DIRECTOR’S MESSAGE

County Judge Ed Emmett, Director
Harris County Office of Homeland Security & Emergency Management
Harris County faced a variety of challenges during 2016, including the extreme rainfall events that affected our county for a second year in a row. These disasters claimed eight lives and brought the region to a near standstill.

The Harris County Office of Homeland Security & Emergency Management (HCOHSEM) once again stepped up to coordinate the response and recovery efforts for our communities.

HCOHSEM worked with local, state and federal partners to expedite the process to get flood survivors the assistance they needed to recover from the flooding events. A reported $82.5 million was awarded to Harris County residents for the two declared disasters.

We will continue to work closely with transportation officials to prevent motorists from driving into flood-prone areas and will use all available communication methods to notify drivers about flooded roads during heavy storms. However, it is important that residents take the necessary measures to avoid becoming victims.

While we cannot eliminate natural hazards, we will continue to work on ways to improve our ability to respond to, recover from, and mitigate against disasters that can potentially affect the residents of Harris County.

Our county is better prepared today to respond and recover from any type of emergency because of HCOHSEM’s leadership and dedicated staff. This report summarizes HCOHSEM’s operations and accomplishments during the past year.

Sincerely,

County Judge Ed Emmett, Director
Harris County Office of Homeland Security & Emergency Management
MISSION STATEMENT

Harris County Emergency Operations Center.
The Harris County Office of Homeland Security & Emergency Management (HCOHSEM) will be a national model of best practices in emergency planning, preparation, response, and recovery.

HCOHSEM will help prepare, safeguard, and protect the residents and property of Harris County from the effects of disasters through effective planning, preparation, response and recovery activities. To accomplish this mission, HCOHSEM will:

• Develop, maintain and coordinate a comprehensive emergency management plan.

• Activate and staff an Emergency Operations Center (EOC) to coordinate and support efforts to respond to, and recover from, emergencies and disasters.

• Develop and assist in the delivery of effective public outreach programs.

• Collect, provide and disseminate information for elected officials, the media, our residents, partners and other stakeholders.

• Train, educate and prepare for emergencies through the development and delivery of effective classes, drills and exercises.

News conference during April flood.
INTRODUCTION

Houston TranStar.
Harris County is home to more than 4.7 million residents. It is the nation’s third most populous county, with 34 cities, 57 fire departments, 125 law-enforcement agencies, 22 major watersheds, and more than 1,200 municipal and public utility districts. Census reports indicate that since the year 2000, about 80 percent of the county’s population growth has taken place in the unincorporated area. This area alone would be the fifth largest city in the United States or the second largest in Texas if it were incorporated as a single city.

HCOHSEM is responsible for the planning, coordination, and implementation of all emergency management and homeland security related activities for Harris County. It works before, during, and after emergencies to minimize impacts to its communities. During large-scale emergencies, HCOHSEM works with federal, state, local, public and private sector partners to facilitate quick and effective recovery efforts.

HCOHSEM also works year-round to promote disaster preparedness and resilience through regional emergency planning, training, and community outreach efforts.

Its proximity to the Gulf of Mexico makes Harris County vulnerable to tropical storms; however, severe weather events like flash floods and winter storms are more common. Similarly, the county also experiences other threats such as wildfires, hazardous material and industrial accidents.

In order to effectively conduct emergency management and homeland security related activities, HCOHSEM continuously maintains and updates plans, annexes, appendices, and supporting documents that guide preparedness, mitigation, and response activities that can be applied to any disaster in the region.
HURRICANE SEASON

Satellite image of Hurricane Matthew, October 2016. Courtesy of NASA.
The 2016 Atlantic hurricane season had an unusually early start when Hurricane Alex formed in January, becoming the second hurricane on record to develop during that month. Then, Tropical Storm Bonnie developed in May, a few days ahead of the June 1st official start.

Despite the lack of action for the Texas coast, weather experts say it was one of the most active hurricane seasons since 2012, producing a total of 15 named storms, including seven hurricanes – three of them major.

Hurricane Matthew was the strongest and deadliest storm, reaching Category 5 status in early October. Matthew killed more than 1,700 people, mostly in Haiti, and then turned to the southeastern U.S. coast, where it claimed dozens of lives and caused widespread flooding from Florida to North Carolina.

According to meteorologists at the National Oceanic and Atmospheric Administration’s (NOAA) Climate Prediction Center, weak wind shear and a persistent ridge of high pressure in the Atlantic and Caribbean helped fuel the above-average season. These atmospheric conditions, together with warmer than usual sea surface temperatures, helped fuel potent storms.

HCOHSEM monitors all tropical systems and activates its EOC when storms move into or develop in the Gulf of Mexico.

2016 Atlantic Hurricane Tracks. Courtesy of NOAA.
Cars under water at I-10 and Studemont during “Tax Day” Flood, April 2016.
For a second year in a row, severe floods impacted Harris County in 2016. Flooding in April, May, and June devastated some communities hit less than a year before.

APRIL “TAX DAY” FLOOD
Starting the night of April 17th, Harris County experienced severe historic rainfall amounts. The torrential rain moved from northwest to southwest Harris County overnight, resulting in a historic flash flood emergency for the area. The storm produced more than 16 inches of rain, the equivalent of 240 billion gallons of water.

Harris County reported seven flood-related fatalities during this event. More than 9,800 homes flooded, some for a second time in less than a year. The severe weather also closed schools, knocked out power for more than 120,000 customers, canceled flights, and made many roadways impassable. Close to 2,000 water rescues were reported and an estimated 40,000 motor vehicles flooded.

Harris County Judge Ed Emmett immediately issued a disaster declaration. On April 24th, Governor Greg Abbott requested a major disaster declaration due to severe storms and flooding occurring from April 17-24, 2016. On April 25th, President Barack Obama issued a major disaster declaration for Texas.

MAY/JUNE FLOODS
Six weeks after the “Tax Day” Flood, northwest Harris County was again hit with excessive rainfall. Beginning Memorial Day weekend, more than 13 inches of rain fell north of Houston in a span of 12 hours. A few days later, more than 20 inches fell in two days northwest of the city. According to meteorologists, this is the second year in a row that Texas has been hit by 500-year floods.

Harris County reported one flood-related fatality on June 4th. That same day, the rising water at several Houston-area rivers and creeks prompted Harris County officials to ask about 750 families in the Northwood Pines subdivision to evacuate their homes and apartments. Officials also warned residents living near the West Fork of the San Jacinto River, north of Houston, that rising waters were likely to flood homes. Countywide, close to 500 homes and businesses flooded during this period.

Harris County was added to the Presidential Disaster Declaration on June 29th.

