

Operation Thunderstruck



Operation Thunderstruck Tabletop Exercise After Action Report (AAR) /Improvement Plan (IP)

March 2020

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EXERCISE OVERVIEW

Exercise Name	Thunderstruck Tabletop Exercises (Multiple Corridors)
Exercise Dates	January 2020 – March 2020
Scope	The 2020 RHPC CMOC Exercise series, named <i>Thunderstruck</i> was a multiple-agency, multiple-site incidents designed to exercise and assess the capability of the coalition region to respond in a coordinated effort to a region wide severe weather outbreak.
Purpose	The purpose of this exercise was to provide participants with an opportunity to evaluate current first receiving concepts, plans, and capabilities related to a severe weather outbreak. The exercise focused on coordination and continuity of operations.
Capabilities	<ul style="list-style-type: none"> • HPP Capability 2: Health Care and Medical Response Coordination • HPP Capability 3: Continuity of Health Care Service Delivery
Objectives	<ul style="list-style-type: none"> • Identify the role of the National Weather Service (NWS) and base decisions off of information provided. • Assess the ability of the Coalition to utilize a whole community approach to meet the growing healthcare demands.
Threat or Hazard	Severe Weather Outbreak
Scenario	A powerful storm system is forecasted to bring severe weather and heavy precipitation across Southeast Texas over the next 72 hours. It is expected that we will see a significant severe weather outbreak which could include long track and dangerous tornadoes and extensive flooding. The possibility of rolling power outages, utility and other infrastructure systems failing exists
Sponsor	Southeast Texas Regional Advisory Council (SETRAC) Regional Healthcare Preparedness Coalition (RHPC), Assistant Secretary of Preparedness and Response (ASPR).
Participating Organizations	Multiple Hospitals, EMS services, Public Agencies, and Private Partners. A complete list is included in Appendix F.
Point of Contact	John Wingate SETRAC 1111 North Loop West, Suite 160 Houston, TX 77008 (281) 822-4439 Email: john.wingate@setrac.org

SCENARIO OVERVIEW

Scenario

Region-wide severe weather with strong winds, flooding, and tornadoes.

A powerful storm system is forecasted to bring severe weather and heavy precipitation across Southeast Texas over the next 72 hours. It is expected that we will see a significant severe weather outbreak which could include long track and dangerous tornadoes and extensive flooding.

The possibility of rolling power outages, utility and other infrastructure systems failing exists.

SETRAC partnered with multiple local Emergency Managers as well as the National Weather Service from Houston/Galveston Texas, Shreveport, and Lake Charles Louisiana to develop a realistic scenario and to deliver the injects during the individual exercises. Several weather forecast injects and videos were developed by local television stations, Emergency Managers, and the National Weather Service to highlight the threat and add realism for the exercise.

ANALYSIS OF CORE CAPABILITIES

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned core capabilities, and performance ratings for each core capability as observed during the exercise and determined by the evaluation team.

Objective	HPP Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Identify the role of the National Weather Service (NWS) and base decisions off of information provided.	Health Care and Medical Response Coordination		X		
Assess the ability of the Coalition to utilize a whole community approach to meet the growing healthcare demands.	Continuity of Health Care Service Delivery		X		

Table 1. Summary of Core Capability Performance

Ratings Definitions:

Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.

Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s).

The following sections provide an overview of the performance related to each exercise objective and associated core capability, highlighting strengths and areas for improvement.

OBJECTIVE 1:

Identify the role of the National Weather Service (NWS) and base decisions off of information provided.

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

HPP Capability 2: Health Care and Medical Response Coordination

Strengths

The *partial* capability level can be attributed to the following strengths:

Strength 1: Communications; The current coordination between many facilities and agencies with the National Weather Service has led to early planning for a weather-related situation or disaster situations.

Strength 2: Regional Coordination; the coordination of multiple response partners would enable the region to better respond and coordinate resource movement in an efficient manner during a large-scale incident.

