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DIRECTOR’S MESSAGE

County Judge Ed Emmett, Director
Harris County Office of Homeland Security & Emergency Management
The State of Texas suffers from more natural disasters than any other state in the nation due to its size and diverse geography. Severe weather remains the biggest, and most common, threat for the residents of Harris County. The storms that ravaged the area in May and October of 2015 claimed several lives and left thousands of homes damaged.

Events like these remind us of the region’s vulnerability and the importance of having plans in place for when disaster strikes. The Harris County Office of Homeland Security & Emergency Management (HCOHSEM) continually develops and revises the county’s Emergency Operations Plan to address potential threats. HCOHSEM’s “all hazards” approach allows us to maintain the necessary resources to best meet the needs of any challenge with which we are faced.

As the population in Harris County increases, it is crucial that we educate newcomers and continue to remind long-time residents of the importance of preparing for disasters of all types. HCOHSEM is dedicated to providing the necessary training, outreach and communication strategies to keep the public informed about any and all emergency situations occurring in the county and this region.

We are committed to working with all of our emergency management partners to meet the overall goals of securing the county’s infrastructure and resilience efforts.

Sincerely,

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

Harris County Emergency Operations Center.
Tropical Storm Bill activation, June 2015.
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.

Houston TranStar Traffic Control Command Center.
Houston TranStar.
HCOHSEM is responsible for planning, integrating and implementing all emergency management and homeland security related activities for the county. It also strives to provide the highest level of emergency preparedness for its residents.

Harris County is the nation’s third largest county with more than 4.4 million residents. It is also one of the fastest growing counties; its unincorporated area alone could be the fifth largest city in the United States if it were incorporated as a single city. The county is comprised of 34 cities, 56 fire departments, 125 law enforcement agencies, 22 major watersheds and more than 1,200 municipal and public utility districts.

Through regional emergency planning, training and community outreach efforts, HCOHSEM works with all sectors to promote disaster preparedness and resilience. In the event of a large-scale emergency, HCOHSEM works with federal, state, local, public and private sector partners to ensure quick and effective recovery efforts.

Harris County’s close proximity to the Gulf of Mexico makes it vulnerable to tropical storms, but severe weather events like flash floods and winter storms are more common. Other threats can include wildfires, hazardous material and industrial accidents.

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.

Severe weather activation April, 2015.
HURRICANE SEASON

Tropical Storm Bill, June 15, 2015. Courtesy of NASA.
The Texas Gulf Coast was once again spared from a major storm in 2015. Despite the below average prediction, the Atlantic produced 11 named storms this season, four of which became hurricanes with winds of at least 74 mph, and two intensified into major hurricanes with winds exceeding 110 mph.

The season had an early start when Tropical Storm Ana developed more than three weeks ahead of June 1st. Ana became the earliest tropical storm in history to make landfall in the United States, north of Myrtle Beach on May 10th with 45 mph winds.

Tropical Storm Bill was the only storm to strike Texas this year. It rapidly developed in the Gulf of Mexico, making landfall on Matagorda Island on June 16th and weakening as it moved inland. Bill caused widespread flooding across East Texas. Some areas received up to a foot of rain, but fortunately only a couple of inches fell in Harris County.

While the Atlantic experienced a relatively quiet season, the Pacific was very active. On October 23rd, Hurricane Patricia became the most powerful tropical cyclone ever measured in the Western Hemisphere as its maximum sustained winds reached an unprecedented 200 mph. Patricia made landfall in Jalisco, Mexico, as a Category 5 hurricane. Harris County braced for another flood event as remnants of Hurricane Patricia crossed Mexico and moved into Texas. This storm dumped more than a foot of rain in some parts of the state, but not in Harris County.

The below-normal season was attributed to the existing atmospheric and oceanic conditions caused by a strong El Niño that can also be blamed for this year’s severe weather that caused major flooding in Texas.
FLOODING

Memorial Day flooding, Brays Bayou, May 2015.
Texas was hit hard with heavy rains in 2015. The month of May set a record as the wettest month in Texas history. Rains began early in the month, with the most severe weather starting on Memorial Day. Ten to 15 inches of rain fell in Harris County. Eight people lost their lives in that storm, and thousands of homes flooded. A federal disaster declaration was issued for Harris County on May 29th for damages occurring from May 4th to June 22nd.

A Harris County Flood Control District (HCFCD) report indicates that more than 6,300 homes flooded. Locally, Federal Emergency Management Agency (FEMA) flood insurance claims surpassed 3,300 flooded homes, with nearly 11,000 people requesting individual assistance.

