



Operation Crazy Train After-Action Report/Improvement Plan

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EXERCISE OVERVIEW

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|------------------------------------|--|
| Exercise Name | Crazy Train Functional Exercise |
| Exercise Dates | May 1, 2018 |
| Scope | The 2018 Regional HealthCare Preparedness Coalition (RHPC)/ Catastrophic Medical Operations Center (CMOC) Functional Exercise will be a multi-agency, multi-site event designed to exercise that will allow the region the opportunity to exercise and evaluate the implementation of doctrine and policies provided in existing plans. |
| Purpose | The purpose of the 2018 RHPC/ CMOC Functional Exercise is to evaluate the region's ability to respond to a multi-incident cyber related MCI. |
| 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 • HPP Capability 4: Medical Surge |
| Objective | <ul style="list-style-type: none"> • Test the ability of the region to respond and coordinate a multi- site mass causality incident. • Evaluate the ability of the region to ensure delivery of continuity of services during a large-scale emergency. • Evaluate the ability of the region to respond to region wide-spread cyber attack |
| Threat or Hazard | Cyber Incident / MCI |
| Scenario | The exercise scenario will simulate multiple Cyber Related Train Derailment and Crashes that will lead to a large-scale MCI. The incident will simulate the need to activate appropriate plans, and require overall coordination by the CMOC. |
| Sponsor | Southeast Texas Regional Advisory Council (SETRAC)/Regional Healthcare Preparedness Coalition (RHPC). |
| Participating Organizations | Multiple Hospitals, EMS services, Public Agencies, and Private Partners. A complete list is included in Appendix D. |
| Point of Contact | <p>Exercise Director: Lori Upton SETRAC 1111 North Loop West, Suite 160 Houston, TX 77008 (281) 822-4450 Email: Lori.upton@setrac.org</p> |

SCENARIO OVERVIEW

Pre-Exercise Notification

An 1135 waiver has been issued for Texas in response to the heightened cyber threat in the region. TXDSHS is advising all hospital to start determining what patients can be discharged home or to long term care facility.

Exercise Play

Event 1:

Notification Mode: Video Inject (News)

Incident: Train Derailment at U of H Main Campus

Message: We have received reports of a major light rail accident at the University of Houston. It is unknown at this time what caused the accident but some suspect it is related to a cyber-attack on the region. The campus has an increased number of visitors due to Cougar Preview day. This is the day where prospective students and families visit the university. It is being reported that we have hundreds of injuries which include both student, visitors and riders of the purple line. Students are on social media requesting help and commenting on the accident. Please continue watching for more updates.

Update:

124 greens, 53 Yellow and 42 red

Update:

Fumes from the accident are causing students to become ill and nauseated. We have an additional 120 people that may need some type of medical care.

Event 2:

Notification Mode: Video Inject (News)

Incident: Train derailment at Sweeny Elementary

Message: We have received reports a of 2nd train derailment containing Anhydrous Ammonia at MLK and 3rd street in Sweeny Texas. The train accident is very close to the local elementary school. According to social media, children were outside during the accident. We are receiving reports that these accidents could be related.

Update 1: We are receiving reports of 72 students and 6 school employees are injured. Total number of injuries are 11 reds, 17 yellows and 35 Greens. Parents and media have begun showing up at the school wanting updates and to know what hospitals the students were taken to from the school.

Off-Site Exercise Play: The City of Sweeny activated their EOC, which included PD, Fire, EMS, City works, City Manager, and Sweeny ISD. Central dispatch toned out the accident, and fire and EMS personnel responded accordingly. City workers responded according to their plans, as well as City management. PD responded by setting road blocks and calling for mutual aid to secure the scene and block all ingress. Players responded outside of the hot and warm zone. Primary and secondary staging areas were identified, and needed assets were identified. Sweeny ISD also activated their EOC and worked their plan accordingly.

Event 3:

Mode: Video Inject (News)

Incident: Train accident in Lufkin with Coach bus

Message: A Union Pacific train loaded with 25 tank cars has derailed and fell over the overpass on 1-69 and North Timberland drive in Lufkin, TX. When the train derailed it crashed into an 80-passenger coach bus traveling on I-69.