BY THE NUMBERS

TAX DAY FLOOD
- Period of excessive rainfall, more than 16 inches, caused widespread flooding in Harris County
- Equivalent to 240 billion gallons of water, exceeds the 2015 Memorial Day Flood (162 billion gallons) by almost 80 billion gallons of water
- Seven fatalities
- 1,800 high water rescues
- 40,000 vehicles flooded
- 9,840 homes, 2,700 apartments and 50 businesses flooded
- 123,000 households lost power
- Economic impact estimated between $1.3 – $1.9 billion

MAY/JUNE FLOODS
- Memorial Day weekend flash flooding affects north and northwest Harris County May into June
- More than 13 inches of rain
- 465 homes, 22 businesses flooded
- Evacuation of 750 families in the Northwood Pines Subdivision and the Park at Northgate Apartments

Meyerland area flood damage and debris, April 2016.
HARRIS COUNTY
FLOOD CONTROL DISTRICT

Aerial photo of flooding at Lakewood Forest subdivision in Cypress, April 2016. Photos courtesy of HCFCD.
HCOHSEM works in unison with the Harris County Flood Control District (HCFCD) to keep the region informed during severe weather events. Data and information provided by HCFCD’s meteorologist and the Flood Warning System (FWS) helps emergency management officials make critical decisions that can reduce the loss of life, injuries and property damage. The FWS is also used by the National Weather Service (NWS) to assist in the issuing of flood watches and warnings. Residents can also monitor local rainfall amounts and bayou/stream levels during storms.

2016 HISTORIC FLOODS
Starting in March and continuing into early June, multiple significant rainfall and flood events impacted Harris County. The most devastating of these events was the April 17-18 “Tax Day” Flood affecting a large portion of northwest Harris County and much of Waller County. In a 12-hour period, an average of 10-16 inches of rainfall fell over northwest Harris County with a few locations in Waller County recording over 20 inches. An average of 7.75 inches of rain fell over Harris County equating to 240 billion gallons of water compared to an average of 5.3 inches or 162 billion gallons of water from the Memorial Day Flood of 2015.

The result was historic and devastating flooding across northern and western Harris County. Many creeks and bayous not only exceeded their banks, but rose to record levels, including portions of Cypress Creek, Little Cypress Creek, Bear Creek, and Langham Creek. The Addicks and Barker Reservoirs, operated and main-

Flooded homes in northwest Harris County, April 2016.

HCFCD team during flood activation, June 2016.
tained by the U.S. Army Corps of Engineers, filled to their highest pool levels ever recorded. This led to the closure of portions of State Highway 6, Westheimer Parkway, Clay Road, and Eldridge Parkway for weeks. Nearly 10,000 structures were flooded, making the “Tax Day” event one of the worst floods in Harris County since Tropical Storm Allison in June 2001.

Six weeks later, a second significant rainfall event would affect many of the same areas impacted by the “Tax Day” Flood. Rainfall amounts over a 24-hour period averaged 8-12 inches across northern Harris County, and 12-14 inches over portions of Waller and Montgomery counties. Rainfall averaged above the 100-year flood frequency over a large portion of Spring Creek and the San Jacinto River watersheds for the 24-hour time period. A total of 16.33 inches of rain was recorded in Brenham during a 12-hour period.

This rainfall event resulted in significant flooding along Spring Creek and the West Fork of the San Jacinto River, with flood levels on those two channels the second highest ever recorded. A total of 487 structures flooded in Harris County, and an additional 780 flooded in Montgomery County.

During both of these flood events, as well as other lesser storms, HCFCD staff worked closely with HCOHSEM, NWS, local and regional transportation officials, and public safety partners to ensure critical information on rainfall and water levels along the many miles of creeks and bayous was shared throughout the EOC and via HCFCD’s public website (www.harriscountyfws.org). This important data helped public safety and elected officials make critical decisions on where to establish shelters, which subdivisions were most impacted,
and where to position high water rescue assets.

HCFCD staff conducted 148 media interviews, answered 994 phone calls through its phone bank, and collected 510 high water marks on numerous creeks and bayous to determine the level of flooding and to document how recent flood damage reduction projects performed. The 510 high water marks obtained in 2016 were the second highest number of marks collected in a calendar year since Tropical Storm Allison in 2001 and surpassed the 476 marks collected in during Hurricane Ike in 2008.

The partnerships developed over the last several years between HCFCD, HCOHSEM, NWS, various county departments and the news media were vital in the flow of critical information during the spring floods. This helped save lives and reduce property damage.
Aedes aegypti mosquito.
Photo courtesy of the CDC.
HCOHSEM is working closely with Harris County Public Health (HCPH) to ensure that the region is prepared to handle the potential spread of the Zika virus. In 2016, preparedness and response plans were reviewed to make sure a coordinated and rapid response is in place.

OVERVIEW
The Zika virus is an emerging viral disease that is transmitted through the bite of an infected mosquito, primarily Aedes Aegypti, the same vector that transmits chikungunya, dengue and yellow fever. Zika has a similar epidemiology, clinical presentation, and transmission cycle in urban environments as chikungunya and dengue, although it generally causes milder illness. This mosquito-borne virus prompts concern because of its alarming connection to neurological birth defects and its rapid geographic spread. All age groups can be affected, and there is no vaccine to prevent Zika.

Symptoms of Zika virus disease include fever, skin rash, conjunctivitis, muscle and joint pain, malaise, and headache, which normally last from several days to a week. There is no specific treatment, but symptoms are normally mild and can be treated with common fever and pain medicines, by resting and drinking fluids to prevent dehydration.

CURRENT SITUATION IN TEXAS AND HARRIS COUNTY
As of December 2016, Harris County (including Houston) led the state in the number of travel-related Zika virus disease cases, with 68 of the 246 reported statewide. In January 2016, the Centers for Disease Control (CDC) confirmed the first travel-related Zika case in the State of Texas in Harris County. In July 2016, Florida confirmed the first local mosquito-borne Zika infection in the U.S. In late November 2016, Cameron County, Texas, reported the first local Zika case in a resident.

So far, no local cases of the Zika virus have been reported in Harris County in residents or mosquitoes. HCPH Mosquito and Vector Control Division (MVCD) continues to trap and test mosquitoes for arboviruses including Zika. The MVCD is also conducting mosquito inspections on residents’ properties and remediating mosquito larval sites through source reduction (when possible) or through larvicidal treatment. The division will continue to educate residents by promoting personal protection measures and techniques to reduce or eliminate mosquito breeding sites on their properties.