Strength 3: Community Coordination; coordination with local partners in the time of an emergency greatly enhances the capability of an agency or facility to develop a faster and more coordinated response to an incident.

Strength 4: Notification Technologies; The access to and use of technologies such as EMResource, WebEOC, and EMTrack permit a rapid sharing of information amongst all partners and thus allowing better coordination in the time of an emergency.

Areas for Improvement

The following areas require improvement to achieve the *full* capability level:

Area for Improvement 1: Resource Availability

Analysis: With multiple healthcare facilities in the region requiring many of the same resources, coupled with the limited number of vendors with multiple agreements for the same resources, there will be extreme shortages of needed resources and supplies, look to alternate vendors and network with similar agencies to set up MOA's/MOU's.

Area for Improvement 2: Staffing

Analysis: It has been identified that many staff members may have other jobs who would have priority over their availability in the time of an emergency, causing a short fall in staff availability or reliability.

Area for Improvement 3: Communications

Analysis: Communications with staff and other response personnel can be a major shortfall during a large-scale incident. Establishing and updating methods of communication throughout an emergency situation is paramount.

OBJECTIVE 2:

Assess the ability of the Coalition to utilize a whole community approach to meet the growing healthcare demands.

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

HPP Capability 3: Continuity of Health Care Service Delivery

Strengths

The *partial* capability level can be attributed to the following strengths:

Strength 1: Planning; Identification of Shelter-In-Place or Evacuation procedures were discussed early on and involved the activation of these mentioned plans for possible activation.

Strength 2: Community Coordination; coordination with local partners in the time of an emergency greatly enhances the capability of an agency or facility to develop a faster and more coordinated response to an incident.

Areas for Improvement

The following areas require improvement to achieve the *full* capability level:

Area for Improvement 1: Home Care patients emergency care packets and diets.

Analysis: It was identified that not all Home Care patients had their recommended Emergency Packets which includes pertinent medical information and diets available. Furthermore, several individuals also did not have a recommended seven-day availability of food.

Area for Improvement 2: Alternate Care Sites

Analysis: Alternate Care Site identification; pre-identify and establish agreements for at least three (3) Alternate Care Sites capable of holding patients and staff for emergency situations.

Area for Improvement 3: Regional Coordination

Analysis: Regional Coordination; the coordination of multiple response partners would enable the region to better respond and coordinate resource movement in an efficient manner during a large-scale incident.

Area for Improvement 4: Critical Transportation Resources

Analysis: Transportation resources were estimated not to be sufficient or capable of performing the necessary movement in the event of a disaster or other emergency. Ensuring overlapping MOA's for transportation resources will add a back-up where some primary resources may not be immediately available.

Appendix A: IMPROVEMENT PLAN (EAST CORRIDOR)

This IP has been developed specifically for SETRAC as a result of Operation Thunderstruck conducted between January and March 2020

Objective	HPP Capability	Issue/Area for Improvement	Corrective Action	Capability Element	Primary Responsible Organization	Start Date	Completion Date
Objective 1: Identify the role of the National Weather Service (NWS) and base decisions off of information provided.	HPP Capability 2: Health Care and Medical Response Coordination	Resource Availability	Identify additional vendors to include those who are located outside of the region, also identify any potential needs for additional transportation for these resources.	Planning	Each individual agency/facility	5/1/2020	On-going
		Staffing	Ensure early and on-going communications/coordination with staff and their availability during emergency situations, also further coordination with partners and staffing agencies outside of the local area.	Planning	Each individual facility/agency	5/1/2020	Ongoing
Objective 2: Assess the ability of the Coalition to utilize a whole community approach to meet the growing healthcare demands.	HPP Capability 3: Continuity of Health Care Service Delivery	Alternate Care Locations	Alternate Care Site identification; pre-identify and establish agreements for at least three (3) Alternate Care Sites capable of holding patients and staff for emergency situations.	Training	Each individual facility/agency in coordination with SETRAC	5/1/2020	On-going