Update 1:

The bus had 73 passengers including the driver. Riders ages ranged from 17 to 86 years of age.

Current number of injuries below

Red- 17

Yellow- 22

Green 23

Event 4:

Mode: WebEOC Inject

Incident: Amtrak train derailment

Message: The Sunset limited Amtrak passenger train carrying 153 passengers and 16 crew members en route to New Orleans. The train originated in Los Angeles, picking and dropping off customers along the way. While approaching the Beaumont station the train derailed. It is unknown at this time if it is tied to the nationwide cyber-attack. Number of injuries are unknown at this time.

Update 1: -EMS has reported multiples injuries, and initial patient numbers are 22 Red, 54 Yellow, and 107 Green. Local residence are starting to show up at incident site to see what is going on and to check if family members or friends were injured.

Update 2:

It has been confirmed that the derailment was a result of the regional cyber-attack in the region. Amtrak and NTSB are on scene conducting investigations.

Event 5:

Mode: WebEOC

Incident: Train Derailment FM 149 and 1488

Message: Montgomery County OEM: We have received reports of a train accident on FM 149 and 1488 close to the high school. Lots of students are posting about the injuries on social media. We will update when we get additional information.

Update on Accident at Magnolia high school: We have confirmation of appx 115 victims. 28 Red, 46 Green and 35 yellow and 6 black. This number does not include the people that initially left the scene to self- report to hospitals.

CMOC Cyber Incident

At 11:30 AM CMOC staff notices EMResource and EMTrack website is not responding. (SIM CELL) calls CMOC letting them know that they are experiencing a denial of service attack on their system. Their back-up sites are also being impacted. They are working on getting the issue fixed as soon as possible but in the meantime, both systems are unavailable. WebEOC is not impacted with this outage.

Update (40 minutes later): We have found the source of the DDOS attack and was able to contain the breach, all systems are back up and no PHI was compromised.

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) |
|--|---|----------------------------------|------------------------------------|-------------------------------------|----------------------------|
| Test the ability of the region to respond and coordinate a multi-site mass casualty incident. | Health Care and Medical Response Coordination | | X | | |
| | Continuity of Health Care Service Delivery | | | | |
| | Medical Surge | | | | |
| Evaluate the ability of the region to ensure delivery of continuity of services during a large-scale emergency | Continuity of Health Care Service Delivery | X | | | |
| Evaluate the ability of the region to respond to a region wide-spread cyber attack | Health Care and Medical Response Coordination | | 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:

Test the ability of the region to respond and coordinate a multi- site mass causality incident.

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

HPP Capability 1: Health Care and Medical Response Coordination

Strengths

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

Strength 1: CMOC staff, particularly corridor representatives, appropriately utilized the ICS213 (general message form) to capture information, then transferred that information into the appropriate system.

Strength 2: The CMOC communicated efficiently, both internally and externally, with hospitals, long term care facilities, first responder agencies, Emergency Operations Centers, and public health.

Strength 3: Logistics and Transportation worked together to assign, coordinate and track resources to during a large-scale disaster.

Areas for Improvement

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

Area for Improvement 1: Conduct regular briefings to ensure situational awareness for CMOC staff

Reference: CMOC Basic Plan, CMOC Job Check List

Analysis: Due to the number of activities taking place, it is important to maintain situational awareness, both internally and externally. During the duration on the exercise, some CMOC personnel were not aware of the number of incidents or casualties in the region. Some front row staff, held onto information to handle themselves instead on utilizing all the staff in the back row. This caused a lack of situational awareness and a delay in information flow.

Area for Improvement 2: Advance training is needed on technologies for CMOC front row staff.

Reference: CMOC Basic Plan, WebEOC Training

Analysis: Some key CMOC staff had difficulty performing advance task in EMSsystem and WebEOC (incident development, STAR development). The delay in performing task caused issued with incident management. Additional training is needed for front row staff.