PREPAREDNESS AND RESPONSE
HCPH is prepared and ready to respond to local Zika cases on the following response levels:

- **Level 4 – Normal Conditions**: No cases of locally acquired Zika in Harris County
- **Level 3 – Increased Readiness**: One or more cases of locally acquired Zika in one geographic area within Harris County
- **Level 2 – High Readiness**: One or more cases of locally acquired Zika in more than one geographic area within Harris County
- **Level 1 – Maximum Readiness**: Widespread cases of locally acquired Zika throughout Harris County

If a Zika emergency occurs, HCPH will work with HCOHSEM to activate the Regional Joint Information Center (RJIC) to address public information needs and will operate as follows:

- Harris County Public Health will be the lead agency.
- HCOHSEM will assist in providing/delivering messages to target zip codes where Zika is detected, through reverse 911 service and Nextdoor (a private social neighborhood network).
- HCPH will work with the Texas Department of State Health Services and HCOHSEM to ensure that at-risk populations are identified (pregnant women and women of child-bearing age via medical providers and demographics).
- HCPH Office of Communications, Education, and Engagement will work with the HCPH Office of Public Health Preparedness and Response to stand up an in-house bilingual phone bank to provide Zika related information to the community at large.
News conference to announce Super Bowl 51
The biggest single game in American sports, Super Bowl 51, will be played at NRG Stadium on February 5, 2017, bringing a multitude of visitors, global media attention and a huge economic impact to the region. NRG Stadium is owned by Harris County and has a seating capacity of about 80,000. It is the home of the Houston Texans, the Houston Livestock Show and Rodeo, the Texas Bowl and many other events. The stadium served as the host facility for Super Bowl 38 in 2004.

HCOHSEM worked the entire year with the National Football League (NFL), the Houston Super Bowl Host Committee, the City of Houston, and many other partners to plan and prepare for the events leading up to the big game. HCOHSEM participated in the coordination of plans as well as numerous trainings and exercises throughout 2016.

The Harris County EOC will be fully activated for 10 days, from January 26th through Super Bowl Sunday. Local, state, and federal partners will monitor the festivities helping to assure a safe and enjoyable experience for the hundreds of thousands of expected visitors. The Regional Joint Information Center (RJIC) will also be activated to monitor and provide accurate and timely information about transportation and traffic issues.

TRAFFIC AND TRANSPORTATION COMMITTEE
The Traffic and Transportation Committee Communications Working Group was created to coordinate communication planning efforts on matters relating to traffic and transportation management, as well as associated public safety issues at NRG Park. The committee, mostly composed of emergency management and transportation partners, worked closely with the Super Bowl Host Committee and law enforcement to make sure that accurate, timely and actionable information was provided to the public and the media. HCOHSEM communications staff and core transportation public information officers will staff the RJIC during the 10-day activation period.

In early December, a transportation guide for the festivities was unveiled. The transportation guide, part of a #KnowBeforeYouGo social media campaign, detailed options for getting around downtown and areas surrounding NRG Stadium. More than one million people are expected to converge on downtown Houston during the week leading up to Super Bowl 51.
HOMELAND SECURITY

Harris County Sheriff deputies during an EOC activation.
HCOHSEM develops, reviews and coordinates emergency management programs to meet the region’s homeland security needs. 2016 marked the first full calendar year of existence for the HCOHSEM Intelligence Task Force (ITF), which consistently provides timely, useful and actionable intelligence to local first responder agencies, emergency management personnel and county officials via its Threat Information Summary. This monthly strategic ITF product focuses upon local, regional, national, and international intelligence trends and issues of interest to partner organizations.

ITF members also share the Threat Information Summary at HCOHSEM’s quarterly homeland security briefings, through tailored presentations for area partner agencies and at meetings with local/regional security and intelligence-related government and industry groups.

The ITF is involved in all EOC activations to keep partner organizations informed about important developments in and around Harris County, focusing particularly on issues pertaining to the area’s critical infrastructure and homeland security. During activations, ITF members serve as liaisons to the local law enforcement and fire/EMS communities.

In 2016, ITF members attended such high profile events as the Texas Department of Emergency Management Conference in San Antonio and the National Homeland Security Conference in Tampa, Florida. They also participated in numerous classroom and practical training programs on topics ranging from criminal intelligence analysis to observational techniques and critical thinking.

While the ITF is directed by a full-time intelligence supervisor, the other team members are assigned to HCOHSEM by first-responder partner organizations. In 2016, these included the Harris County Fire Marshal’s Office (HCFMO); Harris County Toll Road Authority (HCTRA); and Harris County Constable Precincts 1 and 5. In addition, the ITF also works closely with the representatives from the Harris County Sheriff’s Office (HCSO).
HARRIS COUNTY SHERIFF’S OFFICE

The Harris County Sheriff’s Office (HCSO) Emergency Management Unit (EMU) at Houston TranStar is the sheriff’s liaison to HCOHSEM. The EMU assists with daily operations, incident situational awareness and training events. Deputies also help coordinate planning and response activities with local law enforcement organizations, federal agency partners and maintain and update homeland security emergency plans. They participate in various exercises/drills, EOC activations and other community outreach programs.

In 2016, the EMU worked closely with the HCSO Incident Management Unit (IMU) during severe weather activations to monitor area flooding and rescue operations.

WIRELESS EMERGENCY ALERTS

In 2016, HCOHSEM’s Public Information Officer and communications team were at the forefront of bringing together emergency managers, academia and partners from both the private and public sectors to improve the nation’s system for Wireless Emergency Alerts (WEA). Through the Communications Security, Reliability & Interoperability Council (CSRIC) of the Federal Communications Commission, a work group co-lead by HCOHSEM’s Public Information Officer drafted recommendations to vastly improve how residents will get emergency alerts to their mobile devices.

WEA were mandated by Congress in 2008 and introduced in 2012. They allow public safety officials to provide alerts to geographically targeted populations. WEA alerts are brief, only 90 characters, but hold out the promise of providing emergency information with minimal impact to people who are in no danger. With active HCOHSEM leadership on the issue, CSRIC provided extensive recommendations to keep the public safe and informed during emergencies.