In October, two people died during a period of severe weather that included tornadoes and flooding. On Halloween day, Harris County reported as much as 12 inches of rain, and the National Weather Service confirmed six tornadoes in south and east Harris County. Flooded roadways called for more than 100 water rescues that morning and HCFCD reported that nearly 400 homes flooded.

A federal disaster declaration was issued for Harris and 14 other Texas counties on November 25th for areas affected by severe storms between October 22nd and 31st.

HCOHSEM, in coordination with HCFCD and other local, state and federal emergency management partners, closely monitored the severe weather events.

HCOHSEM activated seven times for rain events in 2015.
HOMELAND SECURITY

Houston Ship Channel. Courtesy Port of Houston Authority.
Through effective situational awareness, HCOHSEM prepares the community, protects lives and plans for all natural and man-made threats. It also develops, reviews and coordinates emergency management programs to meet the region’s homeland security needs.

This year, HCOHSEM expanded its homeland security capabilities by creating the Intelligence Task Force (ITF). The ITF consists of county law enforcement partner liaisons who participate in the collection and dissemination of intelligence, as well as assisting in the identification of response resources. ITF partners include the Harris County Sheriff’s Office (HCSO), Harris County Fire Marshal’s Office and Harris County Constable Precinct 5.

HCOHSEM continues to participate in the Houston Regional Intelligence Service Center, which serves as focal point for the receipt, analysis, gathering and sharing of threat-related information between the federal government, state, local, tribal, territorial (SLTT) and private-sector partners. This partnership with the fusion center supports its mission to empower front-line law enforcement, public safety, fire service, emergency response, public health, critical infrastructure protection and private-sector security personnel to understand the local implications of national intelligence.

In 2015, HCOHSEM began hosting quarterly homeland security briefings for county leadership. The briefings highlight ongoing HCOHSEM activities that affect county departments and feature topics on evolving risks and threats in the region. Guest speakers from the U.S. Department of Homeland Security (DHS), Harris County Central Technology Services and the Texas Department of Public Safety reported on cybersecurity, border security and other homeland security issues.
FEDERAL COMMUNICATIONS COMMISSION

HCOHSEM’s Public Information Officer serves on the Federal Communications Commission’s (FCC) Communications Security, Reliability and Interoperability Council (CSRIC). The CSRIC’s mission is to provide recommendations to the FCC to ensure optimal security and reliability of communications systems, including telecommunications, media and public safety. The CSRIC has been addressing issues such as the transition to the next generation of 911, emergency alerting and cybersecurity.

In 2015, the FCC proposed to move forward on recommendations to improve Wireless Emergency Alerts (WEA), including message content and delivery, to ensure that the messages reach only those in affected areas, and to establish a WEA testing program that will improve the effectiveness of the system for public safety officials and the public.

CENTRAL TEXAS COASTAL AREA COMMITTEE

HCOHSEM works closely with the United States Coast Guard (USCG) on the Central Texas Coastal Area Committee (CTCAC). CTCAC serves as the spill preparedness planning body responsible for developing the Area Contingency Plan (ACP) required under the Oil Pollution Act of 1990. The ACP provides strategies for a coordinated multi-agency response to an oil spill, chemical release or marine fire occurring in navigable waters within or along the central Texas coasts of Brazoria, Chambers, Galveston and Harris counties.

HARRIS COUNTY SHERIFF’S OFFICE

HCSO’s 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 drills, Emergency Operations Center (EOC) activations and other community outreach programs.

In 2015, EMU personnel spearheaded numerous all-hazard preparedness events, coordinated six hurricane specific trainings for the sheriff’s command staff, organized the second annual table top exercise at Sam Houston State University, attended several public information meetings in support of the Harris County Public Health & Environmental Services’ response to the Ebola virus and took part in Community Assessment for Public Health Emergency Response activities.

HCSO’s Industrial Liaison is an active member with the Channel Industries Mutual Aid (CIMA) and well trained in hazardous materials. In 2015, the industrial liaison responded to several high profile incidents, was active in several full-scale drills, including active shooter planning and response sessions and inspections of Critical Infrastructure and Key Resources (CIKR).

EMU personnel also played a vital role in the development of the Digital Sandbox CIKR protection plan. In conjunction with regional partners and private property owners, they continually monitor, update and enter strategic data into the Digital Sandbox operating system. EMU personnel also are members of HCOHSEM’s Intelligence Task Force.

In August 2015, the sheriff’s Security Monitoring Assessment Group (SMAG) relocated its operations to the newly constructed USCG Sector Houston-Galveston facility at Ellington Field. With the use of state-of-the art video surveillance systems, SMAG personnel monitor the HSC and surrounding CIKR for any security threats. Likewise, the HCSO Marine Division conducts frequent patrols of the Houston Ship Channel and connecting waterways to ensure the safety of people and property, while the Air Support Unit monitors the same area from above.

