


Nov 9-10, 2016

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|---|---|---|--|
|  <p>www.epaossc.org/rrt6-homepage</p> | <p><u>Meeting Location:</u></p> <p>US EPA Training Center 16650 Westgrove Drive Addison, Texas</p> | <p><u>RRT Co-Chairs</u></p> <p>Ronnie Crossland, EPA Crossland.Ronnie@epa.gov</p> <p>Michael Sams, USCG Michael.K.Sams@uscg.mil</p> | <p><u>RRT Coordinators</u></p> <p>Steve Mason, EPA Mason.Steve@epa.gov</p> <p>Todd Peterson, USCG Todd.M.Peterson@uscg.mil</p> |
|---|---|---|--|

RRT-6 Executive Committee Meeting – Tuesday, Nov 8, 2016

1:00 – 4:30 PM Executive Meeting (Invite only)

Day 1 -- RRT-6 General Session -- Wednesday, Nov 9, 2016

| Time | Topic | Presenter / Facilitator |
|---------------------------|---|--|
| 8:30 – 9:00 AM | Introductions / Administrative Announcements / Opening Statements | Ronnie Crossland, EPA / Michael Sams, USCG |
| 9:00 – 9:30 AM | Review of 2016 RRT Priorities / Status | Michael Sams, USCG |
| 9:30 – 9:45 AM | Open Forum | All |
| 9:45 – 10:15 AM | Federal Agency Reports | Federal Agencies |
| 10:15 – 10:30 AM | Break | |
| 10:30 – 11:30 AM | Federal Agency Reports (continued) | Federal Agencies |
| 11:30 AM – 1:00 PM | Lunch | |
| 1:00 – 2:00 PM | State Reports (NM, TX, AR, OK & LA) | State Agencies |
| 2:00 – 2:45 PM | Use of Marplot for Planning / Response Purposes | Tom Bergman, ODEQ |
| 2:45 – 3:00 PM | Break | |
| 3:00 – 4:00 PM | NASA Imagery Products available to RRT | Mr. Jordan Bell, University of Alabama |
| 4:00 – 4:30 PM | Executive Order 13650 Update | Steve Mason, EPA |
| 4:30 – 5:00 PM | Use of Poison Control Centers during an Incident | Hilary Gafford, EPA START |
| 5:00 PM | Adjourn | |

Networking Session – Location TBD

Adobe Connect: <https://epawebconferencing.acms.com/region6rrtmeeting/>

Conference Call: 866-299-3188 Pin: 214-665-2292#

Day 2 -- RRT-6 General Session -- Thursday, Nov 10, 2016

| Time | Topic | Presenter / Facilitator |
|--|---|--|
| 8:30 – 9:15 AM | ESA Section 7 Consultations / NRT Environmental Compliance Subcommittee | Holly Herrod, USFWS |
| 9:15 – 9:45 AM | Pipeline Roles & Responsibilities | Gary Petrae, BSEE & Eddie Murphy, Mary McDaniel, PHMSA |
| 9:45 – 10:00 AM | TGLO Oil Spill Toolkit, 18 th Edition / Drone Spill Response | Steven Buschang, J.T. Ewing, TGLO |
| 10:00 – 10:15 AM | Break | |
| 10:15 – 10:45 AM | APC Subsea Dispersant Exercise Recap | Mike Drieu, APC and Michael Sams, USCG |
| 10:45 – 11:15 AM | PREP Guidelines | Jonathan Smith, USCG HQ |
| 11:15 AM – 12:45 PM | Lunch | |
| 12:45 – 1:30 PM | EPA FOSC Reports | EPA FOSCs |
| 1:30 – 2:30 PM | USCG FOSC Reports | USCG FOSCs |
| 2:30 – 3:00 PM | Aframax River Incident Overview | LCDR Brent Yezefski, USCG Sector Houston-Galveston |
| 3:00 – 3:15 PM | Open Forum | All |
| 3:15 – 3:30 PM | Closing Remarks | Ronnie Crossland, EPA / Michael Sams, USCG |
| 3:30 PM | Adjourn | |
| Adobe Connect: https://epawebconferencing.acms.com/region6rrtmeeting/ Conference Call: 866-299-3188 Pin: 214-665-2292# | | |
| Dates for next RRT Meetings: | (Confirmed) (Confirmed) (Proposed) | Spring 2017 Fall 2017 Spring 2018 |
| | | May 10-11, 2017 Nov 8-9, 2017 May 9-10, 2018 |



2016 Conference and Exhibition

API Recommended Practice First Ballot

- Issued Sept 29 2016
- API Bulletin 4719 1st Edition Ballot for *Industry Guidelines on Requesting Regulatory Concurrence for Subsea Dispersant Use*
- <http://ballots.api.org/ecs/dpos/bull4719-1ed-ballot.pdf>.
- Ballot ID Number API Ballot ID #3976
- If non voting API members interested in providing comments

Email Mike Drieu at mike.drieu@anadarko.com

- Comments due November 11, 2016

DCE Region VI

“TEAM TALON”

(Texas, Arkansas, Louisiana, Oklahoma, New Mexico)





References

- DoD Directive 3025.18, Defense Support of Civil Authorities (DSCA), 29 Dec 10 (w/change 1, Sep 2012)
- Robert T. Stafford Act Disaster Relief & Emergency Assistance Act
- Economy Act of 1932
- National Incident Management System (NIMS)
- National Response Framework (NRF)
- Title 10, United States Code, § 12304 Mobilization/Activation of Reserve Forces)



*Office of the Assistant Secretary of Defense
Homeland Defense and Global Security*

Defense Support of Civil Authorities (DSCA)





Defense Support of Civil Authorities (DSCA)

- ☐ **Support provided by U.S. Federal military forces, National Guard forces performing duty pursuant to Title 32 U.S.C., DoD civilians, DoD contract personnel, and DoD component assets, in response to requests for assistance from civil authorities or from qualifying entities for special events, domestic emergencies, designated law enforcement support, and other domestic activities. Support provided by National Guard forces performing duty in accordance with Title 32, U.S.C. is considered DSCA but is conducted as a State-directed action.**
- ☐ **Also known as Civil Support (CS).**

DoD Directive 3025.18
December 28, 2010/2012 Update

Department of Defense

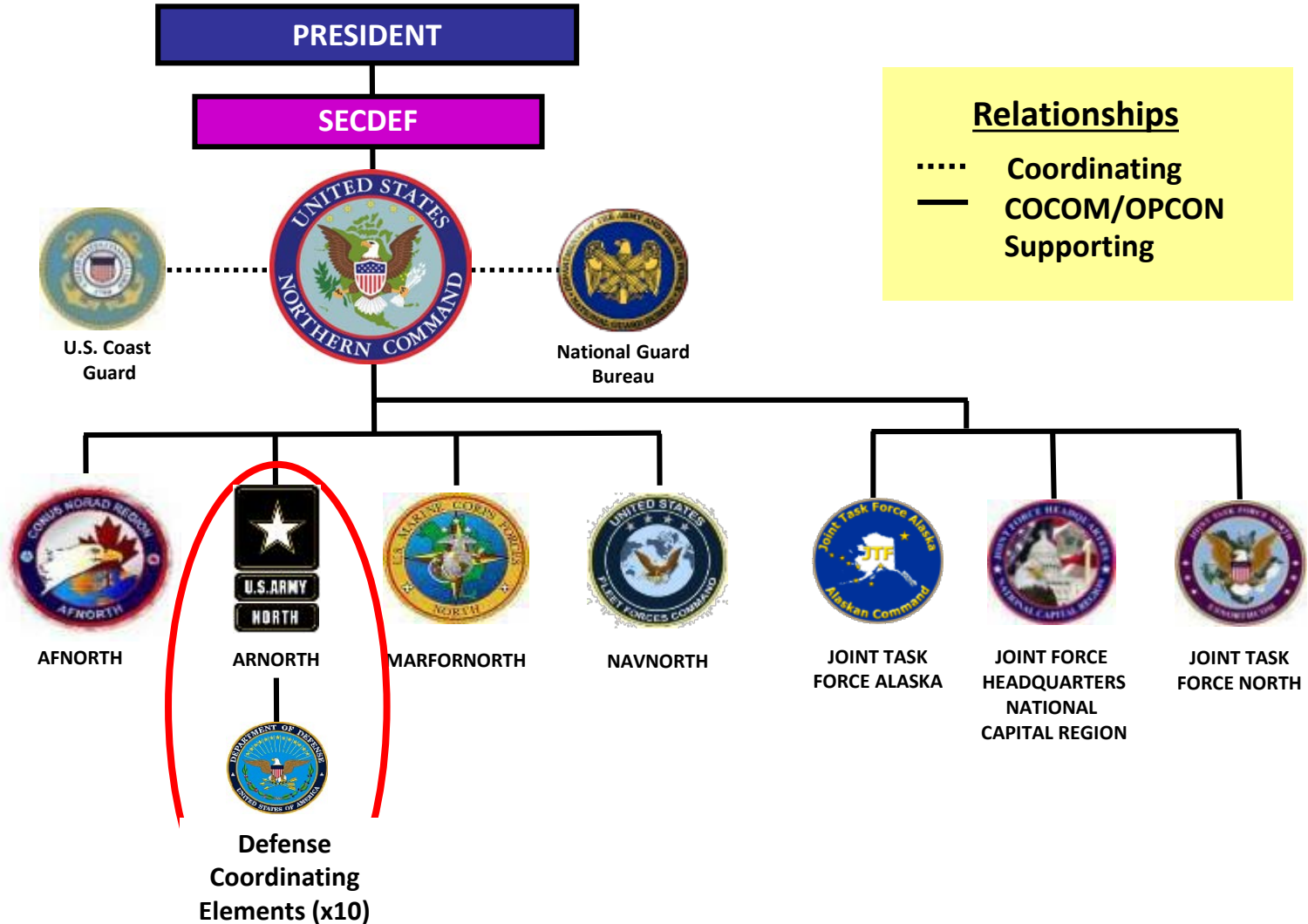
The collage features a variety of national symbols and defense-related logos. At the top are the flags of Canada, Mexico, and the Bahamas. Below these are several military and defense emblems, including the Transport Canada logo, the Public Safety Canada logo, the SEDENA (Secretaría de la Defensa Nacional) logo, the SEMAR (Secretaría de Marina) logo, the SEGOB (Secretaría de Gobernación) logo, the SALUD (Secretaría de Salud) logo, the Ministry of Defense of the Bahamas, and the Ministry of Defense of the United Kingdom. The bottom of the collage shows the flag of the United Kingdom and the flag of the United States.



Interorganizational



Geographic Combatant Command (USNORTHCOM)



NORTHCOM's Theater Army



Mission

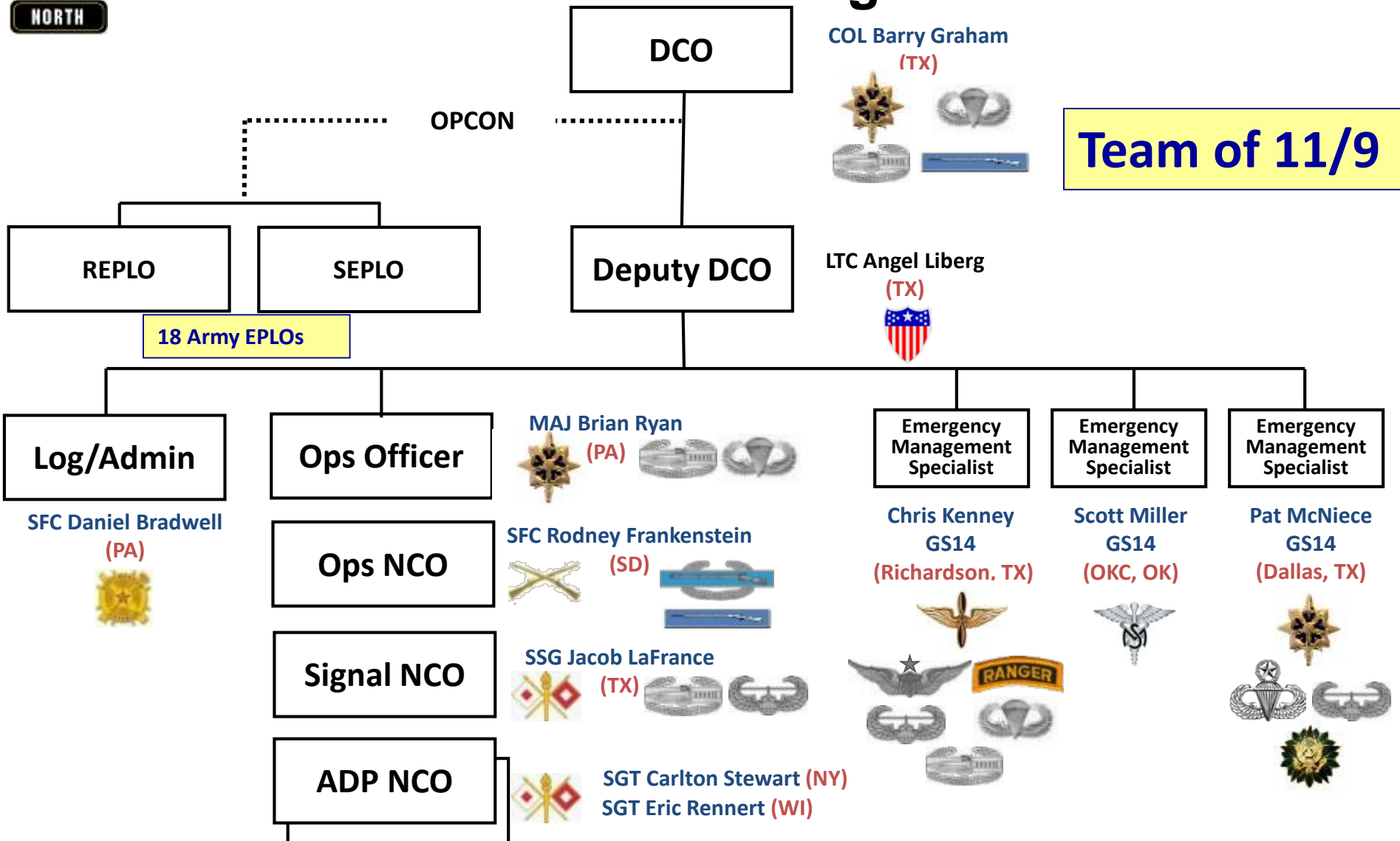
On order and in response to natural / manmade incidents, **the Defense Coordinating Officer / Defense Coordinating Element (DCO/DCE)** anticipates and conducts **Defense Support of Civil Authorities (DSCA)** operations coordinating Title 10 forces and resources in support of the **Federal Primary Agency (PA)** in order to minimize impacts to the American people, infrastructure and environment.

- **NOTE:** *DoD NOT Funded for DSCA \$\$*

UNCLASSIFIED



Defense Coordinating Officer Defense Coordinating Element



NORTHCOM's Theater Army

UNCLASSIFIED

Situation - DSCA as a Spectrum of Support



Length of arrow denotes relative time required to respond with required capabilities at incident/event site(s)



SecDef Involvement. Examples include:

- Declare "complex catastrophe"
- Approve DSCA requests
- Approve RFF
- Notified before movement, PTDO, or employment
- Transfer assigned and attached forces between CCMDs

Complex Catastrophe*:

- Little or no warning
- Naturally-occurring or manmade (if manmade and WMD, could be part of a larger attack on the Homeland)
- State/Local/Federal assets immediately overwhelmed
- Requires extraordinary speed of response
- Requires Transitional and Enhanced C2
- Cascading effects

* *Current response processes are not optimized for a complex catastrophe*

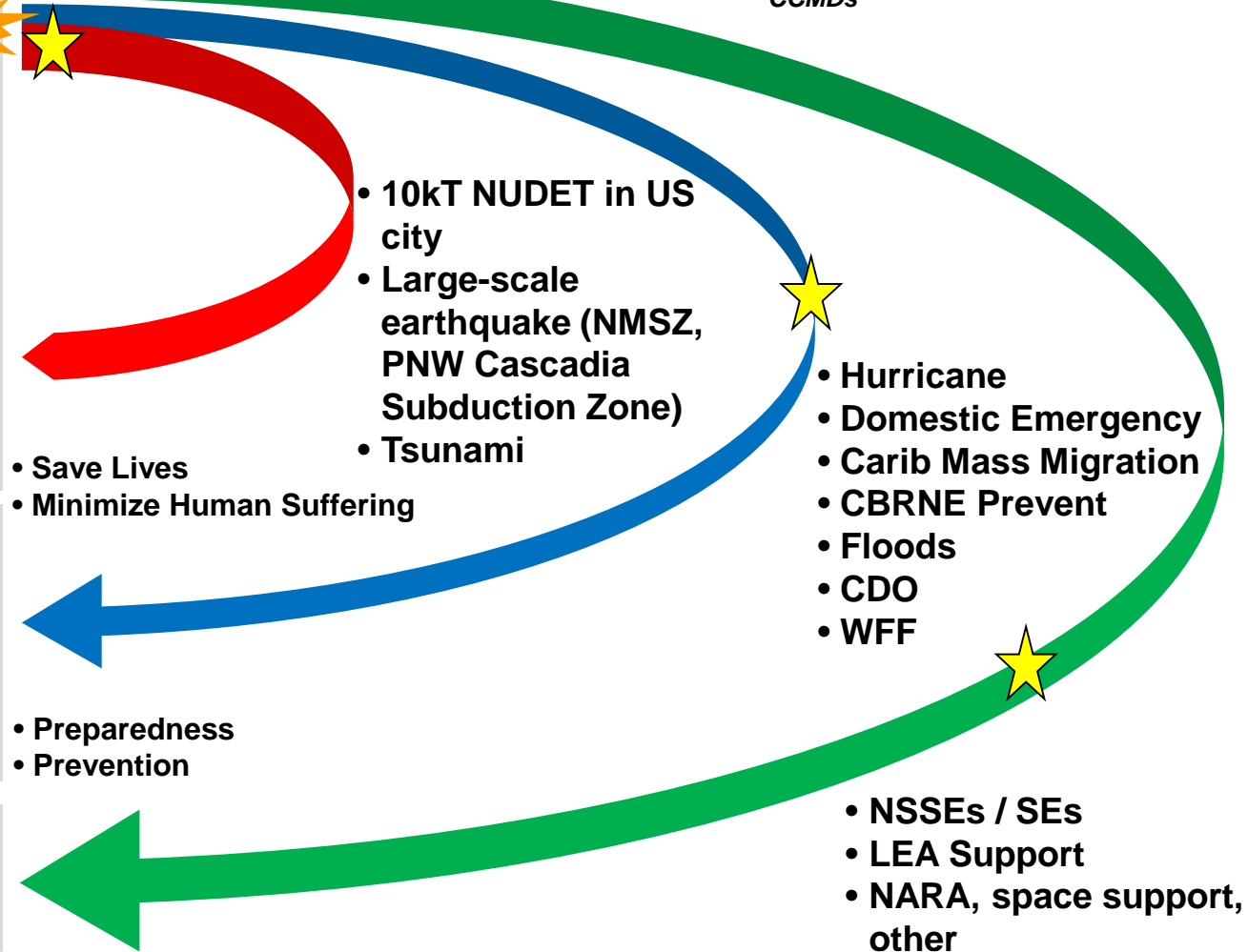
DSCA EXORD Emergencies or Disasters (Crisis):

- Some warning
- Situational assessment takes time to identify needed capabilities
- Speed critical
- Enhanced C2 required

Pre-Planned and Routine Support:

- Ample warning
- Capabilities accurately identified by requesting agency
- "Standard" C2

Event



Where We've Been...

Hurricane Katrina ('05)

- Inadequate authorities
- No standing forces
- Immature relationships
- Command and control challenges

Hurricane Ike/Gustav ('08)

- Explore "Contingency" DSCs
- Backup DCOs / Regional
- DSCA from the Sea
- Much improved relationship with NG
- Standing DSCA EXORD
- PSMA's

Complex Catastrophe Initiative ('11)

- Access to Reserves
- Integrated planning
- Immediate response authorities
- Capability sourcing
- Shared situational awareness
- Doctrine, exercises, training

NORTHCOM's Theater Army

UNCLASSIFIED

UNCLASSIFIED



Hurricane Sandy ('12)

- Doctrine of simultaneous, tiered response
- Standing authorities
- Total force sourcing
- Collaborative relationships
- Use of multiple dual status commanders

Pre-scripted Mission Assignments

What is a Pre-scripted Mission Assignment (PSMA)?

- PSMA is a Statement of Work prepared in advance to *facilitate rapid response*
 - 2006: 44 PSMA's with 2 Agencies
 - 2009: 236 PSMA's with 29 Agencies
 - 2015: 267 PSMA's with 32 Agencies*
-
- **Key PSMA Examples:**
 - DoD: Aero-Medical Patient Evacuation, USS Nassau
 - USCG: Search and Rescue Support, Rotary Wing Lift
 - HHS: Medical Care and Support, NDMS Patient Evacuation
 - USACE: Debris, Logistics Support, National Water, Temp repairs
-
- **Agencies with largest numbers of PSMA's:**
 - USACE: 48 PSMA's
 - DoD: 28 PSMA's
 - HHS: 18 PSMA's

*Note: This number will go down significantly when the new PSMA Library goes into effect because many PSMA's are being consolidated in this process.



FEMA



Mission Assignment Criteria

C - A - R - R - L - L

- **Cost** (including the source of funding and the effect on the DoD budget)
- **Appropriateness** (whether providing the requested support is in the interest of the Department)
- **Risk** (safety of DoD Forces)
- **Readiness** (impact on the Department of Defense's ability to perform its primary mission)
- **Legality** (compliance with laws)
- **Lethality** (potential use of lethal force by or against DoD Forces)

** DCO focus: Appropriateness and Risk

* Approval problems normally in Readiness or Legal areas



Current DOD

Pre-scripted Mission Assignments

- Activate Department of Defense (DoD) to FEMA Region
- Activate Department of Defense (DoD) to Joint Field Office
- DoD ESF #1, Rotary Wing Lift (Medium)
- DoD ESF #1, Rotary Wing Lift (Heavy)
- DoD ESF #1, Tactical (Ground) Transportation Support
- DoD ESF #1, Strategic Transportation Support
- DoD ESF #1, Air Component Coordination Element
- DoD ESF #1, Airborne C2 -Emergency Management Support
- DoD ESF #1, Airspace Control (Ground)
- DoD ESF #2, Communications Support for First Responders
- DoD ESF #2, 25-User Communications Package (Fixed Site Teams)
- DoD ESF #2, 75-User Communications Package
- DoD ESF #3, Emergency Agency Route Opening
- DoD ESF #5, Aerial Imagery
- DoD ESF #5, Full Motion Video (FMV Capability)
- DoD ESF #6, Prepare Sites for Temporary Housing
- DoD ESF #7, Incident Support Base
- DoD ESF #7, Federal Teams Staging Facility
- DoD ESF #7 Fuel Distribution Points- ground Vehicle
- DoD ESF #8, Rotary Wing Medical Patient Evacuation
- DoD ESF #8, Temporary Medical Treatment Facilities
- DoD ESF #8, Mortuary Affairs Assistance
- DoD ESF #8, Activate Federal Coordinating Center (FCC) for Patient Movement
- DoD ESF #8, Activate Patient Movement (PM) Enablers
- DoD ESF #8, Patient Movement (PM)
- DoD ESF #9, Rotary Wing Lift (Medium) for SAR
- DoD ESF #15, Public Affairs Broadcast Transmission Support

PSMAs are pre-prepared and pre-coordinated, but not pre-approved



Military Bases in Support



Base Support Installation (BSI) (Operations Hub for Title 10 Forces)

- Selected by NORTHCOM / JS/J33
- Provide SPT to DoD effort / responding DoD forces
- Tasked by an execute order
- Can also serve as Modular Airborne Firefighting Systems (MAFFS) Operating Base

Incident Support Base (ISB) (FEMA Logistics Staging Area)

- Provide support for staging federal commodities
- Civilian or DoD Installation requested by FEMA
- Approved by NORTHCOM / JS/J33
- Includes installation workforce
- Tasked by an execute order

Examples of Support (BSI & ISB)

- Services (billeting, food, fuel)
- Transportation (air, ground)
- Space (paved, open space, offices)
- Communications (phone, LAN, Internet)
- Contracting support for off base services
- Site security provided on base

NORTHCOM's Theater Army

Region 6 BSI/ISB-FSA Overview

| Primary Installation | BSI | ISB |
|---------------------------------|-----|-----|
| Ft Hood, TX | X | |
| JB San Antonio, TX | X | |
| Dyess AFB, TX | X | |
| Laughlin AFB, TX | X | |
| Ft Bliss, TX | X | |
| Randolph Auxiliary Airfield, TX | | X |
| NAS JRB Fort Worth, TX | | X |
| Ft Sill, OK | X | |
| Tinker AFB, OK | X | |
| McAlester Ammo Plant, OK | | X |
| Altus AFB, OK | X | X |
| Kirtland AFB, NM | X | X |
| Cannon AFB, NM | | X |
| Little Rock AFB, AR | X | |
| Barksdale AFB, LA | X | |
| Ft. Polk, LA | X | |



DCE Discussion Points

➤ What We Are:

- ✓ THE DoD Single POC for Requesting, Validating, Coordinating DoD Support (Co-located w/the FCO)
- ✓ Always in Support of the Lead Federal Agency/State
 - ✓ Incident Management Assistance Team
 - ✓ JFO Coordination Staff Member
- ✓ The DoD Lead Response Element
- ✓ Focused on Response Vice Long-Term Recovery Ops

➤ What We Are Not:

- ✓ In Charge (we are ALWAYS in support)
- ✓ A C2 HQ's (we have limited C2 capability with Title 10 Forces)
- ✓ A Long Term Solution. We have a limited role consistent w/ our National Security / Defense Roles



Region 6 Regional Response Team Meeting November 9, 2016

Department of Energy/National Nuclear Security Administration
Emergency Response Asset Overview

Steve Johnson

RAP Region 2 , Regional Response Coordinator

Threat Spectrum



Incidents

- Lost, stolen or misplaced radioactive sources
- Medical overexposure



Accidents

- NPP accidents
- Nuclear facility events
- Transportation accidents



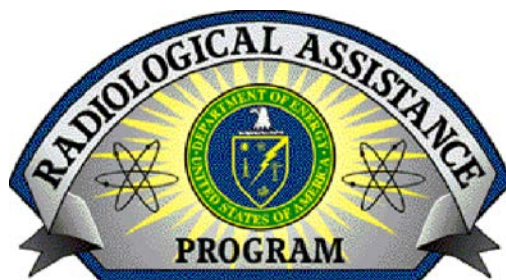
Malevolent Threats

- Improvised Nuclear Device (IND)
- Radiological Dispersal Device (RDD)
- Radiological Exposure Device (RED)



Radiological Assistance Program

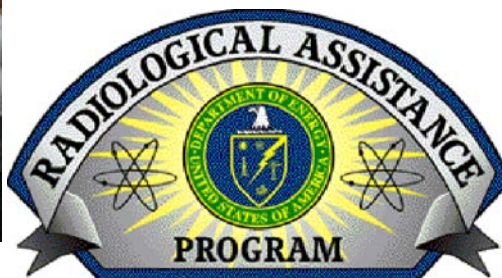
Mission: Provide first-responder radiological assistance to protect the health and safety of the general public and the environment. Assist other Federal, State, Tribal and local agencies in the detection, identification and analysis, and response to events involving the use of radiological/ nuclear material. Provide training assistance to Federal, State, Tribal, and local agencies to enhance the overall national response capability to a nuclear/radiological event.





Radiological Assistance Program

- Initial DOE/NNSA responders
- Deployable within 2 hours of team activation and arriving on-scene within 6 hours
- Regionally located to provide a timely response capability and foster relationships with other emergency response elements



Region 6: Idaho

Phone: 208-526-1515
 Fax: 208-526-1929

RRC: John Dean
 deanjg@id.doe.gov
 Work: 208-526-6686
 Cell Phone: 208-520-2889
 Fax: 208-526-0727

CRC: Dave Everett
 david.everett@inl.gov
 Work: 208-526-2550
 Cell Phone: 208-521-1566
 Fax: 208-526-5000

Region 5: Chicago

24-hr Phone: 630-252-4800
 Fax: 630-252-5440

RRC: Christine Van Horn
 christine.vanhorn@ch.doe.gov
 Work: 630-252-2498
 IRIDIUM: 881-676-320-057
 Cell Phone: 630-361-4084
 Fax: 630-252-7849
 Classified Fax: 630-252-8308

CRC: Steve Bettenhausen
 sbettenhausen@anl.gov
 Work: 630-252-9503
 Cell Phone: 630-669-7604
 Fax: 630-252-7849

Region 1: Brookhaven

24-hr Phone: 631-344-2200

RRC: Mark Parsons
 parsons@bnl.gov
 Work: 631-344-7978
 IRIDIUM: 881-676-320-053
 Cell Phone: 631-466-1927
 Fax: 631-344-3065
 Classified Fax: 516-344-2480

CRC: Kathleen McIntyre
 mcintyre@bnl.gov
 Work: 631-344-5868
 Cell Phone: 631-872-7897
 Fax: 631-344-5556

Region 0: Washington, D.C.

24-hr Phone: 1-800-405-1140
 Fax: 702-295-4293

RRC: Jerald Bond
 jerald.bond@nnsa.doe.gov
 Work: 301-817-3362
 Skypager: 1-800-759-8888 pin
 Cell Phone: 702-580-2998
 Fax: 301-817-3402

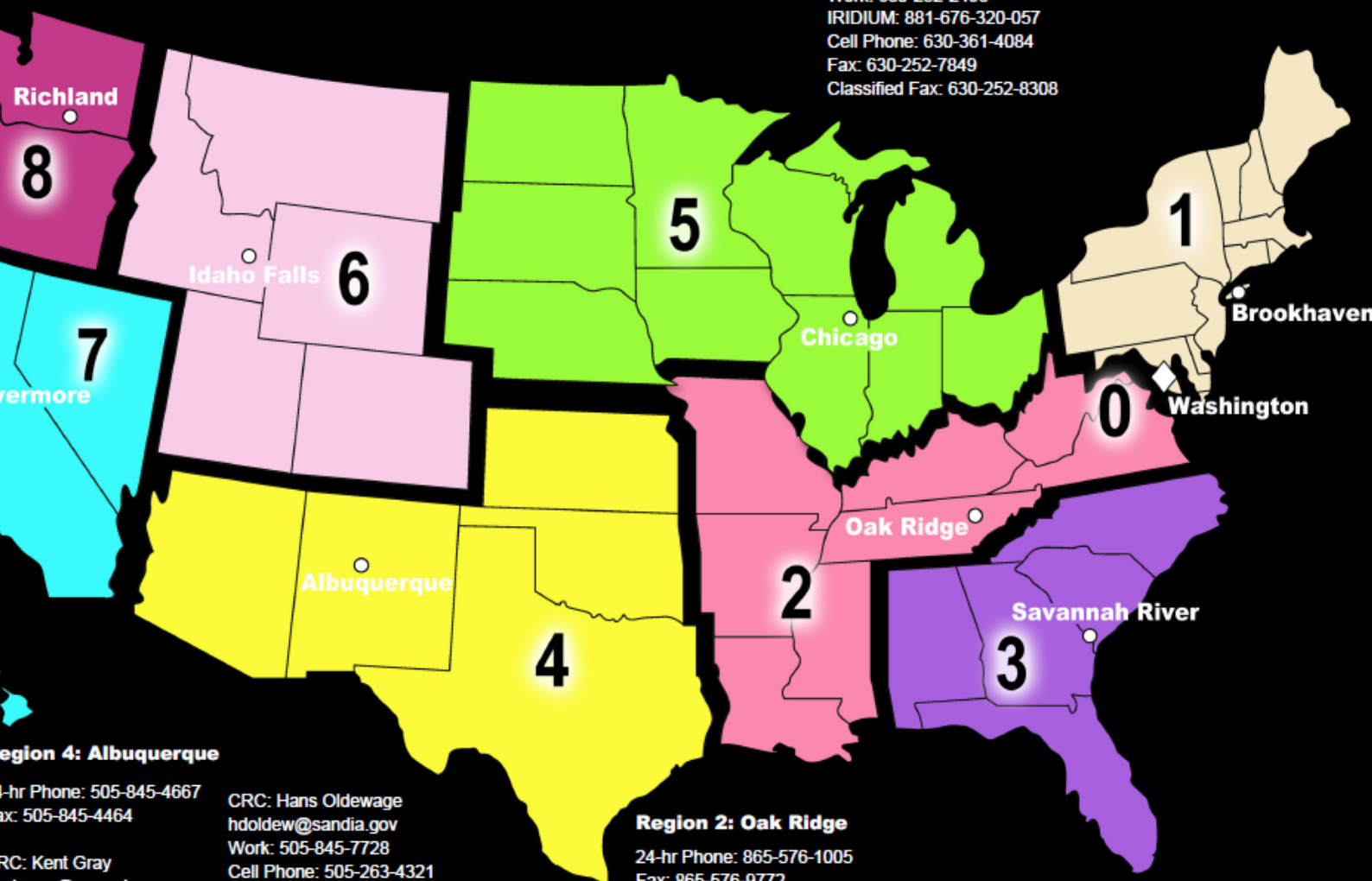
CRC: Ron Wolff
 wolffrs@nv.doe.gov
 Work: 301-817-3455
 Cell Phone: 240-535-6346
 Fax: 301-817-3411

Region 3: Savannah River

24-hr Phone: 803-725-3333
 Fax: 803-725-1430

RRC: Christina T. Edwards
 christina.edwards@nnsa.srs.gov
 Work: 803-952-6613
 IRIDIUM: 881-676-320-056
 Cell Phone: 803-507-2703
 Fax: 803-952-8525
 Classified Fax: 803-725-5272
 (Call 803-725-1911 before sending)

CRC: James (Roy) Windham
 roy.windham@srs.gov
 Work: 803-952-9317
 Cell Phone: 803-507-7054

**Region 4: Albuquerque**

24-hr Phone: 505-845-4667
 Fax: 505-845-4464

RRC: Kent Gray
 kent.gray@nnsa.doe.gov
 Work: 505-845-6300
 IRIDIUM: 881-676-320-052
 Cell Phone: 505-974-1040
 Fax: 505-284-7536
 Classified Fax: 505-845-6350

CRC: Hans Oldewage
 holdew@sandia.gov
 Work: 505-845-7728
 Cell Phone: 505-263-4321
 Fax: 505-844-9225

Region 2: Oak Ridge

24-hr Phone: 865-576-1005
 Fax: 865-576-9772

RRC: Steve Johnson
 Steven.Johnson@science.doe.gov
 Work: 865-576-9740
 IRIDIUM: 881-676-320-054
 Cell Phone: 865-250-7529
 Fax: 865-576-9772

CRC: Jeff Barroso
 Jeff.Barroso@cns.doe.gov
 Work: 865-241-6380
 Cell Phone: 865-414-5907
 Fax: 865-574-9939

U. S. Virgin Islands

Puerto Rico



Consequence Management Mission

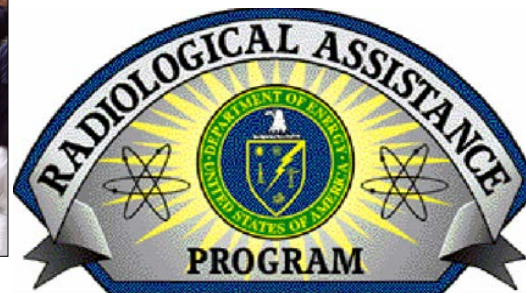
- Data assessment and evaluation
- Mitigative advice and consultation
- Initiation and interpretation of NARAC predictive plots





CRISIS RESPONSE MISSION

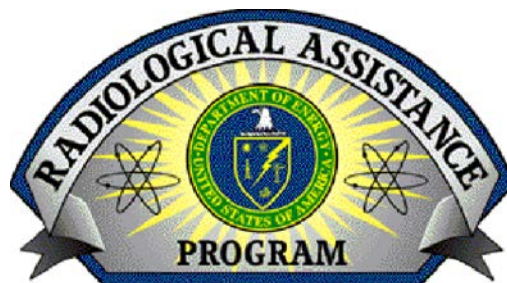
- Gamma and neutron search, detection, and identification capabilities for lost, stolen, or malevolent uses of radiological/nuclear materials
 - ✓ Preventive Rad/Nuc Detection (PRND)
 - ✓ Rad/Nuc Search Operations (RNSO/TRNSO)
- Novice Searcher Training





RAP Team Configuration

- Volunteer employees from the DOE/NNSA complex
- Each region has a minimum of 3 standard teams
- Each standard team consists of 8 members
- Teams can be augmented with other specialties (e.g., industrial hygienists, public information officers, transportation specialists)





Path To Other DOE/NNSA Assets

Crisis Response:

Technical operations in support of lead Federal agencies to counter and reduce threat associated with nuclear weapons and radiological devices





U.S. Department of the Interior

...DOI may be contacted through Regional Environmental Officers (REOs), who are the designated members of RRTs. Department land managers have jurisdiction over the national park system, national wildlife refuges and fish hatcheries, the public lands, and certain water projects in western states.

- ❖ The REO is the primary point of contact for other federal or state agencies looking for DOI assistance during an oil spill or hazardous material release.
- ❖ The REO coordinates with all nine DOI bureaus on leveraging Department expertise and resources to respond to an incident.
- ❖ The REO ensures that DOI bureaus are reimbursed for their allowable expenses through the use of a Pollution Removal Funding Authorization, as appropriate.



The DOI Albuquerque Regional Office out in the field.





U.S. Fish and Wildlife Service

...Anadromous and certain other fishes and wildlife, including endangered and threatened species, migratory birds, and certain marine mammals; waters and wetlands; and effects on natural resources.