As a result of this work, on September 29, 2016, the FCC issued a Report & Order and Further Notice of Proposed Rulemaking to start the road to these much-needed improvements to WEA:
• Narrows the WEA geo-targeting requirement from county-level to polygon-level (as defined by alert originator) standard, within 42 months

• Increases the character count of WEA messages from 90 to 360 characters, within 30 months

• Establishes a new classification of WEA – Public Safety Messages. These may be issued only in connection with an imminent threat, Amber or Presidential Alert and not as a stand-alone, non-emergency message, within 30 months

• Requires Commercial Mobile Service Providers (CMSPs) to support including URLs and phone numbers in WEA messages; effective one year from the rule’s publication in the Federal Register

• Requires CMSPs to support the transmission of Spanish language WEA, to appear on devices where the user has specified Spanish as their preferred language, within two years

• Requires CMSPs to log receipt of WEA messages and make data available to emergency management agencies via their alert origination software, within two years

• Requests comments on multiple proposals to improve WEA by leveraging technological advancements as well as lessons learned

Additional work by the wireless industry must take place before these recommendations can be implemented. The majority of these new capabilities should be online within the next three years

INCIDENT MANAGEMENT

HCSO’s IMU was created in 2016 to assist with the City of Houston’s existing SAFEClear program. The program quickly responds to calls from stranded motorists, assists with traffic control, and manages crash scenes. The IMU consists of 26 newly created positions that assist with freeway surveillance and incident response from Houston TranStar.

The IMU is responsible for authorizing tows, communicating with other agencies, and performing incident management duties at Houston TranStar. In the incorporated areas of Harris County, HCSO personnel coordinate incident response with the appropriate jurisdictions.

State-of-the-art monitoring systems help HCSO quickly identify traffic problems. More than 900 regional closed-circuit television cameras and real-time maps help law enforcement restore the flow of traffic, decrease delays, and improve safety. Clearing a scene rapidly reduces the risk of additional accidents.

MOTORIST ASSISTANCE PROGRAM

The Motorist Assistance Program (MAP) is a courtesy patrol operated by HCSO. It assists stranded motorists on area freeways. It operates Monday through Friday from 6 a.m. to 10 p.m. (excluding county holidays). Since 1989, MAP has helped clear the freeways of minor incidents and stalls. In 2016, MAP assisted 32,628 motorists.

MAP officers are fully equipped to assist with the following:

• Changing a flat tire.
• Supply fuel, water and/or air.
• Jump start vehicles.
• Assist with minor engine repair.
• Remove stranded vehicles from roadway.
• Provide courtesy transport of stranded motorist to a safe location.
2016 Snapshot of Activities

- Activations/Responses/Monitoring: 31
- Media Inquiries/Interviews: 1145
- Exercises/Drills/Training: 876
- Communication Products: 247
- Inter-Agency Meetings: 476
- Presentation/Outreach Events: 146
- Community Advisory Committee Meetings: 150
- Emergency Operations Center/TranStar Tours: 3381

> OPERATIONS
HCOHSEM’s Operations Section continuously monitors severe weather, terrorism alerts, and other developing situations. It also coordinates the county’s response to requests for emergency disaster assistance from area jurisdictions. During disasters or large-scale incidents, HCOHSEM activates its Emergency Operations Center (EOC) and works with local, state, and federal government to coordinate an overall response.

**EMERGENCY OPERATIONS CENTER**

The EOC is a centralized location where public safety, emergency response, county departments, community services and other jurisdictional agencies can coordinate planning and support activities.

The Harris County EOC is located at Houston Tran-Star. It is a state-of-the-art facility equipped with the latest technology and designed for round-the-clock operations.

During non-disaster times, HCOHSEM supports and coordinates disaster planning, community preparedness, mitigation and training.

In 2016, the Harris County EOC was activated 10 times, eight of those for severe weather.

- **January 2016 – Level 2 (High Readiness) activation** for the annual Houston Marathon. Lasted nine hours, with two people staffing the EOC.
- **February 2016 – Two Level 3 (Increased Readiness) activations** due to Red Flag Warnings. Lasted 20 hours, with four people staffing the EOC.
- **March 2016 - Level 3 (Increased Readiness) activation** for severe weather. Lasted 45 hours, with 102 people staffing the EOC.
- **April 2016 – Two Level 3 (Increased Readiness) activations** for the NCAA Final Four Championship and severe weather. Lasted 79 hours, with 159 people staffing the EOC.
- **April 2016 – Level 1 (Maximum Readiness) activation** for the Tax Day Floods. Lasted 178 hours, with 253 people staffing the EOC.
- **May 2016 – Two Level 3 (Increased Readiness) activations** for severe weather and flash flooding. Lasted 101 hours, with 110 people staffing the EOC.
- **June 2016 – Level 3 (Increased Readiness) activation** for severe weather. Lasted 48 hours, with 158 people staffing the EOC.
In emergency management, recovery is both a phase and a mission area. The recovery phase is a distinct stage that comes about after a disaster occurs and encompasses both operational and planning components that aid a community in returning to its normal state. The recovery mission area is composed of dedicated recovery capabilities, processes and functions that are used to create a more resilient community and further reach the national preparedness goal. Both pre-disaster and post-disaster recovery should epitomize the concept of interagency coordination and cooperation among local, state, federal, private and non-profit partners.

Harris County, the Texas Gulf Coast Voluntary Organization Active in Disaster, and other non-profits are heavily involved in all aspects of recovery. HCOHSEM continues to foster a close relationship with these organizations so that Harris County can continue to recover as efficiently and effectively as possible.

Before a disaster occurs, pre-disaster recovery planning is a key component to ensuring the whole community is represented and considered in disaster recovery plans and processes. After a disaster occurs, the operational components of recovery are prominent within a community, such as rebuilding homes, businesses, and public domains that were impacted. Using each disaster as a learning experience allows homeland security and emergency management professionals to better plan for and recover from disasters in the future.

From May 2015 to June 2016, Harris County was impacted by four severe weather situations resulting in catastrophic flooding. Due to this, Harris County was the recipient of four presidential disaster declarations; all four were awarded federal aid in the form of Small Business Administration Assistance and Individual Assistance, while two of these declarations also awarded Harris County Public Assistance. In 2016, HCOHSEM created a position for a Recovery Specialist and is in the process of creating several different recovery based initiatives and plans, including an overarching, regional comprehensive recovery plan.

A reported $82.5 million was awarded to Harris County residents for the two declared disasters in 2016.
ON-CALL
HCOHSEM personnel monitor severe weather, industrial accidents and other emergency situations 24/7, 365 days a year. An assigned on-call duty officer provides situational awareness during an event and is available to assist with resource requests or function as an on-scene liaison, if needed.

In 2016, HCOHSEM documented 4,726 notifications, requiring more than 622 hours of staff time.

INDUSTRY
The Industrial Liaison is a participant, and HCOHSEM liaison, for all Local Emergency Planning Committees (LEPC) in Harris County. The Industrial Liaison also coordinates the LEPC’s annual Membership Update Form for the State Emergency Response Commission.

As the Executive Administrator for the Greater Harris County LEPC (GHCLEPC), the Industrial Liaison works with the Texas Commission on Environmental Quality on statutory requirements for acquiring industry chemical inventories, also known as Tier 2 reports.