EMERGENCY MANAGEMENT FUNCTIONS

› PREVENTION
Actions taken to stop or avoid an incident.

› MITIGATION
Measures to reduce the likelihood of occurrence or reduce the damaging effects of the hazard. These activities should be done prior to an incident.

› PREPAREDNESS
Preparedness activities increase a community’s ability to respond when a disaster occurs. Emergency response plans, evacuation plans, family communications plan and assembling a family disaster kit are just a few examples of preparedness.

› RESPONSE
Actions taken immediately before, during and after a disaster to protect lives and property from damaging effects. For individuals, it is being able to act responsibly and safely to protect yourself and your family from the impacts of a disaster.

› RECOVERY
Actions taken to return the community to normalcy. For catastrophic events, this may take years.
The Operations Section responds to major emergency incidents to provide support and coordination of local, state and federal resources. It also manages the Emergency Operations Center (EOC) during disaster activations.

Operations is responsible for the timely analysis of natural, civil and technological hazards, intelligence sharing and emergency response coordination.

Vital emergency response relationships are maintained with both public and private sector emergency response partners.

Emergencies in an area as large as Harris County require a coordinated response. HCOHSEM’s role includes incident monitoring, information gathering and dissemination and responding to incidents that require interagency coordination.

**EMERGENCY OPERATIONS CENTER (EOC)**

During disasters or large-scale incidents, HCOHSEM coordinates the overall response through the EOC. When activated, the EOC provides a central location for responding and supporting agencies to collaborate response and recovery efforts in order to effectively and efficiently provide information and deploy resources. In non-disaster times, HCOHSEM supports and coordinates disaster planning, community preparedness, mitigation and training.

The EOC is a state-of-the-art facility, equipped with the latest technology and designed for round-the-clock operations. It has 98 work stations equipped with electric adjustable-height desks, new monitors and computers, and new telephone systems. The wall-to-wall LED displays allow emergency officials to monitor news, hurricane tracking maps and satellite feeds.

In 2015, HCOHSEM’s EOC was activated 13 times. The Memorial Day Flood resulted in a Level I (Maximum Readiness) Activation. Authorities reported eight fatalities and thousands of flooded homes during that period. Brays Bayou recorded water levels not experienced since Hurricane Alicia in 1983. The wide-spread flooding left extraordinary physical and economic losses. Governor Greg Abbott declared 24 Texas counties disaster areas, and a Presidential Disaster Declaration was issued on May 29th.

Briefing during severe weather activation, November 2015.
ON-CALL

HCOHSEM personnel monitor severe weather, industrial accidents and other emergency situations 24/7. The 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 2015, HCOHSEM documented 3,742 notifications, requiring more than 504 hours of staff time.

INDUSTRY

HCOHSEM’s Industrial Liaison responds to industrial incidents and supports the Harris County Hazardous Materials Response Team on large-scale events. The liaison provides updates and information for HCOHSEM and its stakeholders and also serves as an on-scene safety officer.

HCOHSEM is active in nine Industry Community Advisory Councils/panels, multiple Local Emergency Planning Committees (LEPCs), and many fire and EMS associations and workgroups.

The Industrial Liaison works from the USCG Sector Houston-Galveston facility at Ellington Field, which provides better access and a more rapid response to the industrial areas of east Harris County.

In 2015, HCOHSEM responded to the following industrial incidents:

- Barbours Cut Hydrochloric Acid Leak
- PeroxyChem Control Room Fire
- SGS North America Hazmat Incident
- Morgan’s Point Ship Collision
- AES Deepwater Stack Demolition
- Channelview Rollover and Spill
- Overturned Asphalt Tractor-Trailer Hazmat Incident
- Deer Park Diesel Spill
- MEMC/Sun Edison Level 3 Release
- Highway 225 Pipeline Propylene Release
- Braskem Chemical Company Suspicious Package
- Petromax Refinery Crude Oil Spill
- Sun Edison Fire & Explosion
• **FEBRUARY 17:** Light sleet and snow flurries fell in Northwest Harris County.

• **APRIL 16:** Southeast Harris County gets 3-5 inches of rain and widespread wind damage in The Woodlands.

• **APRIL 17:** 3-5 inches of rain falls in southern Harris County in less than two hours, flooding vehicles and dozens of homes. Hobby Airport recorded 61 mph winds and severe flooding in that area.

• **APRIL 19:** Golf ball to baseball size hail reported in the Cypress, Tomball and Jersey Village areas.

• **APRIL 25:** Severe wind damage is reported over western Harris and northern Fort Bend counties.