- ❖ Identifies resources at risk, recommends areas for protective countermeasures and oversees implementation of response countermeasures for uncontaminated wildlife.
- ❖ Recommends appropriate response methods to minimize disturbance to wildlife and provides input into dispersant use decisions and other response tools.
- ❖ Provides information on permit requirements and issues permits for response activities involving DOI-managed resources.
- ❖ Provides advice on migratory birds, anadromous fish, certain marine mammals, sea turtles onshore, and endangered and threatened species and their critical habitats.
- ❖ Provides Endangered Species Act consultation for response actions that may potentially affect listed species.





National Park Service

...General biological, natural, and cultural resource managers to evaluate, measure, monitor, and contain threats to park system lands and resources; archaeological and historical expertise in protection, preservation, evaluation, impact mitigation, and restoration of cultural resources; emergency personnel.

- ❖ Identifies resources at risk, recommends areas for protective countermeasures and oversees implementation of response countermeasures for uncontaminated wildlife for responses on or near NPS-managed lands and waters.
- ❖ Provide, as appropriate, Historic Properties Specialist to advise FOSC with compliance under the Programmatic Agreement on Protection of Historic Properties During Emergency Response Under the National Oil and Hazardous Substances Pollution Contingency Plan
- ❖ Provides information on permit requirements and issue permits for response activities involving DOI-managed resources and provides site-access control on DOI lands.
- ❖ Provides site security and issues any formal public land closures surrounding incident sites where necessary. NPS also provides information on non-DOI land and water status, lessees, landowners, and/or land managers and participates in cleanup assessment teams and provides input into shoreline cleanup task forces.
- ❖ In consultation/coordination with the FOSC, ensures that response actions are consistent and in full compliance with any federal land management policies, laws, and regulations pertaining to park lands.





U.S. Geological Survey

...Geology, hydrology (ground water and surface water), and natural hazards.

- ❖ Performs research in support of biological resource management; inventories, monitors, and reports on the status and trends in the nation's biotic resources.
- ❖ Provides biologic research laboratory assistance to advise and support NCP responses.
- ❖ Provides scientific subject matter expertise and assistance in geospatial analysis and mapping, biological resources, geology, and hydrology; minerals; and identification of natural hazards.
- ❖ Advises on the biological effects resulting from a release of hazardous materials, and provides remotely sensed (hyper-spectral, multi-spectral) data collection and analysis.
- ❖ Monitors water levels, flows, and quality through their network of Water Science Centers.



Wetlands Reserve Program in Sabine Parish, Louisiana
U.S. Geological Survey





Bureau of Land Management

...Minerals, soils, vegetation, wildlife, habitat, archaeology, and wilderness; and hazardous materials.



Organ Mountains Wilderness Study Area
Bureau of Land Management

- ❖ Authorizes entry to, and resource protection of, the land and minerals managed by BLM.
- ❖ Provides expertise in emergency response, particularly for fire and hazardous materials incidents.
- ❖ Provides expertise regarding on-shore energy production, cadastral survey, cultural and historic properties, natural resources, and federal property acquisition and disposal.
- ❖ Provides expertise in the field of oil and gas drilling, production, handling, and transportation by pipeline.





Bureau of Indian Affairs

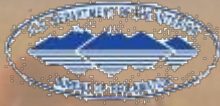
...Coordination of activities affecting Indian lands; assistance in identifying Indian tribal government officials.

- ❖ On request, assists in communication and coordination of activities affecting Indian lands, and in identifying Indian Tribal government officials.
- ❖ Assists in obtaining access to Indian land areas as needed for response action.
- ❖ Coordinates with the Liaison Officer to ensure that pertinent information is made available to Tribal authorities on a timely basis.
- ❖ Discharges the Secretary's trust responsibility for individually owned lands that are held in trust for allottees and their heirs.



Tyuonyi and Talus House
Bandelier National Monument
National Park Service





Bureau of Reclamation

...Operation and maintenance of water projects in the West; engineering and hydrology; and reservoirs.

- ❖ Provides advice on operation, control, safety and maintenance of dams, reservoirs, and water conveyance systems; engineering and hydrology; and design services, construction oversight, contract writing and administration.
- ❖ Provides information on current and predicted channel flow volumes, where water courses are controlled by dams or other control structures under their management or control.
- ❖ Provides expertise in engineering and hydrology and may provide design services, construction, contracting, oversight, and administrative activity.





Bureau of Surface Mining Reclamation and Enforcement

...Coal mine wastes and land reclamation.



Mine Reclamation Project
Bureau of Surface Mining Reclamation and Enforcement

❖ Provides advice on incidents involving:

- surface coal mining
- abandoned coal mined lands
- coal outcrop fires
- coal mine wastes
- mine waste bank stability
- toxic mine drainage



- ❖ Promotes energy independence, environmental protection, and economic development through responsible, science-based management of offshore conventional and renewable energy and marine mineral resources.
- ❖ Conducts environmental reviews, including National Environmental Policy Act analyses and compliance documents for each major stage of energy development planning.
- ❖ Conduct and oversee environmental studies to inform policy decisions relating to the management of energy and marine mineral resources on the Outer Continental Shelf.



Texas Platform Survey
Bureau of Ocean Energy Management



Bureau of Safety and Environmental Enforcement

- ❖ Regulates and oversees the exploration, development, and production operations for oil and natural gas on the OCS to ensure that it is done in a safe and environmentally responsible manner.
- ❖ BSEE's functions include OCS oil and gas permitting, facility inspections, regulations and standards development, safety research, environmental compliance and enforcement, and oil spill prevention and readiness for facilities located in both Federal OCS and state waters seaward of the coastline that handle, store, or transport oil.
- ❖ Funds applied oil spill response research and manages OHMSETT – the National Oil Spill Response and Renewable Energy Test Facility through its Oil Spill Response Research Program.
- ❖ For oil spills involving OCS facilities, assists in source identification, oversees spill abatement, and approves resumption of production operations.



Contact Information



International UFO Museum and Research Center
Roswell, New Mexico

Stephen Spencer

Regional Environmental Officer, Albuquerque, New Mexico

Office: 505-563-3572

Cell: 505-249-2462

John Nelson

Regional Environmental Assistant, Albuquerque, New Mexico

Office: 505-563-3572

Cell: 505-331-4653

U.S. Department of the Interior
Office of Environmental Policy and Compliance





CBRN CMAT Mobile Assets

Unique Field Operational Assets

-Available to ALL EPA Regions & Interagency Partners-

9 November 2016



TICs and CWAs

High Throughput Mobile Analysis

-Remote-Sensing & Imagery-

Chemical, Radiological & Situational Awareness



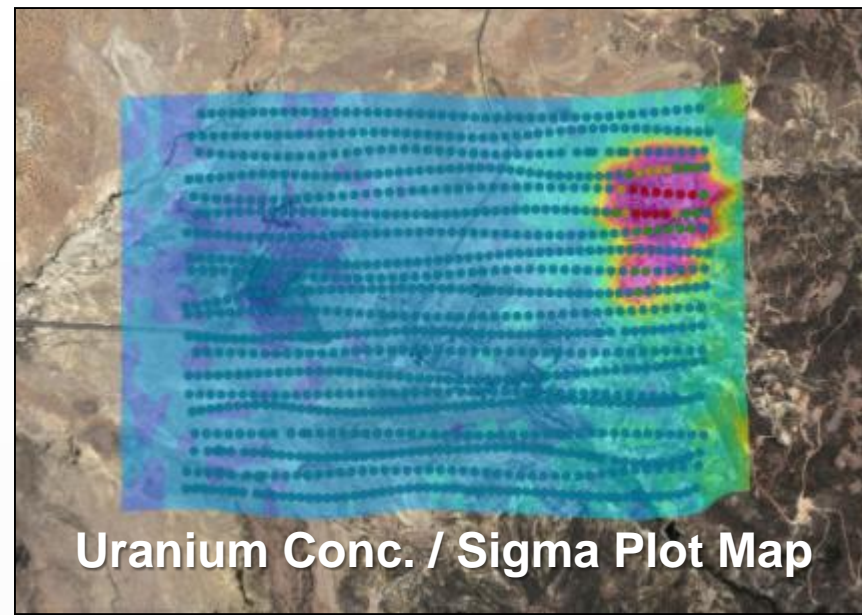
***Portable High-Throughput
Integrated Identification System***



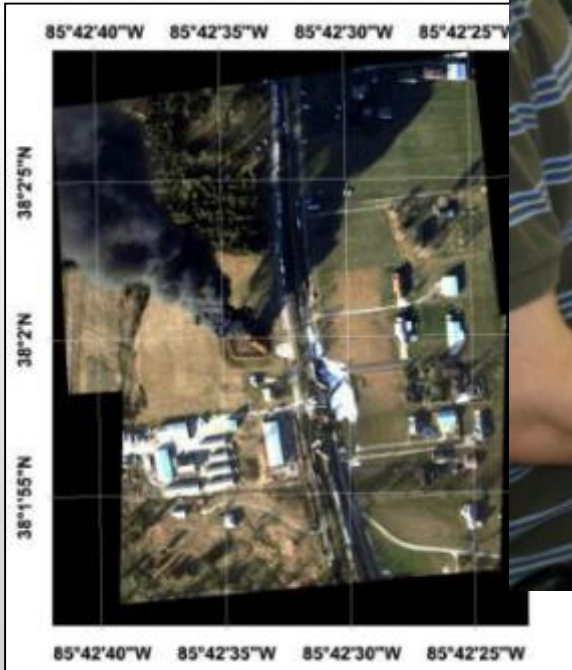
***Airborne Spectral Photometric
Environmental Collection Technology***

Briefing Objectives

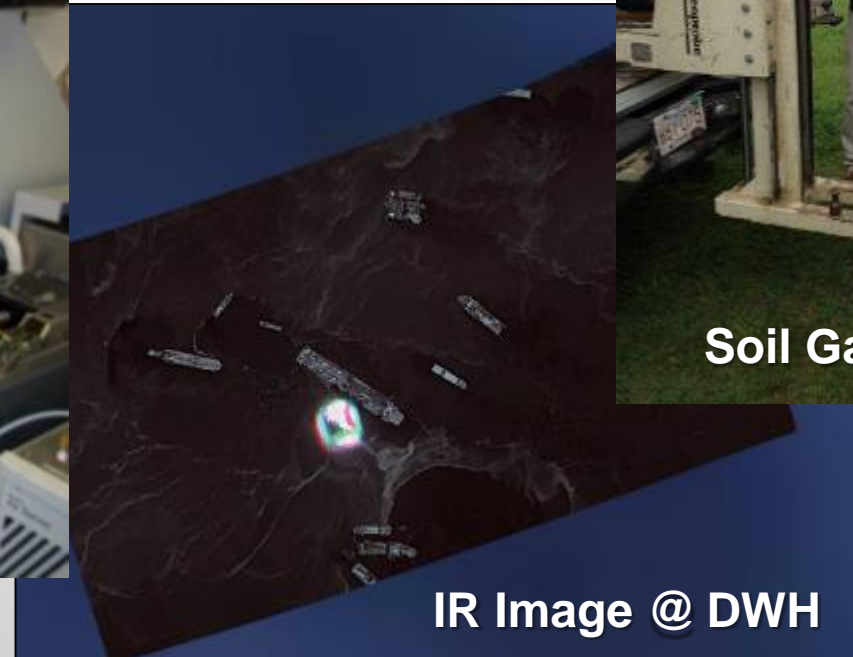
- CBRN CMAT Mission
- Mobile Assets
- Operational Concepts
- Capabilities



Uranium Conc. / Sigma Plot Map



Soil Gas Sample



IR Image @ DWH

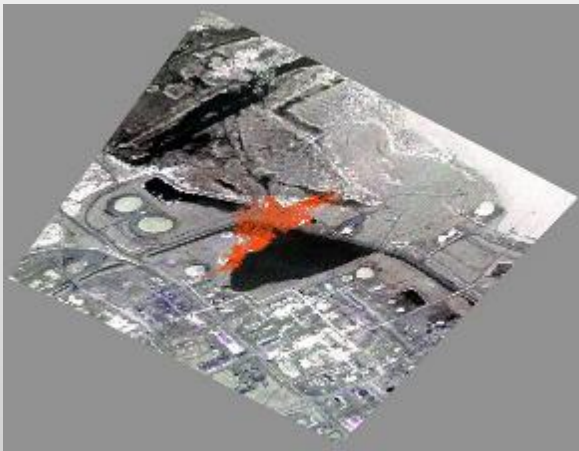
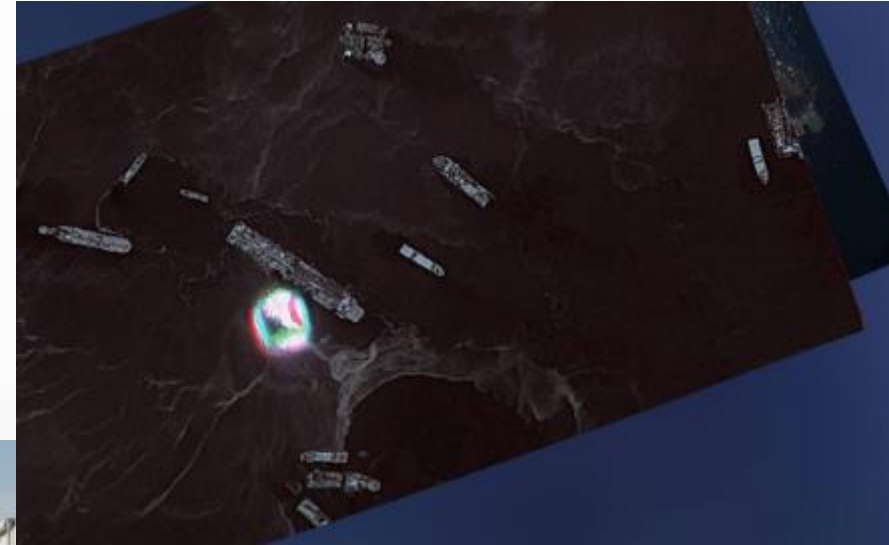


Soil Gas Sample

Examples of Recent EPA Responses



- Naturally Occurring Anthrax Incidents in New England and NYC
- Hurricane Sandy
- West Texas Explosion
- Ricin contamination incidents
- Pre-deployments (Inauguration, Super Bowl, DNC/RNC, etc.)
- CWA Tainted Shellfish
- Ebola
- *Burkholderia pseudomallei*



When to Contact CMAT



- Assistance with planning an exercise (field or TTX) with a CBRN component
- Assistance with developing or providing CBRN related training
- Technical questions related to CBRN
- Field support for emergency response or removal related to CBRN
 - ✓ CMAT can provide leadership to the TWG, EU, and/or SSC positions, depending on the incident.
 - ✓ Deployment of specialized assets
- Special Event Deployments of ASPECT, PHILIS, and/or personnel

**EPA Emergency Operations Center:
202-564-3850**



CMAT at Work

Examples of key initiatives and priority projects

Guidance Docs



- CBRN Tactical Guides (SOPs on sampling, decon, clearance, waste mgmt, health and safety, data mgmt)
- IBRD Interim Consequence Management Guidance
- Remediation Guidance for Major Airports after a Biological Attack
- EPA/CDC Clearance Strategy for Environments Contaminated with Anthrax
- Protecting First Responders Guidance
- Planning Guidance for Recovery following Biological Incidents
- Anthrax, Ricin, Ebola Training (decon lines, sampling, etc.)
- NYC Anthrax Response Plan
- EPA/DHS Urban Transportation Restoration Project

Examples of Past Projects



- Biological Operational Test and Evaluation (BOTE)
 - ✓ Phase 1 Report has been released
- Radiation Task Force Leader Training
- Development of Ricin Training
- Development of Crisis/Quarantine Exemption with OCSPP
- Non Traditional Threat Agents Efforts
- EPA/CDC Interim Clearance Guidance for Anthrax
- Post Fukushima Assistance in Japan
- WARRP/IBRD

For more info, CMAT Annual Reports can be found on our webpage
<http://www2.epa.gov/emergency-response/cmat>

Other Initiatives

- NYC Wide Area Bio Response Plan Proj
- Methyl Bromide Rail Car T&E
- Low Concentration Hydrogen Peroxide Field Study
- Development of CBRN Training for Field Responders
- Training for Ebola Decontamination
- Rad Responder App – Decon Selection Tool
- FTX with OSCs, CSTs, HRFs, etc.
- R&D Initiatives (e.g., aggressive air sampling, robotic sampling collection, etc.)
- Decon Decision Support Tool





CBRN Critical Assets Available to the OSC

Emergency Response Lab Network



Environmental Lab Capability

- 136 fixed and 7 mobile laboratories nationwide
 - ✓ Labs support multiple missions
 - ✓ Oriented towards routine analysis of industrial chemicals, radiochemicals, pesticides, and conventional pollutants
 - ✓ Specialized for CWAs
 - ✓ Commercial, state, and federal lab make up
 - ✓ Accessible to all Regional analytical service requestors
- EPA is prepared to help with a national need to build environmental laboratory capacity
 - ✓ Charter member of DHS chaired Integrated Consortium of Lab Networks
 - ✓ Developed and manages Consortium of Lab Networks
 - ✓ Stringent membership requirements for lab entry into ERLN
 - ✓ National interconnection with lab networks for water security, BioWatch, and food security

PHILIS

Portable High-Throughput Integrated Laboratory Identification System



- PHILIS is EPA's mobile laboratory asset for on-site analysis for:
- Natural disasters, accidental releases, terrorist and other unnatural incident response actions
- Organic analysis in support of regional emergency response actions
- Superfund Program
- Mobile asset for EPA's Emergency Response Laboratory Network (ERLN)



“Brick and mortar” lab on wheels

PHILIS - Capabilities



- **Analyte Suite**

- Chemical Warfare Agents
 - Sarin, Soman, Sulfur Mustard, Cyclosarin, VX
 - Secured cabinet for storage of Ultradilute CWA for QA purposes
- VOCs
- SVOCs
- PCBs
- Air Methods
- Trace Levels

- **Environmental Matrices**

- Wipes, Water, Soil/solids
- Air – Sorption Tubes, Summa Canisters, Tedlar Bags

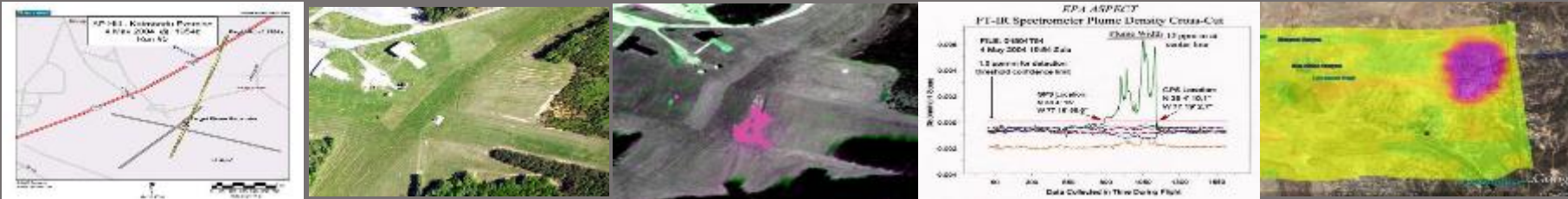
| | |
|-----------------------|-----------------------------|
| Volatile Organics: | GC/MS, GC/MS SIM, GC/MS TOF |
| Semivolatile Organics | GC/MS, GC/MS SIM, GC/MS TOF |
| PAH | GC/MS, GC/MS SIM |
| PCB | GC/MS, GC/MS SIM, GC/ECD |
| Carbamates | LCMS |
| Explosives | LCMS |
| CWAs | GC/MS TOF, GC/MS, LCMS |

ASPECT - Operational Concept

- Provide a readiness level on a 24/7 basis
- Provide a simple, one phone call activation of the aircraft
- Wheels up in under 1 hour from the time of activation
- Once onsite and data is collected it takes about....



~ 5 minutes to process and turn around data to first responders



- **Deployment Simplified:**
 - Once on-scene collect chemical, radiological, or situational data (imagery) using established collection procedures
 - Process all data within the aircraft using tested automated algorithms
 - Extract the near real time data from the aircraft using a broadband satellite system and rapidly QA/QC the data by a dedicated scientific reach back team
 - Provide the qualified data to the first responder enabling them to make informed decisions in minimal time

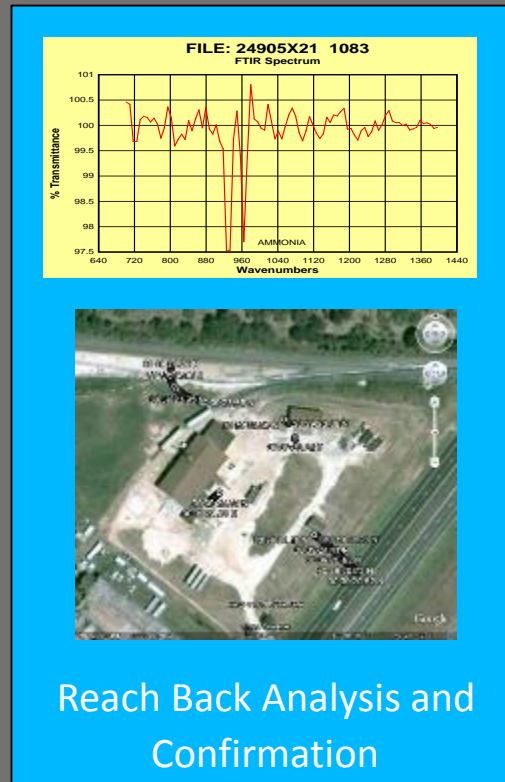
ASPECT – Data QA/QC & Dissemination



Performed in about 5 minutes



Data package unzipped by
scientific reach back team



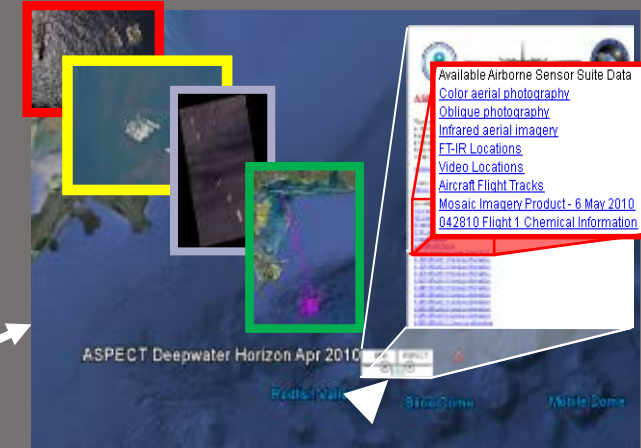
Compressed data package
sent via satellite



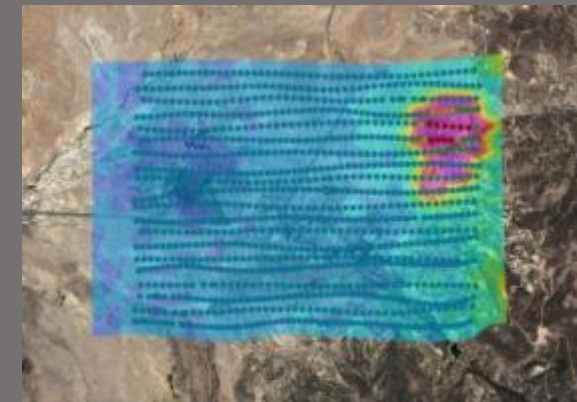
Automated airborne
processing and packaging



Chem/Rad/Situational
data collected



Data dissemination using
Google Earth/ESRI

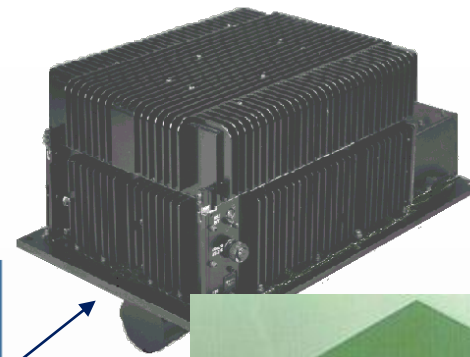


ASPECT -CURRENT SYSTEMS



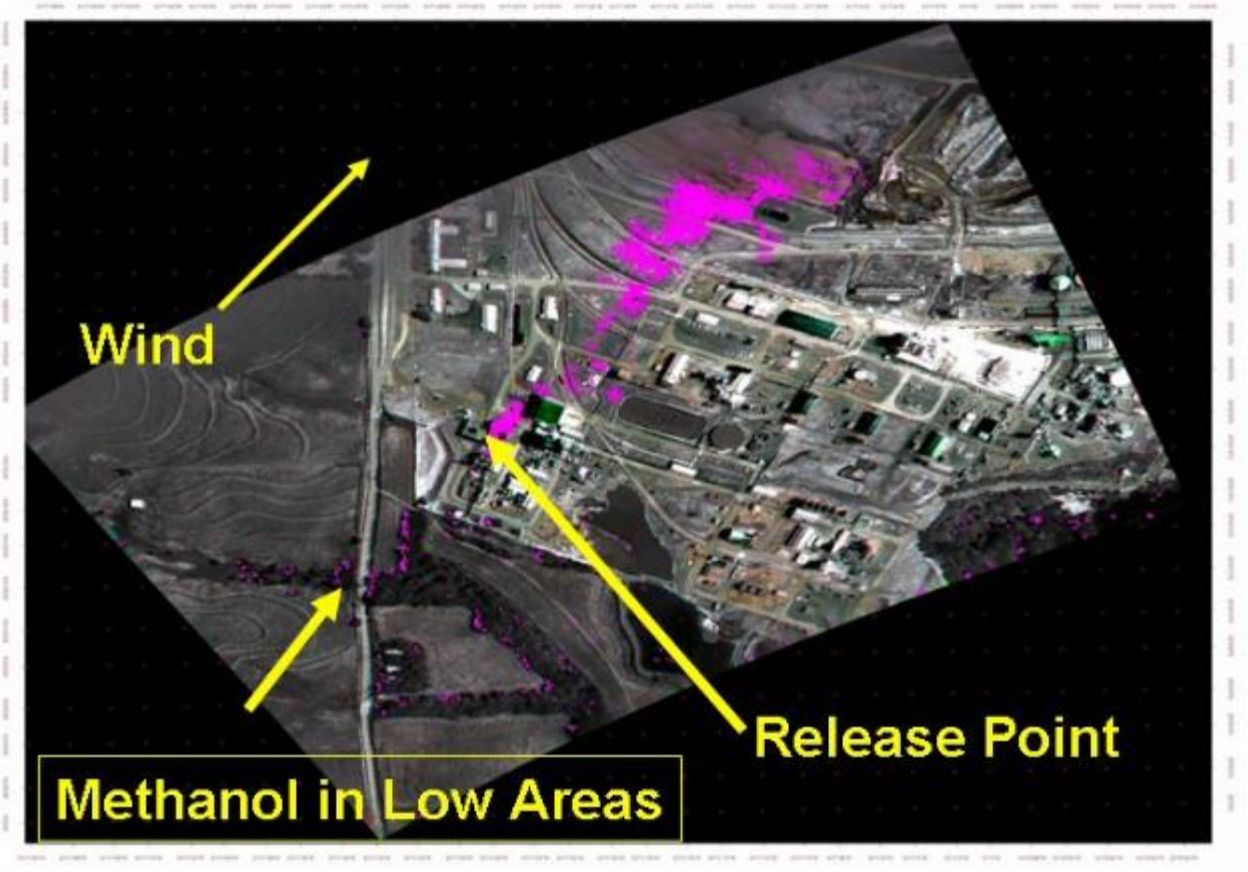
ASPECT Uses Six Primary Sensors/Systems:

- ✓ An **Infrared Line Scanner** to image the plume
- ✓ A **High Speed Infrared Spectrometer** to identify and quantify the composition of the plume
- ✓ **Gamma-Ray Spectrometer** Packs for Radiological Detection **NaI** and **LaBr** and **Boron Trifluoride (BF3)** straw detectors
- ✓ High Resolution **Digital Aerial Cameras** with ability to rectify for inclusion into GIS
- ✓ Broadband Satellite Data System (**SatCom**)



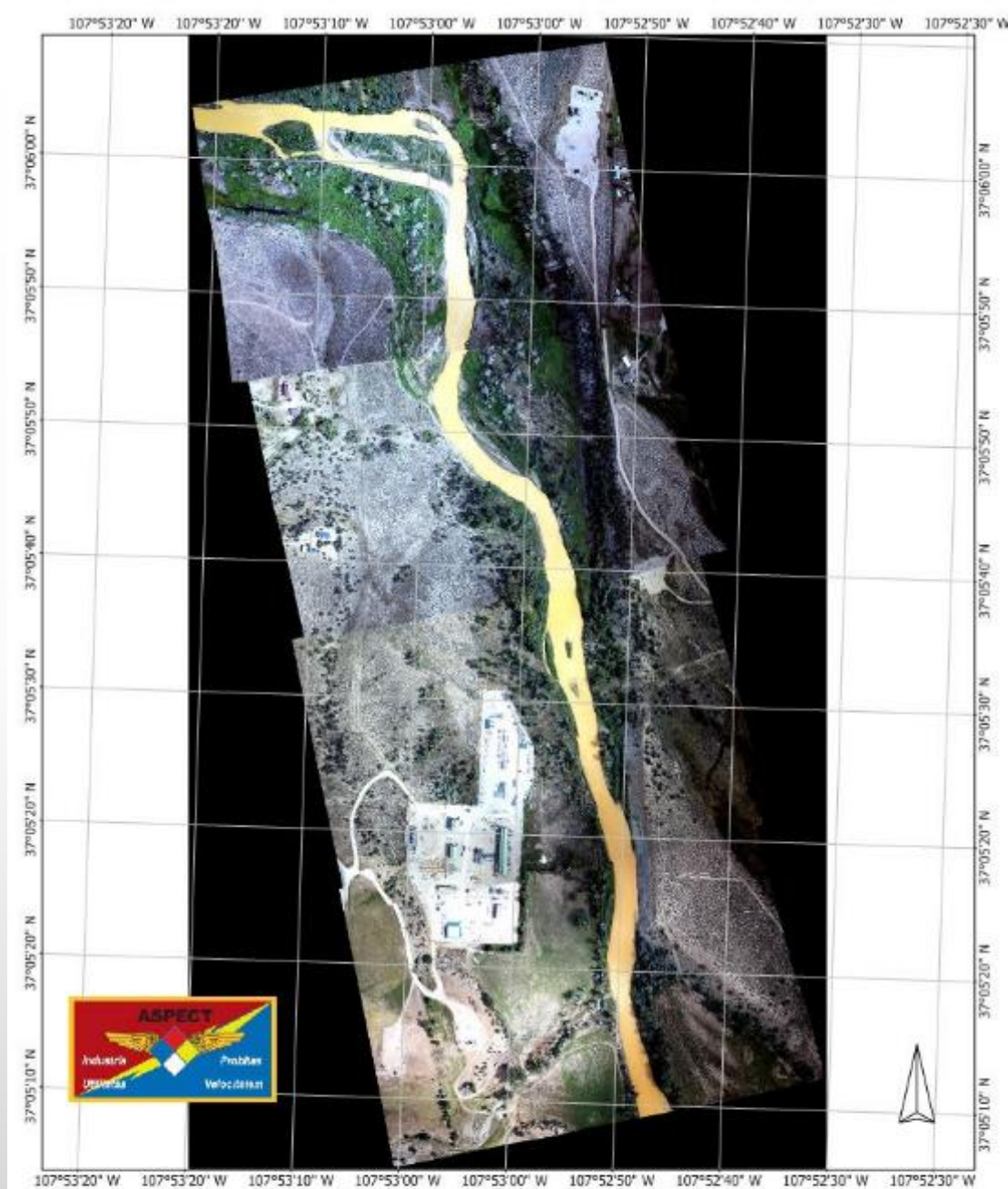
Chemical Product

Ammonia Detection & IR Image of an Industrial Methanol Plume



Aerial Photography

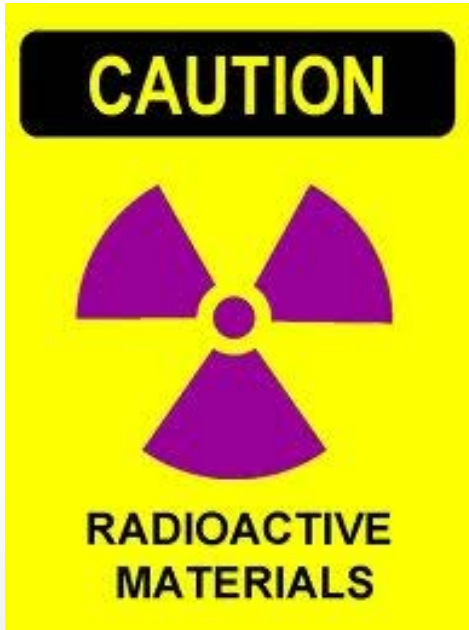
- 29 MP High Resolution Digital Camera
 - ✓ **4 inch resolution!**
- Automated Geo-Rectification/GIS Coded Images
- Full Ortho-Rectification (Camera Model) Correction
- Ability to Process in the
- Compressed Transmission of Data Via SatCom
- Fast Turn Around on Images
- All Products can be imported into:
 - ✓ All EPA GIS formats
 - ✓ Google Earth,
 - ✓ ESRI
 - ✓ Generic Geospatial software packages
 - ✓ *Whatever the customers require*



Gold King Photo Response
North of NM-CO border

Universal Transverse Mercator - Zone 13
Lon: 107°52'56" W
Lat: 37°05'37" N
Printed at: 8/20/2015

CBRN CMAT NRC Licensed Rad Sources



- Enables us to own/rent and deploy radioactive sources for training or exercise purposes
- Issued: March 2014
- Authorized for
 - ✓ Several gamma emitting nuclides
 - ✓ AmBe neutron source
- Civil Defense Applications
 - ✓ Training
 - ✓ Exercises
 - ✓ ASPECT algorithm development
- Sources can be used anywhere the United States
 - ✓ CMAT handles all logistics
- RSO : John Cardarelli



CMAT Contact and Readiness



Mike Nalipinski, Associate Director
CBRN Consequence Management Advisory Team
617-680-5469 nalipinski.mike@epa.gov

Paul Kudarauskas, Chief
Field Operations Branch, CBRN CMAT
202-564-2415 kudarauskas.paul@epa.gov

24/7/365 On-Call HQ EOC - 202-564-3850



GSA Office of Mission Assurance - Region 7



General Services Administration

GSA Mission



"The mission of GSA is to deliver the best value in real estate, acquisition, and technology services to government and the American people."

GSA Mission



Using the purchasing power of the federal government GSA can reduce costs to our customer agencies, enabling them to focus on their core missions.

§ 300.175 Federal agencies:



(15) The General Services Administration (GSA) provides logistic and telecommunications support to federal agencies. During an emergency situation, GSA quickly responds to aid state and local governments as directed by other federal agencies. The type of support provided might include leasing and furnishing office space, setting up telecommunications and transportation services, and advisory assistance.

Leasing Support - PBS



Regional-Level Response Support Structure (GSA)

- The GSA RA, REC, or DREC provides a team that may consist of one or more of the following: a REC and/or team leader, contracting officer, telecommunications specialist, and real estate/leasing specialist, if needed, to coordinate the provision of ESF #7 support at the RRCC or JFO.

Purchasing Support - FAS



Purchasing support (FAS)

- FAS Emergency Acquisition Program (via FEMA)
- Emergency Contracting Resources
- Freight Management Program (FMP)
- Emergency Lodging Service Program
- Rental Supplemental Vehicles Program (RSVP)
- Fleet Short-Term Rentals Program (STR)
- Bus and Shuttle Services
- GSA Advantage! – an online shopping service

Telecommunications Support



When activated, ESF #2 provides communications support to the impacted area, as well as internally to the JFO and associated Federal JFO teams. ESF #2 support is scalable to meet the specific needs of each incident response, and response resources are drawn from a matrix of personnel and equipment available from the ESF #2 support agencies.

Telecommunications Support



The General Services Administration (GSA) provides regionally based personnel, who often deliver the initial ESF #2 field response.

Communication Manager assigned to R7 OMA

Contacts



Office Of Mission Assurance:

- Deputy Regional Director – David Waishes
david.waishes@gsa.gov / 817-978-4440
- Regional Emergency Coordinator – Dan Matkin
dan.matkin@gsa.gov / 817-978-1016
- Deputy Regional Emergency Coordinator – Jamie Duran
jamie.duran@gsa.gov / 817-978-4444

Contacts



Federal Acquisition Service Region 7

- Program manager – Jennifer Koranda
jennifer.koranda@gsa.gov / 817-850-8229
- Management Analyst – Latoya Cooper
latoya.cooper@gsa.gov / 817-850-8229

OSHA Region VI Mission Capabilities Brief

Doug Huddleston, CSP

OSHA Region VI

Emergency Response Coordinator

Cooperative & State Programs - Program Manager

OSHA's Mission

The Occupational Safety and Health Administration was created to:

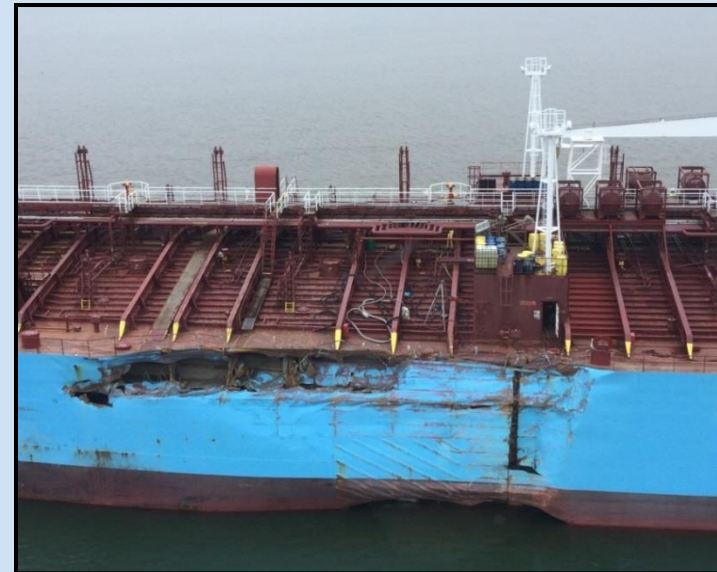
- Encourage employers and employees to reduce workplace hazards and to implement new or improve existing safety/health programs;
- Provide for research in occupational safety and health;
- Establish "separate but dependent responsibilities and rights" for employers and employees for the achievement of better safety and health conditions;
- Maintain a reporting and recordkeeping system to monitor job-related injuries and illnesses;
- Develop mandatory job safety and health standards and enforce them effectively.