Area for Improvement 3: Proper Technology Access for key positions**Reference:** CMOC Basic Plan**Analysis:** During CMOC activations, Long Term Care facilities do not use EMTrack or WebEOC, but when activated, the CMOC Medical Populations staff member will need access to the systems for situational awareness.**Area for Improvement 4:** Additional Training is needed on functions of position**Reference:** CMOC Basic Plan, CMOC Job Check List**Analysis:** CMOC leadership staff was overwhelmed with certain tasks that could have been pushed down to the back-row staff to work. Additional training is needed for Key leadership positions on roles and functions.**HPP Capability 3: Continuity of Health Care Service Delivery****Strengths**

The full capability level can be attributed to the following strengths:

Strength 1: CMOC staff appropriately responded to multiple resource requests from hospitals and other healthcare providers. This response facilitated the healthcare delivery system's continuity of operations and surge response

Strength 2: CMOC staff maintained accountability of status and bed availability of all RHPC hospitals and long-term care facilities in the region.

Strength 3: CMOC has developed, trained on and instituted numerous plans and check list to assist participants with CMOC operations. This process allowed staff to operate at a higher level during activation and ensure continuity of services.

HPP Capability 4: Medical surge**Strengths**

The full capability level can be attributed to the following strengths:

Strength 1: Healthcare agencies successfully utilized EMSsystem to keep the region updated on facility activities.

OBJECTIVE 2:

EVALUATE THE ABILITY OF THE REGION TO ENSURE DELIVERY OF CONTINUITY OF SERVICES DURING A LARGE-SCALE EMERGENCY

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 *full* capability level can be attributed to the following strengths:

Strength 1: Regional Stakeholders did a great job of entering MCI patients into EMTrack for patient tracking. 282 patients were entered in EMTrack.

Strength 2: When receiving requests from individuals requiring medical assistance, the CMOC staff asked appropriate questions and routed the requests to the appropriate resource.

OBJECTIVE 3:

EVALUATE THE ABILITY OF THE REGION TO RESPOND TO A REGION WIDE-SPREAD CYBER-ATTACK.

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: CMOC staff and regional partners were very knowledgeable on information sharing systems used during CMOC.

Strength 2: CMOC Chief assigned a staff member to track hospitals and healthcare agencies experiencing cyber related attacks.

Areas for Improvement

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

Area for Improvement 1: Training is needed on escalating key information outside of CMOC.

Reference: CMOC Plan

Analysis: During the exercise, CMOC staff collected information pertaining to cyber-attacks taking place in the region. While collecting the information was a best practice, CMOC never acted on the information. The information of multiple attacks should have been send to the Fusion center for notification of a larger incident in the region.

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Appendix A: IMPROVEMENT PLAN

This IP has been developed specifically for SETRAC as a result of Operation Crazy Train conducted on May 1, 2018.

| Objective | HPP Capability | Issue/Area for Improvement | Corrective Action | Capability Element | Primary Responsible Organization | Start Date | Completion Date |
|--|---|--|---|--------------------------|----------------------------------|------------|-----------------|
| Objective 1: Test the ability of the region to respond and coordinate a multi-site mass causality incident. | HPP Capability 2: Health Care and Medical Response Coordination | Conduct regular briefings to ensure situational awareness for CMOC staff | Develop advance CMOC leadership training to incorporate the importance of briefings and key roles and responsibilities of front row staff. | Training/Planning | SETRAC | 6/1/2018 | 12/31/2018 |
| | | Advance training is needed on technologies for CMOC from row staff. | Have CMOC leadership staff attend advance training on WebEOC, EMTrack and EMResource on a regular basis to keep up with updates in the system | Training | SETRAC | 6/1/2018 | Ongoing |
| | | Proper Technology Access for key positions | Develop technology access for Medical Populations seat in CMOC | Technology | SETRAC | 6/1/2018 | 7/1/2018 |
| | | Additional Training needed on Functions of Position | Develop advance CMOC leadership training to incorporate the importance of briefings and key roles and responsibilities of front row staff. | Training/Planning | SETRAC | 6/1/2018 | 12/31/2018 |
| Objective 3: Evaluate the ability of the region to respond to a region wide-spread cyber-attack. | HPP Capability 2: Health Care and Medical Response Coordination | Training is needed on escalating key information outside of CMOC. | Provide additional training for front row staff on when and who to escalate key information. | Training | SETRAC | 6/1/2018 | 12/21/2018 |

