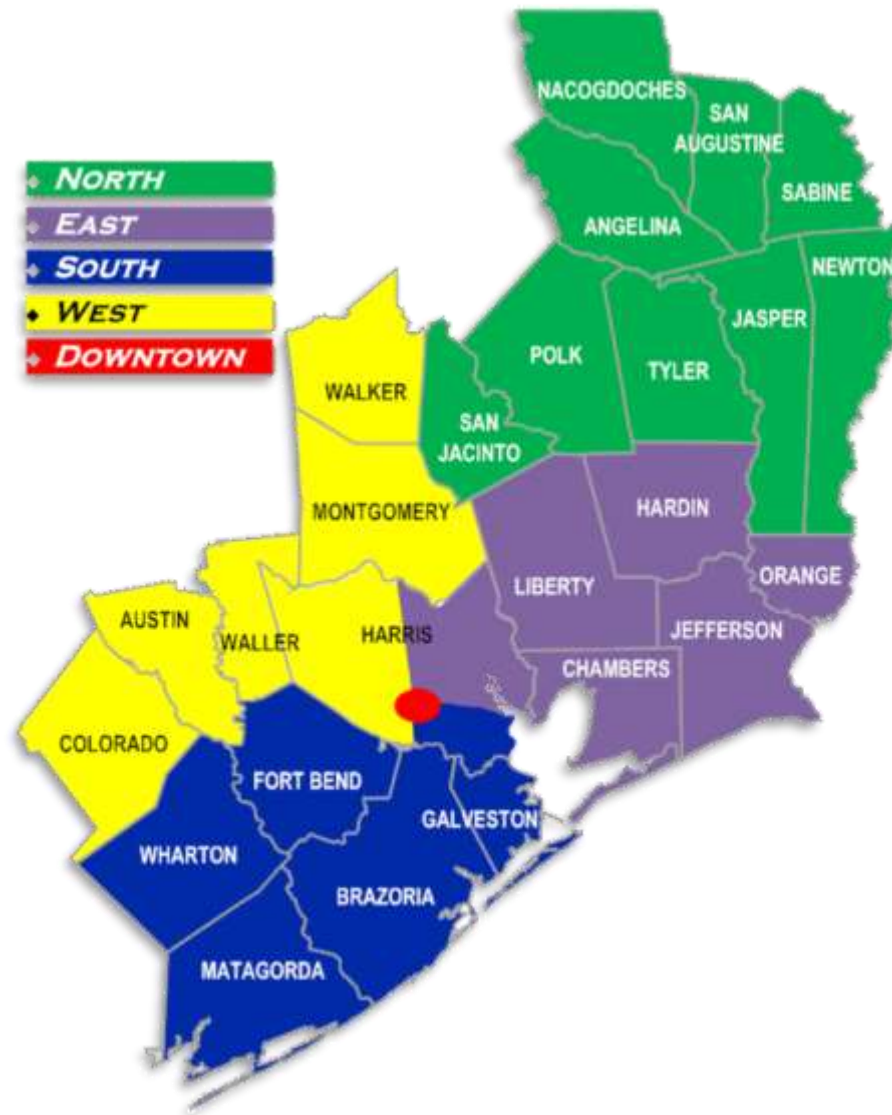


# Our Coalition Region

- 25 Counties
- 277 cities
- 9.3 Million\* (36%)
- 877,000/disabilities\* (24%)
- 180 hospitals
- 900+ nursing homes
- TSA Q, R, H



# Corridor Map



# Regional Healthcare Preparedness Coalition



## Catastrophic Medical Operations Center



# Catastrophic Medical Operation Center





# Tropical Storm Allison - June 2001

30-40" rainfall over 5 days

Loss of 3000 acute care beds and 500 ICU beds overnight



# Hurricanes Katrina and Rita - August 2005

- Katrina
  - Transportation and transfer of 1100 patients into healthcare facilities during Hurricane Katrina
- Rita
  - 29 healthcare facilities evacuated during Hurricane Rita
  - 121 Nursing Home evacuations during Hurricane Rita
  - Coordination of 34 Counties and 2 States
  - Transportation and transfer of an additional 2400+ patients into healthcare settings
  - Hospital diversion rate = 0%
  - Post event QA – 0.08% error rate



# Hurricane Ike - 2008

- Evacuation and repatriation of 56 hospitals
- Evacuation and repatriation of 220 nursing homes
- Transportation and transfer of 15,000+ individuals
- Oxygen Strike Teams
- Ambulance Staging
- Dialysis and Medical Special Needs Transport circuit
- 4 Forward Coordinating Units





# Orange Flooding March 13-19, 2016



# Houston Tax Day Flooding April 2016



# Hurricane Harvey - 2017



# By The Numbers...

- Harvey dumped more than 27 trillion gallons of rain over Texas.
- 19 trillion gallons of rain is comparable to 1 inch of water covering the entire states of Alaska, California, and Texas.
- One third of Houston completely flooded and the weight of the water sank the city temporarily by two centimeters.