Chemical Tanker Carla Maersk & Conti Peridot Collision

OSHA Activity

March 9th 2015 through March 10th 2015

- Collision between two vessels, involving the release of MTBE Methyl Tertiary Butyl Ether which is used primarily as a Gasoline additive;
- Received email notification from Todd Peterson regarding an RRT6 Conference Call;
- Notified our Leadership, and our Houston South & North Area OSHA Offices;
- Checked in with Steve Buschang, Texas GLO – Then checked in with Paige Dolling with NOAA - Paige provided an overview of USCG and NOAA efforts – I offered our (OSHA) assistance;
- Checked in with USCG Watch Duty Officer in La Porte to offer our assistance;
- Checked in with Steve Mason, US EPA and EPA Duty Officer in Dallas, Tx;
- Received a call from the La Porte Watch and advised that some USCG personnel had discovered some issues at an inland work site, involving issues with a contractor at a Waste Collection site – I notified our Houston South Area Office folks in the field.



Garland/Rowlett/Glenn Heights/Ellis County Texas Tornado Response



*Photo of Damage to Multi-Family Dwelling - Garland, Tx
~Courtesy Dallas Morning News.com*



*Photo of Damage to Industrial Complex – Garland, Tx
~Courtesy Dallas Morning News.com*



*Photo of Damage to Residences and Water Tower- Rowlett, Tx
~Courtesy wfaa.com*



*Photo of Damage to Residences - Garland, Tx
~Courtesy Dallas Morning News.com*

Garland/Rowlett/Glenn Heights/Copeville Response

Dallas Area OSHA Office Activity

Tuesday, 12/29/2015 DAO Interventions – Top Photo

Ellis County – (Glenn Heights – Ovilla – Red Oak, Texas)

- A two member team worked the Ellis County areas;
- The team met with various specialty contractors who were repairing utility poles, power lines, and natural gas lines, removing debris, site clearing, and installing blue tarps on remaining roof structures (photo shows CSHO Salazar speaking with utility and site clearing crews providing QC/FS and safety info);
- The teams efforts reached approximately 105 workers, with a total of 16 interventions.



Monday, 01/04/2016 DAO Interventions – Bottom Photo

Operation Blessing International – Dallas County – (Garland, Texas)

- DAO CAS Vela conducted interventions and outreach with volunteer groups;
- CAS met with various volunteers that were removing debris, and site clearing;
- CAS spoke to groups regarding safety and health issues that they were encountering on-site - provided OSHA Quick Card (QC) and Fact Sheets (FS);
- The CAS's efforts reached approximately 15 workers, with a total of more than 15 interventions.



Publications: Distributed

*General Decontamination Pubs x 20
Construction PPE x 10 – Tree Care Work x 10,
Operation Blessing had 15 volunteers.*

State of Louisiana Flooding Response

Baton Rouge Area Office Affected Employees and Their Properties

Some Photos Showing Affected BRAO Personnel's Properties

- Photo 1 – Street side view taken by CSHO while being rescued by boat from home;
- Photo 2 – Frontal view of CSHO's home during rescue;
- Photo 3 – View looking back down the street;
- Photo 4 – View of landing area for rescued residents.

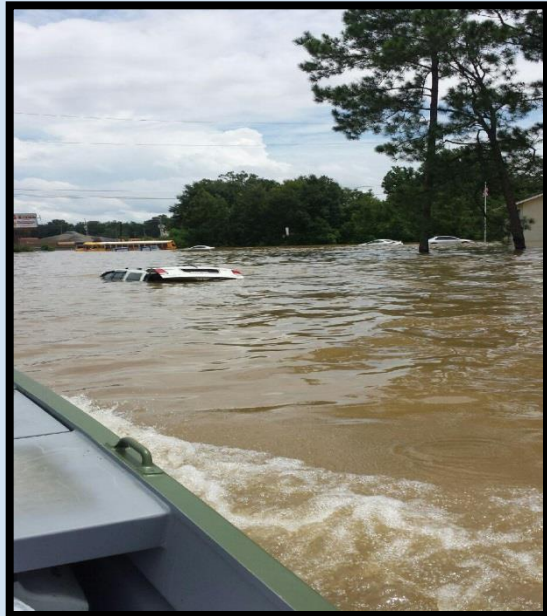


Photo 3



Photo 4



Photo 1



Photo 2

State of Louisiana Flooding Response

Baton Rouge Area Office Activity

BRAO Interventions – September 12, 2016:

- Photo 1 – View of Ronaldson Field Landfill – It's a major collection site for demolition debris in the surrounding areas;
- Photo 2 – Robin Figueroa, Safety Specialist, provides QC/FS to a debris collection truck driver entering the Ronaldson Field Landfill;
- Photo 3 – CAS Hebert spoke to the group regarding demolition materials and hazardous material safety, including Hazard Communication. CAS Hebert distributed several OSHA Quick Cards and Fact Sheets, and answered the drivers questions concerning safety, which included energized overhead power lines.



Photo 1



Photo 3



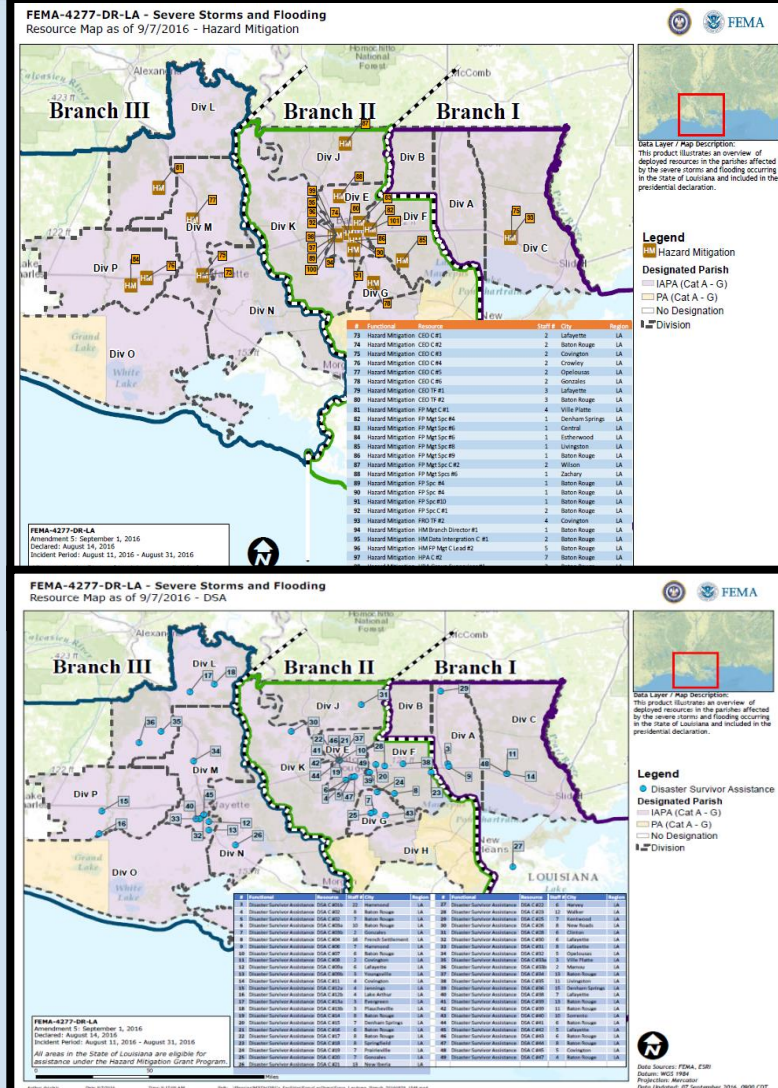
Photo 2

State of Louisiana Flooding Response

Overview of OSHA's Outreach Efforts and Intervention Activity

Overview of Outreach Efforts and Intervention Activities - September 1st through the Present:

- Compliance Safety and Health Officers and Compliance Assistance Specialists (CAS) worked together to formulate a plan to provide outreach and safety and health information to businesses, such as: Home Depot; Lowes; Stines; Debris Collection Centers and the collection site operators & drivers; as well as Religious and Volunteer (VOAD) groups;
- On September 17th, CAS Hebert began working with FEMA to establish the 4277-DR-LA Interagency Safety and Health Committee meeting, working with Louisiana Department on Environmental Quality (LDEQ), American Red Cross, USACE, AmeriCorps, FOH and FEMACORPs – Main goal is to provide worker safety and health support and advice;
- Plan for follow-on phases during the recovery – Shifting focus to Construction related activities, which will require focused safety and health outreach and responses;
- Continue to provide assistance to the Governor's Office of Home Security (GOHSEP) and continue outreach efforts as needed.



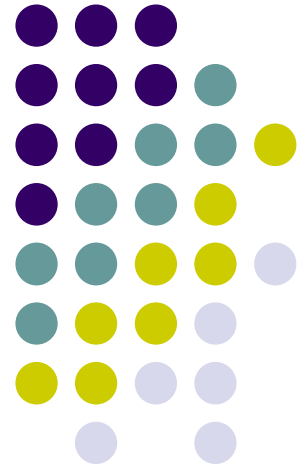
OSHA's Site for Emergency Preparedness & Response
<https://www.osha.gov/SLTC/emergencypreparedness>

Questions??

Doug Huddleston, CSP
OSHA Region VI
Office Number: 972-850-4167
huddleston.douglas@dol.gov

USDA ESF #11

- ✓ Federal ESF11 structure
- ✓ USDA ESF11 capabilities
- ✓ Deployment avenues



ESF11 Agriculture & Natural Resources

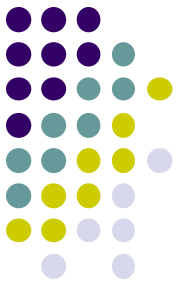
Coordinates Five Primary Functions



- Providing Nutrition Assistance
- Protecting Natural, Cultural, and Historic Resources
- Responding to Animal and Plant Diseases and Pests
- Ensuring the Safety and Security of the Commercial Food Supply
- Providing for the Safety and Well-Being of Household Pets



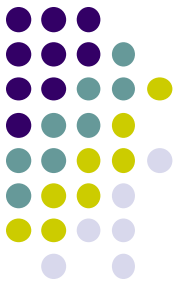
USDA - APHIS



- Veterinary Services (VS)
- Plant Protection and Quarantine (PPQ)
- Animal Care (AC)
- Wildlife Services (WS)
- Investigative Enforcement Services (IES)
- Delegated as the USDA Coordinator for USDA



USDA – APHIS Veterinary Services (VS)

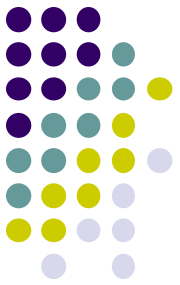


- Animal diseases
- Livestock issues
- National Veterinary Stockpile (contract companies
 - 3-D depopulation, disposal, decontamination)





Wildlife Services (WS)

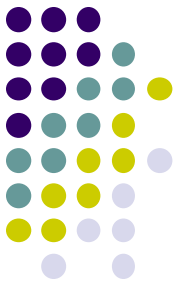


- Provides technical expertise in wild or free roaming animal mitigation actions such as tracking, trapping, and removal
- Provides technical expertise in wildlife surveillance utilizing fixed or rotary wing aircraft
- Coordinates with ESF-10 activities regarding oil/hazmat issues involving wildlife (MOU signed in June 2014)





USDA – APHIS Plant Protection & Quarantine (PPQ)



- Addresses the potential for plant disease outbreaks
- Provides for control and eradication of an outbreak including:
 - Quarantine enforcement
 - Pest extermination
 - Fumigation, disinfection, sanitation
 - Destruction of infected/contaminated plant material





USDA – APHIS Animal Care (AC)

- Supports DHS/FEMA and ESF6, ESF8, ESF9 and ESF14 to ensure an integrated response that provides for the safety and well-being of household pets
- Provides technical assistance and subject-matter expertise for activities including the evacuation, transportation, sheltering, husbandry, and veterinary care of affected household pets

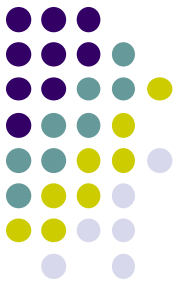


**SAVING PETS
SAVES LIVES**





Food Safety & Inspection Service (FSIS)



Related to meat, poultry, and egg products:

- Coordinates disposal of contaminated food products
- Provides inspectors and laboratory services to affected areas
- Assesses the operating status of inspected meat, poultry, and egg product processing, distribution, import, and retail facilities in the affected area
- Suspends operations of meat, poultry, and egg processing plants as appropriate



Potential Legal Instruments for Deployment of USDA to assist EPA



(For responses not covered under statutory authorities of USDA agencies)

1. FEMA Mission Assignment for Stafford Act Incidents.
2. PERFA agreements for pollution related incidents (Deepwater Horizon)
3. Interagency Agreement between USDA and EPA
4. Others?



Texas General Land Office Oil Spill Prevention & Response

Program Update

Fiscal Year 2016

(September 1, 2015 – August 31, 2016)

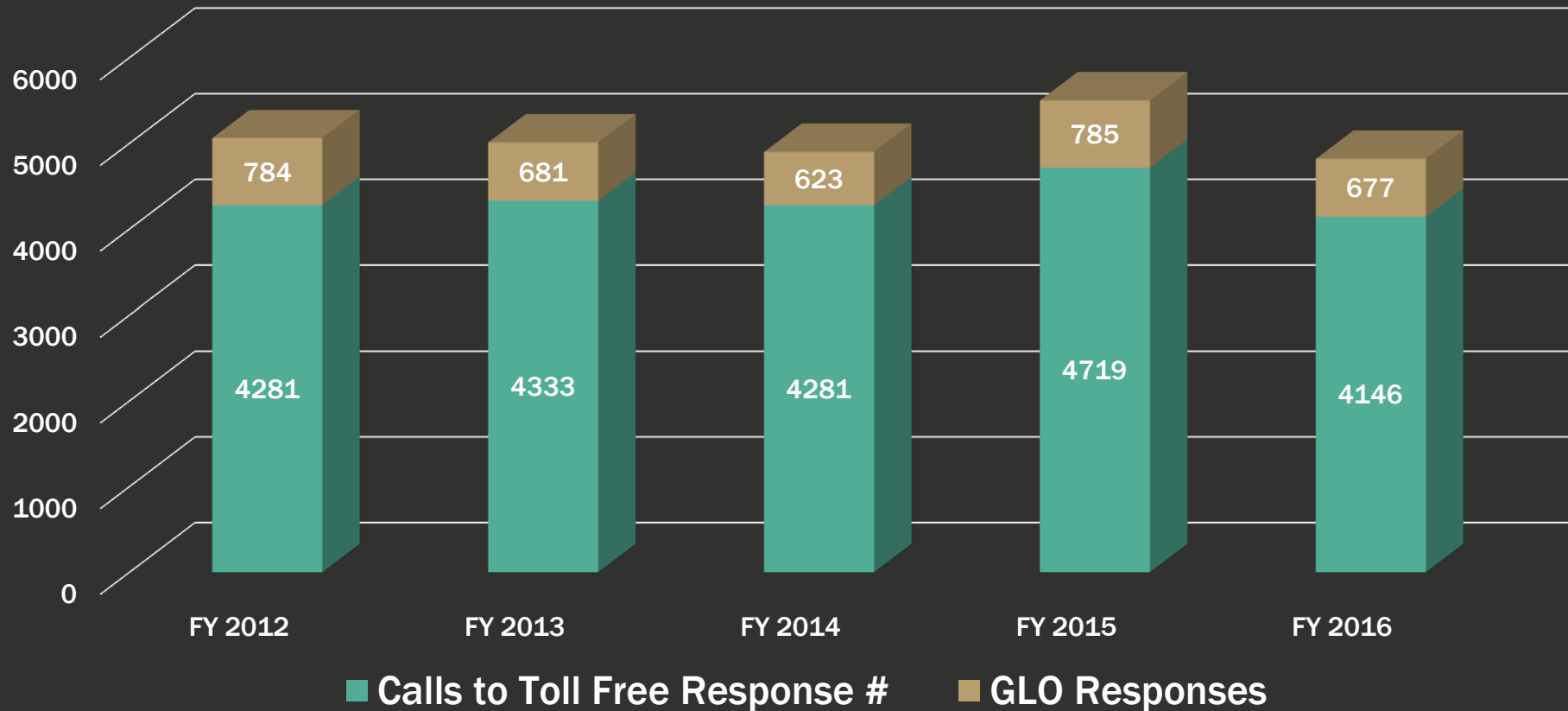
The Oil Spill Prevention and Response Act of 1991 designates the General Land Office as the lead state agency for prevention and response to oil spills in coastal waters. GLO Oil Spill staff maintain a 24/7 program, providing comprehensive services to keep Texas coastal waters clean and safe.

- **EDUCATE** - Oil Spill teams work with the oil industry, maritime community and general public to provide educational opportunities promoting the importance of clean coastal waters.
- **PREVENT** – By actively inspecting and monitoring coastal oil transfer facilities and vessels to ensure response plans as well as seeking out and removing derelict vessels, Oil Spill teams stop spills before they happen.
- **RESPOND** – Five strategically located field offices, trained staff and state of the art equipment ensure prompt, prepared responses when a spill happens.

Texas Trends

Spill Reports & Spill Responses

For fiscal years 2012-2016, statewide call volume reveals moderate industry growth, with a strong increase in 2014-15. Responses consistently follow, with substantial need for GLO services during 2014-15.



Changing times in the petroleum industry reveal fewer transfers and fewer spills ...

➤ Penalty payments from responsible parties:

↓ 36 percent

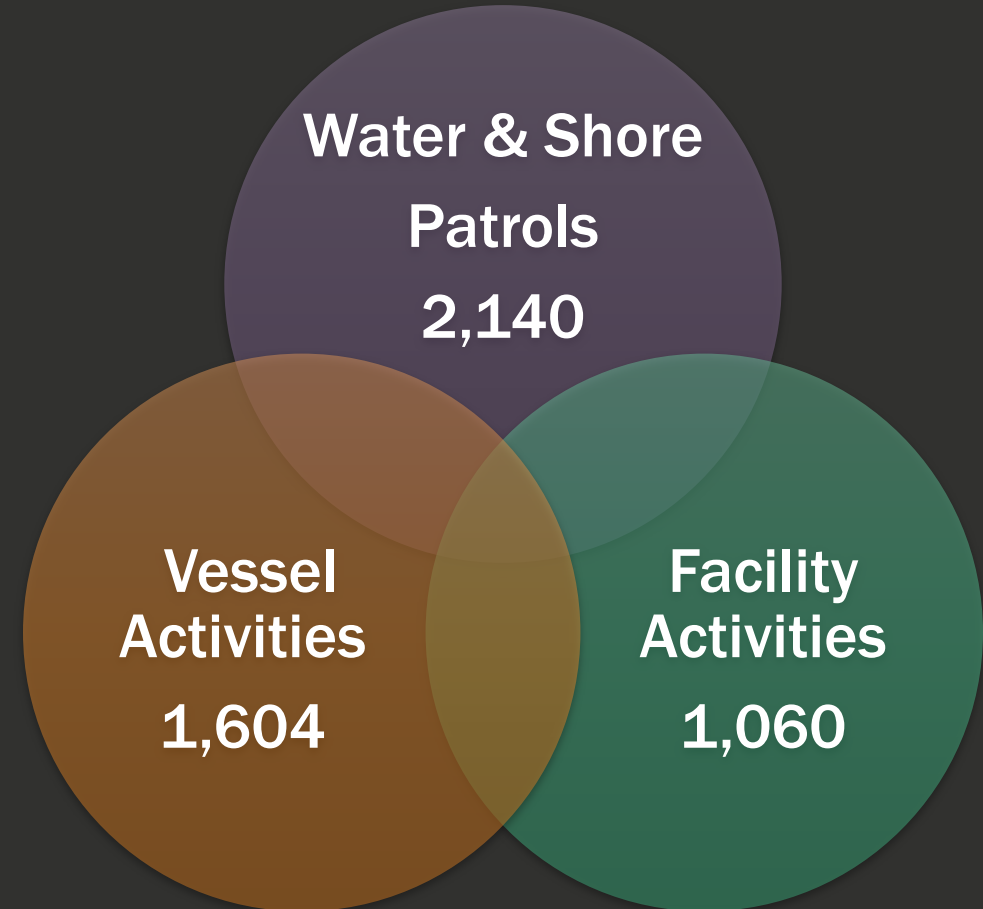
➤ Federal claim payments:

↑ 43 percent

| | FY 2015 | FY 2016 |
|----------------------|---------|---------|
| # of Emergency Calls | 4,719 | 4,146 |
| # of Responses | 785 | 677 |
| # of Penalties | 253 | 193 |

... but increased GLO prevention efforts.

- Patrols increased by 20%, from 1,706 to 2,140.
- Vessel prevention activities remained level, from 1,666 to 1,604.
- Facility prevention activities increased by 15%, from 898 to 1,060.





General Land Office Oil Spill Certified Facilities Fiscal Years 2012-2016

- GLO provides initial certification and annually audits and inspects coastal oil handling facilities. Insecurity in the oil industry can be seen as the number of certified storage and transfer facilities fluctuates.



VTIP

Oil Spill Vessel Turn-In Program

Eliminating trash from coastal waters – at no cost to the participant

In 2005, the Oil Spill Prevention and Response Division was given authority to remove derelict vessels from the Texas coastline, eliminating navigation hazards, pollution sources and general eyesores. Under its Derelict Vessel Removal program, Oil Spill has removed more than 600 vessels.

- VTIP , an expansion of Oil Spill's successful vessel removal efforts, kicked off in Galveston County, in March of 2015.
- Partnering with local city and county governments and state agencies for salvage and fuel disposal, Oil Spill staff initiated four additional VTIP events
 - Galveston County
 - Brazoria County
 - Matagorda County

RESULTS TO DATE:

- 119 vessels removed
- 600 gallons of fuel disposed
- 2,053 feet linear vessel length removed
- Total Cost Savings = \$513,250 (2,053 x \$250 per foot)
- VTIP are now planned annually for every coastal region



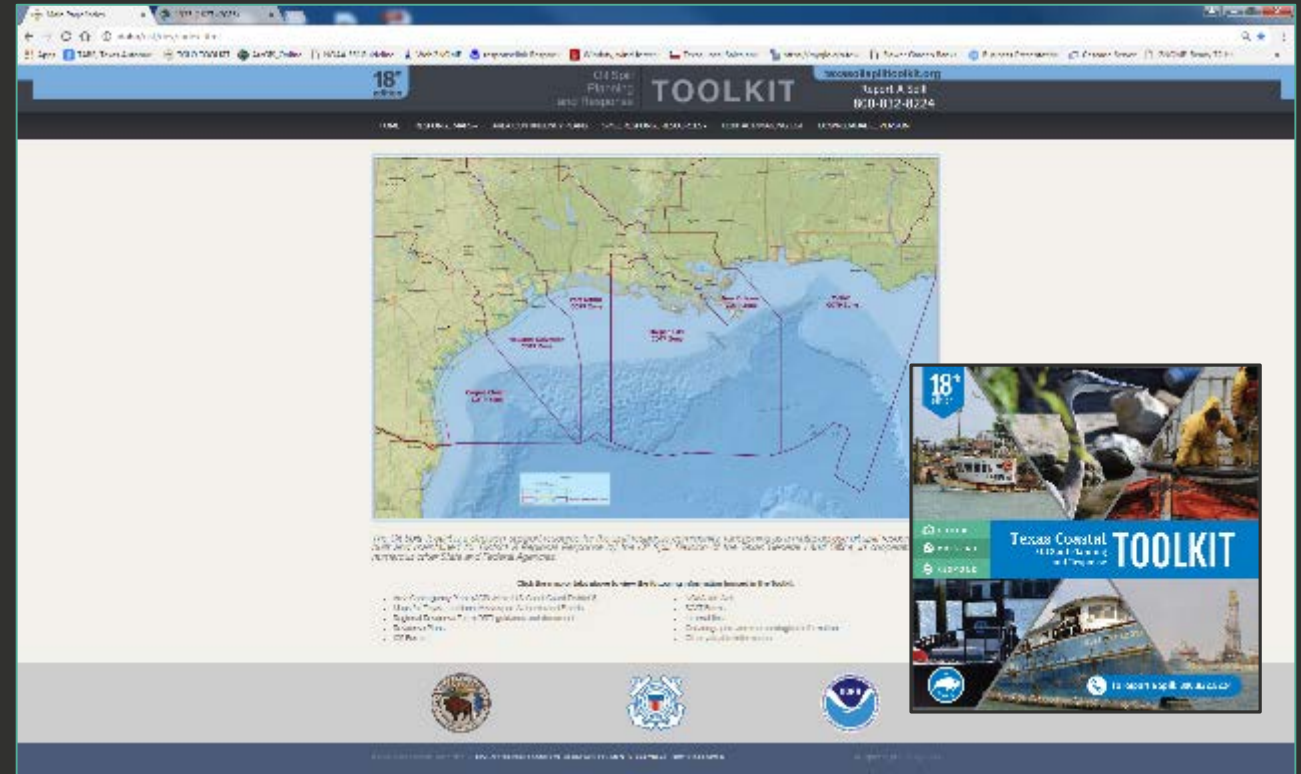
18th Edition

Oil Spill Planning and Response

Oil Spill Planning and Response

The “One-Stop Shop” for Oil Spill Planning and Response Resources

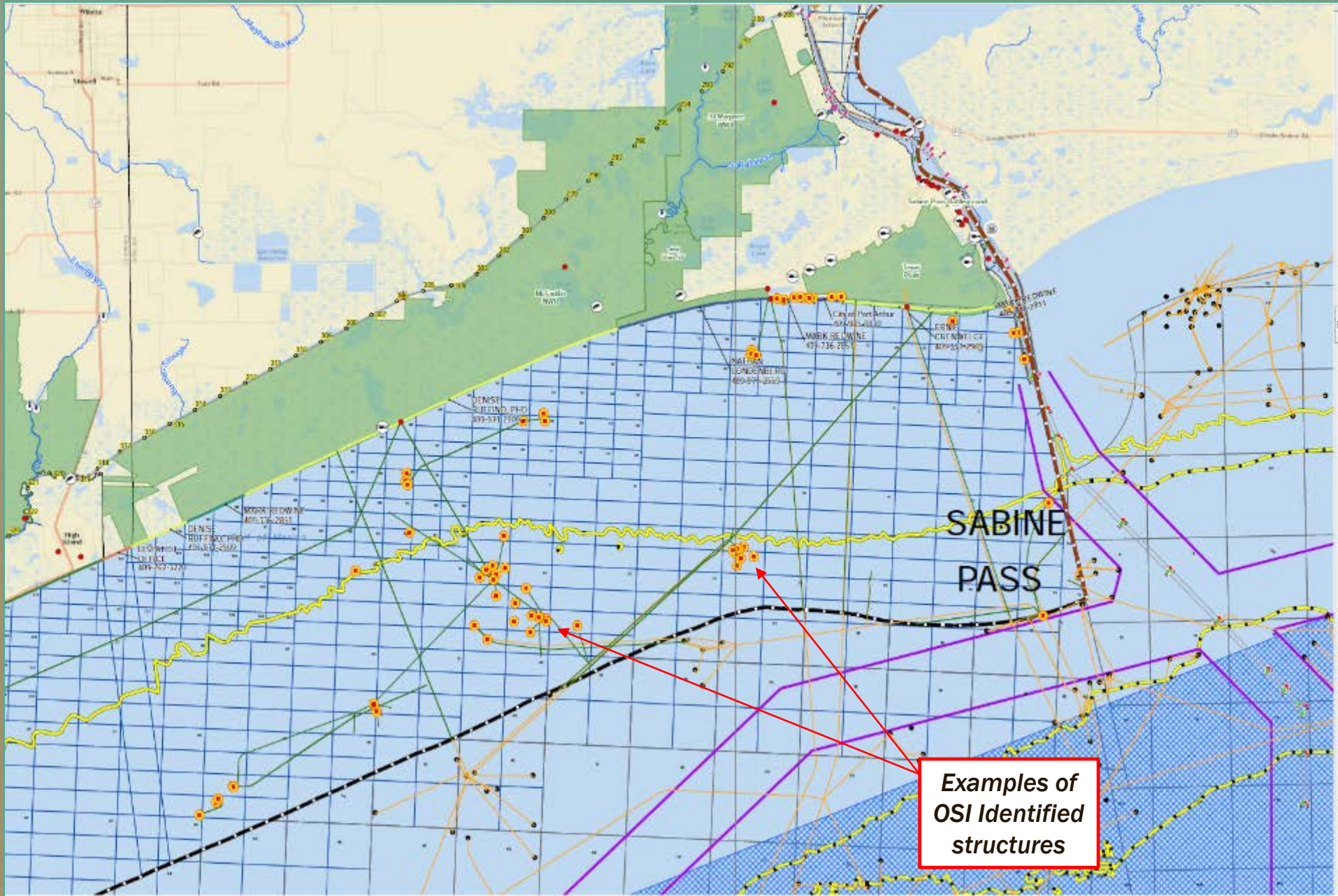
glo.texas.gov/ost



GLO Offshore Structure Inventory

➤ From June-August, 2016, GLO staff conducted an offshore structure inventory, initiating interagency efforts to secure abandoned and derelict structures for safer coastal waters.

Map of OSI Identified structures off of Sabine Pass

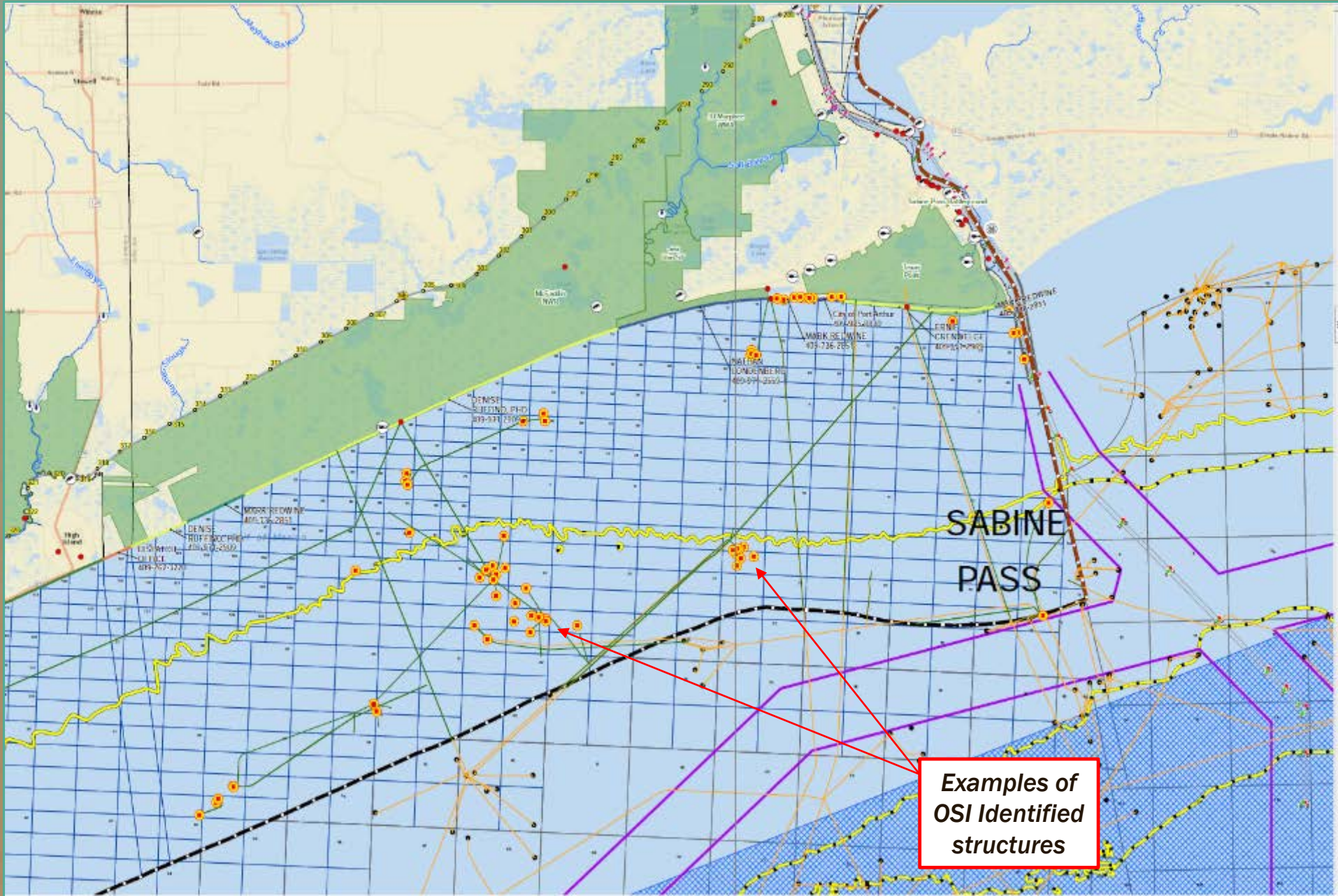


The map displays the Gulf of Mexico coastline off Sabine Pass, Texas. A grid of latitude and longitude lines is overlaid on the water area. Numerous orange circular markers, representing identified offshore structures, are scattered across the map. A red box with a black border in the lower right corner contains the text "Examples of OSI Identified structures". Red arrows point from this box to several of the orange markers. The land area is shown in green and yellow, with various labels for locations like "McSwain NW", "City of Port Arthur", and "Sabine Pass". The water area is blue.

GLO Offshore Structure Inventory

➤ From June-August, 2016, GLO staff conducted an offshore structure inventory, initiating interagency efforts to secure abandoned and derelict structures for safer coastal waters.

Map of OSI Identified structures off of Sabine Pass

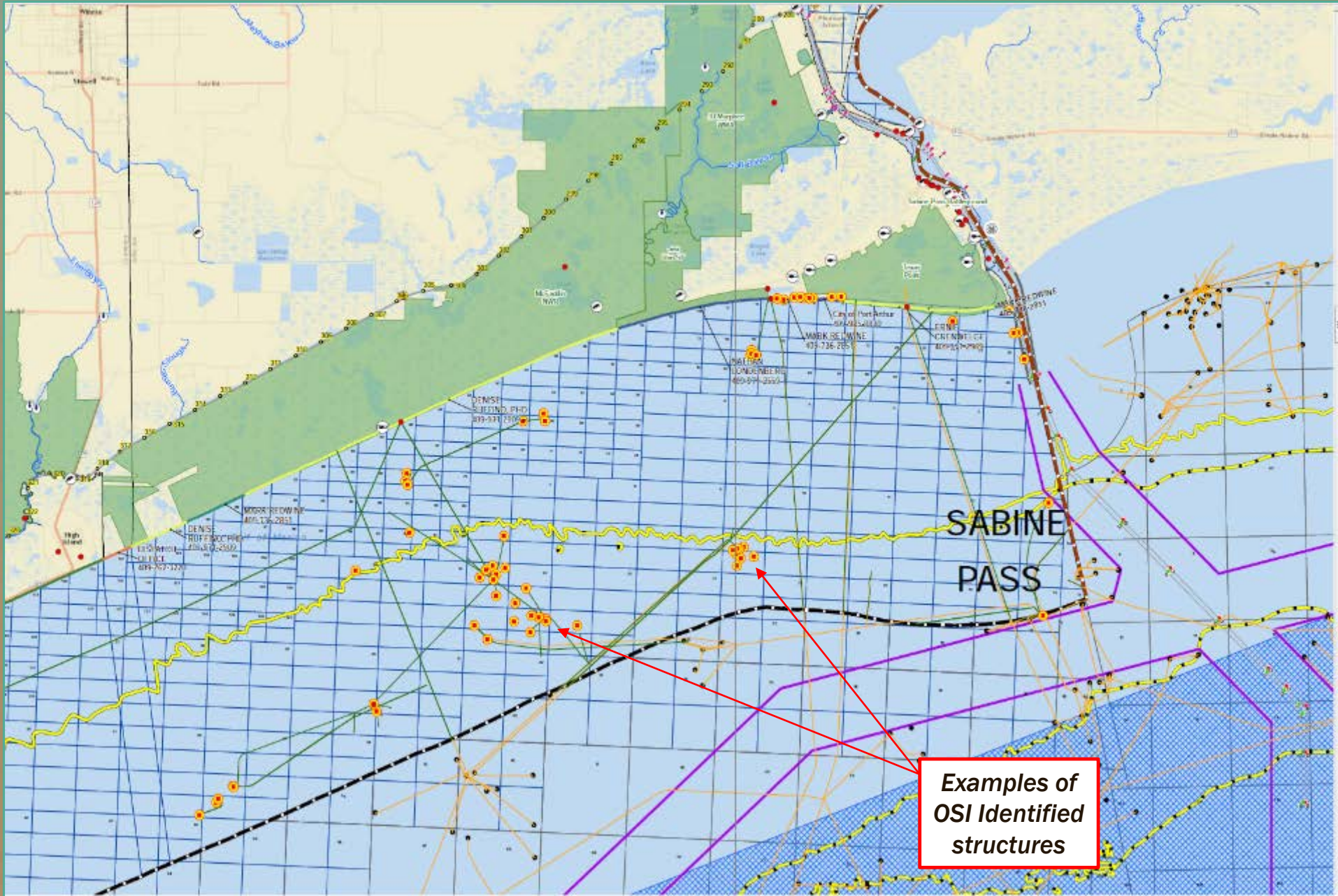


The map displays the Gulf of Mexico coastline off Sabine Pass, Texas. A grid of latitude and longitude lines is overlaid on the water area. Numerous orange circular markers, representing identified offshore structures, are scattered across the map. A red box with a black border is located in the lower right quadrant, containing the text "Examples of OSI Identified structures". Two red arrows point from this box to two of the orange markers. The land area is shown in green and yellow, with various labels for locations like "McAllen, NM", "El Paso, TX", and "Sabine Pass". The water area is blue.