Appendix B: EXERCISE PARTICIPANTS

| Exercise Participants | Number of Players |
|--|-------------------|
| Acadian Ambulance | 6 |
| Angelina County & Cities Health District | 6 |
| Ashton Parke Care Center | 105 |
| Baptist Hospitals of Southeast Texas | 62 |
| Baylor St. Luke's Medical Center | 57 |
| Bayside Community Hospital | 13 |
| Brazos Towers at Bayou Manor | 4 |
| Brookdale Willowbrook Place | 109 |
| Castle Pines Health and Rehabilitation | 19 |
| Chambers County OEM | 2 |
| CHI St Joseph Health Bellville | 18 |
| CHI St Luke's Health Brazosport | 72 |
| CHI St Luke's Health Memorial Lufkin | 29 |
| CHI St. Luke's Health Memorial Livingston | 15 |
| CHI St. Luke's Health Memorial San Augustine | 29 |
| CHI St. Luke's Health Memorial Specialty Hospital | 15 |
| CHI St. Luke's Hospital at The Vintage | 46 |
| Christus Dubuis Hospital of Beaumont | 31 |
| City OF Nacogdoches | |
| Clarewood House | 26 |
| Creative Solutions in Healthcare | 19 |
| Denson Home Health, Inc. | 37 |
| Diversicare Afton Oaks, LLC Afton Oaks Healthcare & Rehabilitation | 73 |
| Diversicare Humble LLC d/b/a Oakmont Healthcare and Rehab Center of Humble | 17 |
| FBI | 2 |
| First Texas Hospital | 118 |
| Harris County ESD4 Huffman EMS | |
| Harris County Office of Homeland Security and Emergency Management | |
| Harris County Public Health | 4 |
| Harris Health System - Ben Taub Hospital | 9 |
| HCA Kingwood Medical Center | 11 |
| Healthsouth Sugar Land/ Encompass | 11 |
| HealthSouth Woodlands / Encompass | 11 |
| HEALTHSOUTH/ Encompass Humble | 3 |
| Heart to Heart Hospice, Lufkin | 15 |
| Heart to Heart Hospice, Nacogdoches | 15 |
| Holly Hall | 128 |
| Hospice in the Pines | 30 |

| | |
|---|-----|
| Houston Methodist The Woodlands Hospital | 21 |
| Houston Methodist Willowbrook Hospital | 25 |
| Houston Regional Intelligence Service Center-Fusion Center (HRISC-FC) | 1 |
| Huntsville Memorial Hospital | |
| IntraCare North Hospital | 28 |
| Jasper/Newton/Sabine County OEM | |
| Kindred Hospital Bay Area | 24 |
| Kindred Hospital Clear Lake | 15 |
| Kindred Hospital Sugarland | 20 |
| Kindred Rehabilitation Hospital Northeast Houston | 15 |
| LBJ | 20 |
| Liberty Dayton RMC | 40 |
| Mainland Medical Center | 13 |
| Memorial Hermann Cypress | 41 |
| Memorial Hermann Greater Heights | 56 |
| Memorial Hermann Home Health and Hospice | 15 |
| Memorial Hermann Hospital Ambulatory | 6 |
| Memorial Hermann Memorial City Medical Center | 135 |
| Memorial Hermann Northeast | 9 |
| Memorial Hermann Orthopedic and Spine Hospital/ TMC/ Children's | 62 |
| Memorial Hermann Pearland | 44 |
| Memorial Hermann Rehabilitation Hospital - Katy | 19 |
| Memorial Hermann Southeast | 52 |
| Memorial Hermann Southwest | 11 |
| Memorial Hermann The Woodlands | 9 |
| Memorial Hermann University Place | 7 |
| Michael E. DeBakey VAMC | 96 |
| Montgomery County Hospital District | 124 |
| MRC The Crossings | 27 |
| Nacogdoches Medical Center | 20 |
| North Cypress Medical Center | 86 |
| Oakmont of humble | 17 |
| Pace Opportunity Centers Inc | 14 |
| Rayburn Health Care | 9 |
| Rice Medical Center | 21 |
| Shriners Hospitals for Children - Houston | 16 |
| SPJST Senior Living | 8 |
| ST LUKES PATIENTS MEDICAL CENTER | 70 |
| St. Joseph Medical Center | 54 |
| Summer Place Nursing and Rehab | 49 |
| Sweeny ISD | 9 |