The Industrial Liaison is a member of the East Harris County Manufacturers Association (EHCMA) Emergency Management and Communications Committee. The committee works to improve the emergency communications process during industrial incidents. An electronic notification system serves as an EHCMA “Best Practice” for industry to alert their local emergency management organization of an industrial event or incident that will be noticeable to the community.

The HCOHSEM Industrial Liaison serves as the administrator for the EHCMA Hurricane Status Reporting System. This system allows for the reciprocation of information between industry and emergency management before, during and after impending hurricane threats.

As an EHCMA protocol, the Industrial Liaison also responds to industrial incidents to support stricken facilities with the timely and accurate dissemination of information to local emergency managers and elected officials. The information is used to determine the best course of protective action for the community. The Industrial Liaison represents HCOHSEM at nine east Harris County Community Advisory Panels (CAP) and

ACTIVATION LEVELS
The EOC has four levels of emergency response activation. The level of activation is determined by the Emergency Management Coordinator and depends on the severity and scope of the incident.

➤ LEVEL 1 – MAXIMUM READINESS
Hazardous and dangerous conditions exist and are a direct threat to life/property. Maximum readiness requires multiple operational periods and many agencies to support a response from the Emergency Operations Center.

➤ LEVEL 2 – HIGH READINESS
Hazardous or dangerous conditions exist or are imminent and pose a significant threat to life/property. High readiness requires multiple operational periods and numerous agencies to support a response from the Emergency Operations Center.

➤ LEVEL 3 – INCREASED READINESS
Hazardous conditions exist but pose no direct or imminent threat to life/property. Increased readiness may require additional agencies to support a response from the Emergency Operations Center, based on the nature of the incident.

➤ LEVEL 4 – NORMAL READINESS
No hazardous conditions are imminent and the normal capabilities of the Emergency Operations Center do not require the support of other agencies.
HCOHSEM’s Industrial Liaison has built collaborative relationships with industrial partners and community groups that are essential for effective emergency communications.

In 2016, HCOHSEM responded to 18 incidents.

- 1/27/16 – Tanker truck accident that leaked diesel in Channelview, Texas
- 1/28/16 – Chemical release of Chloroacetyl Chloride in La Porte, Texas
- 2/15/16 – Fire at a chemical facility in Pasadena, Texas
- 3/5/16 – Fire and explosion at refinery in Pasadena, Texas
- 4/10/16 – Fire and hazmat incident at chemical facility in Deer Park, Texas
- 5/20/16 - Peroxide decomposition and fire at chemical facility in Pasadena, Texas
- 5/24/16 - Sulfur Dioxide release at refinery in Houston, Texas
- 6/9/16 – Hydrogen Chloride container rollover at shipyard facility in Channelview, Texas
- 6/15/16 - Naphtha leak from tanker truck accident in Pasadena, Texas
- 7/14/16 - Benzene spill from a ship docked at a terminal in Deer Park, Texas. This spill closed the Houston Ship Channel and the Battleship Texas State Park
- 7/25/16 – Sulfur Dioxide release at refinery in Pasadena, Texas
- 8/09/16 – Sulfur Dioxide and Hydrogen Sulfide release at a refinery in Houston, Texas
- 8/23/16 - Transformer fire and explosion in Cypress, Texas
- 8/30/16 – Cetamine spill from an overturned tractor trailer accident in Pasadena, Texas
- 8/31/16 – Fire at a silo containing dry powder Phenol at a refinery in Deer Park, Texas
- 10/26/16 – Fire at chemical plant in Baytown, Texas
- 12/1/16 – Hydrochloric Acid spill from an overturned tanker truck in Pasadena, Texas
- 12/12/16 – Hydrochloric Acid and Sodium Hypochlorite spill from a tractor trailer in Aldine, Texas
• **JANUARY 8:** Reports of golf to tennis ball size hail in southwest Harris County including the City of Bellaire.

• **MARCH 18:** Severe storm produced hail and flash flooding in southeast Harris County. High water rescues were conducted near Interstate 45 and Lockwood Drive, and at the intersection of Almeda Road and Holcombe Boulevard.

• **APRIL 17-18:** Heavy rain caused extensive flash flooding, especially over the western half of Harris County where 10-16 inches of rain fell in less than 12 hours. Seven people died during this flood. First responders reported close to 2,000 high water rescues. An estimated 40,000 vehicles and more than 9,800 homes were flooded. The Addicks and Barker Reservoirs both reached unprecedented water levels, flooding some roadways in that area for weeks.

• **APRIL 27:** An EF-0 tornado hit the Tomball/Klein area in northeast Harris County. Wind gusts greater than 65 mph snapped and uprooted large trees; several fell onto vehicles and homes, one person died when a tree fell on her mobile home.

• **APRIL 30:** Wettest April ever recorded in Houston, with more than 14.39 inches of rain.

• **MAY 12:** Quarter and golf ball size hail lasting upwards of 20 minutes reported in the Jersey Village area.

• **MAY 14:** Flash flooding occurred in the Westbury area of southwest Harris County where 4-5 inches of heavy rain fell in less than two hours.

• **MAY 26-27:** Two rounds of severe thunderstorms produced excessive rainfall and flash flooding on the 26th and into the evening hours of the 27th. Rainfall of 4-6 inches during the 27th fell on top of the 6-10 inches from the previous night, leading to significant run-off into already flooded creeks across north Harris County. A Flash Flood Emergency was issued by the National Weather Service for extreme north and northwest Harris County. This is the second issuance of a Flash Flood Emergency for a part of Harris County in a six week period and the third time in the last 12 months.

• **JUNE 4:** More than 10 inches of rain falls north of Baytown in less than three hours, resulting in flooding along Cedar Bayou from FM 1942 to Galveston Bay.

• **AUGUST 12-14:** A tropical low drops 6-10 inches of rain over northwest Harris County, causing minor flooding.

• **AUGUST 22:** Several lightning strikes caused at least three house fires across Harris County.

• **DECEMBER 17:** Artic cold front drops temperatures in Harris County from 81 to 36 degrees in 10 hours.

• **DECEMBER 26:** A record high of 84 degrees surpassed the previous record of 80 (2015), making it the second warmest December ever.
PLANNING

Elected Officials Hurricane Briefing at NRG Center, June 2016.
HCOHSEM develops and maintains emergency operation plans based on an all-hazards approach. Harris County’s Basic Plan and its 22 annexes define how the county will respond to incidents and provide guidelines for emergency management activities including mitigation, preparedness, response, and recovery. A planning guidance for Functional Needs Support Services has also been integrated into current plans.

Each year, HCOHSEM submits annexes to the state to keep its advanced emergency management profile. This profile allows HCOHSEM to receive Emergency Management Performance Grant funding.