GLO Offshore Structure Inventory

➤ From June-August, 2016, GLO staff conducted an offshore structure inventory, initiating interagency efforts to secure abandoned and derelict structures for safer coastal waters.

Map of OSI Identified structures off of Sabine Pass

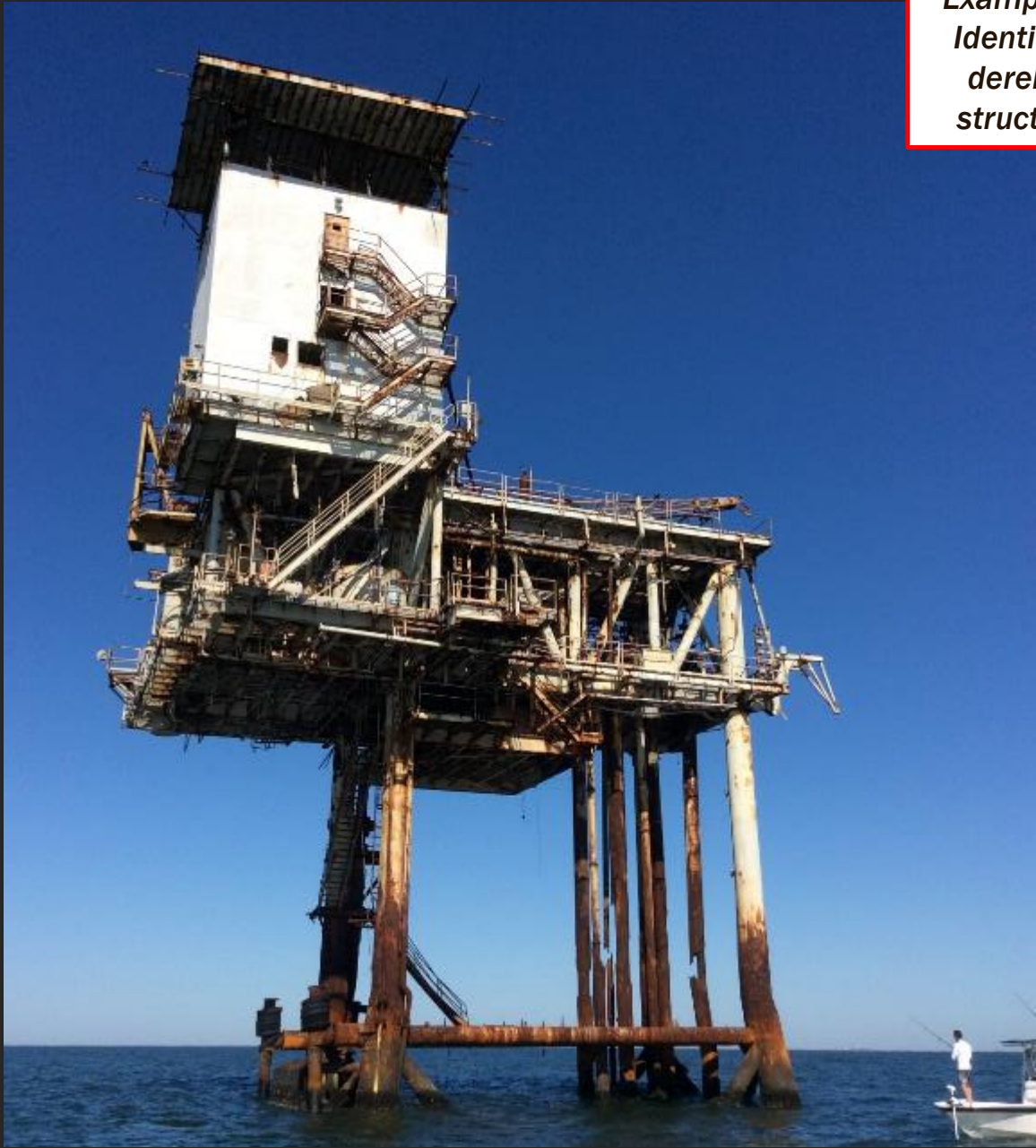


The map displays the Gulf of Mexico coastline off Sabine Pass, Texas. A grid of latitude and longitude lines is overlaid on the water area. Numerous orange circular markers, representing identified offshore structures, are scattered across the map. A red box with a black border is located in the lower right quadrant, containing the text "Examples of OSI Identified structures". Two red arrows point from this box to two of the orange markers. The land area is shown in green and yellow, with various labels for locations like "McAllen, NM", "El Paso, TX", and "Sabine Pass". The water area is blue.

Offshore Structures Inventory:

GOM-818-3727

| | |
|-----------------------------|---|
| Aerial Location Type | Well |
| Possible Responsible Party | SAMEDAN OIL |
| Storm Damage Present | Unknown |
| Current Damage Present | Unknown |
| Structure Type Field ID | Platform |
| Field Inspector | ddavis |
| Inspection Date | April 4, 2016 |
| Inspection Comments | PHOC-MU 818-L-A: Looks in unused condition , 4 pile, ladder in disrepair, crew boat landing in disrepair, no crew lines |
| Field Inspection Completed | Yes |
| Field Analysis | |
| Appear Operational | No |
| Appear Derelict | Unknown |
| ID Information Available | Yes |
| Safety Lighting Operational | Unknown |
| Horns Operational | Unknown |
| Storage Tank Present | Yes |
| Manager Analysis | |
| OSI ID Number | 3727 |
| Tract Number | 818 |
| Control Number | 03-008131 |
| Waterbody | Gulf of Mexico |
| Waterbody Abbrev | GOM |
| Waterbody Tract | GOM-818 |
| Site ID | GOM-818-3727 |
| API Number | |
| RRC Number | |



Example of
Identified
derelict
structure

Offshore Structures Inventory: GOM-818-3730

| | |
|----------------------------|---|
| Aerial Location Type | Platform |
| Possible Responsible Party | |
| Storm Damage Present | Unknown |
| Current Damage Present | Unknown |
| Structure Type Field ID | Platform |
| Field Inspector | ddavis |
| Inspection Date | April 4, 2016 |
| Inspection Comments | MU 818-L-B: Appears in disrepair, 8 pile, no crew lines, ladders in disrepair, helo pad unusable, appears in unused |

| | |
|-----------------------------|----------------|
| Field Inspection Completed | Yes |
| Field Analysis | |
| Appear Operational | No |
| Appear Derelict | Unknown |
| ID Information Available | No |
| Safety Lighting Operational | None seen |
| Horns Operational | No |
| Storage Tank Present | No |
| Manager Analysis | |
| OSI ID Number | 3730 |
| Tract Number | 818 |
| Control Number | 03-008131 |
| Waterbody | Gulf of Mexico |
| Waterbody Abbrev | GOM |
| Waterbody Tract | GOM-818 |
| Site ID | GOM-818-3730 |
| API Number | |
| RRC Number | |

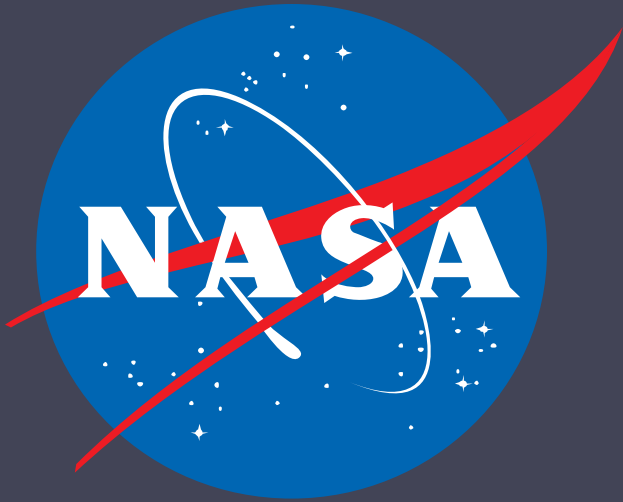


*Example of
Identified
derelict
structure*



Texas General Land Office
Oil Spill Prevention and Response
P.O. Box 12873
Austin, Texas 78711-2873
www.glo.texas.gov

Report a Spill: 800-832-8224



NASA Disaster Response Program

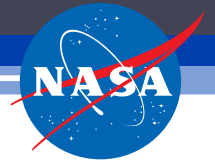
Jordan Bell

Research Associate

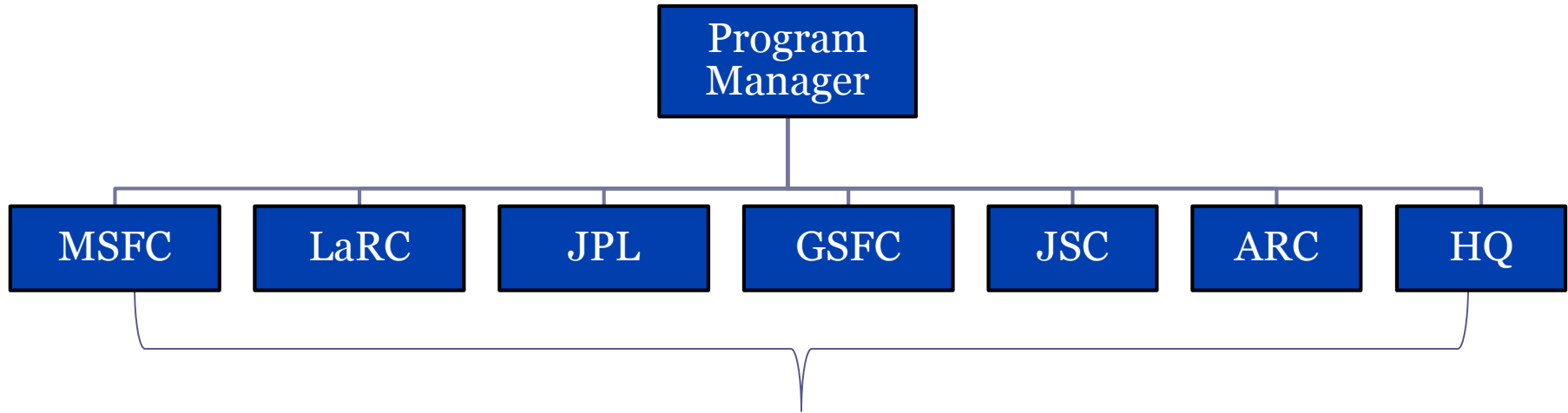
Marshall Space Flight Center/UAH

Disaster Response Program





Disaster Response Program



- Coordination of response efforts between the NASA Centers
- Utilizes each center's expertise to provide imagery and derived products to additional government partners and end users

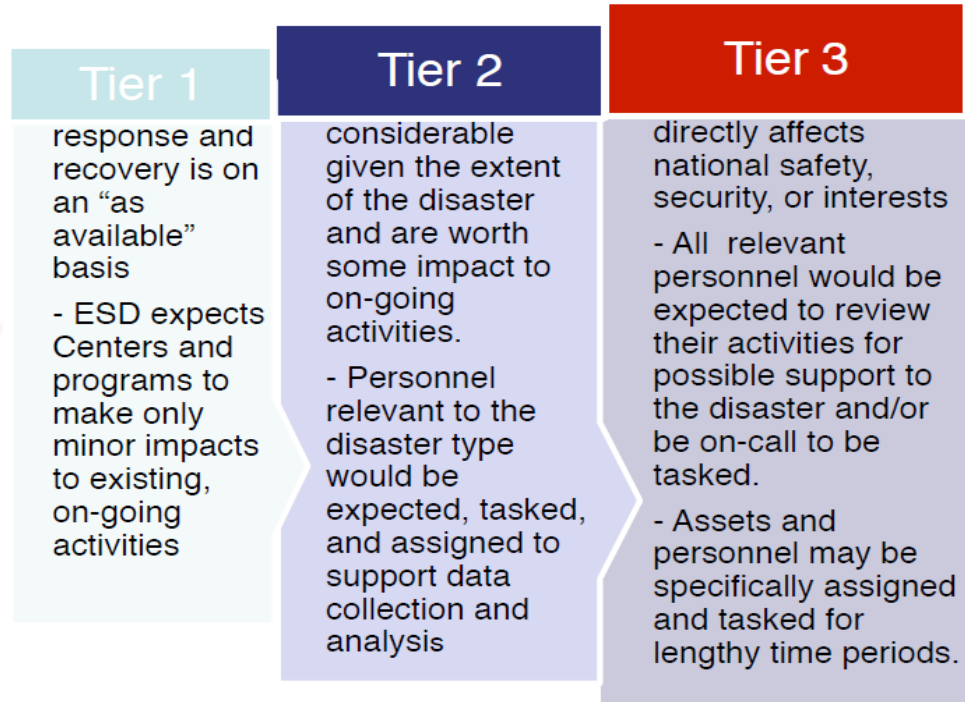
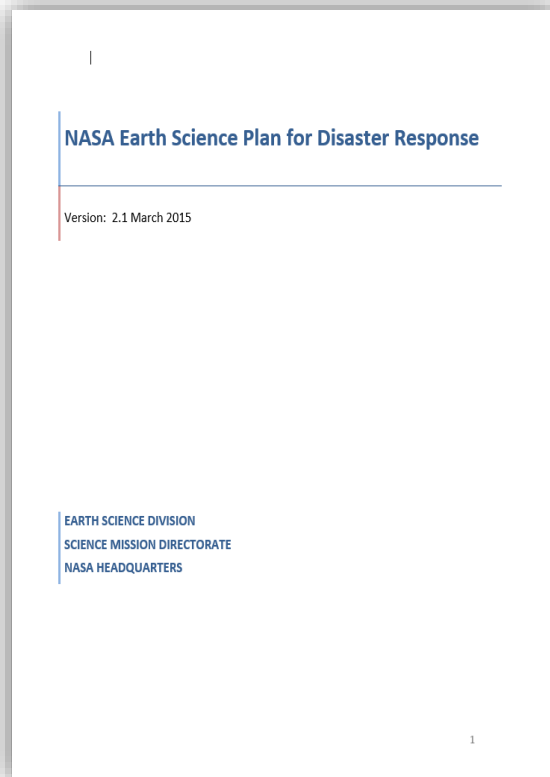
Capabilities

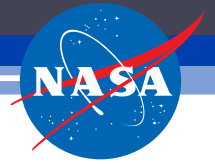
Flood
Earthquake
Severe Weather
Tropical Cyclone
Oil Spills
**Flight Assets





NASA's Tiered Response





US Disaster Coordination

NASA supports the White House Office of Science and Technology Policy (OSTP) Committee on Environment, Natural Resources and Sustainability (CENRS)

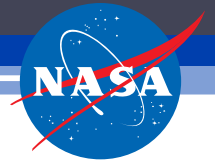
Subcommittee on Disaster Reduction (SDR)

Six Grand Challenges:



- ① Provide hazard and disaster information where and when it is needed
- ② Understand the natural processes that produce hazards
- ③ Develop hazard mitigation strategies and technologies
- ④ Recognize and reduce vulnerability of interdependent critical infrastructure
- ⑤ Assess disaster resilience using standard methods
- ⑥ Promote risk-wise behavior





International Charter - Space & Major Disasters

The International Charter aims at providing a unified system of space data acquisition and delivery to those affected by natural or man-made disasters through Authorized Users.

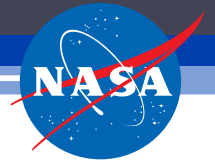
Each member agency has committed resources to support the provisions of the Charter and thus is helping to mitigate the effects of disasters on human life and property.

USGS and NOAA are the two United States signatories with NASA being a contributing organization for data and disaster related products.

The screenshot displays the International Charter - Space & Major Disasters website. The top section features a header with the Charter's name and a navigation menu. The main content area highlights the 'Typhoon Rammasun in China' event, including a map of the typhoon's path and a table of event details. Below this, the USGS Hazards Data Distribution System (HDDS) Explorer interface is shown, featuring a search criteria summary and a map of the Pacific Ocean region.

| Field | Value |
|----------------------------|---|
| Type of Event | Ocean Storm - Typhoon |
| Location of Event | Hainan Province, China |
| Date of Charter Activation | 19 July 2014 |
| Charter Requestor | National Disaster Reduction Center of China (NDRCC) |
| Project Management | National Disaster Reduction Center of China (NDRCC) |





NASA ESD Capabilities for Disaster Response

- ***Spaceborne Assets***

- Existing and Formulation missions: MODIS, NPP, Landsat, ASTER, GPM
- Decadal Survey Missions: SMAP, HypIRI
- ISS

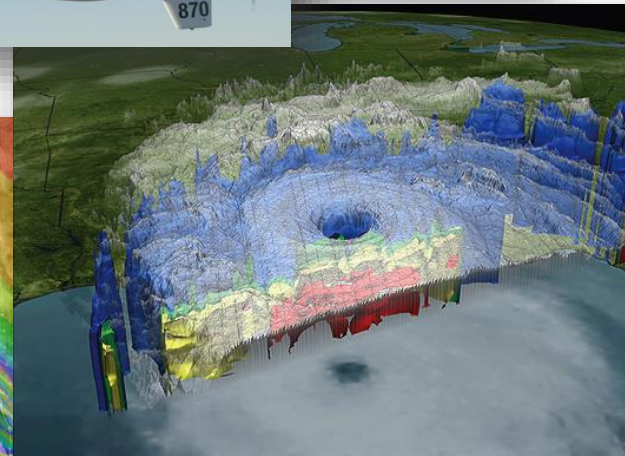
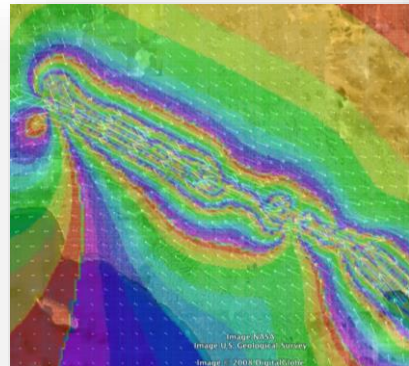
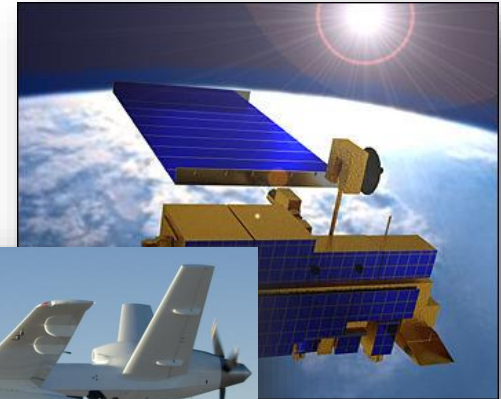
- ***Airborne Instruments***

- UAVSAR – Radar
- LVIS – Lidar
- AMS, MASTER – Thermal Infrared
- HIWRAP, APR2, HAMSAR, HIRAD, PALS
- MAPIR – Active and passive microwave

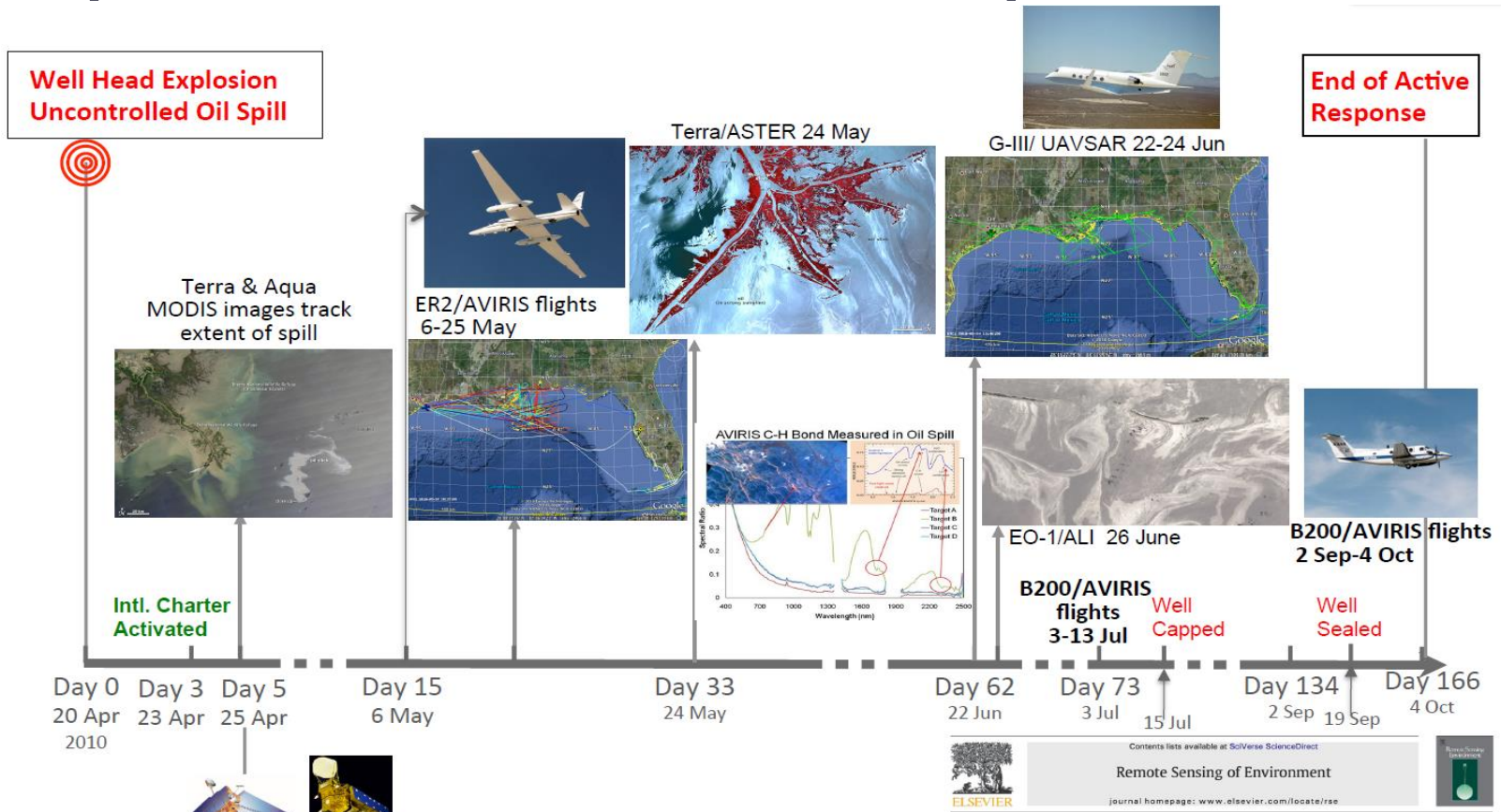
- ***Data processing, analysis systems, Data Centers***

- EOSDIS-ESDIS
- LANCE/NRT/DB

- ***Modeling and Analysis***



Deepwater Horizon Oil Spill



Contents lists available at SciVerse ScienceDirect

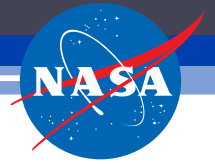
Remote Sensing of Environment

journal homepage: www.elsevier.com/locate/rse

Review

State of the art satellite and airborne marine oil spill remote sensing: Application to the BP Deepwater Horizon oil spill

Ira Leifer ^{a,*}, William J. Lehr ^b, Debra Simecek-Beatty ^b, Eliza Bradley ^c, Roger Clark ^d, Philip Dennison ^e, Yongxiang Hu ^f, Scott Matheson ^e, Cathleen E. Jones ^e, Benjamin Holt ^g, Molly Reif ^h, Dar A. Roberts ⁱ, Jan Svejksky ^j, Gregg Swayze ^k, Jennifer Wozenraft ^h



NASA Oil Spill Response

NASA AVIRIS used by USGS, NOAA and NASA science team to estimate the thickness and volume of the surface oil. Example result: High values at 131 liters/pixel*.

Quantitative
Volume
Estimates

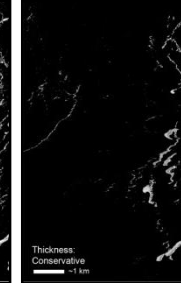
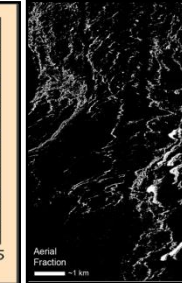
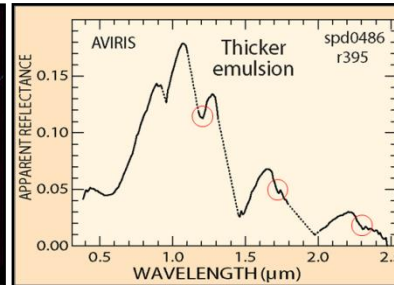
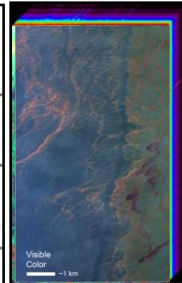
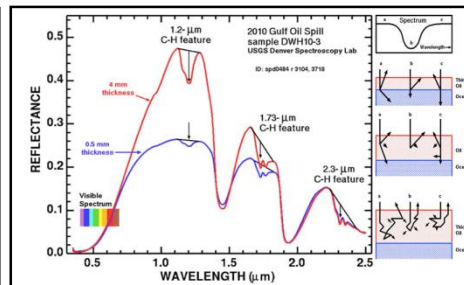
Oil Spill

Spectroscopic Basis
C-H Bond Absorptions

AVIRIS

AVIRIS Spectra

Fraction Thickness



| Wavelength (μm) | Reflectance | Thickness (mm) | Volume (liters/pixel) |
|-----------------|-------------|----------------|-----------------------|
| 0.4 | 0.05 | 0.5 | 131 |
| 0.5 | 0.05 | 0.5 | 131 |
| 0.6 | 0.05 | 0.5 | 131 |
| 0.7 | 0.05 | 0.5 | 131 |
| 0.8 | 0.05 | 0.5 | 131 |
| 0.9 | 0.05 | 0.5 | 131 |
| 1.0 | 0.05 | 0.5 | 131 |
| 1.1 | 0.05 | 0.5 | 131 |
| 1.2 | 0.05 | 0.5 | 131 |
| 1.3 | 0.05 | 0.5 | 131 |
| 1.4 | 0.05 | 0.5 | 131 |
| 1.5 | 0.05 | 0.5 | 131 |
| 1.6 | 0.05 | 0.5 | 131 |
| 1.7 | 0.05 | 0.5 | 131 |
| 1.8 | 0.05 | 0.5 | 131 |
| 1.9 | 0.05 | 0.5 | 131 |
| 2.0 | 0.05 | 0.5 | 131 |
| 2.1 | 0.05 | 0.5 | 131 |
| 2.2 | 0.05 | 0.5 | 131 |
| 2.3 | 0.05 | 0.5 | 131 |
| 2.4 | 0.05 | 0.5 | 131 |
| 2.5 | 0.05 | 0.5 | 131 |

NASA AVIRIS used by a broad government and university science team to map vegetation species and physiological condition (health) before and after oil impact.

Pre Oil

AVIRIS ER-2

Coastal
Data

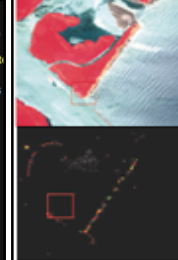
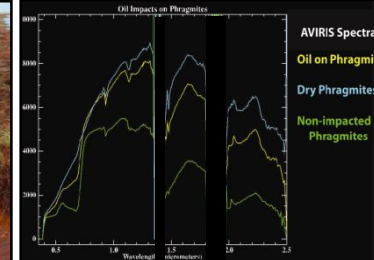
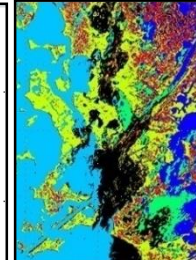
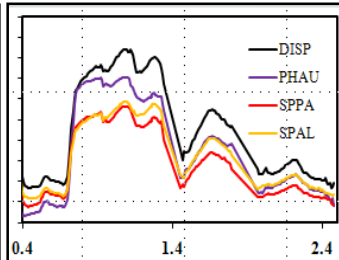
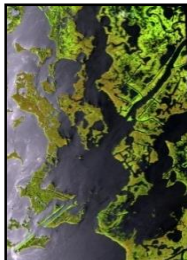
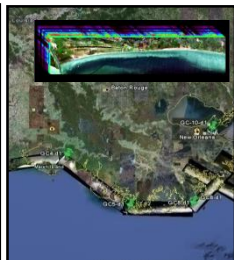
AVIRIS Vegetation
Spectra

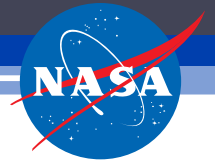
AVIRIS Species
Map

Post Oil

AVIRIS Oil Impacted
Vegetation Spectra

Oil Impact
Product



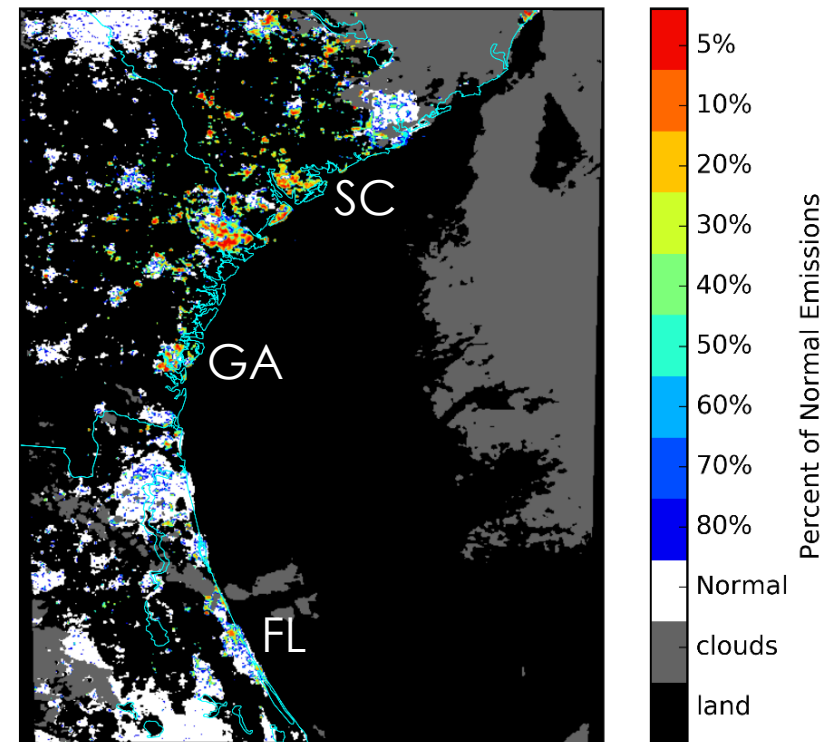
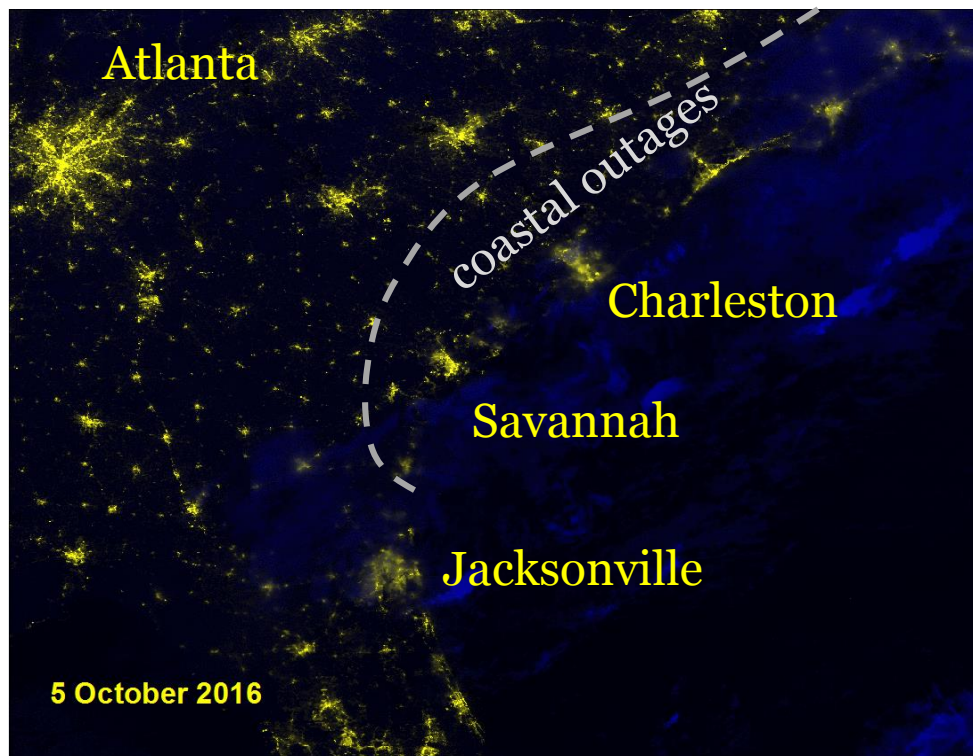


Hurricane Matthew Response



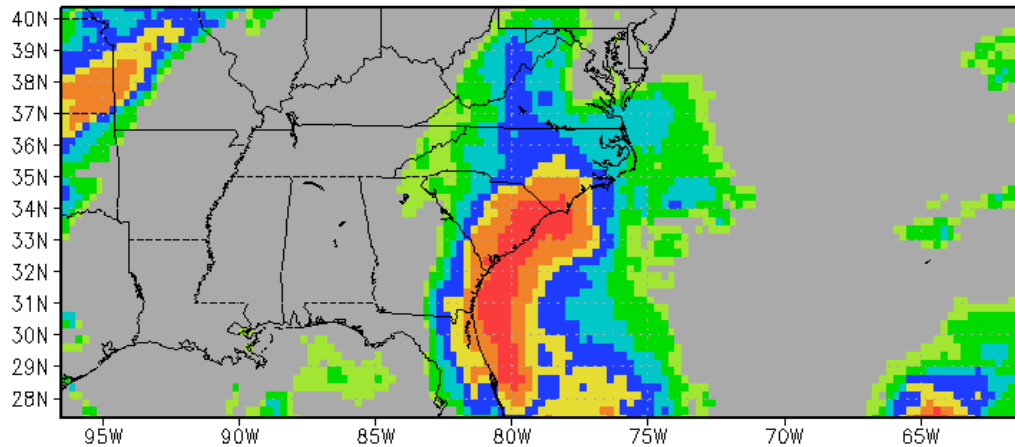
Power Outages with S-NPP VIIRS

- Collaborations between NASA Goddard, their Direct Readout Laboratory, and MSFC/SPoRT have contributed pre- and post-event light comparisons using VIIRS Day-Night Band emissions and gridded products that incorporate corrections for moonlight.
- This approach allows for analyzing changes between pre- and post-event scenes and identifying missing or reduced lights due to power outages and other impacts from Hurricane Matthew.