| | |
|--|-------------|
| Texas Children's Hospital the Woodlands | 1 |
| Texas Children's Hospital Main Campus | 6 |
| Texas Children's Hospital West Campus | 1 |
| Texas Orthopedic Hospital | 20 |
| The Blood Center | 1 |
| The Forum at Memorial Woods | 40 |
| The Medical Center of Southeast Texas Beaumont Campus | 55 |
| The Medical Center of Southeast Texas Port Arthur Campus | 55 |
| The Surgery Center of Nacogdoches | 34 |
| Timberidge Nursing & Rehabilitation | 30 |
| TIRR Memorial Hermann Hospital | 36 |
| Tomball Regional Medical Center | 275 |
| Tomball Rehab and Nursing Center/Advanced Healthcare Solutions | 20 |
| Tyler County Hospital | 21 |
| University of Texas MD Anderson Cancer Center | 7 |
| UT Health Harris County Psychiatric Center | 34 |
| West Houston Medical Center | 24 |
| West Houston Rehabilitation & Healthcare | 45 |
| West Janisch health Care Center | 47 |
| WINDSOR HOUSTON | 51 |
| Total Players | 3280 |

CMOC Exercise Participants

| | |
|--|---|
| CenterPoint Energy | Houston Police Department |
| Chambers County OEM | Mainland Medical Center |
| City of Houston Office of Emergency Management | Mayor's Office of Public Safety and Homeland Security |
| Creative Solutions in Healthcare | Northwest Healthcare Response Network Public Health |
| Cypress Creek EMS | SouthEast Texas Regional Advisory Council |
| Department of State Health Services | Spokane Regional Health Department |
| Federal Bureau of Investigation | Tacoma County Public Health and Social Services |
| Fort Bend County EMS | Tacoma Pierce County Health Department |
| Fort Bend County Office of Emergency | Texas Medical Center |
| HCA- Texas Women's Hospital | Washington State- Jefferson County DEM |
| Harris County Medical Society | Washington State Region 9 HCC |
| Harris County Public Health | |

EXERCISE PLANNING TEAM

| | |
|------------------|---|
| Amber Burrough | Houston Methodist The Woodlands Hospital |
| Amber Johnson | Memorial Hermann Health System |
| Connie Foland | The Blood Center |
| Danny Shine | Michael E. DeBakey VA Medical Center |
| Dena Daniel | Huntsville Memorial |
| Erik Zunger | Houston PD |
| Fidel Calvillo | SETRAC |
| Gary Litton | SETRAC |
| Gary Richards | North Cypress Medical Center |
| Hilal Salami | SETRAC |
| Jeremy Way | SETRAC |
| John Bunch | HCA Texas Women's Hospital |
| John Wingate | SETRAC |
| Justin Woodruff | Department of State and Human Services 6/5 South |
| Kent Cavender | Houston Methodist TMC Hospital |
| Lanny Brown | Brazoria County Public Health |
| Lisa Spivey | SETRAC |
| Lori Upton | SETRAC |
| Melanie Manville | City of Houston Office of Emergency Management |
| Melissa Hirn | Mainland Medical Center |
| Mike Mastrangelo | UTMB |
| Mike Rankin | CHI St. Luke's System |
| Rachel Stevens | The Hallmark |
| Rene Leal | Montgomery County Public Health |
| Robin Davis | Memorial Hermann Health System |
| Roy Turner | Chambers County OEM |
| Scott Berry | Houston PD |
| Shawn Henners | Montgomery County Hospital District |
| Tina Rose | Houston MOPSHS |
| Toni Carnie | Tomball Regional Medical Center |
| Trameka Jewett | SETRAC |