# By The Numbers...

3,643 square miles > 40 inches of rain  
(Connecticut)

11,492 square miles > 30 inches of rain  
(Maryland)

28,949 square miles > 20 inches of rain  
(South Carolina)

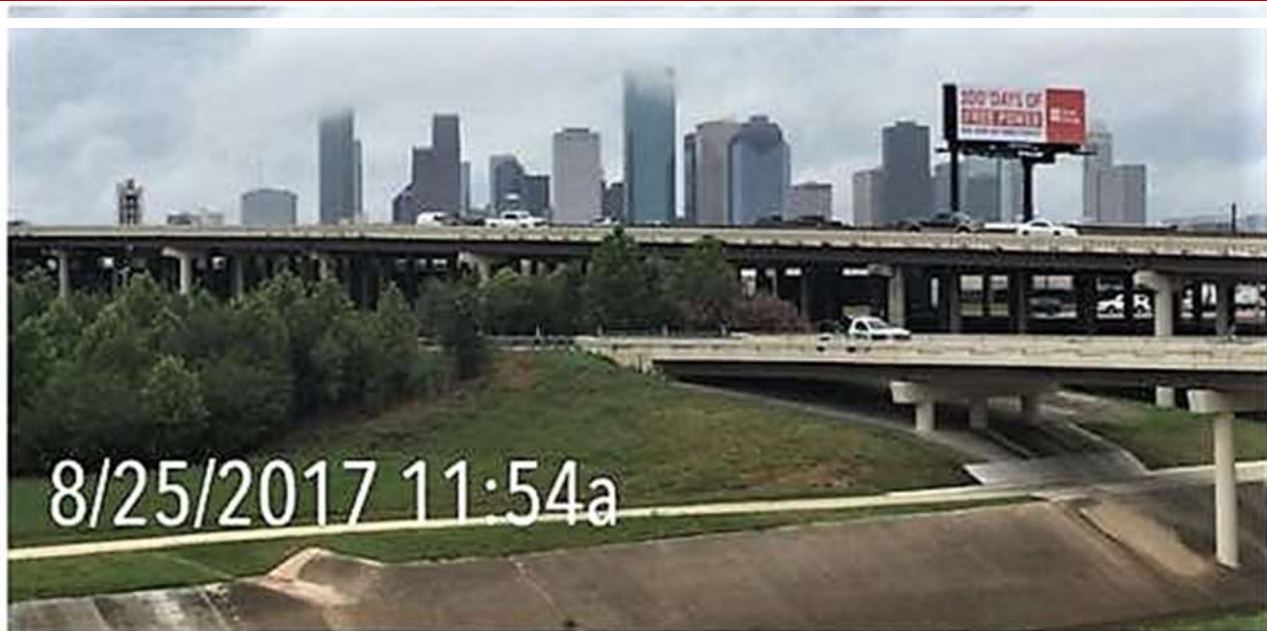




- Contaminated flood waters
- Chemical plant explosion x 2
- Two reservoirs breached
- 57 tornadoes.











FROM GOOGLE MAPS/COURTESY LOGAN WHEAT



# CMOC Operations

8:00am 8/25/2017 – 3:00pm 9/9/2017

CMOC Level 3 Activation > Level 1 Activation

Ambulance Staging Areas

Air Operations

Daily Healthcare Calls



# Patient Movement and Coordination

Total Patient movement: 1544

Patient Movement Missions: 773

Hospitals Evacuated: 24

Nursing Homes/ALC evacuated: 20





# Situational Awareness

State Coordination Calls

Daily Hospital/NH Calls

CMOC 214

WebEOC

EMResource

Field Liaisons







# Additional Considerations

Search and Rescue

Medical Transfers for HLC

Mass Fatality

Dialysis

Mental Health

3-1-1/9-1-1 Support

Medical Support for Shelters

Loss of Water Stations

Live Electrical Currents





# Lessons Learned

Coordinating entity with SME's

TDMS

Communication and situational awareness

Relationship building

Technology adjuncts





# Money and Participation

- Regional Perspective:
  - Sharing is good
  - Taking advantage of as much free stuff as possible
  - Sustainment is priority
  - Standardization when possible
  - Investment in personnel vs “stuff”
  - Participation = Points

**2013**  
**The last year we**  
**provided**  
**“Hospital**  
**Allocations”**  
**directly to the**  
**facilities.**



# Mandates and Participation

- Participation Requirements:
  - Regionally sponsored functional exercises and trainings
  - Monthly drills
  - Staffing of Medical Operations Center
  - Participating Agreements
  - Corridor meetings
- Everyone has a role
  - Surge, Receiving, Support





# Internal Motivators

- Self-Drive:
  - Best Practices
  - Finding a range of solutions to problems
  - Making a difference
  - “The right thing to do”
- Value:
  - Size DOESN'T matter
  - Safety Net
- Collaboration:
  - Neighbors Helping Neighbors Philosophy
  - Becoming Part of a Community
  - Patient is at Center of Actions





# External Motivators

- Preparedness “Report Cards”
- CEO “Thank You” Letters
- Excellence in Preparedness Award
- Points = Opportunity for funding
- Leadership Opportunities
- Preparedness Symposium



# High Performing Coalitions

“A state of mindful attention among a group of actors that evolves from common training, intense communication, and a distinct culture derived from shared experience....”

“Developing these auto-adaptive systems... depend fundamentally on their access to timely, valid information and their ability to engage in information search, exchange, absorption, and adaptation.”

Louise Comfort:  
Auto-adaptive systems

# Thank You

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