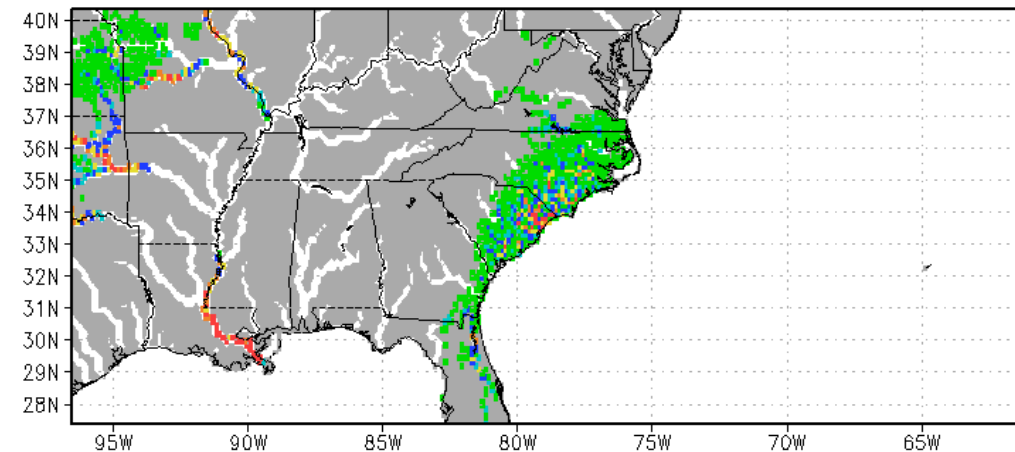


NASA Flood Mapping Projects

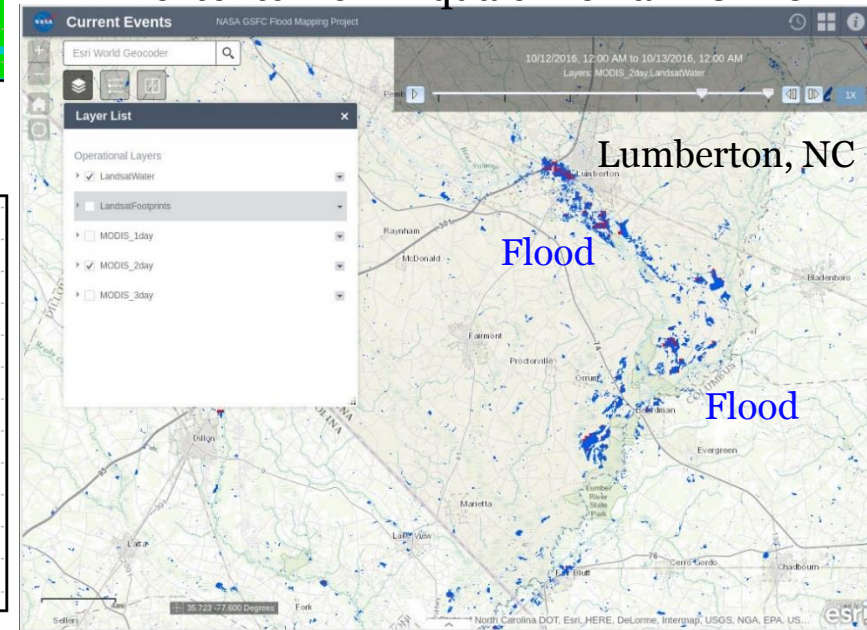
Rainfall (3-day accum.) [mm] 09Z09Oct2016



Flood Detection/Intensity (depth above threshold [mm])
12Z09Oct2016

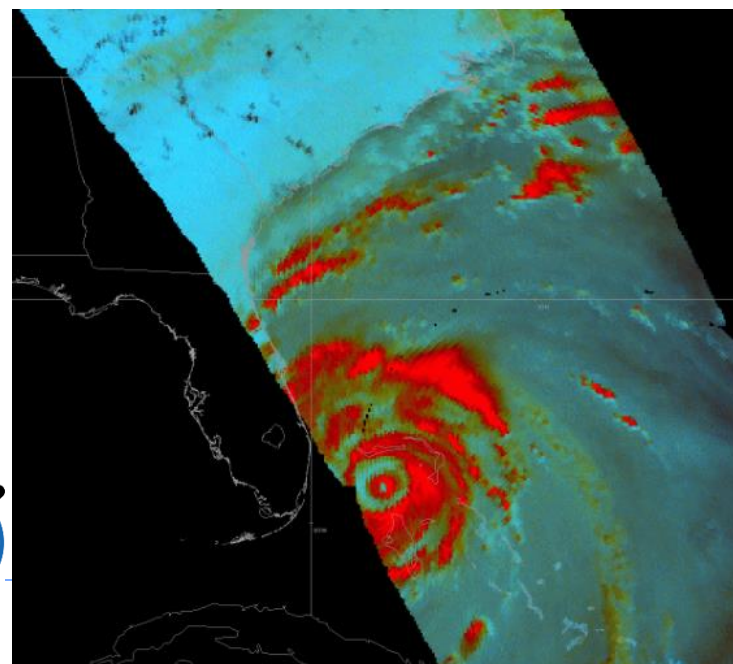
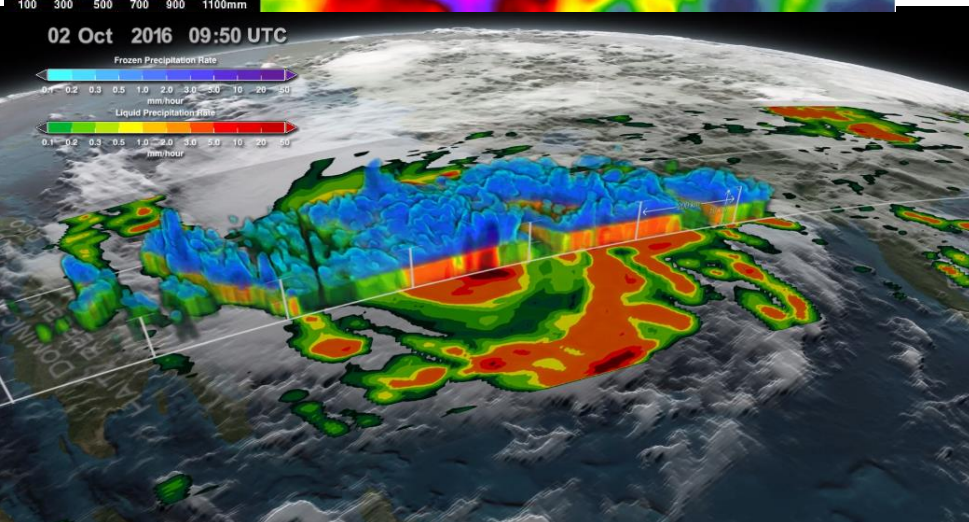
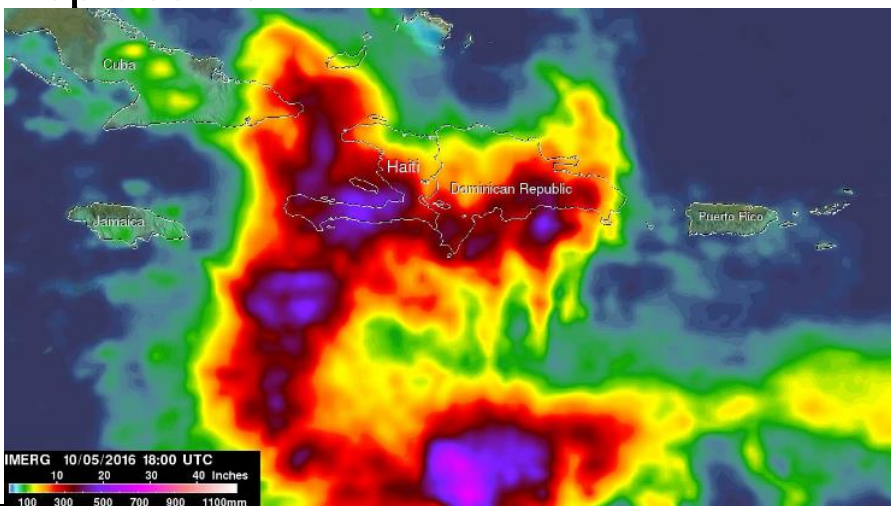


- Several flood monitoring programs and products exist.
- Global Flood Modeling (left) models precipitation and streamflow
- GSFC Flood Mapping Project uses (below) automated detection of flood extents from Aqua & Terra MODIS



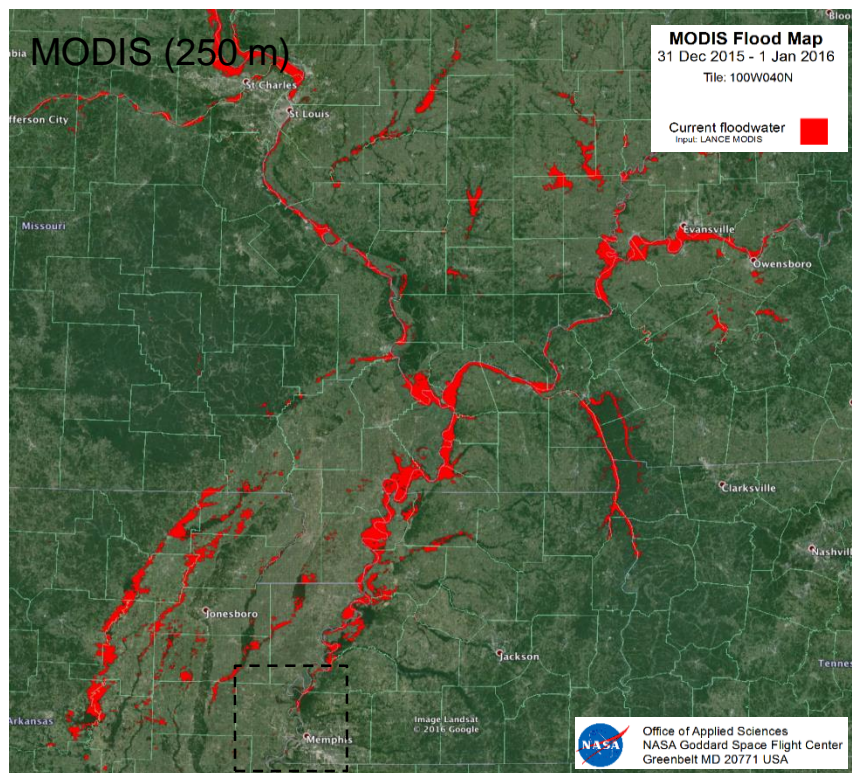
GPM observes Hurricane Matthew's rapid intensification and eyewall replacement

- GPM observed intense rainfall (left) as Matthew battered Hispaniola and Cuba
- On Oct. 2 (bottom left) GPM Core Observatory viewed a newly intensified Cat 4 storm south of Haiti, showing strong convection and heavy rainfall in the eye wall and rain bands
- GPM's Microwave Imager (bottom right) observed the storm going through eye wall replacement before impacting Florida as a Cat. 3. This data was provided to FEMA and NWS Offices for situational awareness

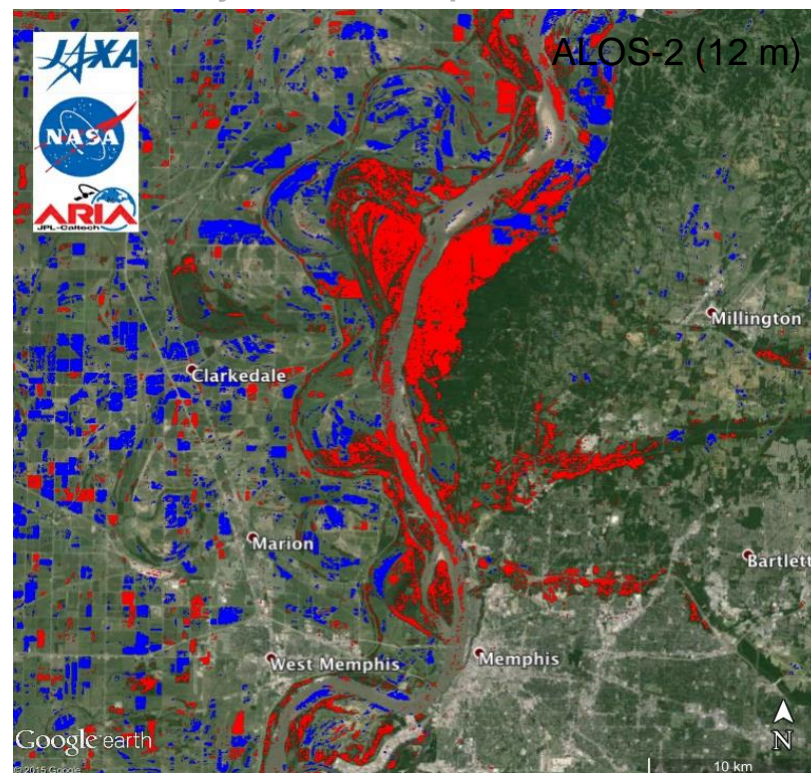


Remote Sensing of Flood Waters

NASA MODIS Detections and JAXA ALOS-2 Synthetic Aperture Radar



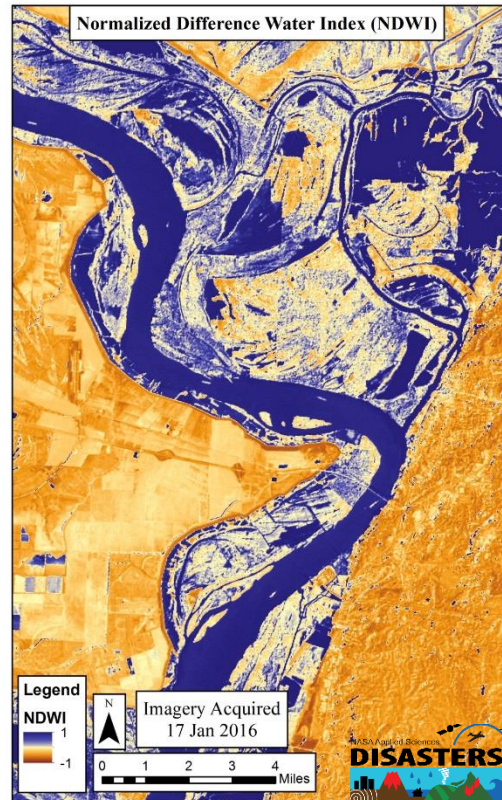
Flood detections (red) from NASA Near Real-Time Global Flood Mapping with flood extent on January 1, 2016, courtesy of Goddard Space Flight Center.



Standing water (blue) and water-inundated vegetation (red) detected by ALOS-2 and the Synthetic Aperture Radar (SAR) at the Jet Propulsion Laboratory, January 6. Coverage area shown as dashed inset of MODIS

Remote Sensing of Flood Waters

Multispectral Views from NASA's Earth Observing-1 Mission

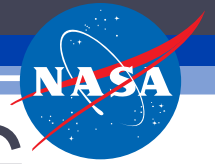


NASA staff at Goddard Space Flight Center and Marshall Space Flight Center targeted collections of imagery by NASA's Earth Observing-1 (EO-1) mission.

Multispectral imaging by EO-1 provides true color imagery (left) and capabilities for derived products (right), and can also be applied to Landsat-7 and Landsat-8 missions, Aqua and Terra MODIS, Suomi-NPP VIIRS, and other imagery provided by federal agency partners, International Charter, and commercial vendors.

Here, true color imagery near Vicksburg, Mississippi highlights flood water (left) along the Mississippi in a visual sense, while the Normalized Difference Water Index helps to draw attention to standing water (right) in shades of blue.

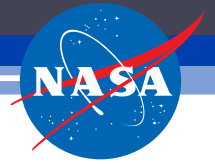
True color (left) and Normalized Difference Water Index (right) imagery derived from NASA's Earth Observing-1 mission, observed near Vicksburg, Mississippi on 17 January 2016.



NASA Collaborations with USCG

- NASA Applied Sciences attended the Houston Sector HURREX in February 2016
 - As a first time attendee to an exercise like this, it was very informative and eye opening
- USCG expressed interest in accessing NASA datasets in their operational command center
 - Additionally, observed that EPA (Response Manager) and NOAA (ERMA) could benefit of NASA datasets as well
- Briefed Disasters Program on observations and interactions with players involved in the exercise.
 - Developed strategy to build web-viewer for USCG that focuses on NASA datasets and derived product that could help USCG achieve their mission
- Attended second HURREX in April 2016 at USCG Port Arthur MSU to showcase what had been developed to date
- Have since met with NDOW in Corpus Christi in September
 - State agencies showing high interest as well

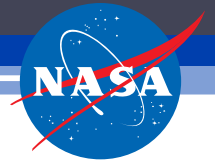




Moving Forward with Regional Response Teams

- Continued development of the new WMS delivery and web-viewing* options for partner agencies
 - NASA is beginning to work ESRI on creating architecture that can better serve our imagery and products
 - Will utilize ERSI Server to consolidate data from various centers into 1 common location for distribution
- Need to begin talking with NOAA and EPA representation on requirements for integration into their systems
 - NOAA-ERMA; EPA-Response Manager
 - Should have a better idea on integration after December meeting with ESRI
- Continue engaging in conversations with the USCG, EPA and NOAA on what types of imagery and products would be most beneficial and useful in different responses
 - Gulf of Mexico region is ideal for collaborations
 - Oil Spills, Hurricanes
- NASA Oil Spill Remote Sensing Workshop (OIL-SPIRES) in FY17
 - Early in 2017 in Washington D.C.

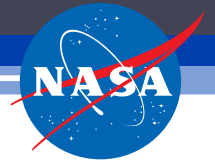




Summary

- The NASA Disaster Program is:
 - Growing and enhancing its capabilities to respond to disasters
 - Responding to requests for support from domestic and international partners
 - Looking for interagency and international partners
 - Identifying relevant opportunities to participate and/or observe applicable exercises and trainings.
- NASA would like to not only continue to support the Regional Response Teams with WMS development but also provide in-person support during relevant emergency events





Jordan Bell

UAH/Marshall Space Flight Center

Office: 256-961-7670

jordan.r.bell@nasa.gov

Dr. David Green

Disaster Response Program Manager

Office: 202-358-0032

Mobile: 202-748-2875

David.S.Green@nasa.gov



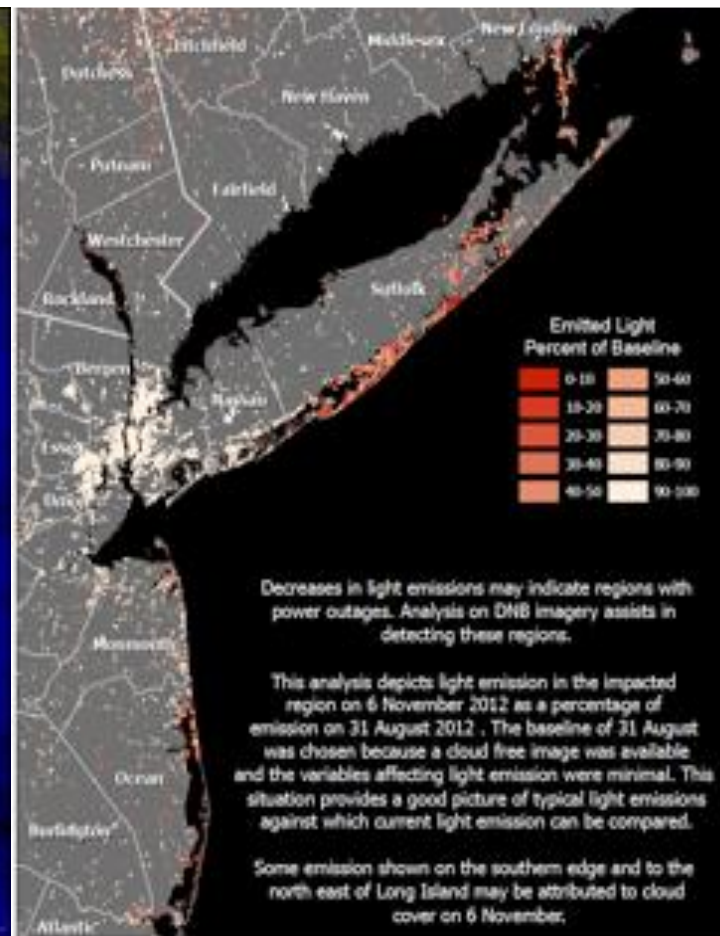
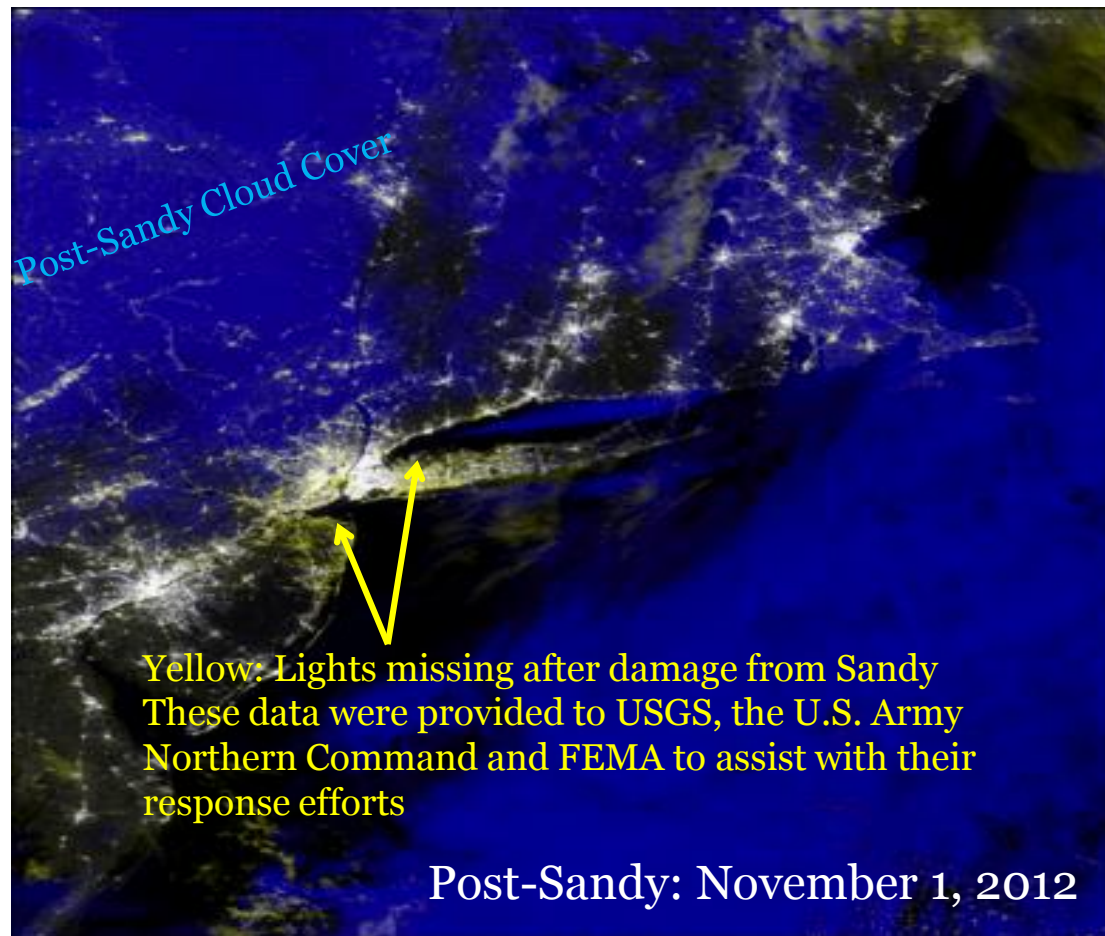


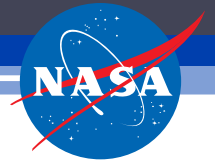
Additional Slides





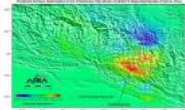
Disaster Response for “Superstorm Sandy”





Disaster Response for Nepal

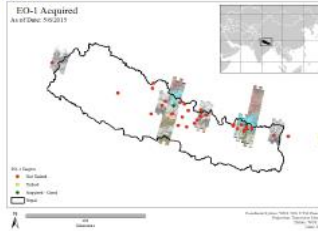
M7.8 Earthquake & 1st coordination call



Initial quake models
Interferograms
tilt maps

CSK Damage Proxy Map (DPM)

- Delivered to NGA, OFDA/USAID
- Publicly released



GPS Surface Deformation

- Delivered to USGS
- Publicly released

First Radar Surface Deformation – S1A

- Publicly released

Sub-Groups formed
& First optical images

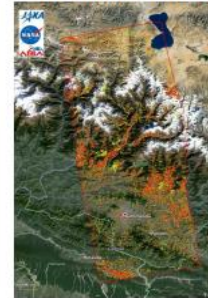
Optical Imagery: Landsat,
ASTER, EO-1 Tasking

Landslide Identifications

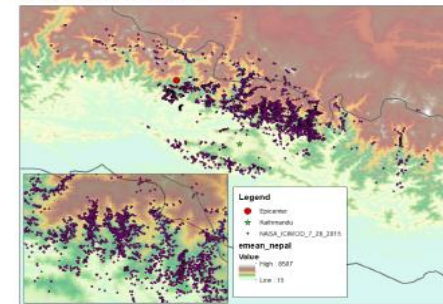
Products include: Surface deformation maps (interferograms),
Optical imagery
Damage Proxy Maps
Damage & Vulnerability Maps
Surface Deformation Models
Induced Hazards (i.e. Landslide/Flood susceptibility maps)

ALOS-2 DPM

- Delivered to NGA, OFDA,
DigitalGlobe, Esri
- Publicly released



Landslide mapping +
Susceptibility Maps
SERVIR/ICIMOD



Last telecon

Day 0
April 25

Day 1
April 26

Day 3
April 28

Day 4
April 29

Day 7
May 1

Day 9
May 4

Day 10
May 5

July

COSMO-SkyMed
images Nepal

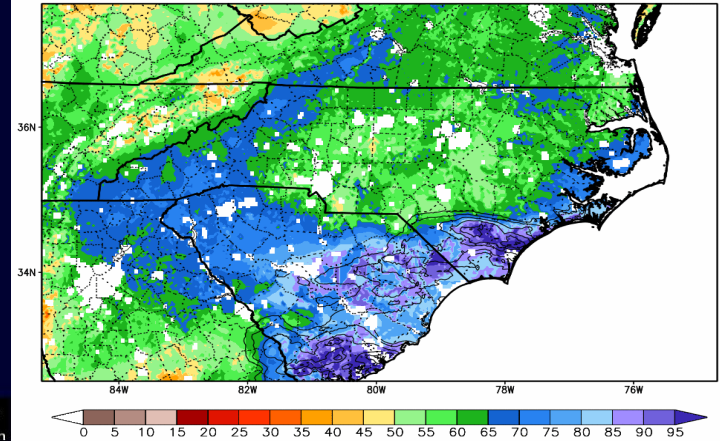
ALOS-2 images
Nepal



Historic Rainfall Amounts for Nor'easter & Joaquin



0–10 cm Relative Soil Moisture (available water; %) valid 00z 05 Oct 2015
Precipitation in previous hour (1,2,5,10,15,20,25 mm contours)

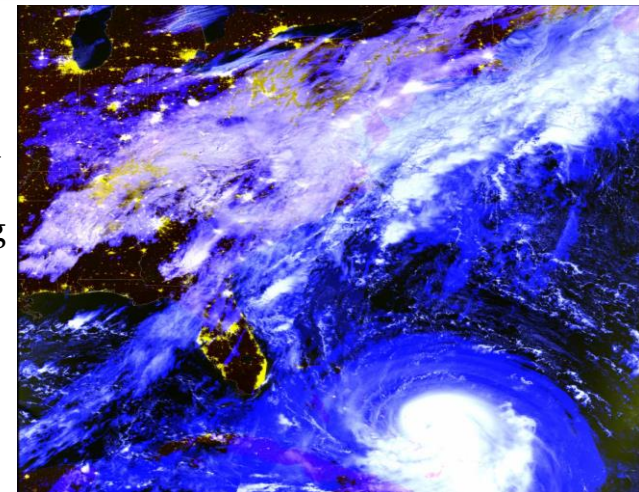


Examples of Daily NASA Products Provided to FEMA via the U.S Hazard Data Distribution System for Disaster Response.

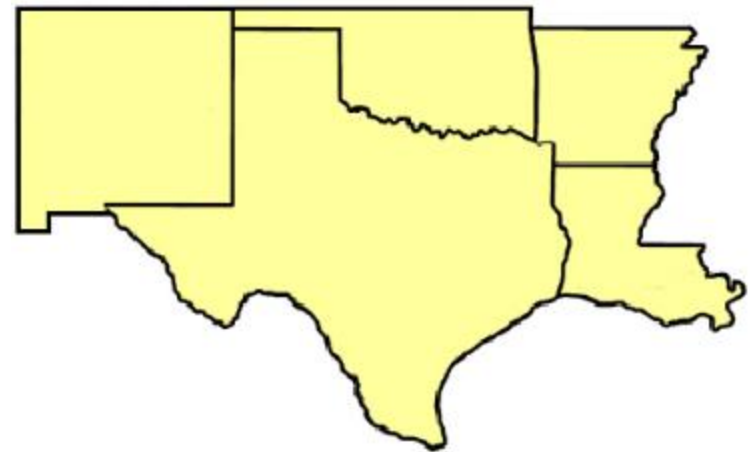
Top L. NASA's Integrated Multi-satellite Retrievals for GPM (IMERG) showed historic rainfall in the Carolinas.

Top R. NASA's Land Information System running operationally at MSFC using NOAA Stage IV precipitation and other forcing inputs produced analyses and short term forecasts of soil moisture and other parameters (SpORT)

Bottom R. VIIRS nighttime environmental products provided for detection of technological failures (power outages and infrastructure damage).



REGION 6 LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WORKSHOPS



As always, the success of the workshops is primarily due to the wonderful work by our states:

**AR Department of Emergency Management
LA State Police**

**LA Governors Office of Homeland Security and Emergency
Preparedness**

NM Homeland Security and Emergency Management

OK Department of Environmental Quality

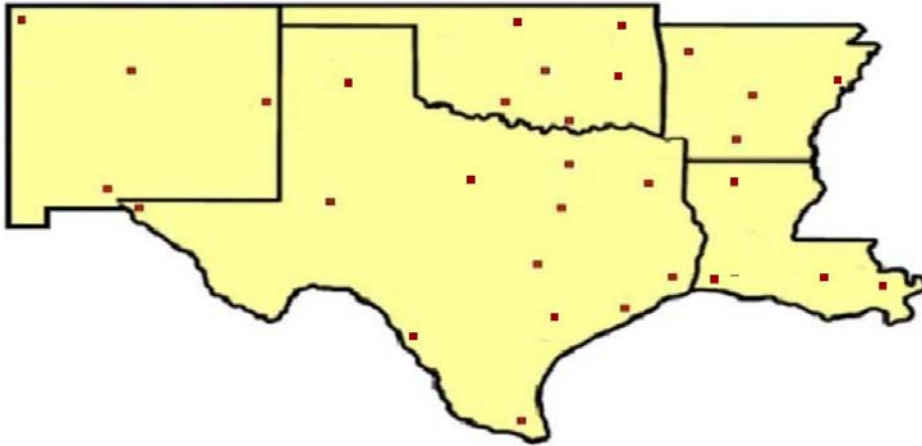
OK Emergency Management

TX Commission on Environmental Quality

EPA START – Weston Solutions



2016 Workshop Locations



| | | |
|----|---------------------------------|--------|
| AR | Springdale / Rogers Area | Aug 9 |
| | West Memphis Area | Aug 11 |
| | Little Rock / Jacksonville Area | Aug 12 |
| | El Dorado Area | Aug 16 |
| LA | New Orleans Area | May 10 |
| | Baton Rouge / Addis Area | May 11 |
| | Lake Charles Area | May 12 |
| | Shreveport / Monroe Area | Aug 17 |
| NM | Las Cruces Area | Jul 6 |
| | Clovis Area | Jul 20 |
| | Albuquerque Area | Jul 21 |
| | Farmington Area | Jul 22 |
| OK | Enid Area | Aug 30 |
| | Oklahoma City Area | Aug 31 |
| | Tulsa Area | Sep 1 |
| | McAlester Area | Sep 13 |
| | Ardmore Area | Sep 14 |
| | Lawton Area | Sep 15 |
| TX | Amarillo Area | Jun 1 |
| | Midland / Odessa Area | Jun 2 |
| | Abilene Area | Jun 3 |
| | Dallas / Fort Worth Area | Jun 7 |
| | Tyler Area | Jun 8 |
| | Sulphur Springs Area | Jun 9 |
| | Beaumont / Orange Area | Jun 10 |
| | Austin / San Antonio Area | Jun 22 |
| | Houston Area | Jun 23 |
| | Waco Area | Jun 24 |
| | Corpus Christi/Victoria Area | Jun 28 |
| | Harlingen / Brownsville Area | Jun 29 |
| | Laredo Area | Jun 30 |
| | El Paso Area | Jul 7 |

AGENDA

- **Introductions / Purpose of the Workshop**
- **EPCRA – 30 Year Anniversary**
- **Local Government Reimbursement Program**
- **Using Poison Control Centers during an Incident**
- **DHS – Chemical Security Coordination**
- **Don't Forget the Other Groups for Your LEPC**
- **Gee, Where Do You Think That Release is Going?**
- **OSHA – Worker Safety During a Disaster**
- **State Programs / Issues**
- **Revisions to RCRA / RMP / SPCC as they relate to LEPCs**



The Meeting Agenda: Start Simple

Total Attendance for past 3 years

| Workshops | Attendees | LEPCs represented |
|-----------|-----------|-------------------|
| 95 | 4,199 | Over 300/519 |

WWW.EPAOSC.ORG/LEPCWORKSHOPS



Issues brought up at workshops by local officials

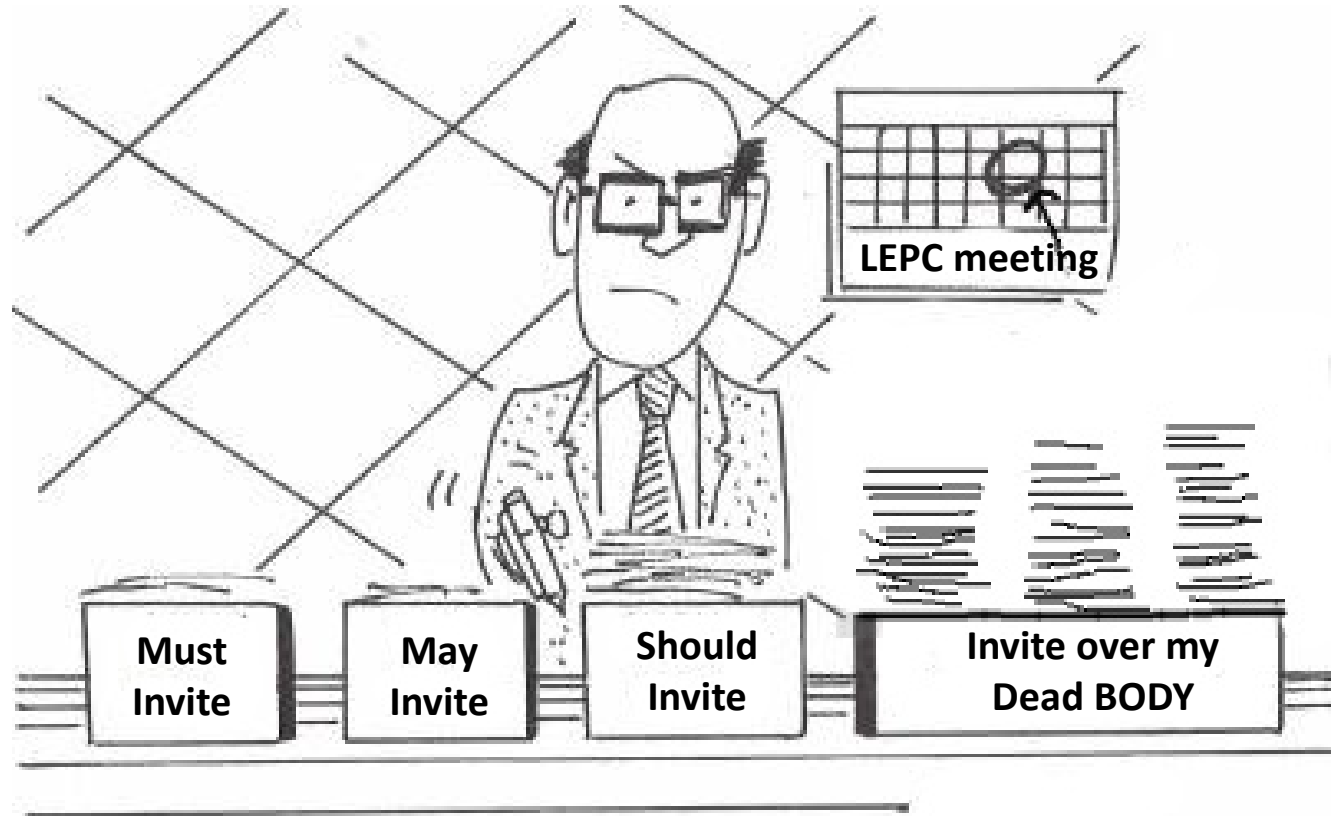
How do local officials know which regulations facilities are subject to, or reporting under:

- TRI
- SPCC / FRP
- RMP
- RCRA
- CFATS
- PSM



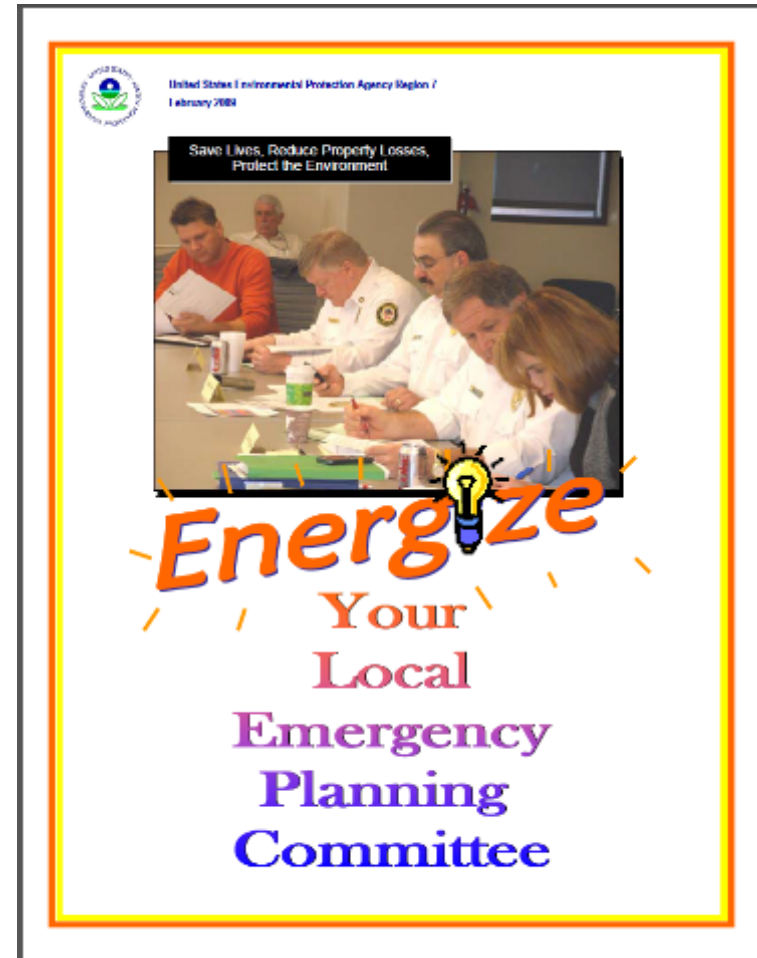
Issues brought up at workshops by local officials

How does an LEPC entice facilities, both large and small, to attend LEPC meetings and get involved?