Appendix B: IMPROVEMENT PLAN (WEST CORRIDOR)

This IP has been developed specifically for SETRAC as a result of Operation Thunderstruck conducted between January and March 2020

Objective	HPP Capability	Issue/Area for Improvement	Corrective Action	Capability Element	Primary Responsible Organization	Start Date	Completion Date
Objective 1: Identify the role of the National Weather Service (NWS) and base decisions off of information provided.	HPP Capability 2: Health Care and Medical Response Coordination	Communications	Identify back up communication capabilities and test these procedures on a regular basis, include external partners in this process.	Planning	Each individual agency/facility	5/1/2020	On-going
		Staffing	Ensure early and on-going communications/coordination with staff and their availability during emergency situations, also further coordination with partners and staffing agencies outside of the local area.	Planning	Each individual facility/agency	5/1/2020	On-going
Objective 2: Assess the ability of the Coalition to utilize a whole community approach to meet the growing healthcare demands.	HPP Capability 3: Continuity of Health Care Service Delivery	Home Care Patients Emergency Care packets and diets	Review and update Home Care patients Emergency Packets. (Pertinent medical information and diets).	Planning	Each individual facility/agency	5/1/2020	On-going

Appendix C: IMPROVEMENT PLAN (NORTH CORRIDOR)

This IP has been developed specifically for SETRAC as a result of Operation Thunderstruck conducted between January and March 2020

Objective	HPP Capability	Issue/Area for Improvement	Corrective Action	Capability Element	Primary Responsible Organization	Start Date	Completion Date
Objective 1: Identify the role of the National Weather Service (NWS) and base decisions off of information provided.	HPP Capability 2: Health Care and Medical Response Coordination	Regional Coordination	Identify response partners, including the local NWS understand their roles and include in all future training and exercise opportunities.	Planning	Each individual agency/facility	6/1/2019	On-going
		Communications	Identify back up communication capabilities and test these procedures on a regular basis, include external partners in this process.	Training/Planning	Each individual facility/agency	6/1/2019	On-going

Appendix D: IMPROVEMENT PLAN (SOUTH CORRIDOR)

This IP has been developed specifically for SETRAC as a result of Operation Thunderstruck conducted between January and March 2020

Objective	HPP Capability	Issue/Area for Improvement	Corrective Action	Capability Element	Primary Responsible Organization	Start Date	Completion Date
Objective 1: Identify the role of the National Weather Service (NWS) and base decisions off of information provided.	HPP Capability 2: Health Care and Medical Response Coordination	Access to EMResource and proper utilization of the platform	EMResource is available for hospitals and EMS agencies training is required to keep up to date with changes, proper utilization, and platform usage. EMResource is now available for Long Term Care facilities or agencies, further incorporation of the facilities and agencies will allow for a better region-wide coordination.	Planning	Each individual agency/facility	5/1/2020	On-going
		Regional Coordination	Identify response partners, including the local NWS understand their roles and include in all future training and exercise opportunities.	Planning	Each individual facility/agency	5/1/2020	On-going
Objective 2: Assess the ability of the Coalition to utilize a whole community approach to meet the growing healthcare demands.	HPP Capability 3: Continuity of Health Care Service Delivery	Regional Coordination	Increase engagement and maintain relationships of various healthcare and emergency management partners through individual contacts, in addition to establishing backup Memorandum of Agreements (MOA's) within the community for patient care.	Planning	Each individual facility/agency in coordination with SETRAC	5/1/2020	On-going

Appendix E: IMPROVEMENT PLAN (DOWNTOWN CORRIDOR)

This IP has been developed specifically for SETRAC as a result of Operation Thunderstruck conducted between January and March 2020

