



# Preparedness in Louisiana

Grant Effectiveness Case Studies, August 2014



# Demonstrating Grant Effectiveness

Louisiana's investments provide an opportunity to understand how Federal grants enhance local and national preparedness

FEMA and Louisiana jointly selected projects for the case study:

- FEMA developed a list of potential project by analyzing the state's grant funding data, investment justifications, preparedness assessment ratings, homeland security strategy, and recent disasters
- Louisiana revised the list and worked with FEMA to select the projects that illustrate the biggest impact of grant funding on preparedness outcomes

FEMA conducted a site visit and interviewed representatives from Louisiana stakeholders, including:



**Governor's Office of Homeland Security and  
Emergency Preparedness (GOHSEP)**



**Greater Lafourche Port Commission  
Port Fourchon**



**New Orleans Region Urban Areas Security  
Initiative (UASI)**

# Louisiana at a Glance

Louisiana's history of severe hurricanes and flooding has shaped its emergency preparedness and response initiatives

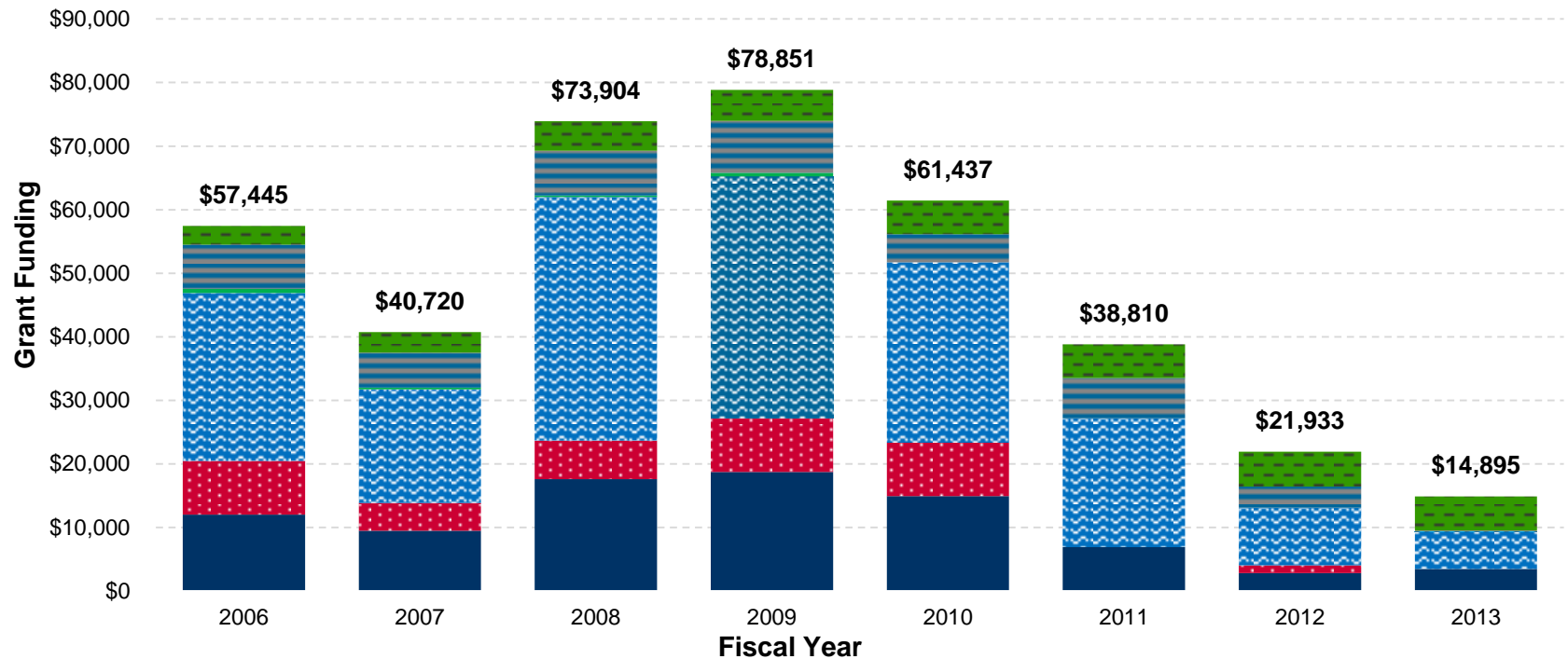
- Hurricanes Katrina and Rita in 2005 spurred widespread changes
- Since 2005, Louisiana has invested over \$380 million in Federal homeland security grants in **interoperable communications, partnerships to enhance disaster response and recovery, and critical infrastructure protection**