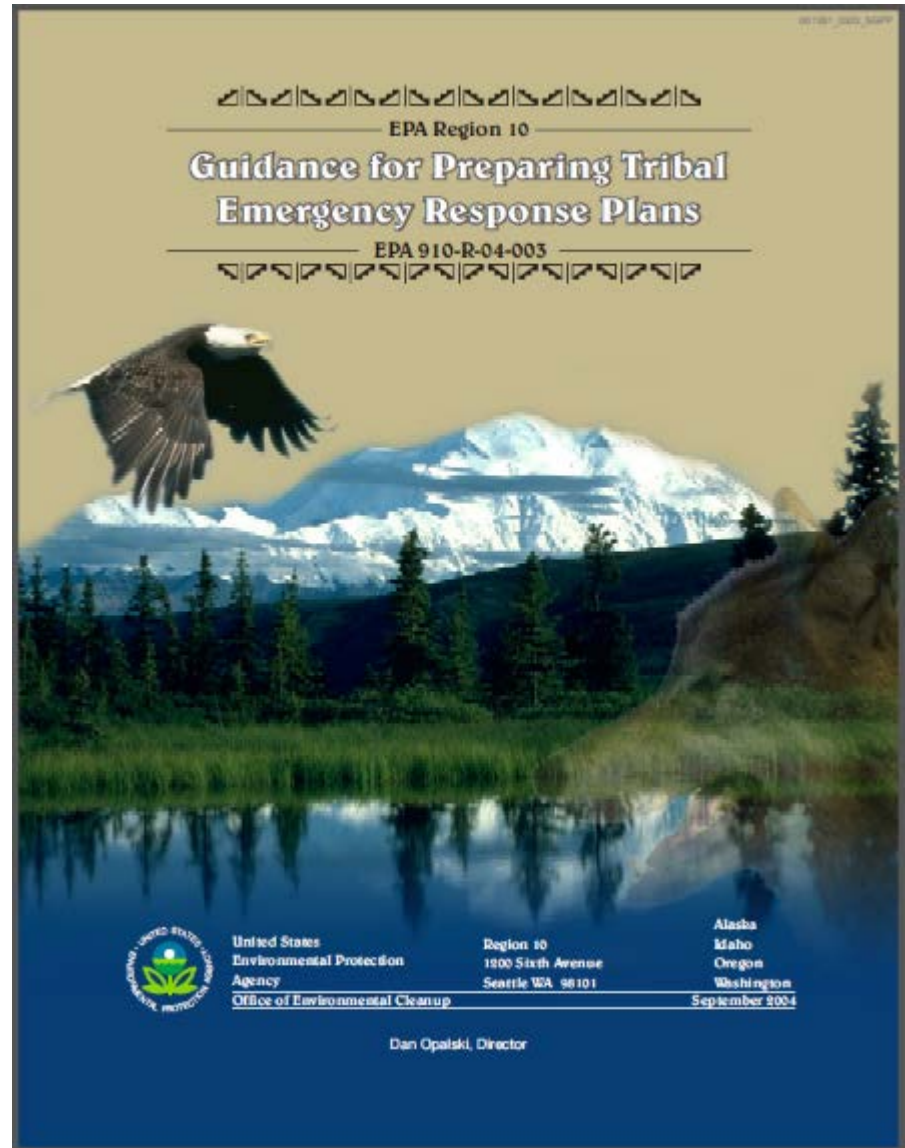
Issues brought up at workshops by local officials

Many LEPCs asked EPA to come up with ideas on how to keep an LEPC active, and distribute that information to all LEPCs



Issues brought up at workshops by local officials

How do we get tribes more involved in the EPCRA and RRT process?



Issues brought up at workshops by local officials

HAZWOPER vs. OPERATIONS ?

24 vs. 40 hour ?

REFRESHER (Who needs & When)?

HAZWOPER TRAINING REQUIREMENTS FOR DIFFERENT WORKERS

(UNDER SEC. 1910.120(E))

THE CHALLENGE: Section 1910.120(e) of HAZWOPER requires that all employees at sites where "cleanup operations" are performed receive training in the hazards they face before being allowed to start work. Initial and refresher training requirements for different kinds of employees vary depending on the exposure risks associated with the position. USE THIS INFOGRAPHIC TO DETERMINE THE TRAINING REQUIREMENTS OF EACH KIND OF SITE WORKER.

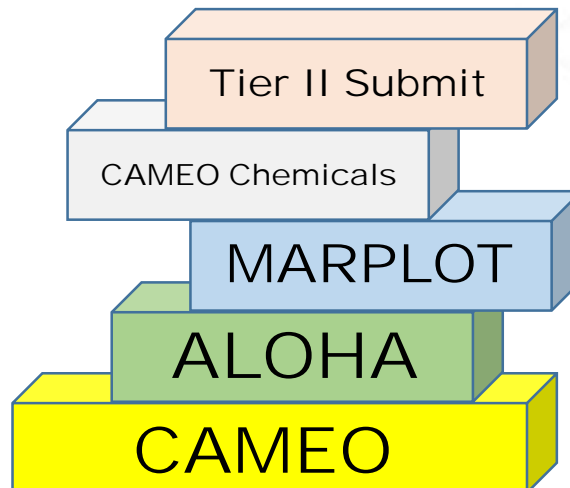
| GENERAL REQUIREMENTS | ADDITIONAL REQUIREMENTS BY POSITION | | | |
|---|--|---|--|---|
| ALL EMPLOYEES need to know: <ul style="list-style-type: none">Names of personnel & alternates responsible for site health & safetySafety, health & other hazards on siteProper use of PPEWork practices to minimize risksSafe use of engineering controls & equipment on siteMedical surveillance requirements, including signs & symptoms of over-exposureProcedures to decontaminate clothingEmergency response proceduresConfined space work proceduresProcedures to contain chemical leaks & spills | General Site Workers who remove or are exposed to hazardous substances (1910.120(e)(3)(ii)): INITIAL TRAINING <ul style="list-style-type: none">40 hours off-site instruction3 days field experience REFRESHER TRAINING <ul style="list-style-type: none">8 hours annual refresher training | Workers on site occasionally to do specific tasks & unlikely to be exposed above PEL or published exposure level (1910.120(e)(3)(iii)): INITIAL TRAINING <ul style="list-style-type: none">24 hours off-site instruction1 day field experience REFRESHER TRAINING <ul style="list-style-type: none">8 hours annual refresher training | Workers regularly on site in areas where exposures are below limits, respirators aren't required & emergencies are unlikely (1910.120(e)(3)(iii)): INITIAL TRAINING <ul style="list-style-type: none">24 hours off-site instruction1 day field experience REFRESHER TRAINING <ul style="list-style-type: none">8 hours annual refresher training | On-site managers & supervisors directly responsible for or who supervise workers in hazardous waste operations (1910.120(e)(4)): INITIAL TRAINING <ul style="list-style-type: none">40 hours off-site instruction3 days field experience REFRESHER TRAINING <ul style="list-style-type: none">8 hours annual refresher training |

REMEMBER: HAZWOPER TRAINING MUST ADDRESS THE SPECIFIC HAZARDS OF YOUR OWN SITE.



Issues brought up at workshops by local officials

Many industry and local officials still are not sure how to use CAMEO suite for their day to day activities



Region 6 CAMEO Orientation

Introduction to CAMEO



2016

www.epaosc.org/region6lepcs



Issues brought up at workshops by local officials

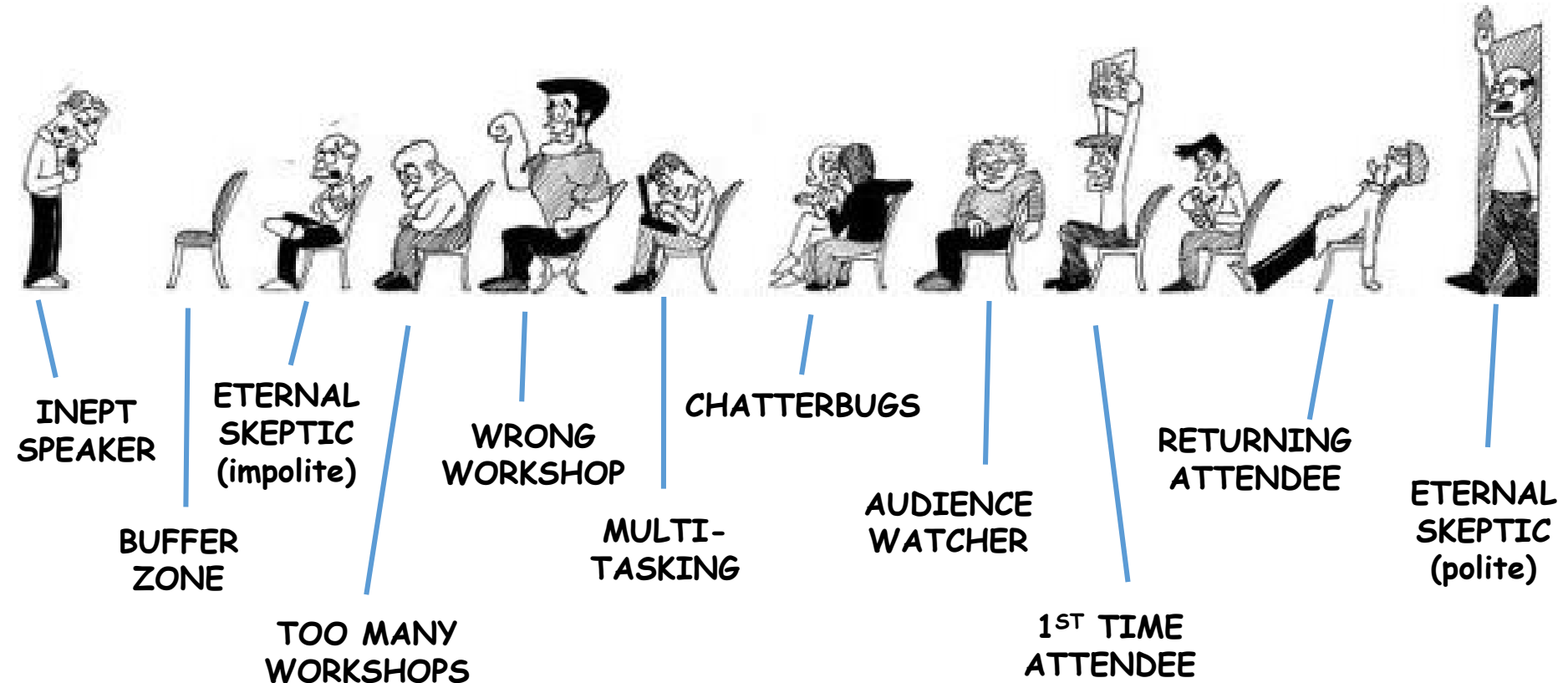
Need to update and distribute CAMEO Companion



We will continue the workshops next year...

All RRT members are welcome to attend any of the workshops

THE GUIDE TO WORKSHOP ATTENDEES



Poison Control Centers: a HAZMAT Incident Resource



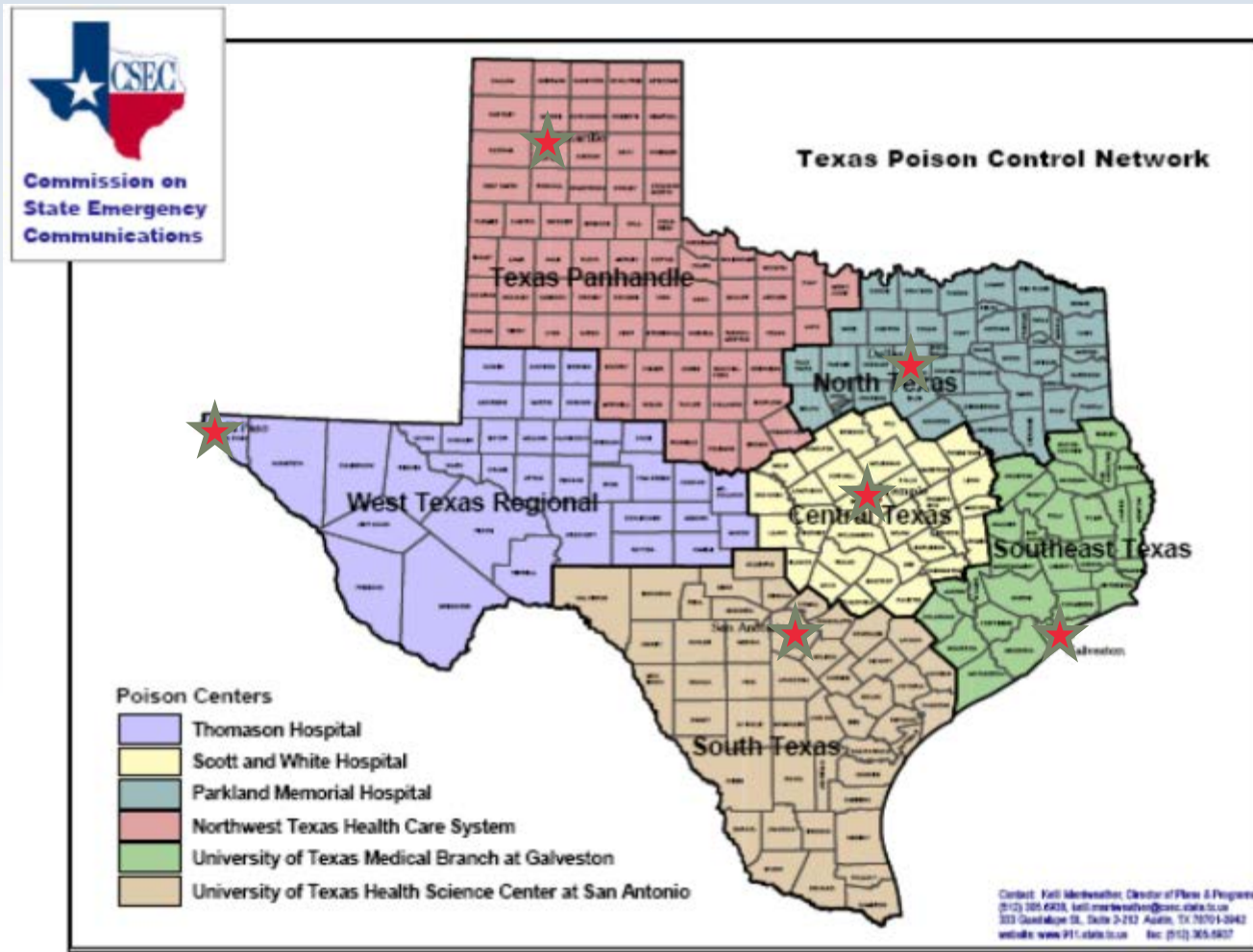
Poison Centers in the US



Poison Centers in EPA Region 6



Poison Centers in Texas



PCC Operational Facts



- 60 years of advice on poisonings
- 55 PCCs in the U.S. covering all 50 states
- Funded by federal/state/private sectors
- Service both the general public and medical professionals
- PCCs have expertise in:
 - public health issues
 - collective poisoning incidents
 - hazardous materials events



PCC Operational Facts



- Operate 24/7
 - Single national contact #: 1-800-222-1222
 - Call routing/overflow agreements with other centers
 - Staffed by physicians, pharmacists, nurses, and biomedical scientists with specialized training in toxicology
 - Multiple language capabilities, including hearing-impaired
 - Access to multiple databases on chemical toxicity
-

PCC Cost Savings

- PCCs provide a primary resource for poisoning information
 - Help reduce hospital visits
 - Past estimate: *\$1.8 BILLION / Year saved in medical costs/lost productivity*
 - Past Estimate: \$13.39 /\$1.00 in funding
-

PCC Real-time Poison Data

National Poison Data System (NPDS)

- PCCs upload data to NPDS every **8 minutes**
- Poison information and toxic surveillance database
- Real time monitoring:
 - unusual poisoning patterns
 - chemical exposures
 - emerging public health hazards



PCC Emergency Response Support

- Available 24/7
- 1-800 number for public information
- Can interoperate with 911 or 311
- Partners with CDC, EPA, ATSDR, and State Health to augment emergency response
- Regional Response Team - Activation Guidance in place for Region 6



PCC Emergency Response Support

Advantages in Emergency Response:

- Improved public response for health issues
 - Streamlined public information sharing
 - Takes pressure off of the IC and first responders
 - Reduces hospital surge – assesses patient from home
 - Multiple languages including hearing impaired
-

Macdona Union Pacific Train Derailment

- June 28, 2004, San Antonio, TX. Release of >60 tons of chlorine



- PCC activated to address public health questions
 - 1st Time PCC's activated nationally to assist EPA OSC
-

Deepwater Horizon-Gulf Oil Spill

- April 20-July 15, 2010
- Ongoing information on effects occurring
- BP contracted with RMPDIC with specific #
- AAPCC/Regional centers “at Table”
- 800 # posted on BP response website
- Daily situation reports (Louisiana PC)
- Resident and Clinician Fact Sheets



Magnablend Fire

- October 3, 2011 Waxahachie, TX. Chemical blending and custom packaging plant
- Fire destroyed plant, contained in eight hours, smoldered ~120 hours (3 days and 2 nights)
- 225,000 lbs of chemicals-hydrocarbons
- > 1,000 people evacuated



Magnablend Fire

- Immediate calls that day
 - Symptoms mainly coughing, throat irritation, bad taste
 - Texas Poison Center Network (TPCN) alerted for immediate event
 - Information summary created/ updated
 - Daily Situation Report (SITREP)-case data to TPCN/DSHS
 - Response “white paper” developed for anticipated “after the event” calls
 - Public and Social Networking
 - Facebook© page referral to PCC 800#
 - EHS Research Analyst created GoogleMap©
-

West Fertilizer Company Plant Explosion



- April 17, 2013, 19:50 - West, TX
 - Storage and distribution facility
 - Anhydrous Ammonia-110,000 lbs (2012)
 - Ammonium Nitrate-540,000 lbs (2012)
 - Fire → Explosion (2.1 magnitude tremor)
 - 15 fatalities, ~ 200 injured
-



West Fertilizer Company Plant Explosion

- 1st Call – 4/17 21:14, less than 2 hours after event
 - Symptoms: Shortness of breath, cough, eye & throat irritation
 - Texas Poison Center Network (TPCN) alerted
 - Received calls from Travis County up to Dallas County
 - Created/updated Information summary sheet
 - Relayed case data to IC for Daily Situation Report (SITREP)
 - Relayed case data to DSHS
 - Facebook© page referral to PC 800#
-

Bayer Crop Science Chemical Leak

- May 8, 2013, 19:40 – Lubbock, TX
- Alarm-Leaking tank valve: hydrogen chloride
- Threat: moisture reaction to form HCL
- Hazards: corrosive, inhalation
- Evacuation notice - 200 families
- Clear May 9 at 1600



Bayer CSF Leak-Poison Center Activity

- Texas Poison Control Network (TPCN):
 - 6 PCCs in Texas
 - TPCN alerted for immediate event
 - City sent callers to 311, 911 very busy
 - Information summary sheet created/updated
 - PCCs – general information only, no exposure cases
 - Case information/data distributed to TPCN/DSHS
-

PCC Advantages to an Incident Response

- 24/7 access through the 1-800-222-1222
 - Streamlined public information sharing
 - Improved public response to health issues
 - Quick and efficient technical medical advice
 - Reduces hospital surge
-

PCC Advantages to an Incident Response

- Increased consultation - ATSDR Regional Office
 - Improved data quality – state/national surveillance capability
 - Documents medical data associated with the response (NPDS)
 - ***All at no added cost to the response***
-

Activating a PCC

**How to activate a PCC
to aid a hazmat incident:**

Just Call 1-800-222-1222


Cell Phones:

- Automatically routed to PCC matching the cell phone area code
 - Caller can be routed back to the appropriate state/PCC
-

Programmed in Cell Phone?



Who Can I Call for HELP?



POISON Help
1-800-222-1222

TEXAS POISON CENTER NETWORK

Your source of HELP for:

**Poisonings
Or
Toxic Substance Emergencies,
including during
*Natural Disasters or Terrorist Events.***

IF YOU SUSPECT THAT YOU HAVE BEEN EXPOSED
TO A POISON OR TOXIC SUBSTANCE, CALL FOR **HELP**.

The call is free...peace of mind is priceless!

Non-Emergency Questions?

Contact:

Louisiana Poison Control Center

Mark Ryan, RPh - Director

LSU Health Sciences Center Shreveport

mryan@lsuhsc.edu



Non-Emergency Questions?

Contact:

Arkansas Poison & Drug Info Center

Howell Foster, PharmD - Director

UAMS – Little Rock

FosterHowellR@uams.edu



Non-Emergency Questions?

Contact:

Oklahoma Poison Control Center
Scott Schaeffer, D.Ph., DABAT - Director
OUHSC – Oklahoma City
Scott-Schaeffer@ouhsc.edu



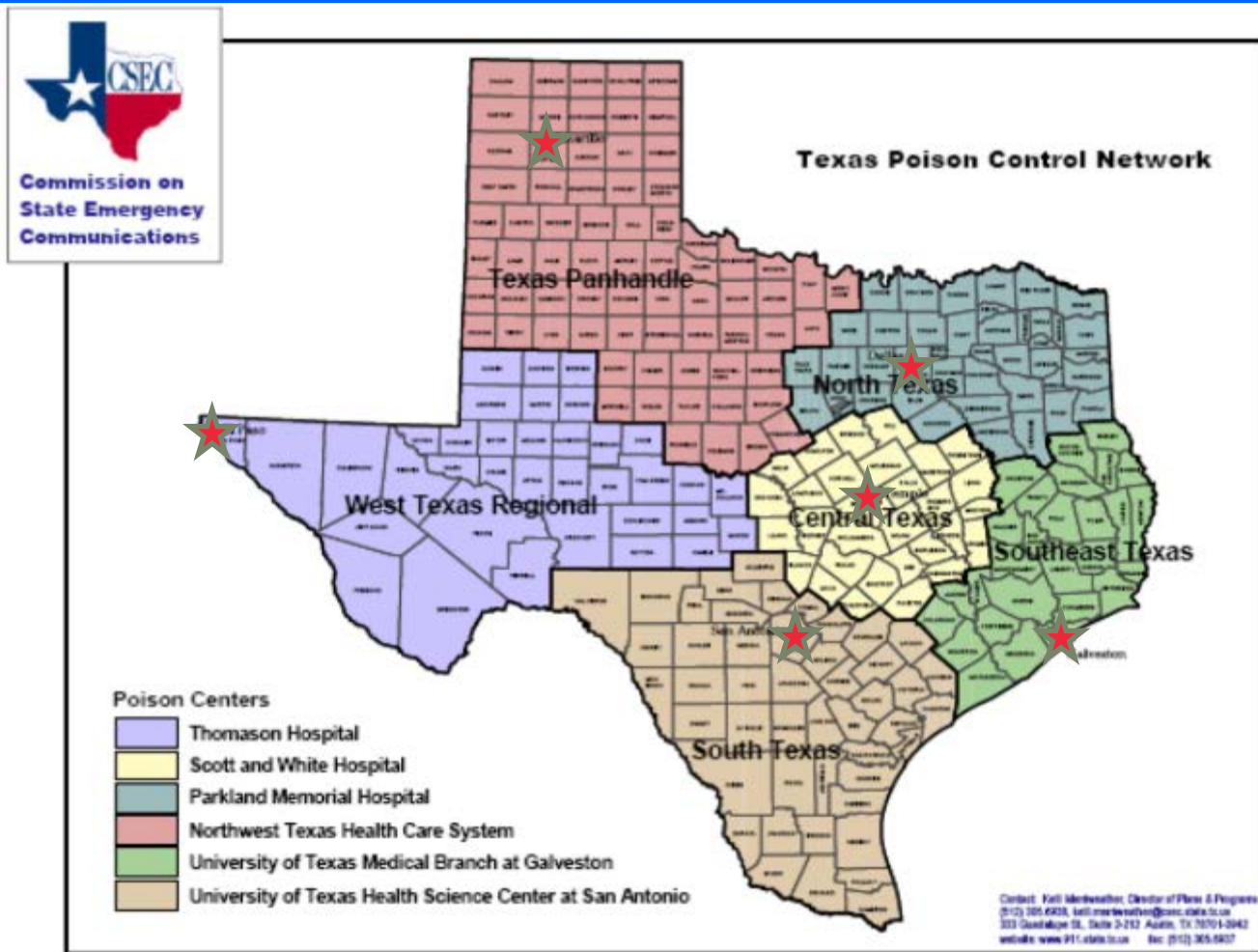
Non-Emergency Questions?

Contact:

New Mexico Poison and Drug Information Center
Susan Smolinske, PharmD - Director
University of New Mexico - Albuquerque
SSmolinske@salud.unm.edu



Poison Centers in Texas



Non-Emergency Questions?

Contact Region Texas Poison Network:

Texas Panhandle – TTUHSC Amarillo
Jeanie Jaramillo, PharmD - Director
(806) 414-9299 ; jeanie.jaramillo@ttuhsc.edu

West Texas – UMC El Paso,
Salvador Baeza, PharmD - Director
915-534-3800; SBaeza@umcelpaso.org

North Texas – PHHS Dallas
Melody Gardner, RN - Director
melody.gardner@phhs.org

Central Texas – Scott & White
David Baker, PharmD, DBAT – Director
254-724-7409; david.baker@bswhealth.org

South Texas – UTHSC San Antonio,
Lizette Villarreal, MA – Interim Director
210-450-5100; villarrealc@uthscsa.edu

Southeast Texas – UTMB Galveston,
Jean Cleary, PharmD - Director
409-772-3306; jcole@UTMB.EDU





FWS Spill Response Update



**BARRY FORSYTHE, NATIONAL SPILL RESPONSE
COORDINATOR**

**DAMIAN HIGGINS, FWS R8 SPILL RESPONSE & NRDAR
COORDINATOR**

**HOLLY HEROD, CHIEF, BRANCH OF ENVIRONMENTAL
RESPONSE AND RESTORATION**

FWS Spill Response FY 17



- Provide Technical Assistance for the ESA MOA work with the USCG/EPA;
- Participate in RRT meetings and area contingency planning efforts and exercises;
- Providing support to USCG/EPA during a response
 - improving PRFA requests and claims
 - using IQCS/ROSS for deployments as appropriate.

Background



- **The NRT Environmental Compliance subcommittee identified many concerns around achieving ESA Compliance**
 - Inconsistencies among Service Regions/Offices
 - Inconsistencies in the amount and type of information needed
 - Difficult process
 - Long duration



Solution



- Address response activities vs response plans
 - a response action matrix
 - ✦ does not include actions requiring RRT approval.
 - ✦ all other response activities that might be reasonably implemented for a coastal or inland response
 - ✦ standard definitions provided by the USCG and EPA.
 - ✦ Includes:
 - interrelated/interdependent actions,
 - where the type of action is generally implemented,
 - species groups that could be impacted, and
 - very generalized conservation measures.

Response Action Matrix



Next Steps



- Service provides review and comment on action matrix
- USCG/EPA Define Geographic Area of Interest
- Obtain a species list
- Develop a species action matrix



Species List

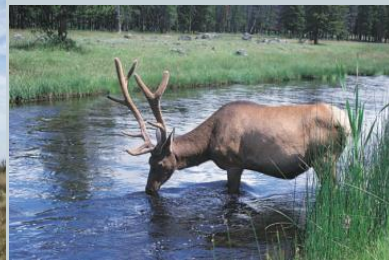


<https://ecos.fws.gov/ipac/>

Species Action Matrix



- **USCG and/or EPA will request Technical Assistance**
 - from the appropriate field or regional office
 - to help identify which species/critical habitat may be impacted by each response action
 - specific conservation measures that could be implemented
 - ✦ avoid and minimize impacts to individuals of a species
 - ✦ or identify if take of individuals may occur.
 - Take is OK and can be better than being oiled



Species Action Matrix



Questions?





Pipelines on the Outer Continental Shelf

Overview



- Bureau of Safety and Environmental Enforcement (BSEE)
Offshore Areas of Jurisdiction with respect to pipelines
 - Application and approval process
- Gulf of Mexico Region (GOMR) Pipeline Infrastructure
- BSEE OCS Pipeline Governing Statutes and Regulations
- OCS Regulators/Interagency Coordination

OCS Pipelines Regulated by BSEE



BSEE regulates two types of pipelines:

- Lease term pipelines - Those that originate and end within a OCS lease (or group of leases) granted by the Bureau of Ocean Energy Management (BOEM) and operated by a single company.
- Right-of-way (ROW) pipelines - Those that cross unleased areas on the Outer Continental Shelf (OCS) or one or more leases operated by another company. A right-of-way is granted by BSEE to use a portion of the OCS for this purpose.
- Pipelines located in offshore OCS federal waters only
 - Separate permits are required from States for pipelines that cross into State offshore waters.
 - OCS pipelines are identified by Pipeline Segment Number (PSN), a unique identifying number assigned by BSEE to each section of pipeline approved by BSEE.

Jurisdiction



- **DOI jurisdictional pipelines** - Pipelines located on the OCS or that cross the Federal/State boundary and carry product to a facility in State waters are under the jurisdiction of the Bureau of Safety and Environmental Enforcement (BSEE), part of the Department of the Interior (DOI). These are pipelines held by a company that produces oil or gas from an OCS lease.
- **DOT jurisdictional pipelines** - Pipelines located on the OCS that are held by companies who are transporters but **not** producers in the Gulf (i.e, a company that does not own or operate any OCS leases) or pipelines that cross the Fed/State boundary carrying processed hydrocarbons directly to shore from a producing facility are under the jurisdiction of the Pipeline Hazardous Materials Safety Administration (PHMSA), part of the Department of Transportation (DOT).

Applications



- Applications to install DOI jurisdictional pipelines are submitted to and approved by the Pipeline Section of the BSEE Office of Regional Field Operations (an office within the BSEE Gulf of Mexico Regional Office).
- BSEE Pipeline Section approves lease term pipeline applications, ROW pipeline applications and Pipeline ROW grant applications. (ROW pipeline and ROW grant applications are submitted as one document requesting two separate actions to install, maintain, and operate a pipeline to transport hydrocarbon products. Approval of the pipeline and a Right-of-Way to use the affected portion of the OCS for the pipeline are granted at the same time.)

Applications(cont.)



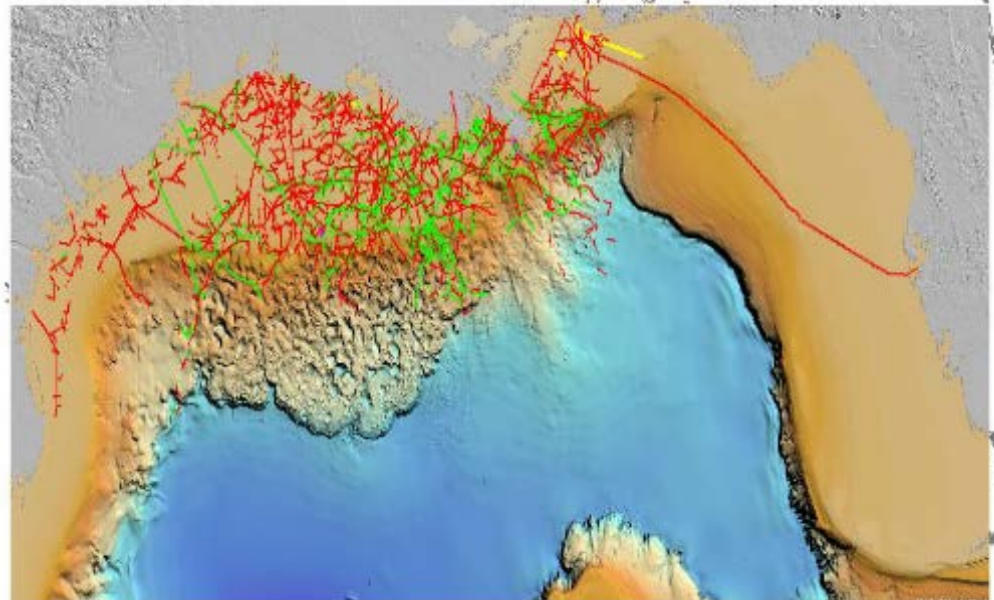
- BSEE Pipeline Section also approves ROW pipeline applications and Pipeline ROW grant applications for DOT pipelines. However, once BSEE ensures that the pipelines meet with requirements of BSEE regulations, BSEE no longer has jurisdiction over them and does not inspect them or take any enforcement actions.

GOM Region Pipeline Infrastructure

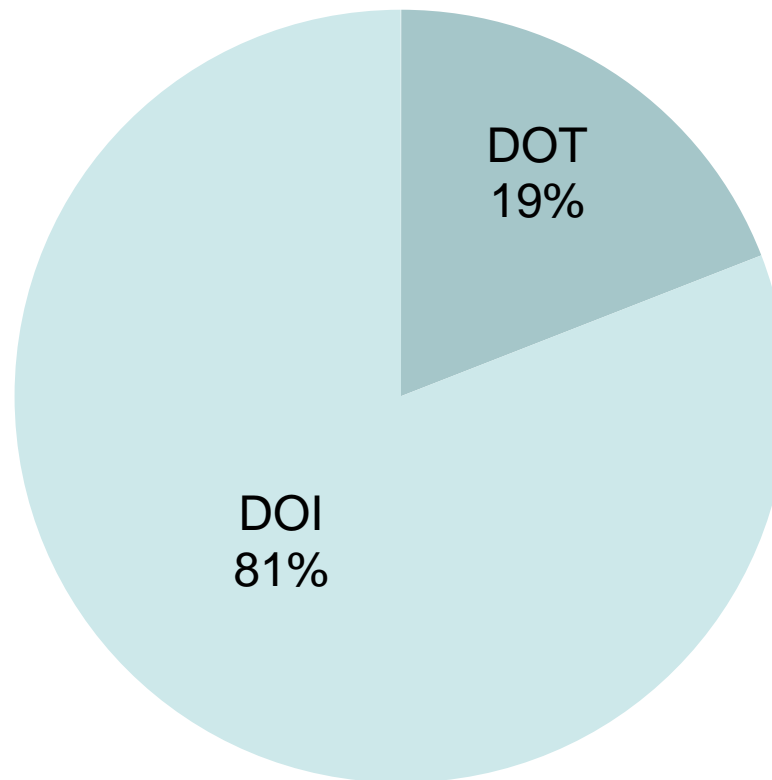


- 22,837 mi (36,753 km)
Active Pipelines
- 4,187 Active Pipeline
Segments
- 2,429 Active Platforms
- 729 Proposed
Decommissionings
- 816 Out of Service
Pipelines

Statistics Updated 3-12-2015



DOI vs. DOT Authority Active Pipelines



Updated: March 2015

OCS Pipeline Governing Statutes



- The Outer Continental Shelf Lands Act [2000, amended]
- Submerged Lands Act Boundary & Limit of "8(g) Zone" [1953]
- 43 USC 1331 et seq
- Coastal Zone Management Act
- National Environmental Policy Act
- Clean Water Act of 1977
- Oil Pollution Act of 1990
- Federal Oil and Gas Royalty Management Act of 1982
- Marine Mammals Protection Act of 1972
- Endangered Species Act of 1973

OCS Pipeline Regulations and Provisions



- BSEE pipeline regulations are located at 30 CFR 250 Subpart J.
- An applicant must design, construct, operate, maintain, inspect, and decommission all OCS pipelines, appurtenances, accessories, and safety system components in a manner that:
 - (1) Conforms to the OCSLA (43 U.S.C. 1331, et seq.), as amended, including applicable regulations, other applicable laws, approved applications, approved DOCD and DPP, and lease provisions and stipulations;
 - (2) Is safe;
 - (3) Prevents unauthorized discharges;
 - (4) Does not unreasonably interfere with other uses of the OCS, including those involved with National security or defense; and
 - (5) Does not cause undue or serious harm or damage to the human, marine, or coastal environment.

Overview



| Agency | Responsibilities & Concerns |
|--|---|
| DOD, Navy | PLETs and PLEMs left in-place in deep water |
| DOA, Corps of Engineers | Fairway crossings and anchorage areas |
| Federal Regulatory Energy Commission | Decommissioning of major transmission lines |
| DOI, Bureau of Ocean Energy Management | Shallow hazards, sites of historical significance, biological resources, and areas of significant sand resources |
| US Coast Guard & National Response Center | Incident reporting, distribution of the information to jurisdictional agencies, coordinating incident responses. [BSEE/USCG MOA:OCS-03] |
| DOT, PHMSA | DOT jurisdictional pipelines |
| DOI, Office of Natural Resources Revenue | Service fees for decommissioning applications |

Policies



- Dept. of Defense, Navy
 - Subsea equipment may be left in-place after decommissioning in water depths of greater than 800m (2625ft)
- Department of Army, Corps of Engineers
 - Corps of Engineers approval to decommission pipelines that cross fairways or anchorage areas must precede BSEE approval to decommission

Policies (Continued)



- **Federal Energy Regulatory Commission**
 - BSEE may grant approval to decommission contingent on FERC approval to decommission
- **Bureau of Ocean Energy Management**
 - Pipelines in sand resource areas must be removed
 - Companies must submit anchor patterns to BSEE to be reviewed and approved by BOEM before BSEE will grant approval to decommission

Policies (Continued)



- US Coast Guard

- Memoranda of Agreement between BSEE –US DOI and the U.S. Coast Guard – US DHS
 - Effective Date: April 3, 2012

Coordination



- **Dept. of Defense, Navy**
 - BSEE will notify the Navy of any equipment that has been requested to be left in place in water depths less than 2,624 feet/800 m.
 - The Navy reserves the right to deny in-place decommissioning of subsea equipment
- **Department of Army, Corps of Engineers**
 - The operator is responsible for obtaining approval from the Corps of Engineers
 - BSEE will not forward applications to decommission to the COE

Coordination (Continued)



- **Federal Energy Regulatory Commission**
 - The operator is responsible for obtaining approval from FERC
 - BSEE will not forward applications to decommission to FERC
- **Bureau of Ocean Energy Management**
 - BSEE will notify the operator of all requirements
 - Sections of the application for review by BOEM will be forwarded by BSEE

Coordination (Continued)



- US Coast Guard/NRC
 - Incidents are reported to BSEE Pipeline Section and/or to the appropriate District office.
 - Locations are provided by the Coast Guard, BSEE's Oil Spill Preparedness Division, DOI Regional Environmental Officer, or via an NRC report.
 - BSEE provides follow up to the Coast Guard identifying the responsible party, when initially contacted by US Coast Guard.