Objective	HPP Capability	Issue/Area for Improvement	Corrective Action	Capability Element	Primary Responsible Organization	Start Date	Completion Date
Objective 1: Identify the role of the National Weather Service (NWS) and base decisions off of information provided.	HPP Capability 2: Health Care and Medical Response Coordination	Availability of Resources	Identify additional vendors to include those who are located outside of the region, also identify any potential needs for additional transportation for these resources.	Planning	Each individual agency/facility	5/1/2020	On-going
		Staffing	Ensure early and on-going communications/coordination with staff and their availability during emergency situations, also further coordination with partners and staffing agencies outside of the local area.	Planning	Each individual facility/agency	5/1/2020	On-going
Objective 2: Assess the ability of the Coalition to utilize a whole community approach to meet the growing healthcare demands.	HPP Capability 3: Continuity of Health Care Service Delivery	Critical Transportation Resources	Ensuring overlapping MOA's for transportation resources will add a back-up where some primary resources may not be immediately available.	Planning	Each individual facility/agency	5/1/2020	On-going

Appendix F: EXERCISE PARTICIPANTS

Agency Name
SETRAC
Beacon Home Health Agency
Garden Terrace
UT Health ACPC
MD Anderson
National Weather Service Houston/Galveston
Ben Taub
Harris Health System
River Oaks Hospital and Clinics
Behavioral Hospital of Bellaire
HCIFS
Memorial Hermann Southwest
Parkview Manor Nursing
Texas Children's Hospital
Option Care Women's Health
LBJ Hospital
Agency Rehab Care
Simplex Health and Allied
Border RAC
Rosary Home Health Inc.

Signature Care ER
Golf Coast Regional Blood Center
HCA Health Inc Women's
Nations Pioneer
World Health Services
Houston Health Dept
Vitas Hospice
Kindred Hospital Houston Medical Center
Memorial Hermann Orthopedic & Spine Hospital
Texas Department of State Health Services
West Wynde
Memorial Hermann Greater Heights
Houston Methodist TMC
BHB
Garden Villa
Vitas Healthcare
Lufkin State Supported Living Center
City of Lufkin
MRC Pinecrest
Burke
Hospice in the Pines
PHI

National Weather Service Shreveport LA.
Allegiance
Summit Nursing
Advantage Plus
Sabine County EMS
Sabine County Hospital
Lufkin Fire Dept
Nacogdoches Medical Center
A Piney Woods Home Health
Castle Pines
Hemphill Care Center
JNS OEM (Jasper Newton Sabine)
CHI St Luke's Lufkin
Kamcare
Nacogdoches Memorial Hospital
Angelina County OEM
Angelina County and City Health District
Allegiance Mobile Health (Johnnie Perry)
Nacogdoches County EMS
Jasper Newton Public Health
CHI St Luke's San Augustine
Surgery Center of Nacogdoches

DETRAC
Huntington Healthcare
CHI St Luke's Livingston
A compassionate Care Home Health
ACCHD
SE Texas Air Rescue
MC of SE Texas
Focused Care
Baptist Hospital Beaumont
Fresenius Beaumont
Liberty Dayton RMC
Chamber County OEM
Chambers County Health Dept
Senior Rehab P.A TX
Hardin County Health Dept
Orange County
Spanish Trail
Life Flight Memorial Hermann
Baptist Hospital Beaumont
Rollingbrook Rehab
Riceland Home Health
Heritage Villa Nursing and Rehab

Bayside Community
Huffman EMS
Galveston County ESD2-EMS
Port Arthur FD
Houston Methodist Baytown
The Medical Center of SE Texas Port Arthur
The Medical Center of SE Texas Beaumont
Jacinto Nursing and Rehab
Summer Place
Liberty Dayton RMC
Riceland Healthcare
Mont Belvieu RHC
Beaumont Nursing and Rehab
Mid Jefferson Extended Care
St James House
Southern Home Health
Port Arthur Public Health
Cleveland Healthcare
AD Hospital East
Anahuac EMS
Fall Creek Rehab
National Weather Service Lake Charles LA.