In 2016, HCOHSEM Planning Section:
• Updated four annexes
• Updated 67 internal plans and documents
• Produced 260 mapping products

ANNEX UPDATES
Annex A – Warning: Defines the organization, operational concepts, responsibilities and procedures to disseminate timely and accurate warnings to the public and government officials in the event of an impending emergency situation.

Annex L – Utilities: Describes the organization, operational concepts, responsibilities and procedures to prevent, protect from, respond to and recover from temporary disruptions in utility services that threaten public health or safety in the local area.

Annex R – Search and Rescue: Outlines the operational concepts and organizational arrangements for search and rescue operations during emergency situations in our community.

Annex T – Donations Management: Defines the concept of operations, organizational arrangements and responsibilities for coordinating the efforts of volunteer groups in managing donations for the City of Houston and Harris County in the aftermath of an emergency situation.

PLANS AND DOCUMENTS
POST-DISASTER CANVASSING PLAN
The Post-Disaster Canvassing Plan ensures the safety of Harris County residents following a disaster and secures the availability of critical necessities during the immediate recovery phase. This document outlines the process for systematically gathering information by conducting door-to-door
canvassing operations and assessing the needs of affected residents following a disaster. The information gathered is used to aid in the provision of services, goods, and other supplies that are needed to survive, all within a reasonable and timely manner.

**CRITICAL INFRASTRUCTURE AND KEY RESOURCES PLAN**
The Critical Infrastructure and Key Resources (CIKR) Plan describes how Harris County identifies CIKR, and how risk profiles are developed and stored. This information is used to support collaborative critical infrastructure security and resiliency planning efforts and provides necessary information to support personnel during response and recovery efforts.

**MASS SHELTER PLAN**
The Mass Shelter Plan provides guidance for shelter operations to displaced survivors within Harris County after a major disaster. This plan is a contingency plan to Annex C: Shelter and Mass Care, and should be referred to as a support guide for further information.

**GEOGRAPHIC INFORMATION SYSTEM**
A Geographic Information System (GIS) is used for planning and situational awareness. This provides the ability to analyze and map the many types of hazards and key resources in our area. GIS helps emergency managers to identify the best locations for pre-positioning assets and shelter locations, planning evacuations, and tracking of people and assets.

GIS models and simulation capabilities enable decision-makers to both exercise response and recovery plans during non-disaster times and also understand near real-time possibilities during an event.

HCOHSEM produced more than 260 mapping products in 2016 for local, state and federal emergency management partners.

**STATE OF TEXAS EMERGENCY ASSISTANCE REGISTRY**
HCOHSEM’s Planning Team manages the data collected from the State of Texas Emergency Assistance
Registry (STEAR). STEAR provides local emergency planners and responders with additional information on the needs in their community. Residents who register with STEAR provide information about their specific situation to emergency management officials who will work to help them evacuate safely, or provide them with the appropriate life-sustaining help they need during a disaster. This information also helps emergency planners as they develop plans and procedures for assisting residents during emergencies.

HAZARD MITIGATION PLAN
HCOHSEM held several interagency meetings in the first quarter of 2016 to review the implementation of the mitigation action items identified in the Harris County Multi-Hazard Mitigation Plan (HMP). As a result, the 2016 Annual Evaluation and Monitoring Report was developed in collaboration with 28 cities, four special purpose districts, and two private non-profits who reviewed the following items:

- Revisions for the next five-year update
- Disasters impacting the planning area in 2016
- Mitigation best practices and success stories
- Review of HMP and action items

Changes and/or additions to the HMP will be included in the next five-year update.

ELECTED OFFICIALS HURRICANE SEASON BRIEFING
HCOHSEM hosted elected officials and emergency management coordinators from across the region for an overview of the 2016 hurricane season and to discuss how all levels of government coordinate during a disaster.

The briefing covered general state issues, preparedness planning, evacuation routes and transportation evacuation management, functional access needs, points of distribution, fuel availability, and power restoration.
Logistics at White Sands Missile Range in New Mexico.
The Logistics Section works with various departments, jurisdictions, and vendors to manage the flow of goods and services during emergency operations in Harris County. Logistics also updates and maintains the EOC’s communications systems in order to efficiently respond to and mitigate emergency situations. In 2016, Logistics completed numerous projects and training courses.

**RESOURCE MANAGEMENT AND LOGISTICS PLAN**

The team successfully updated and exercised its Resource Management and Logistics Plan. The plan introduces the basic concepts, policies and procedures for providing and/or coordinating the provision of services, personnel, equipment, and supplies to support operations during emergencies.

In the past year, HCOHSEM rapidly expedited the mobilization of the Logistics Unit during EOC activations. After its initial set up, the unit focuses on resource management for partners while still fulfilling internal EOC requests for food detail, lodging, workspace allocations and general housekeeping.

During the flooding events, HCOHSEM worked in coordination with the Texas Department of Emergency Management’s (TDEM) Logistics department to mobilize hundreds of assets.

**EXERCISES AND TRAINING**

HCOHSEM Logistics continues to be a leader in the interoperability communications arena. Participating at the federal level with the Department of Homeland Security (DHS), Logistics took part in the nation’s first Cyber-Terrorism Public Safety Exercise at White Sands Missile Range in New Mexico. This training allowed HCOHSEM to test the capability and response of radio systems based on a technological terrorism attack.

Logistics also took part in a Near Vertical Incidence Skywave (NVIS) tabletop exercise with local and state partners. NVIS is a technique that has been used by the military, government and emergency responders for decades. It involves transmitting high frequency radio waves nearly straight up so that they bounce off the atmosphere and are received within a radius of a few hundred miles of the transmitting station. This is a good communication alternative that can be used when traditional communication technologies fail.

HCOHSEM continues to work with TDEM and the DHS Office of Emergency Communications (OEC) to provide core and beta communications training to partners. HCOHSEM has two fully accredited instructors on staff that conduct training for DHS/OEC Communications Unit Leader (COML), Communications Technician (COMT), Radio Operator (RADO) and Auxiliary Communication (AUXCOM) throughout the year.
Training & Exercises

Chemical, Biological, Radiological, Nuclear and High-Yield Explosives training, October 2016.
Training and exercises are integral parts of community readiness and preparedness. 2016 was a robust training year for Harris County, with focuses on intelligence and information sharing, situational assessment, operational communications, and community resilience.

In addition, HCOHSEM participated, promoted and provided numerous training opportunities for partners to help in the continual development of essential emergency management skills and to introduce new technology. Such trainings included incident management, communications, and risk management courses.