• **MAY 13:** Up to 12 inches of rain over a three-hour period impacted southern Harris County. One fatality reported after a vehicle was swept into a drainage ditch on SH 3.

• **MAY 25-26:** Up to a foot of rain fell within three hours in southwest Harris and Fort Bend counties. Eight fatalities and thousands of structures flooded.

• **MAY 31:** May 2015 becomes the wettest month recorded in the state of Texas since 1895.

• **MARCH-MAY 2015:** The wettest spring ever recorded for Houston with 26.61 inches of rainfall, beating the 1993 record of 22.79 inches.

• **JUNE 17:** Tropical Storm Bill makes landfall with 60 mph winds near Matagorda Bay, located about 80 miles from Houston.

• **AUGUST 11:** Burn ban issued for Harris County and 67 other Texas counties due to rapidly developing drought conditions. A record breaking temperature of 106 was recorded at Bush Intercontinental Airport.

• **OCTOBER 24-25:** Remains of Hurricane Patricia help energize a non-tropical low off the Texas coast.

• **OCTOBER 31:** Excessive rainfall and tornadoes in Harris County claim two lives and flood more than 400 structures. Six EF-2 tornadoes leave damage in Friendswood, La Porte and Pasadena.

• **DECEMBER 25:** Hottest Christmas Day ever in Houston with a record high of 83. Old record was 82 in 1964.

• **DECEMBER 31:** 2015 ends as the fifth-wettest year on record in Houston, with 70.03 inches of rainfall.

*Data provided by HCFCD.
PLANNING

Courtesy of Harris County Toll Road Authority.
HCOHSEM develops and maintains the county’s Emergency Operation Plan based on an all-hazard approach. Each calendar year, HCOHSEM submits annexes to the state to keep its advanced emergency management profile. This profile allows HCOHSEM to receive Emergency Management Performance Grant (EMPG) funding. It also develops tools to assist emergency managers and planners in formulating, developing and writing emergency plans.

In 2015, HCOHSEM’s Planning Section:

• Updated four annexes
• Updated 46 internal plans
• Created nine internal HCOHSEM plans
• Produced 132 mapping products

This year, the Basic Plan and four annexes were updated and submitted to the state for approval.

HARRIS COUNTY BASIC PLAN

Harris County’s Emergency Operations Plan, also known as the Basic Plan, and its 22 annexes outline how the county will respond to an incident and provide general guidance for emergency management activities including mitigation, preparedness, response and recovery.

This year, 19 local jurisdictions signed on to the county’s Basic Plan which was recently updated by HCOHSEM and approved by Harris County Commissioners Court. In appreciation for their collaboration, HCOHSEM recognized the following cities: Bellaire, El Lago, Galena Park, Humble, Jacinto City, Jersey Village, Morgan’s Point, Shoreacres, South Houston, Southside Place, Taylor Lake Village, Tomball, West University Place, and the Villages: Bunker Hill Village, Hedwig Village, Hilshire Village, Hunter’s Creek Village, Piney Point Village and Spring Valley Village.

HCOHSEM reviews and revises the Basic Plan every five years.

STORM SURGE TIMING AND EVACUATION GUIDANCE

Tropical storms and hurricanes present a real and credible threat to the Texas coastline and our

Cities of Harris County meeting, September 2015.
immediate inland counties. Therefore, it is imperative for HCOHSEM to constantly maintain and modify its Hurricane Plan to ensure the protection of its residents and their property. This year, the entire plan was analyzed and two very important additional sections were included.

First, the potential for a “no notice” tropical system or hurricane to develop within the Gulf of Mexico is possible and has occurred in the past. This type of situation creates a compressed timeframe of only 36-48 hours to conduct pre-landfall objectives. The new timeline prepares emergency managers for a short notice event that may impact Harris County or the surrounding area. The strategy coordinates response activities and all necessary resources to assist Harris County and local governments in preventing and minimizing injury or death to residents resulting from a short notice hurricane or tropical system.

Second, an early storm surge produced from a tropical cyclone warrants the need for additional evacuation time to move residents to safety. When a tropical cyclone threatens the Texas coastline, a timeline for evacuation can be determined based on the projected surge, size of storm, tide, wind speed, forward motion, and distance from the coast. The new guidance supplies a general “rule of thumb” as to when a decision to evacuate may occur based on the predicted arrival of the storm surge, thus allowing residents ample time to evacuate before becoming trapped by flood waters.