Contact Information



- Angie D. Gobert
 - BSEE Pipeline Section Chief
 - Located in BSEE Gulf of Mexico Regional Office, 1201 Elmwood Park Blvd, New Orleans, LA 70123
 - (504) 736-2867
 - Angie.Gobert@bsee.gov

BSEE's After hour Contact Information



- See NTL No. 2014 –G05
 - Effective Date: December 2, 2014
 - Provides contact information for District Offices, Pipeline Section and Resource Conservation Section outside regular work hours.
 - References are provided as to what activities will be considered for approval during after hours.
 - Oil Spill Notification Procedures are outlined.

Additional Contact Information



- Staci King
 - BSEEs Bureau Interagency Coordinator
 - Located in BSEEs Headquarters
 - Staci.King@BSEE.gov
- Bryan Rogers
 - Supervisor, Gulf Oil Spill Section, BSEE Oil Spill Preparedness Division
 - Located in GoM Region
 - 504 736-3242



Website: www.bsee.gov



@BSEEGov



BSEEGov



**Bureau of Safety and
Environmental Enforcement**



The National Pipeline Mapping System (NPMS) is a GIS dataset of hazardous liquid and gas transmission pipeline locations. Breakout Tank and Liquefied Natural Gas Plant data is also available. The US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) makes the NPMS dataset easily accessible to government users in two ways: online map access via PIMMA or raw GIS data dissemination.

PIMMA Access

The Pipeline Information Management Mapping Application (PIMMA) is an online mapping application available on the NPMS website. It includes an interactive map with easy to use tools, queries, and additional data layers. You must have a username and password to access PIMMA.

- **Who Should Choose PIMMA Access?** Choose PIMMA if you do not have access to your own GIS software package for producing maps from raw GIS data. PIMMA is available to federal, state or local government employees at no charge. Contractors will not be granted PIMMA access. PIMMA does not allow the user to download raw data for use in a GIS.
- **What does PIMMA Offer?** PIMMA allows you to view location and attribute information for pipelines in your jurisdiction and to create PDF maps for printing. PIMMA also displays Breakout Tank (BOT), Liquefied Natural Gas Plant (LNG), and accident/incident data, as well as several reference layers such as unusually sensitive areas, high-population areas, and commercially navigable waterways. A detailed help manual as well as video tutorials are available.
- **How to Request Access to PIMMA:** You must apply for a username and password from our homepage by following the link that says “Apply for PIMMA Access”, as displayed below. To apply for a username and password complete the access form for your appropriate level of government. *Please avoid using any special characters on the access form.*
- **Turnaround Time for PIMMA Access:** Please allow 5 to 7 business days for employment verification, application processing, and delivery of your username in an email from NPMS Staff and password letter via US Mail. Passwords cannot be sent via email.
- *To view pipeline information immediately, use the NPMS Public MapViewer (also available on the NPMS homepage) for access to a limited version of pipeline maps.*

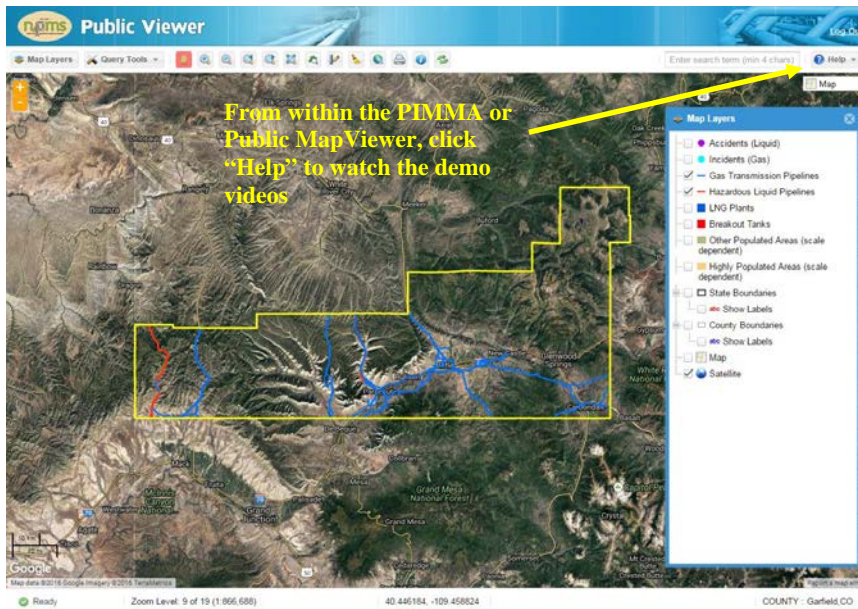
NPMS Home Page



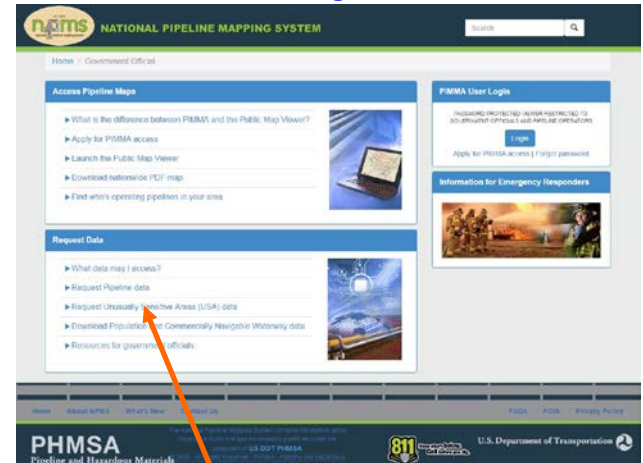
Click here to find additional information about PIMMA and access forms

Click here to enter the Public Map Viewer

NPMS Public and PIMMA Map Viewers



Government Official Page on NPMS Website



Click here for information about NPMS Data Requests

Data Request

A data request distributes raw GIS data in an ESRI format

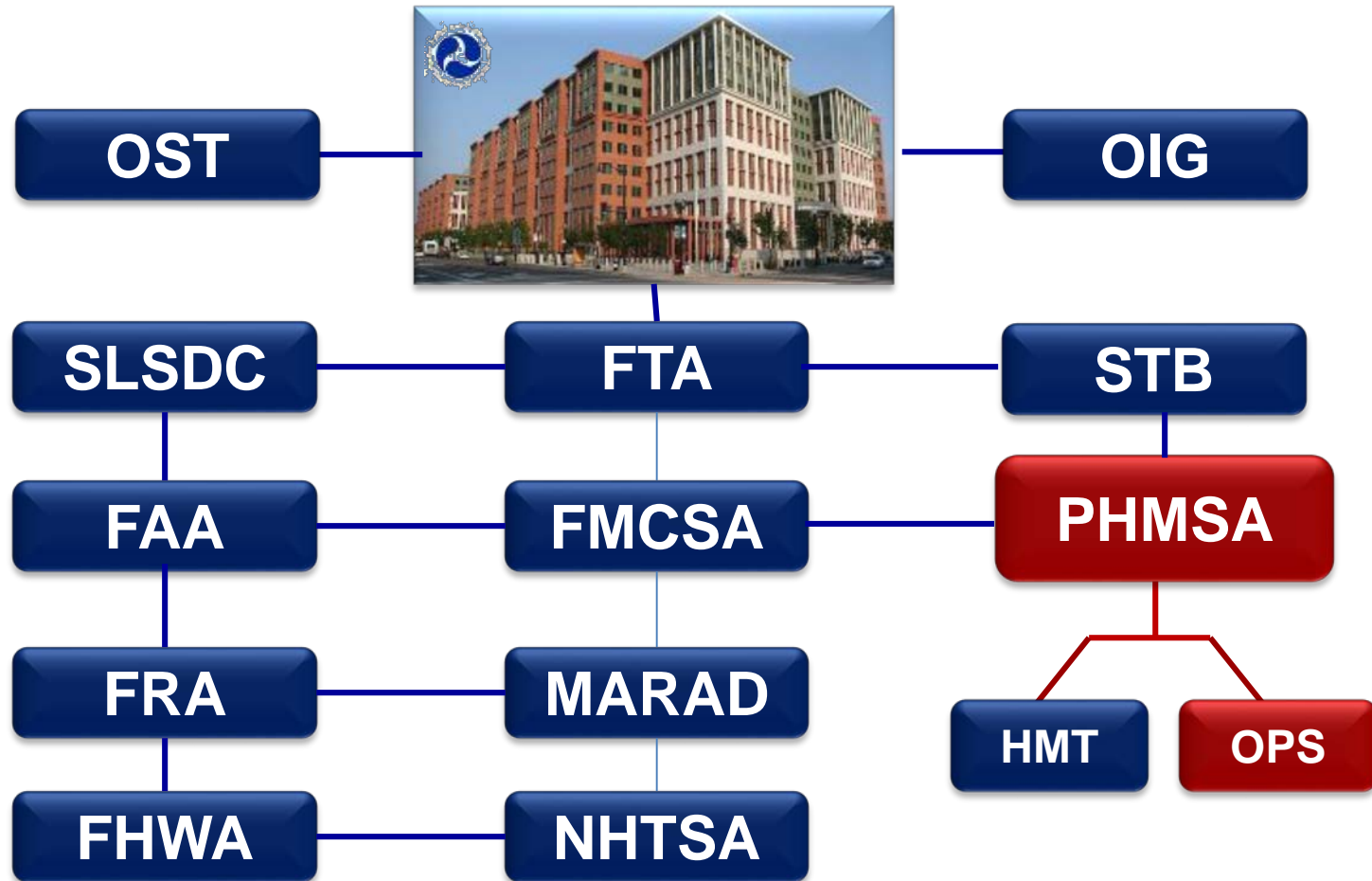
- **Who Should Choose a Data Request?** Choose a data request if you are a GIS user who prefers to design maps or perform analysis using raw NPMS data in combination with additional data layers. Any government employee can make a data request at no charge. Contractors cannot make a Data Request. Do not redistribute NPMS data; please refer interested users to the NPMS website or staff. The full data usage agreement will be provided to you when you submit a Data Request.
- **What is Included in a Data Request?** NPMS staff will compile an NPMS data package including an ESRI Shapefile, File Geodatabase or Personal Geodatabase of the pipeline data within your jurisdiction, and will include metadata and information regarding its restricted use. You will receive an email from npms@dot.gov with a link to download your NPMS data package from a protected FTP site. Your download link is active for 14 days. All attributes viewable in PIMMA are included in a Data Request. Breakout Tank and Liquefied Natural Gas Plant data can be included upon request.
- **How to Initiate a Data Request:** You should complete the Data Request form on the NPMS website here: <https://www.npms.phmsa.dot.gov/PipelineDataRequest/DataRequestForm.aspx>. To find the form from the NPMS homepage click on the “Government Official” button, and then follow the “Request Pipeline Data” link from under the “Request Data” section, as displayed above. State and Federal Government employees receive data for more than one county and therefore must also submit a formal request letter signed by a manager. If applicable, you will receive an email with instructions.
- **Turnaround Time for a Data Request:** If you are a local government employee your NPMS data package for your county will be available within 5 to 7 business days from the time you complete your Data Request form. If you are a State level or Federal Government employee your NPMS data package will be available within 5 days of NPMS staff receiving the original formal request document on official letterhead (faxes are not accepted).

PHMSA's Roles Following Pipeline Accidents and Incidents



Who is PHMSA - DOT/PHMSA?

U. S. Department of Transportation (DOT)





Regional Offices

| Region | HAZMAT Office | Pipeline Office |
|------------------|--|--|
| Central | 901 Locust Street, Suite 480 Kansas City, MO 64106 (816) 329-3800 | 901 Locust Street, Suite 480 Kansas City, MO 64106 (816) 329-3800 |
| Southwest | 8701 S. Gressner Rd., Suite 900 Houston, TX 77074 (713) 272-2820 | 8701 S. Gressner Rd., Suite 630 Houston, TX 77074 (713) 272-2859 |
| Western | 3401 Centrelake Dr., Suite 550B Ontario, CA 91761 (909) 937-3279 | 12300 W. Dakota Av., Suite 110 Lakewood, CO 80228 (720) 963-3160 |
| Southern | 233 Peachtree St. NE, Suite 602 Atlanta, GA 30303 (404) 832-1140 | 233 Peachtree St. NE, Suite 602 Atlanta, GA 30303 (404) 832-1147 |
| Eastern | 820 Bear Tavern Rd., Suite 306 West Trenton, NJ 08628 (609) 989-2277 | 820 Bear Tavern Rd., Suite 103 West Trenton, NJ 08628 (609) 989-2171 |



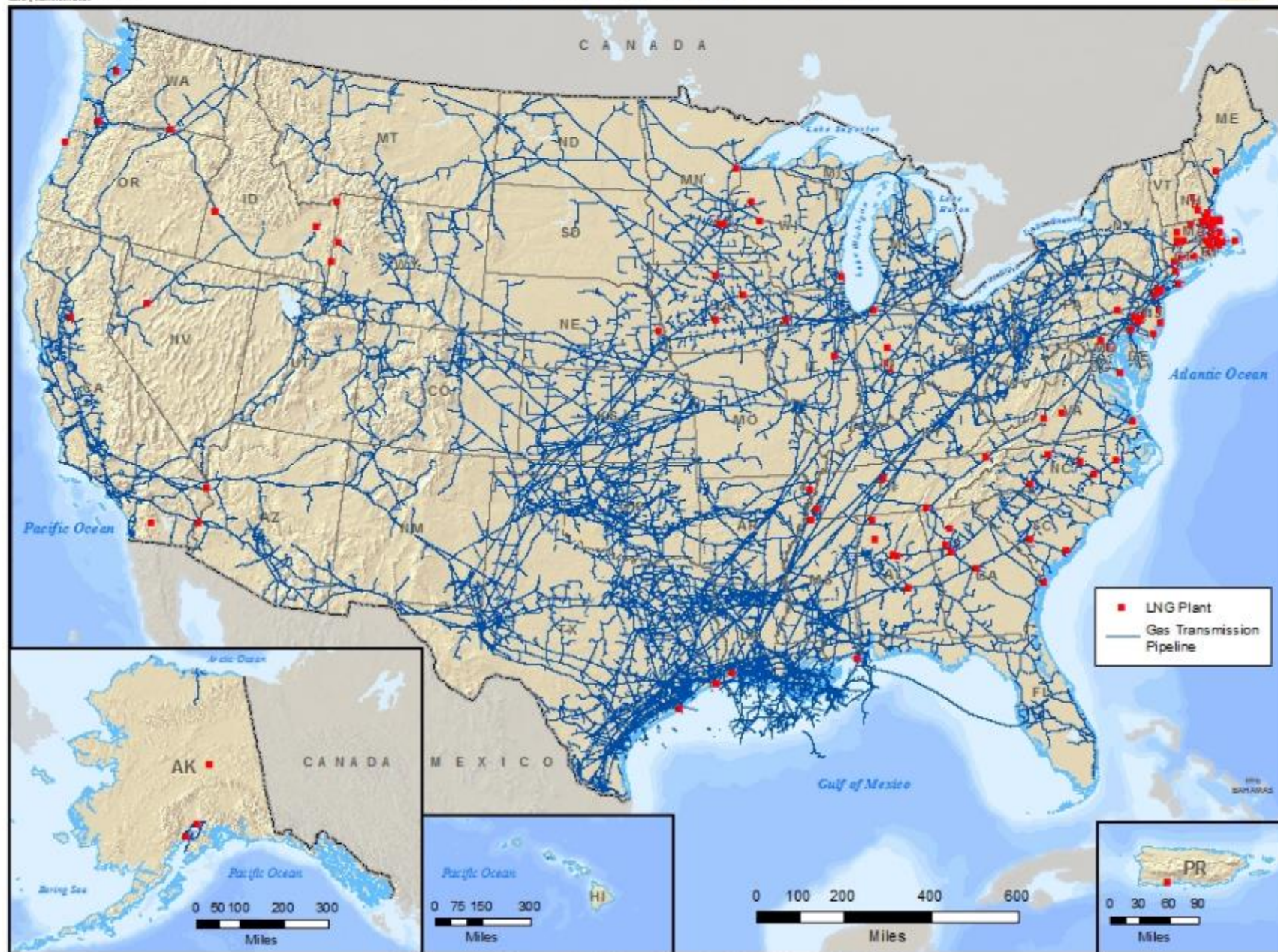
PHMSA Responsibilities

- Promoting the safe, environmentally sensitive, and reliable delivery of energy products that fuel the U.S. economy Safety of 2.6 million miles of hazardous gas and liquid pipelines
 - 66% of the energy consumed in the US travels by pipeline
 - Natural gas
 - Crude oil
 - Refined petroleum products
 - Safety of nearly one million hazardous materials shipments daily by all modes – air, ground, ship, and rail
- Effective stakeholder communication with federal and state agencies, pipeline operators, labor industry, response community and the public



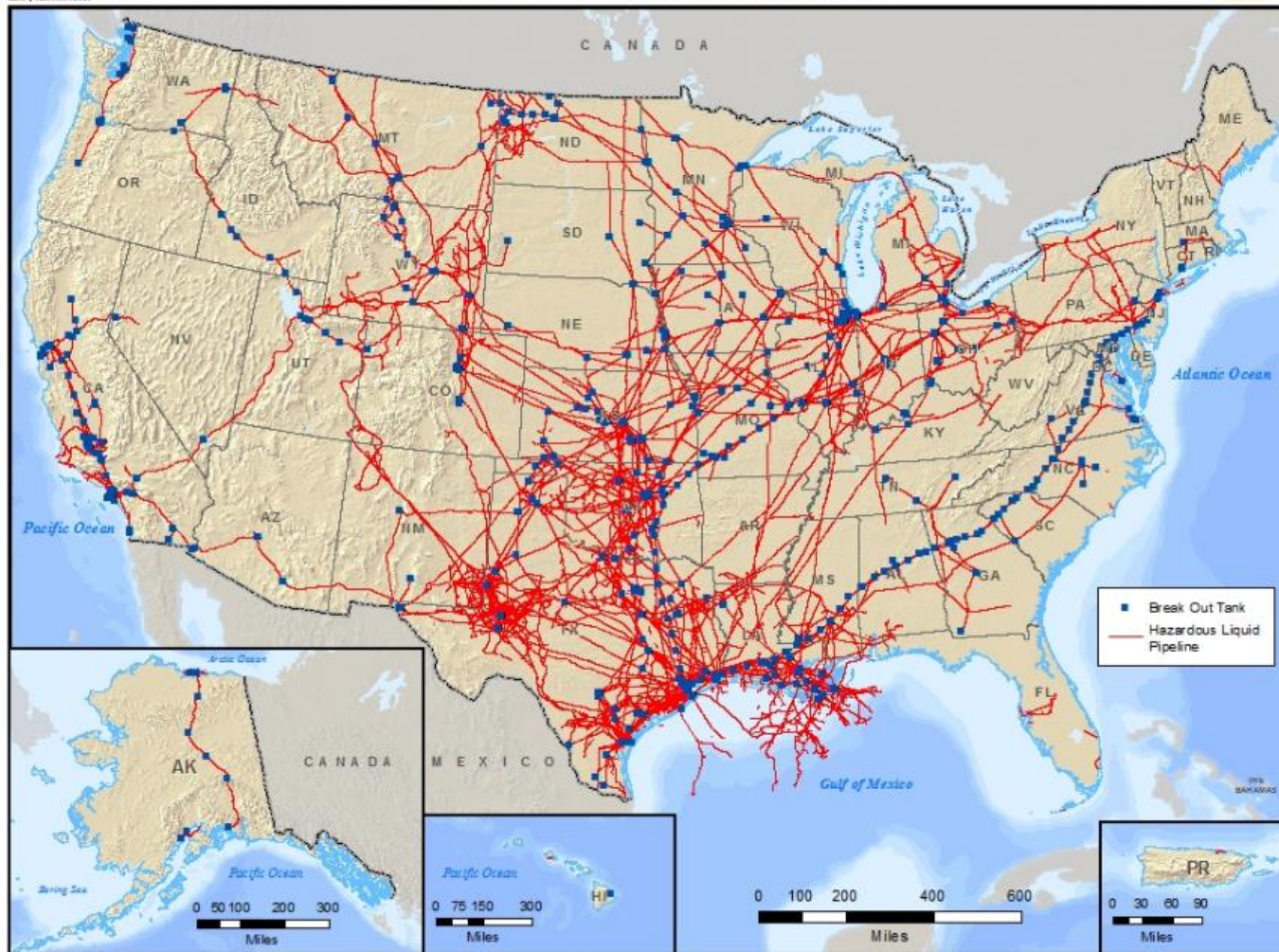
Gas Transmission Pipelines and LNG Plants in the United States

National Pipeline Mapping System



Hazardous Liquid Pipelines and Breakout Tanks in the United States

National Pipeline Mapping System



How to View NPMS Pipeline, BOT and LNG Maps

NPMS Website:

www.npms.phmsa.dot.gov

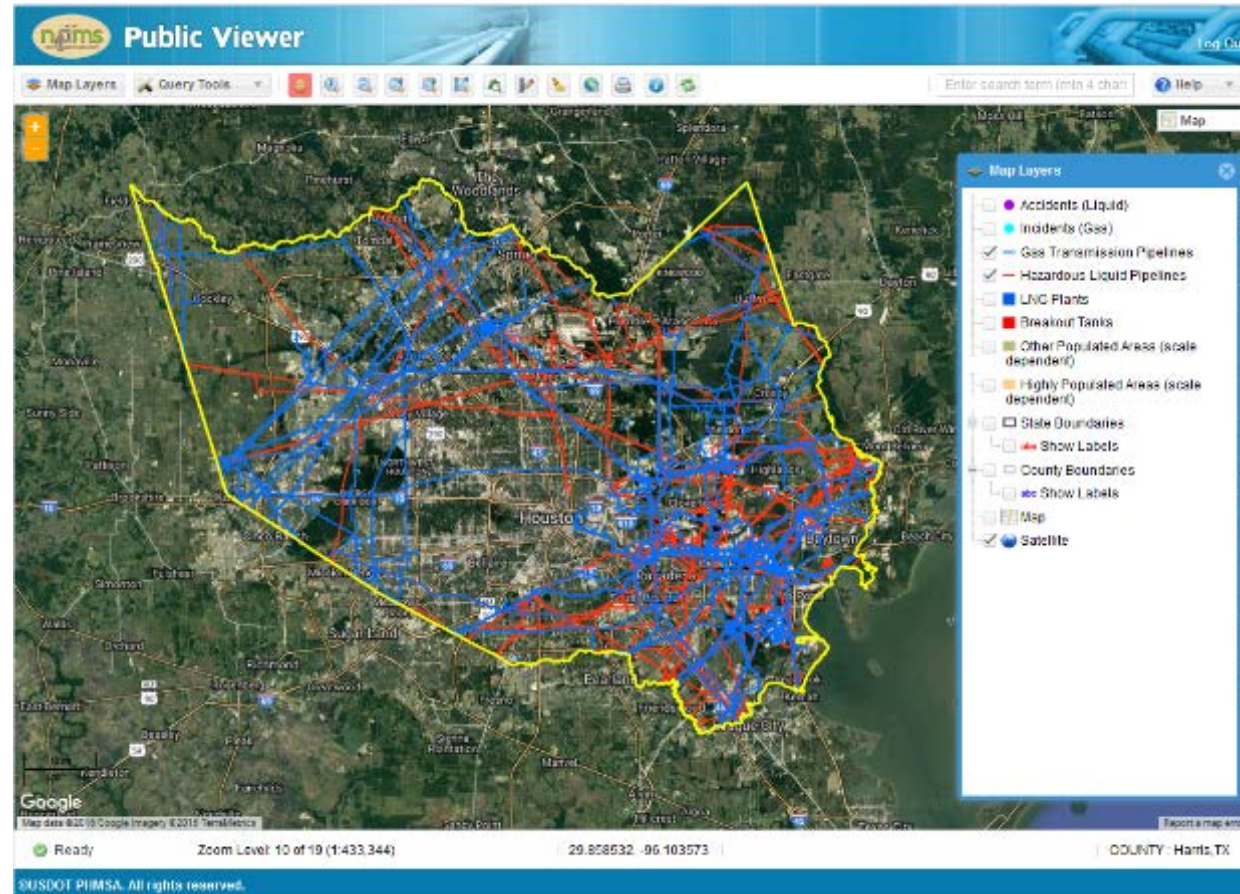
1) Public Map Viewer

- Open to public
- 1 county at a time
- Scales above 1:24,000

2) PIMMA

- Government officials only
- Apply for username and password
- Access data in your jurisdiction

3) Coming Soon: Public Viewer and PIMMA



When Pipelines Fail



PHMSA's Role When Pipelines Fail

- Support the FOSC and Incident Command Unified Command (IC/UC)
 - Provide Facility Response Plan to FOSC
 - Technical support to IC/UC, Joint Information Center, Operations, and Planning
- Ensure pipeline safety is maintained:
 - Pipeline integrity is maintained
 - Repair and restart plans
 - Consider safety of other pipelines in area
 - Pipeline purge procedures being followed



PHMSA's Role When Pipelines Fail

- Ensure pipeline company is fully cooperating with federal, state and local emergency responders
- Deploy liaison resources between PHMSA technical investigators and community stakeholders (public, local, state, and federal)
- Provide International and Public Affairs resources for media and congressional inquiries
- Conduct pipeline accident investigations (as it relates to the pipeline)
- Require Metallurgical Testing and Root Cause Failure Analysis



PHMSA's Role When Pipelines Fail

- Issue Corrective Action Orders/Safety Orders when necessary
- Investigate compliance with regulations and take appropriate enforcement actions
- Incorporation of Lessons Learned – Regulatory, Policy, Training or Compliance Changes
- PHMSA does not:
 - Act as first responders
 - Perform/manage/deploy spill containment or cleanup
 - Charge fee for services



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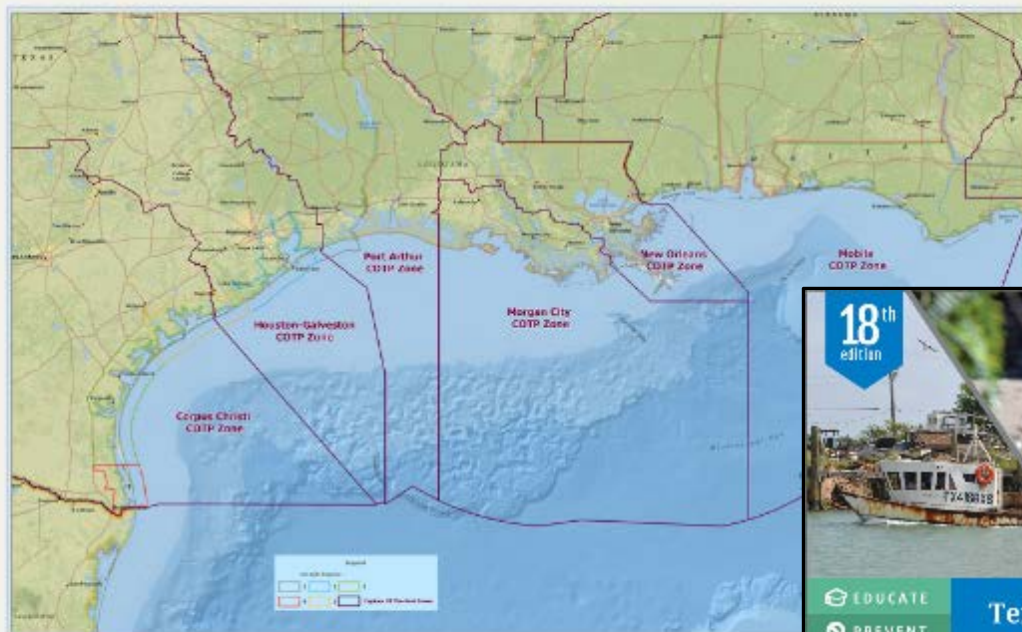
| 1. Incident Name | 2. Operational Period (Date/Time) | INCIDENT ORGANIZATION | |
|--|---|---|---|
| Refugio | From: 5/29/2015 06:00 To: 5/30/2015 06:00 | CHART ICS 207-CG | |
| <div><div>SB OEM: R. Rockabrand</div><div>INCIDENT COMMAND FOSC: USCG FOSC: US EPA, SOSC: CDFW LOSC: SB OEM, RPIC: DRPIC:</div></div> | | <div>INFORMATION OFFICER</div> <div>SAFETY OFFICER</div> <div>LIAISON OFFICER</div> <div>SECURITY OFFICER</div> <div>TECHNICAL SPECIALIST US DOT, Ed Murphy 202-734-9122</div> | |
| | | INVESTIGATORS | OSPR |
| | | AGENCY REPS. | |
| <div>PLANNING SECTION CHIEF</div> <div>OPERATIONS SECTION CHIEF</div> | | <div>LOGISTICS SECTION CHIEF Supply Unit Leader Supply Unit</div> | <div>FINANCE SECTION CHIEF</div> |

Thank You!!

Eddie Murphy
Headquarters Washington, DC
(202) 366-7043
eddie.murphy@dot.gov

Mary McDaniel
Southwest Region Office Houston, TX
(713) 272-2847
Mary.mcdaniel@dot.gov





The Oil Spill Toolkit is a decision-support resource for the spill response community, functioning as a multi-built and maintained for District 8 Regional Response by the Oil Spill Division of the Texas General Land Office, numerous other State and Federal Agencies.

Click the map or tabs above to view the following information housed in the Toolkit:

- Area Contingency Plans (ACP) within U.S. Coast Guard District 8
- Maps for Texas, Louisiana, Mississippi, Alabama and Florida
- Regional Response Team (RRT) guidance and documents
- Response Plans
- ICS Forms
- NOAA Job Aids
- SCAT Forms
- Incident Links
- Oceanographic and meteorological info
- Other valuable information

18th
edition

EDUCATE
PREVENT
RESPOND

Texas Coastal
Oil Spill Planning
and Response

TOOLKIT

To Report a Spill: 800.832.8224





INSIDE

- › ESI Maps
- › GRP Maps
- › Area Contingency Plans and Resource Materials
- › Regional Response Team VI Plans and Resource Materials
- › National Response Team Plans and Resource Materials
- › Consultation Processes
- › Alternative Technology Guidance
- › Spill Related Job Aids
- › Additional Support Documents
- › Software Applications
- › Internet Links
- › More!

Reviewed and
Updated May 2016

SOUTHEAST TEXAS AND SOUTHWEST LOUISIANA AREA CONTINGENCY PLAN

**MARINE SAFETY UNIT
PORT ARTHUR, TEXAS**



TEXAS OIL SPILL PLANNING AND RESPONSE ATLAS INDEX MAP

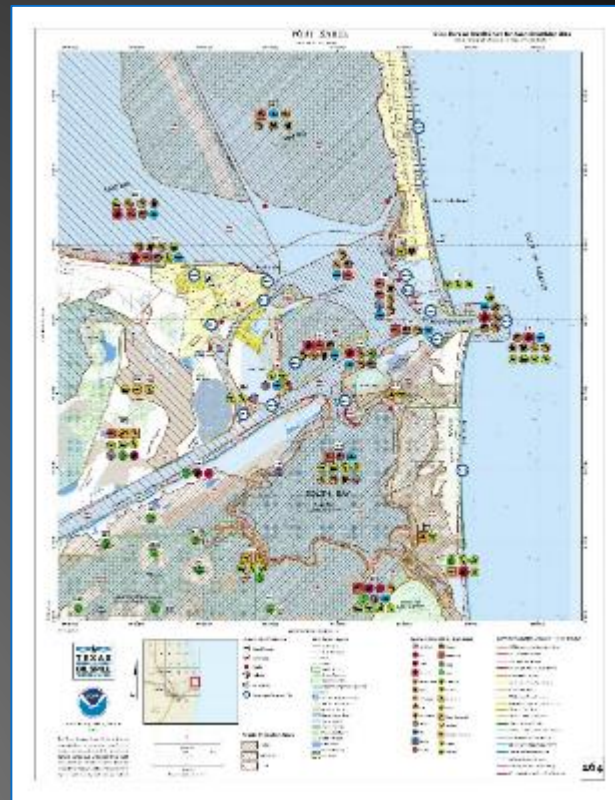
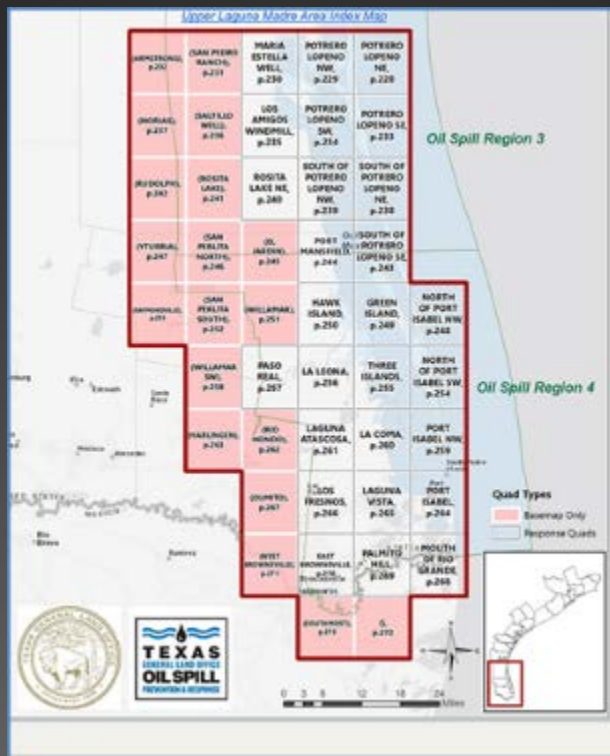
Regions outlined in red:

- Sabine Lake Area
- Galveston Bay Area
- East Matagorda Bay Area
- Matagorda Bay Area
- Corpus Christi Bay Area
- Upper Laguna Madre Area
- Lower Laguna Madre Area

Major cities and locations marked include: Houston, Austin, San Antonio, El Paso, Dallas, Fort Worth, and various smaller towns like Victoria, Rosenberg, and Baytown.