# Grant Funding Overview

Louisiana received over \$380 million in preparedness grants from FY2006 through FY2013

### Louisiana Grant Awards (in thousands)



- State Homeland Security Grant Program
- Port Security Grant Program
- Operation Stonegarden
- Emergency Management Performance Grant
- Urban Areas Security Initiative
- Transit Security Grant Program
- Assistance to Firefighters Grant

# Louisiana Preparedness Grant Projects

Louisiana's investments of Federal preparedness grants aid in their response to hurricanes and large-scale incidents

- **Louisiana Wireless Information Network (LWIN)** provides first responders with interoperable communications across the state
- **Louisiana Business Emergency Operations Center (LA BEOC)** ensures private-public coordination during incidents
- **Louisiana State Analytical & Fusion Exchange (LA-SAFE)** prevents terrorism and aids disaster response
- **Urban Search & Rescue (US&R) Teams** enable rapid response after incidents
- **New Orleans UASI Emergency Operations Centers (EOCs)** enable effective responses during large-scale events and disasters
- **Port Fourchon's C-4 (Command, Control, Communications, Collaboration) System** protects critical national infrastructure



# Louisiana Wireless Information Network

LWIN has enabled emergency response and public safety personnel to reliably communicate during catastrophic incidents

- Hurricanes Katrina and Rita highlighted flaws in Louisiana's communications infrastructure
- Louisiana invested over \$180 million—about half of which came from Federal preparedness grants—since 2005 to develop a state-wide interoperable public safety network that can link together with surrounding states' networks

LWIN provides **95 percent** street-level coverage to over **70,000 users** across **500 agencies**



**Federal Funding: \$90+ Million**  
**SHSP, UASI**

# LWIN Bolsters Disaster Responses

## Deepwater Horizon Oil Spill (2010)

- U.S. Coast Guard (USCG) requested aid to assist with communications issues
- LWIN linked wireless systems from neighboring states together to extend communications along the Gulf Coast
- Federal, state, and local officials from Florida to Texas on and off land could communicate seamlessly with each other



## Hurricane Issac (2012)

- LWIN increased communications capacity and handled over twice the call volume compared to during Hurricane Gustav in 2008
- LWIN features multiple layers of redundancies, ensuring overall system resiliency during catastrophic disasters

# LWIN Assists in Dense, Urban Areas

LWIN investments in the New Orleans region have provided reliable communications during large-scale events and incidents

- New Orleans regularly hosts large-scale events and festivals, requiring significant surge communications capacity
  - Daytime population: 330,000 → Large event population: **2,000,000**
  - Super Bowl XLVII, annual Mardi Gras, Sugar Bowl, and Jazz Festival
- Urban Areas Security Initiative (UASI) investments in additional tower sites, remote equipment monitors, and in-building radio repeaters enable comprehensive coverage

The number of busy signals experienced by first responders decreased by over **90 percent**, ensuring reliable communications capabilities





# Louisiana Business Emergency Operations Center

LA BEOC has enabled the business community to actively participate in disaster response and recovery

- Hurricane Gustav highlighted the need for better collaboration with private-sector partners to provide enhanced capabilities and efficiencies during emergency response
- Louisiana used State Homeland Security Program (SHSP) funds to establish the LA BEOC—a joint development between:
  - GOHSEP
  - Louisiana Economic Development
  - University of Louisiana at Lafayette
  - Louisiana State University



Federal Funding: \$260,000  
SHSP

# LA BEOC Assists During Disasters

- **Hurricane Isaac (2012):**
  - LA BEOC activated for nine days and supported the state in transporting sandbags to prevent flooding in Lafourche Parish
- **Economic Impact Analysis:**
  - LA BEOC compiles an analysis based on local business input to assist state and local officials in drafting a preliminary damage assessment
- **Continuity of Operations (COOP):**
  - LA BEOC developed a “Get a Business Plan” app to encourage businesses to have a plan in place in the event of a disaster



LA BEOC coordinated private-sector support in the response to Hurricane Isaac, saving state officials both time and money

# Louisiana State Analytical & Fusion Exchange

LA-SAFE has increased security by investigating terrorist threats and improved preparedness by aiding officials during disasters