HAZARD MITIGATION PLAN

In an effort to reduce disaster risks, Harris County adopted an updated Multi-Hazard Mitigation Plan (HMP) that includes 33 jurisdictions, four private non-profits and several stakeholders. The HMP assesses the adverse impacts from 15 natural hazards and three technological hazards, and provides several strategies to reduce these risks. The county’s multi-jurisdictional

The City of Bellaire is one of 19 jurisdictions under the Harris County Basic Plan.
mitigation planning process received recognition and inclusion in FEMA's Mitigation Best Practice Portfolio as a model of collaborative planning that promotes community resilience and reduces long term vulnerability. The HMP is beneficial to all jurisdictions and stakeholders because it serves as a gateway to hazard mitigation assistance grants and funding opportunities to reduce disaster risks and enhance community resilience.

**POWER OUTAGE PLAN**

The Power Outage Plan addresses how HCOHSEM will respond to power outages, both short and long-term, affecting the county. Due to the potentially widespread, yet uncertain nature of this type of event, coupled with the unknown effects of infrastructure interdependencies, this plan addresses the impact on public safety and continuity of government operations.
New Communications Center completed in 2015.
Aside from providing resources and other services to support the EOC during emergency operations, the Logistics Section develops and maintains all communications systems at HCOHSEM. Last year, Logistics completed a list of essential projects and training courses.

NEW COMMUNICATIONS CENTER

In 2015, HCOHSEM designed and completed its new state-of-the-art Communications Center to complement EOC operations. The Communications Center is connected to three automatically switching 800 KVA emergency generators and a 50 KVA uninterrupted power supply for surge protection and continuous operation. Available systems include: radio communications consoles with capabilities on all public safety frequencies, amateur radios, Emergency Alert System /Public Information Emergency System, hazardous materials response databases and radio tower to support equipment.

During an emergency, HCOHSEM coordinates with regional, state, and national operations centers through a host of systems and back-up systems, including the Internet, video-teleconferencing, satellite phones, 800 MHZ radio, short-wave/amateur radio, and local, state, and national warning/notification systems. Working with partners such as the Federal Bureau of Investigation, the Drug Enforcement Administration, the USCG and DHS has created a tertiary communications capability that is unique in public safety communications.

LOGISTICS WORK SPACE

The Logistics Section also completed its new Logistics Technology Room. This workshop allows the management, testing and maintenance of communications equipment and the operations of a standby backup data network.

Next to the Logistics Technology Room, a multifunctional Logistics Meeting Room was created to serve as the resource management hub for all resource processing in Harris County. This room can also serve a conference/meeting room during normal daily operations or can be easily converted into a phone bank during emergencies.

TRAINING

The ability of public safety responders to efficiently and effectively respond to and mitigate emergency situations relies heavily on the ability to communicate.

The Communications Unit Leader, a role in the Logistics Section of the Incident Command System (ICS), is designed to support interoperable communication needs for exercises, planned events and emergency incidents. Key positions operating in this unit are the Communications Unit Leader (COML) and Communications Technician (COMT). These positions are a valuable resource and should be used whenever possible during both the pre-planning and response to planned events and emergency incidents.

In 2015, HCOHSEM’s Logistics Section hosted:

- Two All-Hazards Type III Communications COMT courses recognized by the State of Texas and the DHS Office of Emergency Communications (OEC). A total of 32 emergency responders were trained to support the region’s responders and improve interoperability.

- One All-Hazards Type III COML course recognized by the State of Texas and the FEMA Emergency Management Institute. The course provided local level emergency responders across the region with an overview of the key duties and responsibilities of a Communications Unit Leader for a Type III All-Hazards Incident, including interoperability, frequency regulations, usage, incident communications systems and personnel management.

- An Auxiliary Communication (AUXCOM) Unit Course in coordination with the state of Texas to train experienced amateur radio volunteers to integrate their individual and organization’s efforts into the public safety communications support environment.

- The first national DHS/OEC Radio Operator (RADO) class.

HCOHSEM Logistics also was selected as a beta site for testing of the National High Frequency Email System with the Federal Shared Resources program. Email via HF can be used nearly everywhere on the planet, and is made possible by connecting an HF single sideband transceiver system to a computer, modem interface and appropriate software.
Logistics staff teaching AUXCOM course, January 2015.
HCOHSEM participates, promotes and provides numerous training opportunities for its partners. Courses include National Incident Management System (NIMS) training, continuity of operations, communications, incident command and situational awareness courses, to name a few.

In 2015, HCOHSEM’s training and exercise program focused on the capabilities of public information, operational communications and coordination, and mass care.

HCOHSEM hosted 70 exercises and participated in more than 35 partner exercises throughout the region including the following:

**HURRICANE SOCIAL MEDIA FUNCTIONAL EXERCISE**

HCOHSEM leads the way in not just social media use, but also in working with stakeholders/partners to improve collaboration and information sharing during a disaster. Events such as Tropical Storm Bill and the Memorial Day Flood have proven how much our residents rely on quick information.