ABL Home Health
Columbus Community Hospital
Columbus Oaks Healthcare Community
Cornerstone Hospital Conroe
Cypress Creek Rehab and Healthcare Center
Diversicare Oakmont Katy
Eagle lake Nursing and Rehab
Encompass Home Health
Eden Memory Car
Fresenius KC
Harris County Public Health
HCA Houston Healthcare Kingwood
HCA Houston Healthcare Tomball
Home Health Resources inc
ABC Home Health Services
Houston Methodist West
Houston Methodist Willowbrook
Houston Transitional Care
Huntsville Memorial Hospital
Kindred Spring
Kingwood Endoscopy
Memorial City Health and Rehab Center

Memorial Hermann HBS
MRC Creekside Retirement Community
North Buckner Dialysis Center
Park Manor of Humble
Pathways Memory Care
Post Acute Medical Rehab Hospital Humble
Regent Care Center of Kingwood
Silsbee Convalescent Center
SSA Home Health
Texas Children's Hospital The Woodlands
Texas Children's Hospital West
Transitions Home Health Care Houston
Tru Care Hospice and Palliative Services
TII Home Health
Vibrantlife of Katy
Villa Toscana
Harris County Homeland Security OEM
SRJST Senior Living
Windsor Houston
Fresenius Kidney Care Westminster
Vidor Health and Rehab
Parkside Surgery Center

Focus Care at Humble
Focus Care at Cedar Bayou
RCPI-MOPSHS
West Janisch Healthcare
First Texas Hospital
Cypress Creek Rehab
Oakmont of Humble Diversicare
HCA Houston Healthcare West
HHS Regulatory Region 6
Oakmont of Humble Healthcare and Rehab Center
Forest Cove ACF
Windsor Houston
Zion Healthcare
Entrust Hospice
Fresenius Beamer Dialysis
Fresenius Galveston Dialysis
Chelsea Gardens
Palacios Community Medical Center
Matagorda Regional Medical Center
Rice Medical Center
Palacios Community Medical Center
Fresenius West Pearland

Bridgemoor Transitional Care
Bayou Pines CC
North Cypress Medical Center
The Resort at Texas City
Gulf Coast Community Health Services
Fort Bend County EMS
Memorial Hermann Pearland
Baywind Village Care
Magnolia Hospice Care
Fresenius Dickinson
Behavioral Treatment and Training Center
CHI St Luke's Brazosport
Houston Methodist Sugar Land
Excellence Health Care Inc.
Kindred Hospital Sugar Land
HCA Healthcare Mainland
Gulf Coast Community Health Services
Encompass Healthcare and Rehab Sugar Land
PAM Rehab Hospital of Clear Lake
Harbor Hospice Healthcare System
Wood Lake Nursing and Rehabilitation
HCA Houston Healthcare Clear Lake
Participating Agencies = 196 Participants = 262

APPENDIX G: EXERCISE PLANNING TEAM

Name	Agency/Facility
Adam Lee	SETRAC
Adam Timko	MD Anderson
Brendan Sloan	Harris County Forensics
Charity Dominguez	City of Houston OEM
Connie Foland	The Blood Center
Elizabeth Farnham	City of Houston OEM
Eric Steffel	Northwest EMS
Eric Stricklin	Acadian
Fidel Calvillo	SETRAC
Gary Litton	SETRAC
Hilal Salami	SETRAC
Ike Akanu	Houston Methodist West
James Arrango	Department of State Health Services 6/5 South
Jim Bunch	North Cypress Medical Center
John Bunch	HCA Texas Women's Hospital
John Wingate	SETRAC
Justin Woodruff	Department of State Health Services 6/5 South
Kevin Wicks	Department of State Health Services 6/5 South
Lisa Spivey	SETRAC
Ricky Conner	Angelina County OEM
Roy Turner	Roy Turner
Sandra Sands Arnez	TTI Home Healthcare
Sonia Irby	Clear Lake Regional Medical Center
Tina Rose	Houston MOPSHS
Toni Carnie	Tomball Regional Medical Center
Van Carroll	TTI Home Health