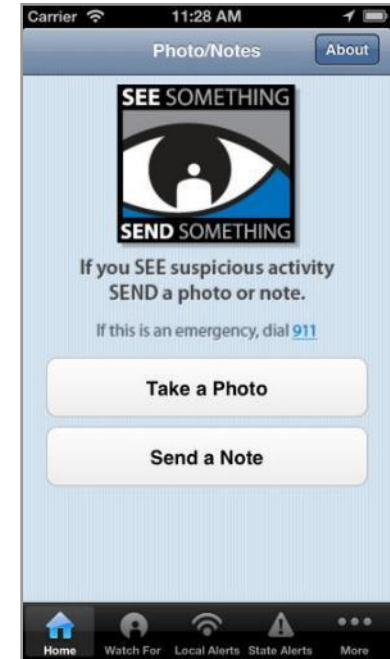
- Louisiana invested over \$3.4 million of Federal preparedness grants in LA-SAFE
- Fusion Liaison Program:
  - Trained **over 200 first responders** to enhance all-hazards and all-crimes information sharing
- **Hurricane Isaac (2012):** LA-SAFE located a missing fertilizer truck that had sparked concerns of possible terrorism



Federal Funding: \$3.4 Million  
SHSP, EMPG

# LA-SAFE Capabilities and Programs

- **LA-SAFE Cyber Fusion Unit (LCFU):**
  - Created in 2009 and was the first fusion center with cyber capabilities
  - Provides **actionable cyber intelligence** to LA-SAFE customers and detected serious malware infections in:
    - A U.S. government research facility
    - A private-sector entertainment company
    - Higher education institutions
    - Internet service providers nationwide
- **See Something Send Something App:**
  - Over 500 submissions by the public
  - Assists in human trafficking investigations



LA-SAFE has protected cyber assets and assisted in criminal investigations with its cyber capabilities and tools

# Urban Search & Rescue (US&R)

Louisiana's US&R capabilities support local and regional responses to hurricanes and disasters

- In its Hurricane Katrina After Action Report, Louisiana recognized that it lacked the US&R capabilities needed to support large-scale disaster responses
- Beginning in 2009, the state invested \$1.7 million in SHSP and UASI funds to train and equip three state-wide US&R teams:
  - Based in New Orleans, Baton Rouge, and Shreveport-Bossier City
  - Two smaller regional teams established in Pineville and Monroe



Federal Funding: \$1.7 Million  
SHSP, UASI

# US&R Teams Aid in Tornado Response

- **Tuscaloosa, AL Tornado (2011):** Alabama requested Louisiana's US&R teams via the Emergency Management Assistance Compact (EMAC)
  - **Within 24 hours, 120 responders** from all five teams deployed
  - Teams **assisted for ten days** and conducted physical, technical, and canine searches over a six square-mile area
  - Provided relief to the Alabama teams, which had been operating for five days straight
  - Demonstrated the value of shareable assets in responding to regional emergencies



Louisiana US&R teams provided quick relief aid to partners following the Tuscaloosa, AL tornado

# US&R and CBRNE in New Orleans

- New Orleans sponsors the LA Region 1 US&R team
  - Capabilities include structural collapse, confined space, water, and vehicle rescue
  - Assisted in searches in Lake Pontchartrain in 2011 and the Intracoastal Waterway in 2012
  - Conducts regional incident training and exercises
- Maintains CBRNE rapid response capabilities
  - Two CBRNE vehicles with Type I and Type III teams
  - Investment is based on the UASI's Threat and Hazard Identification and Risk Assessment (THIRA), which identified the threat from the chemical industry in surrounding areas
  - Pre-staged CBRNE assets during Super Bowl



US&R and CBRNE assets have protected New Orleans and are shared with surrounding jurisdictions during incidents

# New Orleans UASI Region EOCs

EOC investments have enabled coordinated responses during hurricanes and other large-scale emergencies

- The lack of backup systems and adequate space in the New Orleans EOC hampered the Hurricane Katrina response
- The city invested UASI funds to harden the EOC with:
  - Upgraded generators, separate ventilation and air conditioning systems, and stronger storm shutters

Expanded footprint to accommodate response officials, from 13 seats → 86 seats for State, local, and Federal partners