In 2015, more than 15 county departments, the National Weather Service, Houston TranStar and the Texas Department of Transportation participated in the Hurricane Alexis Social Media Functional Exercise held at the Harris County EOC.

The exercise, the first of its kind in southeast Texas, tested the most commonly used social networks, including Facebook and Twitter. It also allowed agencies to gain a better understanding of what other departments are doing during an emergency. Participants learned about social media policies and procedures in a simulated atmosphere, using simulation software.

**POWER OUTAGE VIRTUAL TABLETOP EXERCISE**

In November, Harris County participated in a virtual tabletop exercise hosted by FEMA, along with 15 other communities around the United States. This exercise focused on the impact a long-term power outage would have on our local community and how response may be impacted without power. Although this drill concentrated on the impacts of a winter weather event, players also discussed what potential power issues can occur after a hurricane or extreme heat scenario.

**COMMUNICATIONS TRAINING**

In a disaster, communications between local, state and federal agencies is critical. During life-saving operations, preparations and recovery efforts, it’s important that members of the emergency management team be able to communicate with one another in real time. Striving for interoperability means the ability to work together within and across organizational boundaries to ensure the effective delivery of services.

Part of this effort is the training and certification of personnel. In 2015, HCOHSEM hosted several communication courses for county, regional and state personnel – among these COML, COMT, AUXCOM and RADO. As part of the Homeland Security Exercise Evaluation Program, these courses train personnel for upcoming events such as the National Collegiate Athletic Association’s Final Four in 2016 and Super Bowl LI in 2017. It also adds to the pool of resources for potential use in other state and national disasters as part of the Incident Management Teams.

**PARTNER EXERCISES**

In 2015, Harris County also participated in numerous partner emergency management exercises locally and in the surrounding region, including:

- Annex O – Health Workshop
- Harris County Sheriff’s Office Hurricane Tabletop
- Functional and Access Needs “Get It Right” Seminar
- University of Houston Downtown – Active Shooter Full Scale
- SouthEast Texas Regional Advisory Council CMOC Functional Exercise
- City of West University Place Tabletop
- I-STEP/Houston METRO Tabletop Exercise
- United States Coast Guard SECUREX Tabletop
- Various LEPC and industrial exercises
PREPAREDNESS

CERT Rodeo Round-up, February 2015.
HCOHSEM works with Harris County Citizen Corps to build resilient communities through education, training and volunteer service. This makes communities safer, stronger and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds.

HARRIS COUNTY CITIZEN CORPS

Each year, the Harris County Citizen Corps creates opportunities for local residents to volunteer to help their communities prepare for and respond to emergencies.

With a database of more than 80,000 volunteers contributing millions of training and service hours in the past 13 years, the Harris County Citizen Corps membership includes 23,734 trained volunteers involved in 253 Community Emergency Response Teams (CERT); 21,857 volunteers from 24 Volunteer in Police Service agencies; 4,089 volunteers from the Medical Reserve Corps; 6,137 volunteers from the 351 neighborhoods participating in the USA on Watch program; and 24 Fire Corps agencies.

With more than 11 million hits, its website harriscountycitizencorps.com is a trusted source for preparedness information and training opportunities. Harris County Citizen Corps news and updates are also available on Facebook.

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 500 participated in the ninth annual event.

This year, the Harris County Citizen Corps recognized 18 area volunteers with the President’s Lifetime Achievement Service Award during a special ceremony. The honor is given to those who have provided 4,000 hours of volunteer service to their communities. Harris County Judge Ed Emmett presented the awards, including a Life Time Achievement pin and a letter signed by President Barack Obama.

CERT HOSA PARTNERSHIP

Health Occupation Students of America (HOSA) is a national student organization that promotes service to the community and offers opportunities to expand and use learned skills in the health and medical fields. Harris County Citizen Corps is proud to be a community partner with several high schools through their local HOSA chapters. The CERT program helps train students to be proficient in safety basics they can use in their homes, schools, workplace and communities.
Harris County and City of Houston hold joint news conference, June 2015.
Providing clear, accurate and timely information to the public before, during or in the aftermath of an incident saves lives.

HCOHSEM's communications staff works closely with emergency management and media partners to educate and inform Harris County residents.

**PUBLIC SERVICE ANNOUNCEMENTS**

This year, HCOHSEM produced four public service announcements (PSAs) on hurricane and disaster preparedness. The PSAs remind residents that they cannot control when a disaster will strike, but they can prepare.

HCOHSEM released its hurricane preparedness PSAs during the summer urging residents to be prepared during hurricane season. The PSAs are testimonials of disaster victims sharing their experiences and advice.