HCOHSEM hosted 69 training opportunities and participated in more than 25 partner exercises throughout the region, including the following:

**SPECIAL EVENT TRAINING**

Harris County is home to a multitude of pre-planned mass gatherings and special events each year. With the recent events of the Boston Marathon Bombings, Orlando Nightclub Shooting, and the Paris Attacks, HCOHSEM focused on training that would help in the response of potential man-made threats at special event facilities in the region. The training included risk management, site protection, and weapons of mass destruction (WMD) tactical courses.

These awareness and operational trainings brought together members of Harris County’s response communities to work and plan together and concluded with a final field exercise as part of the Prepared Jurisdiction: Integrated Response to a Chemical,

HCPH Strategic National Stockpile functional exercise, August 2016.
Biological, Radiological and Nuclear Defense (CBRNE) Incident course.

**MASS CARE WORKSHOP**
Each year, HCOHSEM and the Harris County Community Services Department coordinate to host the County’s Annex O Mass Care Workshop. In 2016, the workshop focused on severe weather, including lessons learned from the spring floods as well as looking ahead to hurricane season. It brought together members of the mass care community and gave participants the opportunity to network and learn from subject matter experts in mass care response.

**DONATIONS MANAGEMENT WORKSHOP**
In October, Harris County participated in the planning and hosting of the Urban Area Security Initiative Regional Donations Management Peer Planning Workshop. This workshop focused on helping planners in the 13-county region in developing and/or improving their donations management plan. This successful workshop brought together subject matter experts from local, state and volunteer communities to speak on lessons learned, and also provided planners with assessment tools to help them improve their local plans.

**POST-DISASTER CANVASSING**
In December, HCOHSEM hosted a tabletop exercise to test portions of its Post-Disaster Canvassing Plan. Events over the past two decades have highlighted the struggles American communities face when trying to respond to and recover from a disaster. This is especially true of persons with access and functional needs, who consistently fall through the proverbial cracks during and after a disaster for a multitude of reasons.

In 2016, Harris County sought to help bridge that gap by using a Post-Disaster Canvassing Plan, which describes how government entities, in partnership with non-profit and other private organizations, systematically canvass affected areas after
a disaster in order to assess the critical needs of affected residents.

The goal of the tabletop was to bring together representatives under the plan, including those from the non-profit community, Harris County Public Health, and Harris County Community Services Department, in order to familiarize participants with their roles and responsibilities under the canvassing plan. Participants also worked to identify existing gaps.

**PARTNER EXERCISES**

In 2016, HCOHSEM also participated in numerous partner exercises, including:

- United States Coast Guard Hurricane Matthew Full-Scale Exercise
- Harris County Sheriff’s Office Hurricane Tabletop Exercise
- Harris County Public Health Strategic National Stockpile Functional Exercise
- Lonestar College Lock Down Drill
- Coordination of Multiple Incident Sites Tabletop Exercise
- Bio Watch Super Bowl 51 Table Top Exercise

**STOP THE BLEED**

The “Stop the Bleed” campaign raises awareness of life-saving strategies and provides public access to bleeding control tools already used by first responders and the military. The course demonstrates what to do during emergencies such as shootings, terrorist attacks, and even something as common as a traffic accident. Participants learn how to apply direct pressure, how and when to use a tourniquet, and how and when to pack a wound to stop bleeding. HCOHSEM was the first government agency in the region to participate in this program and install a Bleeding Control Kit in its EOC.
CERT triage station, February 2016.
HCOHSEM works in collaboration with Harris County Citizen Corps to educate residents about disasters and how they can protect their families and neighbors during and after an emergency. This makes communities safer, stronger and better prepared to respond to threats of terrorism, crime, public health issues and disasters of all kinds.

HARRIS COUNTY CITIZEN CORPS
Harris County Citizen Corps offers year-round training and numerous opportunities for local residents to volunteer in their communities. Current membership includes 28,864 trained volunteers involved in 255 Community Emergency Response Teams (CERT); 21,892 volunteers from 24 Volunteers in Police Service agencies; 4,165 volunteers from the Medical Reserve Corps; 6,137 volunteers from the 351 neighborhoods participating in the USA on Watch program; and 24 Fire Corps programs.

NEW WEBSITE
Harris County Citizen Corps launched its redesigned website www.harriscountycitizencorps.com in 2016, just in time for National Preparedness Month. The website is now more user friendly and compatible with mobile devices. It automatically adjusts to fit the device that is being used to provide an optimal user experience. Residents can easily navigate the site and access information about the numerous volunteer and training opportunities available. It also provides emergency preparedness resources and the latest news and information. With more than 12 million hits, the Harris County Citizen Corps website is a trusted source.

2016 CERT Rodeo Round-up, February 2016.
TEEN CERT

The Emergency Management Association of Texas recognized former Harris County Citizen Corps Teen CERT Coordinator Rosie Flores with the 2016 Community Service Award for her arduous dedication to helping area students train for disasters. Since 2004, Flores worked to incorporate the program at dozens of high schools that helped train more than 13,000 students. Flores retired in 2016, but the Teen CERT continues to gain support and grow throughout Harris County. During the 2016-2017 school year, Teen CERT was offered at 17 area school districts.

Teen CERT empowers students as first responders for community emergencies. Students learn search-and-rescue tactics, disaster relief, triaging accident victims and fire suppression exercises. They are also versed in disaster psychology and terrorism awareness. The 30-hour curriculum is offered during the school day or at afterschool programs. When completed, final drills are held at the Harris County Fire and Sheriff’s Training Academy to test the students’ community responder skills. Last school year, a total of 1,500 students attended the final exercise.

VOLUNTEERS SUPPORT
BP MS 150

CERT volunteers and Amateur Radio Emergency Service (ARES) ham radio operators joined forces to provide support and communications for the more than 13,000 riders who participated in the 2016 BP MS 150. This event, the largest fundraising bike ride in the country, raises millions of dollars for Multiple Sclerosis research. It is also a great opportunity for CERT and ARES volunteers to put their skills to work at a major public event.

During the BP MS 150, volunteers help at the 17 rest stops positioned every 10 to 15 miles between Houston and Austin. Each of these stops provide food, hydration, port-o-lets, medical service, bike repair, and special assistance group operations for the riders. Communications at each stop and at the various entities along the route are coordinated through the command center located at the event headquarters.
in Houston. If an emergency arises, response plans are activated and communicated along the route. CERT and ARES volunteers have been part of this event for the last 10 years.

**CERT RODEO**
The Harris County Citizen Corps hosted another successful CERT Rodeo Round-up at the Harris County Fire and Sheriff’s Training Academy in Humble. CERT teams from across the state gathered to test their skills in basic medical operations, search and rescue, fire suppression, incident command, emergency preparedness and hazmat recognition. More than 300 volunteers participated at the 10th annual event.