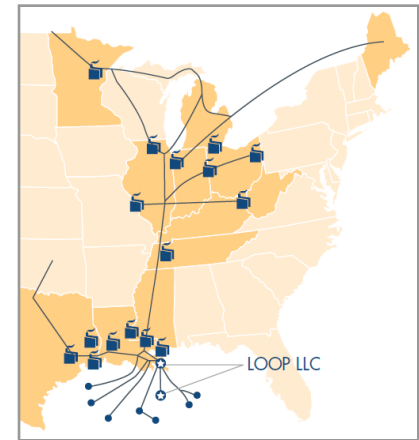
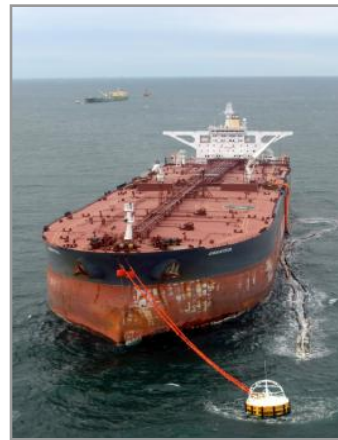
- Reliable power and redundant IT services enabled officials to more effectively direct the response during Hurricanes Gustav and Isaac
- Other New Orleans Region UASI parishes improved their EOCs to provide backup locations in a severe disaster





# Port Fourchon

- Port Fourchon services nearly **20 percent of the Nation's oil supply**
  - Conduit used for the equipment and personnel in offshore deep-water oil and gas exploration and drilling
  - Louisiana Offshore Oil Port (LOOP): the Nation's only deep water oil port
    - Enables the unloading of crude oil from supertankers and links to pipelines that feed approximately 50 percent of our country's refining capacity



Port Fourchon and the LOOP are critical elements of the supply chain supporting the Nation's oil supply

# Port Fourchon C-4 System

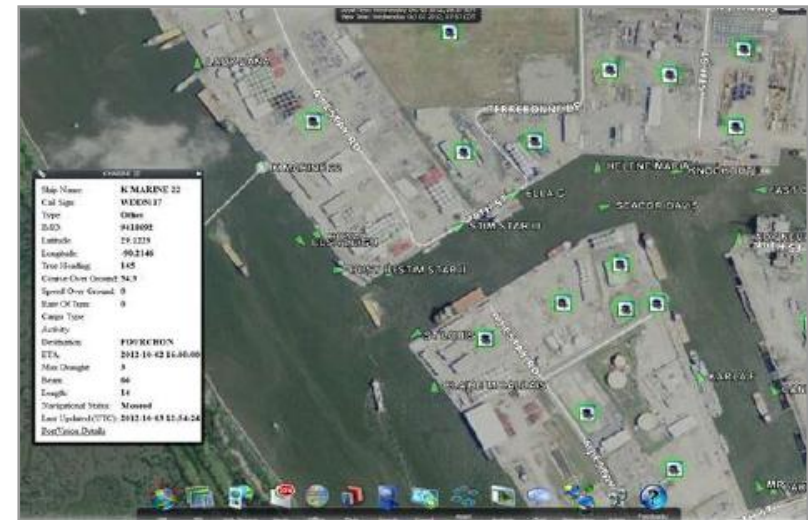
- The Greater Lafourche Port Commission invested \$10.3 million in Port Security Grant Program (PSGP) funds to create the **Port-Wide Maritime Domain Awareness system known as C-4 (Command, Control, Communications, Collaboration)**:
  - Protects the critical port infrastructure from security threats
  - Assists in emergency response operations
- C-4 System provides a shared view of the port and the region to:
  - Port Fourchon operators and staff
  - Harbor Police
  - Lafourche Parish Sheriff's Office
  - Lafourche Parish EOC
  - State, local, and Federal partners



**Federal Funding: \$10.3 Million  
PSGP**

# C-4 System Key Capabilities

- Incorporates workgroup sharing and role-based access controls to allow data sharing among local, State and Federal officials
- Models vulnerabilities and dependencies of critical assets
- Runs real-time “what-if” scenarios
- Facilitates incident management
- Aggregates multiple systems:
  - CCTV and video analytics
  - Vessel tracking radar
  - Weather data inputs
  - Automated Information System (AIS) for vessel tracking
  - Law Enforcement Data Sharing (LEDS) system



# C-4 System in Incident Response

## Hurricane Isaac (2012)

- Officials used the C-4 system to remotely monitor water levels and damage to the port
- Responders prepositioned assets and returned Port Fourchon to normal operations within three days
- Officials monitored floodgates and levees that protect Lafourche Parish



## Deepwater Horizon Oil Spill (2010)

- C-4 system helped track and coordinate the deployment of **117 miles of oil containment booms** along the coast in Lafourche Parish, protecting fragile ecological environments

C-4 system coordinated effective responses to Hurricane Isaac and the Deepwater Horizon incident



**FEMA**