The disaster preparedness PSAs were launched in September during National Preparedness Month. These were produced in the Harris County EOC, describing various emergency situations and encouraging residents to be prepared for all types of disaster.

The 15- and 30-second spots were produced in both English and Spanish, and distributed to local media and emergency management partners. The PSAs also are posted on YouTube at www.youtube.com/user/HCOHSEM.

**WEBSITE UPDATES**

HCOHSEM updated its Regional Joint Information Center website to improve its functionality and optimize it for mobile devices. Completed in time for the 2015 hurricane season, the revamped website incorporates responsive display technology. Responsive websites adjust the size of the view and format the content to adapt to the device being used. Site content is clear, legible and its full functionality is preserved.

The new layout prioritizes Harris County Alert messages and highlights real-time traffic, weather, school closures, power outages and flooding information in a centralized location. Through collaboration with other local offices of emergency management.

**PSA production shoot, February 2015.**
management and public safety stakeholders, www.readyharris.org is a one-stop shop for the region during disasters.

**SOCIAL MEDIA**

Social media tools allow emergency managers to disseminate information to wider audiences, interact with the public, monitor social media networks, get better situational awareness and improve collaboration.

In July, HCOHSEM hosted a social media disaster exercise. The exercise allowed participants to practice social media posting, monitoring, interaction techniques and multi-agency collaboration. This was the first of its kind in the state.

In December, HCOHSEM hosted two Social Media for Natural Disaster Response and Recovery classes. Participants learned how social media can be used in disaster preparedness, response and recovery and how to integrate social media into their current communications plans.

Social media posts surpassed 1,400 in 2015. Currently, HCOHSEM’s Twitter has more than 11,000 followers.

**REGIONAL JOINT INFORMATION CENTER**

HCOHSEM maintains the Regional Joint Information Center (RJIC), which serves as the central location to coordinate multi-agency efforts to issue timely information to emergency management partners, the public and news media.

New HCOHSEM JIC installations were completed in 2015. The new facility is better equipped to monitor incidents and provides ample workspace during drills, exercises, tabletops and actual events. The JIC is in close proximity to the EOC and can be rapidly activated.
The Memorial Day flooding and Tropical Storm Bill events highlighted the need for a rapid response capability that would quickly augment emergency public information efforts during short or no-notice events. This led to the development of a JIC strike team. Public information professionals from Harris County departments and key external partners were identified as potential team members based on their skills and expertise. The JIC strike team was activated several times for severe weather incidents in the latter part of 2015.

MEDIA RELATIONS

Media are considered part of the emergency management team prior to a disaster and are included in disaster planning and exercising activities. Media coverage is more informed and accurate if media partners know the local players and programs ahead of time.

HCOHSEM makes it a priority to invite media partners to exercises and meets with them regularly to discuss upcoming events. For example, every year, local TV meteorologists are invited to meet with emergency managers to discuss the upcoming hurricane season.

Last year, HCOHSEM handled more than 1,100 media inquiries and interviews with local, national and international media.

INTERNSHIP PROGRAM

HCOHSEM’s internship program has been successfully offering college students the opportunity to learn about emergency management since 2009. The program strengthens fundamental emergency management concepts and communication skills that prepare interns for future employment opportunities. To date, the internship program has hosted close to 60 students. Five of those are now full time employees at HCOHSEM.
Community interest in preparedness education spiked following the severe flood events of May 2015 throughout Harris County. Incidents like these remind the public of the region’s vulnerabilities and serve as a reminder that preparedness is a year-round task.

HCOHSEM continues to develop and deliver an effective public outreach program. It works closely with partners in the public and private sector, the faith-based community, school districts and other groups to continuously promote an all-hazards approach to disaster preparedness.

EVENTS & PRESENTATIONS

In 2015, HCOHSEM took part in more than 100 outreach events and presentations. One of the largest events, the National Weather Service Hurricane Workshop had an attendance of more than 4,000 people. Residents met with vendors and discussed hurricane preparedness with elected officials, local television meteorologists and other experts.

Other large events included the annual United Airlines Safety & Wellness Fair, the Harris Health fairs at Lyndon B. Johnson & Ben Taub hospitals and the NASA/Johnson Space Center Environmental Fair. HCOHSEM distributed preparedness materials to the thousands of employees who attended these events.

INDUSTRY

HCOHSEM maintains a strong collaboration with its industry partners. In 2015, the office participated in more than 20 safety meetings and presentations for companies such as BG Group, Chevron, Cobalt, Exxon Mobil, Kuraray America and Wood Mustang Group.