Harris County Citizen Corps recognized the United States Coast Guard (USCG) for its continuous support of the CERT program and for working to keep the region safe. Coincidentally, 2016 marked the 100th anniversary of Coast Guard aviation.
COMMUNICATIONS

The free ReadyHarris App is available for Apple and Android devices.
During a disaster or crisis, emergency information is crucial. Harris County has an obligation to protect its residents and provide them with time-sensitive emergency information to help safeguard their lives and properties and ensure their safety and security.

The Communications Team develops HCOHSEM’s crisis communications messaging, including social media strategies and Harris County alerts, while focusing on outreach and community engagement to increase emergency preparedness.

EMERGENCY PREPAREDNESS APP
In 2016, HCOHSEM launched its emergency preparedness mobile app, ReadyHarris. The app is designed to improve communication, emergency preparedness, and resiliency for Harris County residents.

The ReadyHarris app delivers real-time news and weather alerts, hosts a step-by-step guide to building a personalized family disaster plan, offers survival tip sheets, maps evacuation routes, and locates local emergency services.

People depend on their smartphones and mobile devices to communicate, get the latest news, navigate the internet, and share information via social media. The ReadyHarris app empowers residents with the information they need to take action to protect themselves and their families.

The free ReadyHarris app is available at the App Store and at Google Play.

SOCIAL MEDIA
Social media has become a strong and growing influence on emergency management. When disaster strikes, many look to social media for their initial source of information. It has become second nature to see what is trending. Social media allows emergency managers to disseminate information to wider audiences, interact with the public, gain better situational awareness and improve collaboration in the county. HCOHSEM is very active on Facebook, Twitter and other social media platforms.

REGIONAL JOINT INFORMATION CENTER
The Harris County Regional Joint Information Center (RJIC) serves as the central location to coordinate multi-agency efforts to issue timely information to emergency management partners, the public and news media.

In 2016, the RJIC supported all EOC activations and activated its strike team several times for severe weather events. Strike team members include public information officers from Harris County departments and external agencies.

During the two major flooding events of 2016 - the Tax Day Flood and the May/June Floods - the RJIC worked closely with partner agencies and the media to disseminate critical information to the public. It also provided communications support for emergency management partners in surrounding counties.

During these events the RJIC logged the following:
- Media Calls – 324
- Interviews – 281
- Social Media Posts – 1,257
- Harris County Alerts – 95
- Partner Updates – 48
HCOHSEM staff working at the annual NWS Hurricane Workshop, May 2016.
Maintaining a robust public outreach program is key to HCOHSEM’s mission in encouraging personal disaster preparedness. HCOHSEM continues to work closely with partners in the public and private sectors, the faith based community, school districts and other groups to promote an all hazards approach to disaster preparedness.

**EVENTS & PRESENTATIONS**

In 2016, HCOHSEM took part in more than 150 outreach events and presentations. One of the larger events was the National Weather Service’s annual Hurricane Workshop held at the George R. Brown Convention Center. More than 3,000 residents from the Houston/Galveston area visited with exhibitors, elected officials, TV meteorologists, emergency managers and other experts to learn about preparedness in advance of the start of hurricane season.

Continuing its collaboration with industry partners, HCOHSEM worked with companies such as Shell, Chevron, Cobalt, and PeroxyChem to provide preparedness presentations during their safety meetings.

**NATIONAL PREPAREDNESS MONTH**

Every year, HCOHSEM supports the Ready Campaign to promote preparedness in our region. During National Preparedness Month (NPM) in September, HCOHSEM urged residents to prepare for emergencies by providing daily tips and giveaways on its social media sites.

**PREPAREDNESS MATERIALS**

More than 20,000 hurricane brochures, emergency essential check-lists, disaster preparedness wheels, Harris County Citizen Corps publications, and other educational items were distributed this past year. A majority of these items are available in multi-language formats.

**EOC TOURS**

Since the opening of the HCOHSEM’s new EOC in 2014, interest in touring the facility has increased. Government, businesses and local community groups tour the EOC year-round.

In 2016, more than 1,200 visitors toured both the EOC and Houston TranStar, among these, local, state, federal and foreign dignitaries. Tours can be requested at www.readyharris.org and www.houstontranstar.org/tours or by calling (713) 881-3000.
HCOHSEM receives two TAMIO Awards of Excellence.
HCOHSEM best practices are recognized by the Department of Homeland Security, the Federal Emergency Management Agency, the Emergency Management Association of Texas (EMAT), the Texas Association of Municipal Information Officers (TAMIO) and others.

HCOHSEM constantly improves planning and practices related to public information, communications, as well as disaster response and recovery. Many of those plans and practices are now models adopted by organizations around the world.

In 2016, HCOHSEM was honored with two awards at the annual EMAT Symposium – the Outstanding Emergency Management Public Information Award recognized the creation and implementation of Joint Information Strike Teams for short-notice incidents, and the Community Service Award received for exemplary leadership with the Teen CERT program.

This year, HCOHSEM also received two Awards of Excellence from TAMIO for its 2014 Annual Report and its 2015 Hurricane Public Service Announcement (PSA). The TAMIO awards recognize outstanding communication products.

Previous awards and recognitions include:

> 2014 DHS Innovative Practice: Infrastructure Systems: Developing a Critical Infrastructure and Key Resources (CIKR) Plan
> 2013 FEMA Individual and Community Preparedness Award – National Citizen Corps Honorable Mention for Outstanding CERT Initiatives
> 2013 EMAT Excellence in Emergency Management Award – STINGER
> 2012 FEMA incorporates HCOHSEM’s Tweets in Social Media Training Course
> 2011 Jack Colley Citizen Corps Leadership Award
> 2011 EMAT Excellence in Emergency Management Award – Joint Information Center Plan
> 2011 EMAT Excellence in Emergency Management Award – Business Commodities Plan
> 2011 FEMA Innovative Practice: Emergency Public Information: HCOHSEM’s Implementation of a Social Media Protocol
> 2010 Honorable Mention: National Citizen Corps Achievement Awards – Celebrating Resilient Communities
> 2010 FEMA Innovative Practice: Interactive Hurricane Evacuation Map
> 2009 DHS Innovative Practice: Lessons Learned: Joint Information Centers: Increasing Personnel to Operate a Phone Bank after an Incident
> 2009 FEMA Practice: Zip Code Based Evacuation Plan
> 2009 National Citizen Corps Council Achievement Award for Volunteer Integration
> 2008 Honored by President George W. Bush at the White House
> 2007 President’s Call to Service
> 2006 Governor’s Volunteer Award for Community Capacity Builder
> 2003 Best Practices Innovation Award from the Texas Association of Counties