EOC TOURS

In 2015, more than 2,500 visitors toured the Harris County EOC and Houston TranStar, including dignitaries from China, Dubai, Poland, Taiwan, Turkey and Wales. Tours can be requested online at www.readyharris.org.
Collaborative Community Resilience: Multi-Jurisdictional Hazard Mitigation Planning

HARRIS COUNTY, TX - Harris County is the nation's third largest county with 34 cities and a population of 4.4 million residents. The County faces significant natural hazards, such as floods, hurricanes, storm surge, and severe thunderstorms. In an effort to mitigate the impacts of these disasters, Harris County adopted a multi-hazard mitigation plan that involves multiple jurisdictions and stakeholders. The County’s multi-jurisdictional mitigation planning process can be viewed as a model of collaborative planning that enhances community resilience and reduces long-term vulnerability.

The County’s mitigation plan was originally adopted in 2005, updated in 2010, and updated for a third time in 2016. Since 2005, the plan has grown from 26 jurisdictions to 33 jurisdictions, four Private Non-Profits (PNPs) and several stakeholders. The coordination of several partners, subject matter experts and community involvement led to the development of a mitigation plan that truly promotes collaboration and community resilience within the County.

The collaborative planning approach used in Harris County integrates various mitigation efforts of the County and over 30 jurisdictions into a single document. Due to the size and scope of Harris County, the multi-jurisdictional planning process takes approximately two and a half years to update the mitigation plan. This timeframe allows each jurisdiction to include its own unique risks, impacts, and vulnerabilities due to natural hazards. “This collaborative approach allows each jurisdiction the opportunity to not only meet FEMA requirements, but also to better familiarize each other with the vulnerabilities and needs of the whole community to enhance resilience,” said Mark Sloan, Harris County Emergency Management Coordinator. Harris County utilizes a Direct Representation Model, where each jurisdiction participating on the plan maintains its own Local Mitigation Planning Team (LMPT) to coordinate jurisdiction-specific mitigation planning efforts. To coordinate multiple jurisdictions, Harris County established a Multi-Jurisdictional Planning Team (MJPT), which is a coordinating entity that takes a collaborative approach and allows for consensus building on countywide sections of the plan. The MJPT is chaired by the Harris County Office of Homeland Security and Emergency Management (HCOSSEM) and consists of individuals that directly represent each jurisdiction. Stakeholders, such as subject matter experts and PNPs, are also involved and attend certain meetings and workshops to provide input for the plan. The major PNPs involved include the Texas Medical Center, St. Dominic Village, Methodist St. Johns Hospital, and Houston Hospice.

The County’s mitigation plan identifies 15 natural hazards and three technological hazards (Dam Failure, Pipeline Failure, and Hazardous Materials). To conduct a thorough Hazard Identification and Risk Analysis (HIRA), a GIS Risk Analysis Team was assembled with GIS professionals from various local agencies to geospatially analyze parcel-by-parcel each jurisdiction’s vulnerabilities and risks from natural and technological hazards. The GIS Team produced a uniform risk analysis across all jurisdictions, which allowed for a comparative and standard assessment methodology.

To ensure a holistic approach to community resilience, the public was encouraged to provide input and feedback on the plan. “Having multiple jurisdictions participate served as a force multiplier and increased the

HCOHSEM is a national model of best practices in emergency planning, preparedness, response and recovery. In a dynamic region with more declared disasters than most states, the formula for success is the engagement of all levels of government, the business community and volunteer organizations. HCOHSEM’s efforts to improve evacuation, communications and resource planning are now models for local governments throughout the nation. HCOHSEM best practices have been recognized by DHS, Emergency Managers Association of Texas (EMAT), FEMA, National Citizen Corps, Texas Division of Emergency Management and the White House.

Previous awards and recognitions include:


> 2014 DHS Innovative Practice: Infrastructure Systems: Developing a Critical Infrastructure and Key Resources (CIKR) Plan

> 2013 DHS Innovative Practice: Regional Joint Information Center Exercise: Disaster Communication on a Regional Scale

> 2013 FEMA Individual and Community Preparedness Award - National Citizen Corps Honorable Mention for Outstanding Community Emergency Response Team Initiatives

> 2013 Emergency Management Association of Texas Excellence in Emergency Management Award

> 2012 FEMA uses HCOHSEM's Tweets in Social Media Training Course IS-042

> 2011 Jack Colley Citizen Corps Leadership Award


> 2010 Honorable Mention: National Citizen Corps Achievement Awards – Celebrating Resilient Communities

> 2010 FEMA Innovative Practice: Interactive Hurricane Evacuation Map

> 2009 DHS Lesson Learned: Joint Information Centers: Increasing Personnel to Operate a Phone Bank after an Incident


> 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