GULF OF MEXICO

Scale: 0 to 100 Miles



Biological Resources

Priority Protection

| Branch Account | BARNUM | NAME | CONTACT | CONTACT INFO |
|----------------|--------|-----------------|---------|--------------|
| | 9114 | INVEST STREET | | |
| | 9115 | BERKELEY STREET | | |
| | 9116 | HIGHWAY 332 | | |
| | 9117 | STANLEY STREET | | |
| | 9118 | JACKSON ROAD | | |
| | 9119 | 14TH STREET | | |
| | 9120 | 14TH STREET | | |
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Updated Human
Use Layer (note
facility listing)

Updated Biology Layer

[illegible]

Updated GRPs database

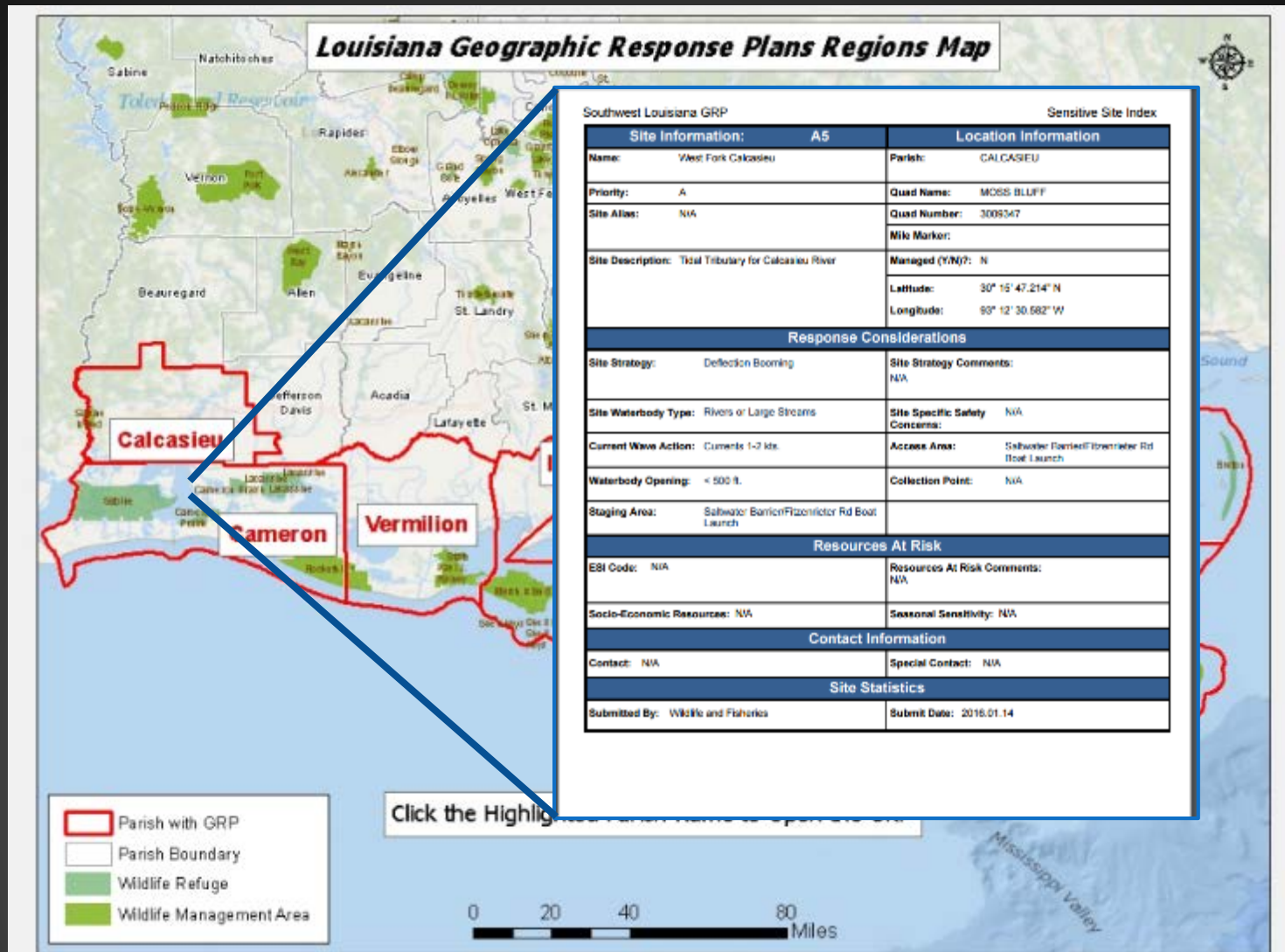
Back To Map

| | | | | | |
|--|--|---|---|--|------------------------------|
| 1. Incident Name | | 2. Operational Period (Date/Time) | | Assignment List ICS 204-OS | |
| 3. Branch | | 4. Division/Group | | | |
| 5. Operations Personnel Operations Section Chief _____ Branch Director _____ Division/Group Supervisor _____ | | | | | |
| 6. Resources Assigned This Period **C indicates NOAA attachment with special instructions. | | | | | |
| Resource Identifier | | Leader | Contact Info # | # of Persons | Reporting Info/Notes/Remarks |
| | | | | | |
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| 7. Assignments: | | | | | |
| SAFETY NOTE: Responders should wear the appropriate PPE as chemicals are highly volatile. Often large volume booms, barges and other vessels show high energy values in this area. | | | | | |
| 8. Site Numbers: 10S-H | | 9. Quad Name: Port Aransas | | 10. NOAA Chart #: 11312,11314 | 11. GAO Atlas Page #: 185 |
| 16. Site Information: as is. Location is on Harbor Island Northeast, on the west bank along Lytle Arm Channel. This is a natural pass along and between Lytle Arm Channel and the interior of Harbor Island Northeast. Site encompasses large marsh including Smooth Cordgrass and Black Mangrove. Notify IgMoose keeper (My) Cookson (D11) 440-5532. | | | | 14. Latitude: From: 27°14'45.38" To: 15. Longitude: From: 97°03'16.18" To: | |
| 18. Closest Road Ramp: Port Aransas City Marina | | | 17. Distance from Ramp: 1.0 NM | | 13. County: Aransas |
| 19. Directions From Local Sector: Take Hwy 35 north through Gregory south on Hwy 361 to Aransas Pass, east on 361 approx. 5 miles to Port Aransas, TX. Boat access only. | | | 20. Closest Airport: McGregor Beach Airport, Port A. 21. Closest Helo Spot: | | |
| 22. Trustee/Contact Numbers USCG: (361) 888-3162 RRC: 361-242-3113 USCG DUTY: 361-533-7166 TPWD: 361-625-3244 TIGI: (361) 882-8294 NRGIS: (512) 668-4489 TCEQ: 361-825-3100 USFWS: 361-994-9005 | | 23. Resources at Risk: Atlas Priority HIG Environmental High - salt and brackish marshes. Economic HIG | | 24. Width of inlet: 150 ft. in ft. 25. Water depth in ft.: 1-4 ft. 26. Current 27. No. of Personnel: 2-4 | |
| 28. Recovery Strategy Recommendation Exclusion booming of natural pass between the Lytle Arm Channel and the interior of Harbor Island Northeast. Pass is approx. 130' in width. Pass contains boat docks for the Aransas Light House. | | | | | |
| AERIAL PHOTO | | | ON SITE PHOTO | | |
|  | | |  | | |
| 29. Prepared By: Assignment Det | | 30. Reviewed by [PSC]: ICS 204 OS (Geographic Response Plan) | | 31. Reviewed by [OSC]: Project Updated: | |
| **Response strategies may need to be modified to account for changes due to seasonality, weather conditions, spill characteristics, tides and any other considerations.** | | | | | |

Geographic
Response Plan
(GRP) all 630
updated directly
from database
driven source
data



Louisiana GRPs database



Example of ACP Regional Information

Central Texas Coastal Zone Area Committee-Sector Houston/Galveston, Texas

Area Contingency Plan

ESI Maps & Geographic Response Plans:

- MSU Port Arthur, Texas
- MSU Galveston, Texas
- East Matagorda Bay

Additional Information and Plans

- Port of Houston-Man
- CTAC Organizational Plan and Charter
- Volunteer (CS-204) form
- Galveston Bay Ecological Risk Assessment
- TCEQ Certified List of Discharge Cleanup Organizations (DOCO)
- Houston-Galveston IIRL Section of Safe Refugee Guide
- USFWS Brazoria National Wildlife Refuge Response Plan
- USFWS Big Boggy National Wildlife Refuge Plan
- USFWS San Bernard National Wildlife Refuge Plan
- USFWS Coastal Texas Wildlife Refuge Plans
- Brazoria County Beaches Oil Draft Plan
- Armand Bayou Oil Spill Contingency Plan
- Houston Audubon Society Bolivar Flats Refuge Response Plan
- Houston-Galveston Pre-Event Incident Action Plans
 - Houston Oil Spill HazMat Marine Fire
 - Texas City Oil Spill HazMat Marine Fire
 - Offshore Oil Spill HazMat Marine Fire

South Texas Coastal Zone Area Committee-Sector Corpus Christi, Texas

Area Contingency Plan

ESI Maps & Geographic Response Plans:

Example of Additional Support Documents

ADDITIONAL DOCUMENTS

JOB AIDS

- NOAA - Open Water Oil Spill Action Job Aid
- NOAA - Shoreline Assessment Job Aid
- NOAA - Response Operations Observer Job Aid
- NOAA - Characterization of Response Strategies
- NOAA - Action Observation Checklist

MANUALS & GUIDELINES

- Shoreline Countermeasures Manual
- Shoreline Assessment Manual
- Characterization Checklist for Initial Oil Spill Response Assessment
- Oil Spill in Marshes Planning & Response Considerations
- Mechanical Response Guidelines
- Aerial Observation Checklist
- USFWS-Create Oil Spill Protocol

REPORTS ON RESPONSE ISSUES

- Responding to Oil Spills in Coastal Marshes
- Assessment of Risk Associated with the Placement and Removal of Oils in Oils
- Oil and Gas Facility Safety Planning and Response

FACT SHEETS

- Numbered Fact Oil Spill Response
- Small Diesel Spill/leak - 1,000 gallons

PREP

- Guidelines

OTHER STATE & FEDERAL DOCUMENTS



Example of RRT VI Support Documents

REGIONAL RESPONSE TEAM

RRT VI GUIDANCE:

- RRT VI Contact & Phone List
- RRT Job Aid
- RRT Standard Operating Procedures
- RRT Flood Preparedness Fact Sheet

ALTERNATIVE TECHNOLOGIES

- SMART Monitoring Plan

Dispersant

- RRT VI Dispersant Pre-Approval Plan
- RRT VI Near Shore Dispersant Expedited Approval Process
- MOA between USCG and USAF Regarding the Application of Dispersants

In Situ-Burning

- RRT VI Guidelines for Inshore/Nearshore ISB
- RRT VI In Situ-Burn Plan (Part 1 & 2) and Checklist
- Frequently Asked Questions
- Guidance on Burning Spilled Oil In-Situ
- Open-Water Response Strategies: ISB
- RRT II ISB Unified Command Decision
- Verification Checklist
- Health & Safety Aspects of ISB for Oil
- Sample Site Safety Plan for Marine ISB Ops
- Residues from ISB of Oil on Water
- ISB Comparisons (risk communications)

Bioremediation

- RRT VI Bioremediation Position Paper

RRT VI SURFACE WASHING DOCUMENTS

SE Texas and SW Louisiana Area Committee

Example of NRT Support Documents

SPILL RESPONSE RESOURCES
NATIONAL RESPONSE TEAM & CONTINGENCY PLAN

NRT/NATIONAL CONTINGENCY PLAN

- National Contingency Plan
- NRT Atypical Dispersant Guidance
- NRT Guideline for the Use of Volunteers for Oil Spills

NATIONAL RESPONSE TEAM

- Incident Management Handbook (English)
- Incident Management Handbook (Spanish)
- ICS Forms (PDF, Word, Excel, Mac, Spanish)
- ICS Compatible Site Safety and Health Plan
 - Instructions
 - Specific Hazard Attachment
 - Forms
- SCAT Forms (PDF and MS Word)
- NOAA ICS Forms Database (Windows or MacOS or Droid)
- ICS Training Recommendations Sector Houston-Calveston

REGIONAL CONTINGENCY PLAN

- Region 8 Regional Contingency Plan -- FINAL -- May 19, 2015



Utilization of new response tool



February 2016

U.S. Federal Aviation Administration (FAA) Unmanned Aircraft Systems (UAS)

- Weigh under 55 pounds.
- Non-recreational operations.
- Flights restricted to daylight hours.
- Operations are in line of sight (meaning the operator must maintain constant visual contact with the aircraft).
- Flights are not allowed to surpass an altitude of 400 feet and travel no faster than 100 mph.
- Must not fly over personnel or fly from a moving vehicle.
- Effective August 29, 2016 a pilot certification is required by the FAA.



LIVE OPERATIONS MEETINGS

OPERATIONS OBSERVATION

ASSET DEPLOYMENT/ASSET COUNT



August 2016

J. D. Murphree Wildlife Management Area is a 24,498 acre tract of fresh, intermediate and brackish water coastal marsh on the upper coast of Texas, off SH 87.



Benefits of the Response UAS's

- **AVAILABILITY**

A suitable aircraft and trained observers are not always immediately available for reconnaissance. The UAS can be deployed in less than 10 minutes.

- **ACCURACY AND LIVE STREAMING**

Surveying an oil spill from an aircraft has the potential to produce inaccurate information. The UAS provides real time video/photos from many elevations and angles providing accurate location, access, and impact.

- **WEATHER**

UAS's, because they are unmanned, can fly in most conditions not suitable for manned aircraft.

- **SAFETY**

Flying at low altitudes can also present problems wildlife. In some unfortunate cases, aerial surveys can even cause uninjured wildlife to disperse toward a spill. The UAS can fly at very low altitude and has minimal impact on wildlife.

- **COST**

The price of the UAS and photo production, along with cuts to operator time and fuel costs, make UAS's an affordable alternative or supplement to manned aerial flights.



Questions?



APC Subsea Dispersant Exercise Recap



KC 919 WELL BLOWOUT ANNUAL GOM DRILL

Mike Drieu, APC and Mike Sams, USCG

RRT-6 Fall 2016 Meeting

Topics

➤ Exercise Scenario

➤ Dispersant

- Utilization Rate
- Subsea Dispersant Monitoring Kit and Mobile Lab

➤ Spill Impact Mitigation Assessment (SIMA)

➤ Recommendation

➤ Incident Specific RRT-6 (ISRRT) Activation

- RRT-6 Role during ISRRT Teleconference
- Activation Summaries
- RRT-6 Job Aid (Draft)

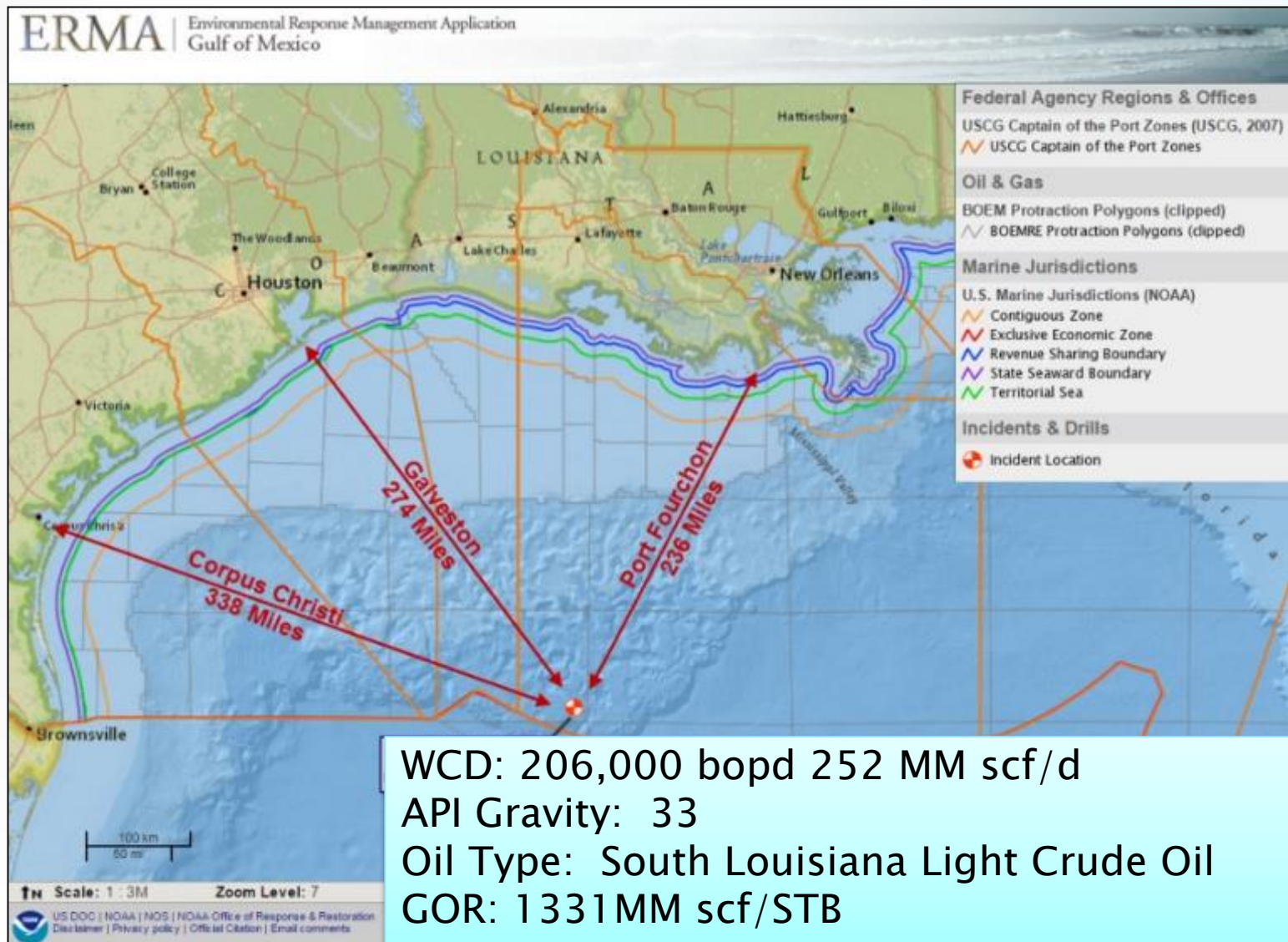
➤ Path Forward

Exercise Scenario

- The Drillship NOBLE BOB DOUGLAS was conducting drilling operations in Keathley Canyon when they lost power. Workers activated the Emergency Disconnect (EDS); however, due to the extreme conditions, the Lower Marine Riser Preventer (LMRP) malfunctioned and prevented the blow out preventer (BOP) from severing the drill string. Due to the force of the currents, the drill string parted; however, it was above the BOP.
- A Remote Operating Vehicle (ROV) discovered a steady flow of mud was emanating from the BOP and increasing rapidly. Also, approximately 40' of 8-1/4" drill collar (DC) and 6-5/8" heavy weight drill pipe (HWDP) sticking out of the BOP and bent over to the mud line.



Area of Operations and Discharge Location



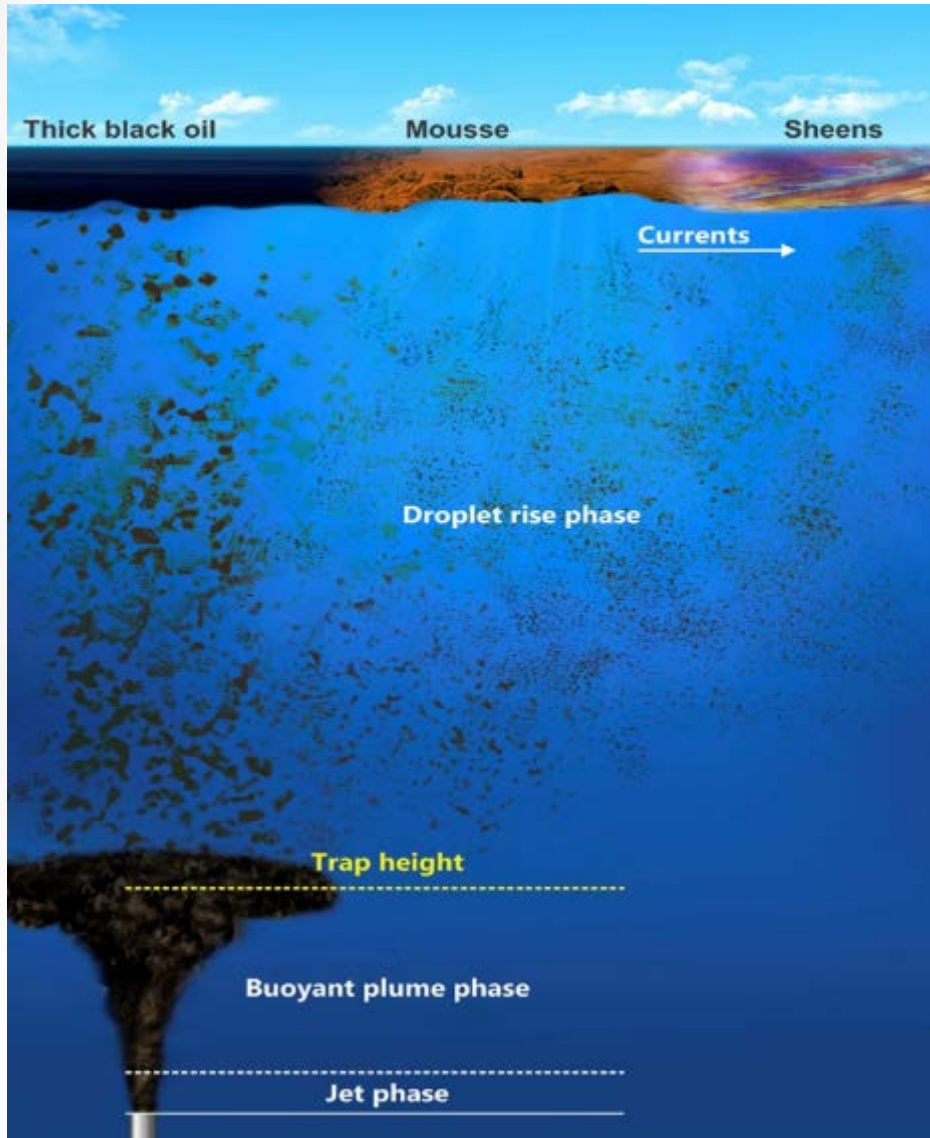
WCD: 206,000 bopd 252 MM scf/d

API Gravity: 33

Oil Type: South Louisiana Light Crude Oil

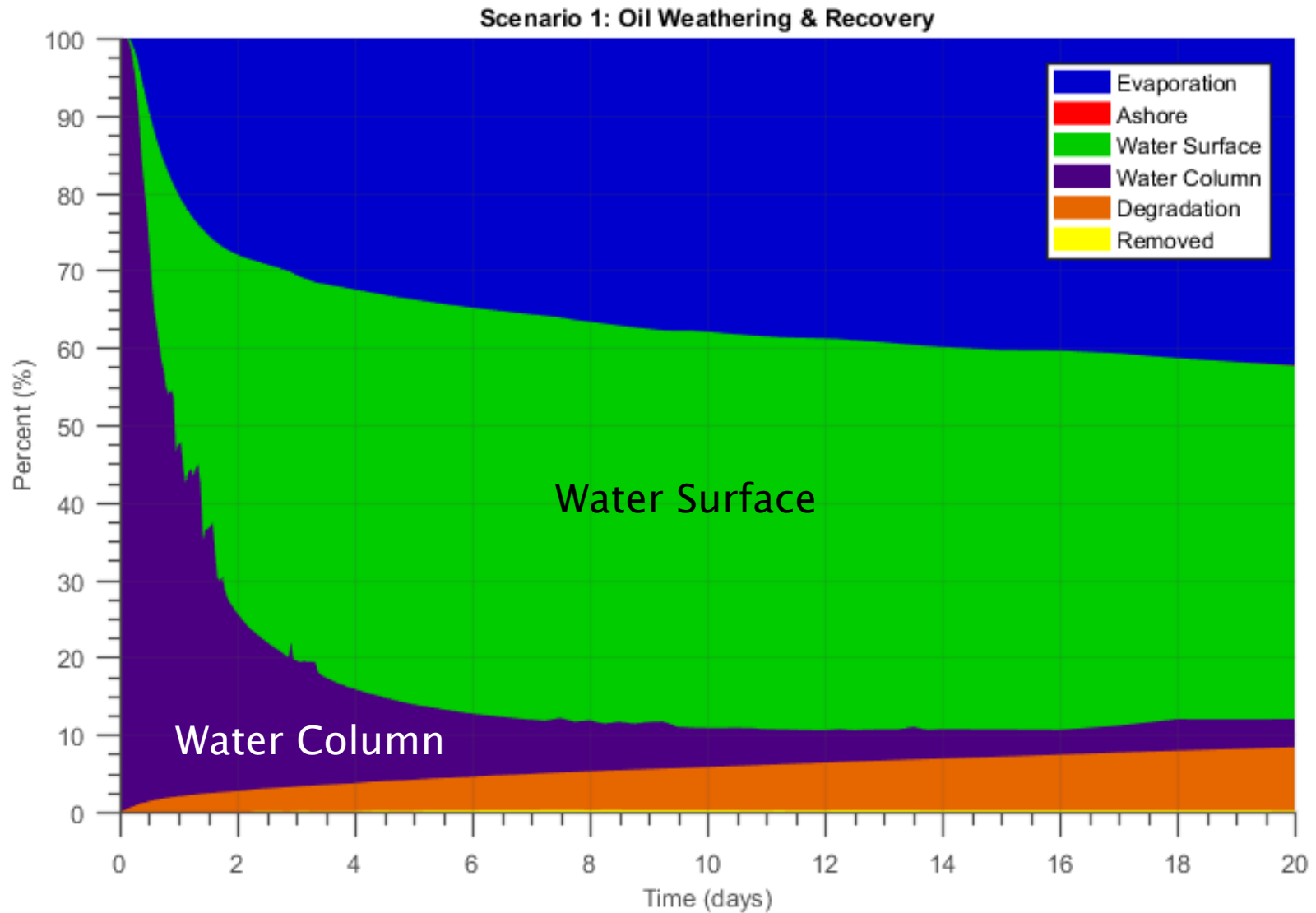
GOR: 1331MM scf/STB

Conceptual Model of a deep water oil and gas well blowout

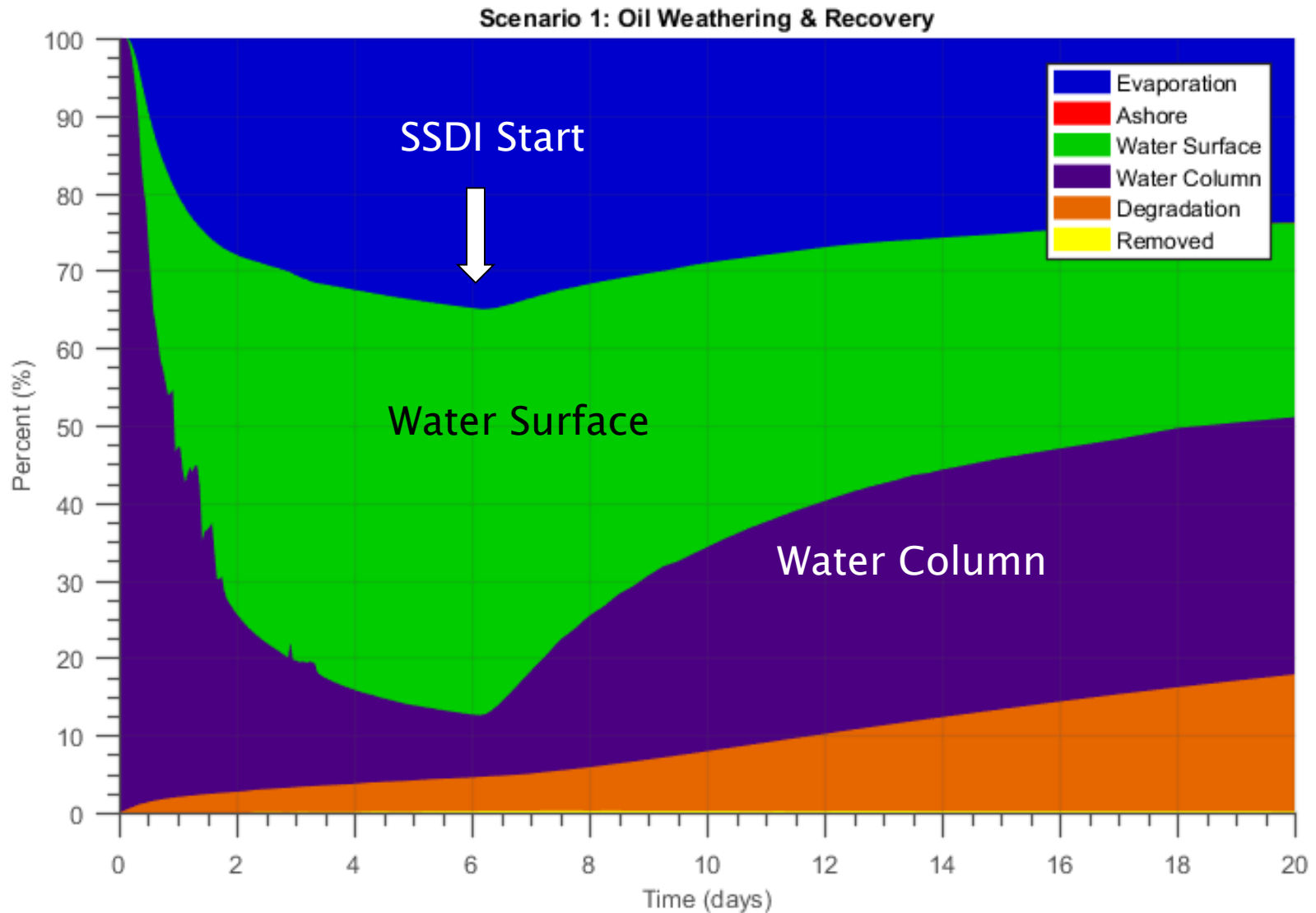


- OILMAPDeep model used to predict trap heights and droplet sizes
- SIMAP 3-D deterministic model used to predict transport and weathering
- Droplet model predicts the size and volume distribution of oil droplets.
- Droplet size dictates how long droplets will remain in the water column.
- Smaller droplets remain in the water column longer, and drift with subsea currents

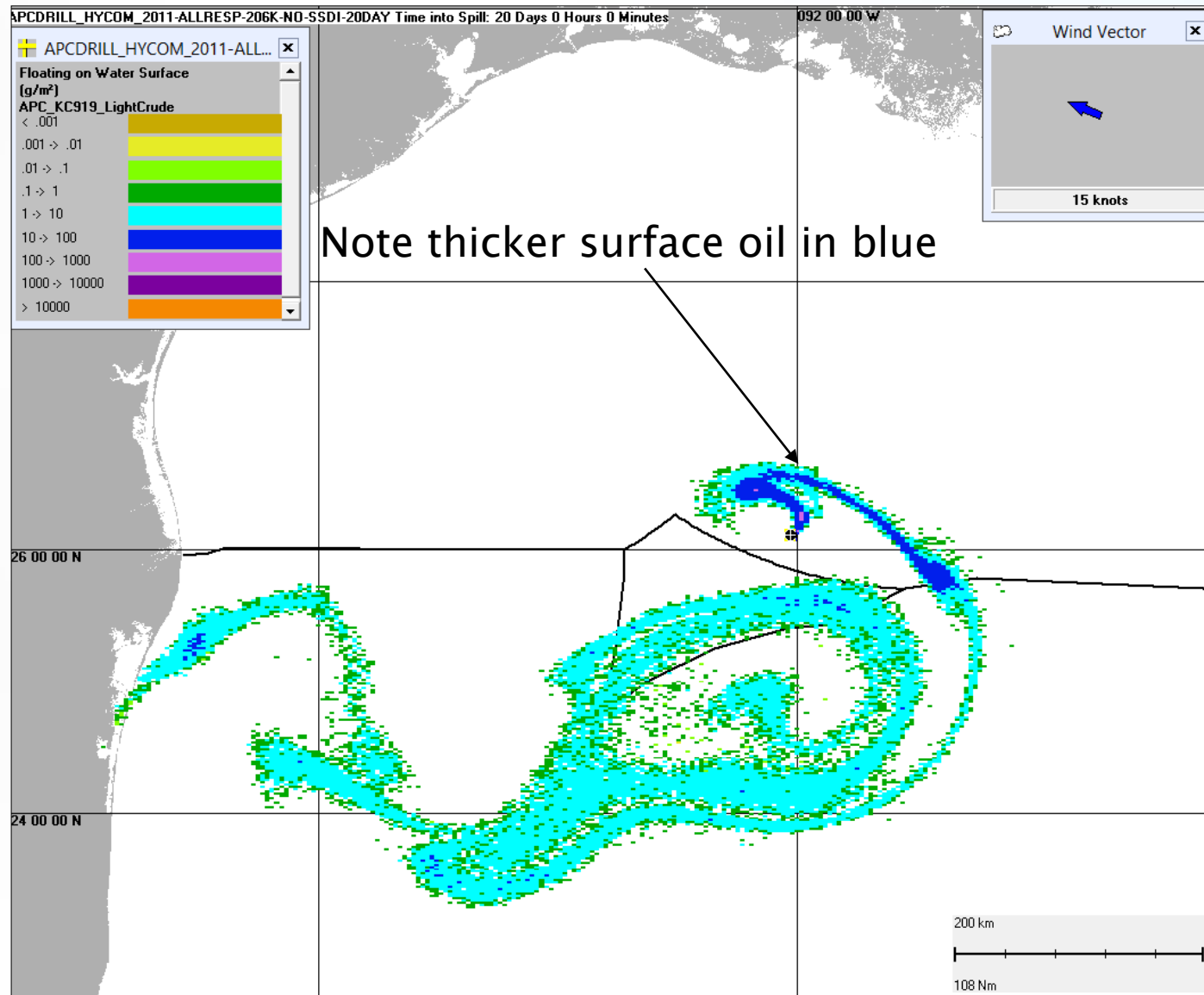
Scenario – No SSDI, 20 days no capping



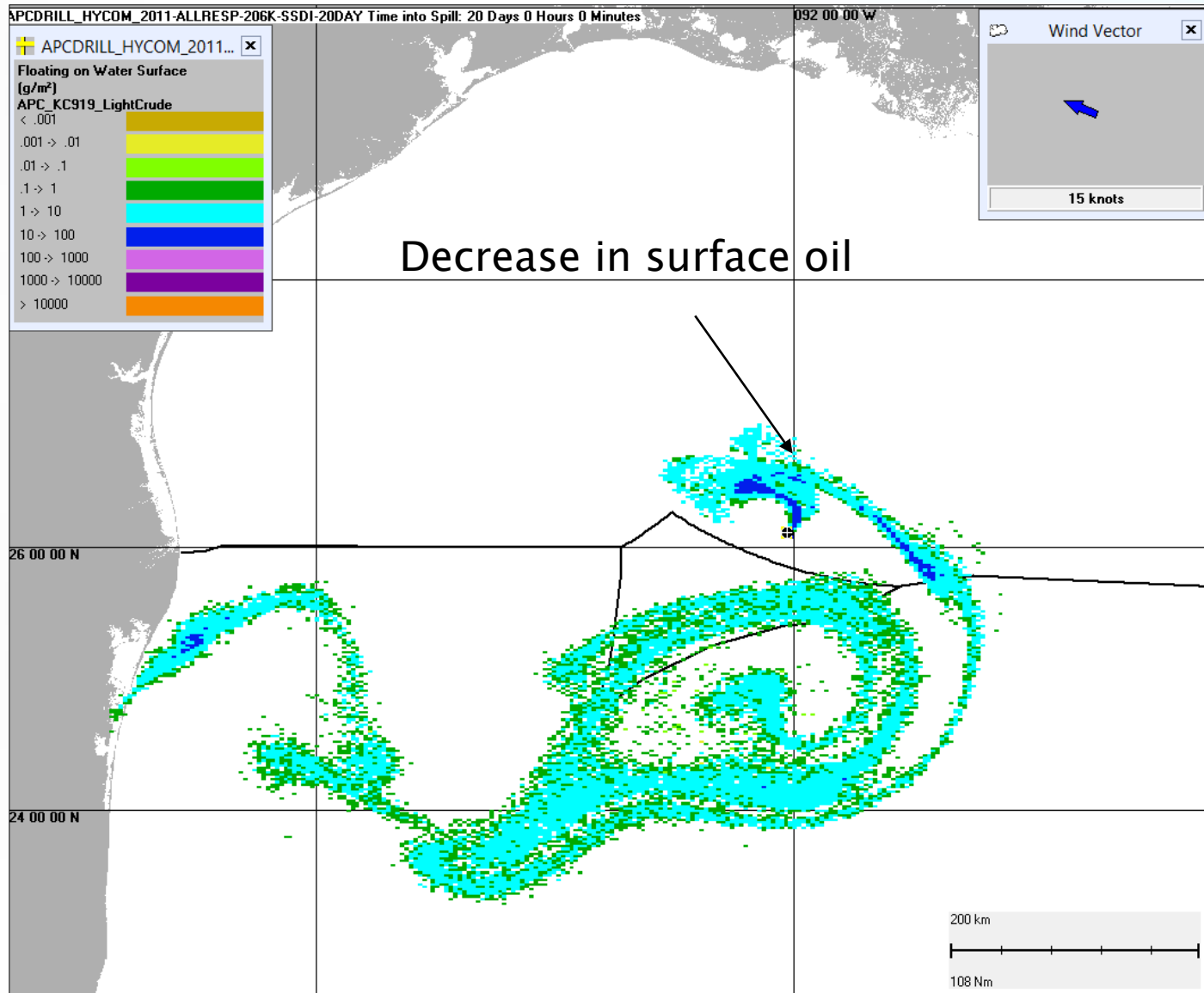
Scenario – SSDI, 20 days no capping



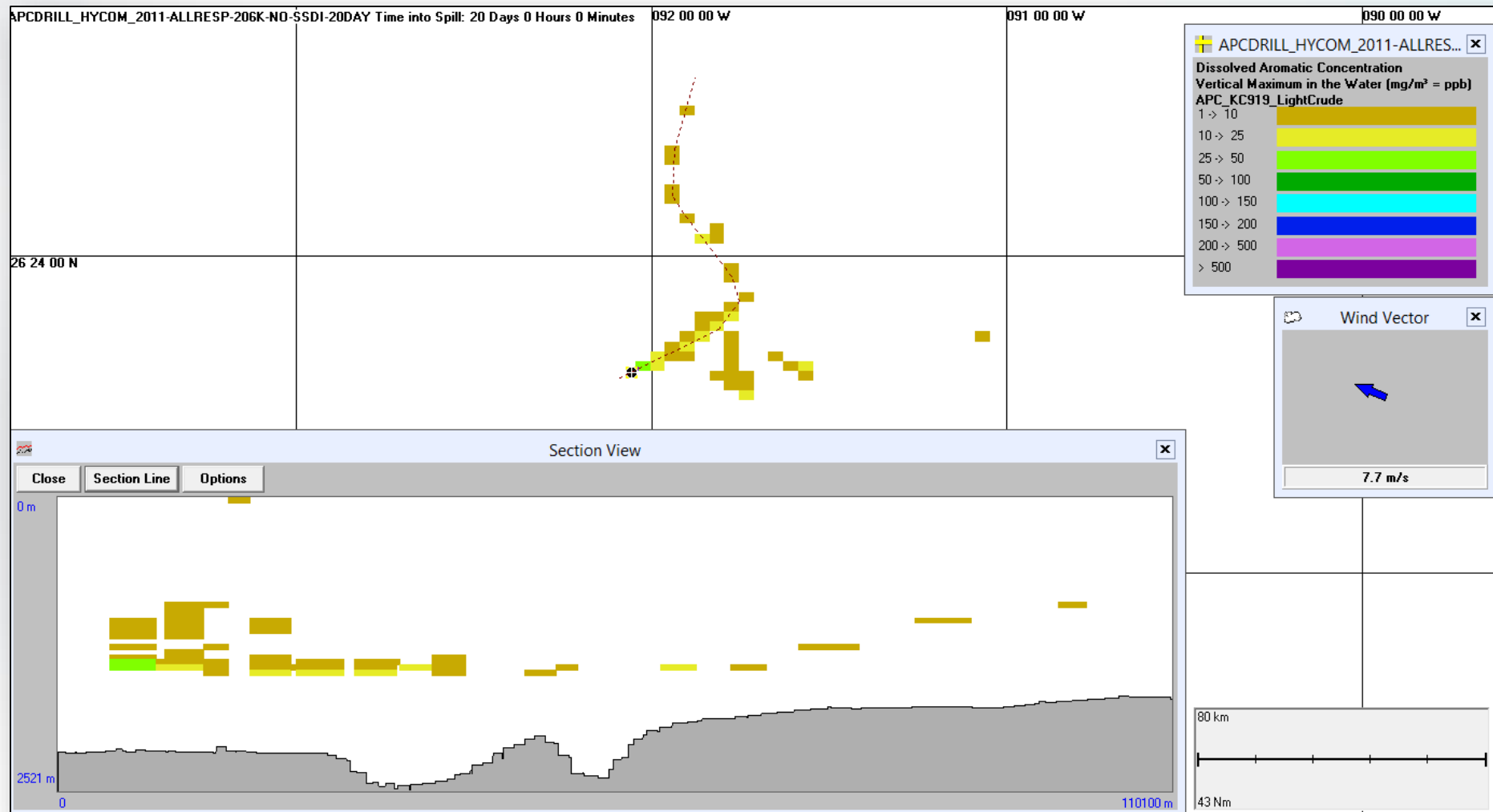
Scenario – No SSDI Day 20, Surface Oil



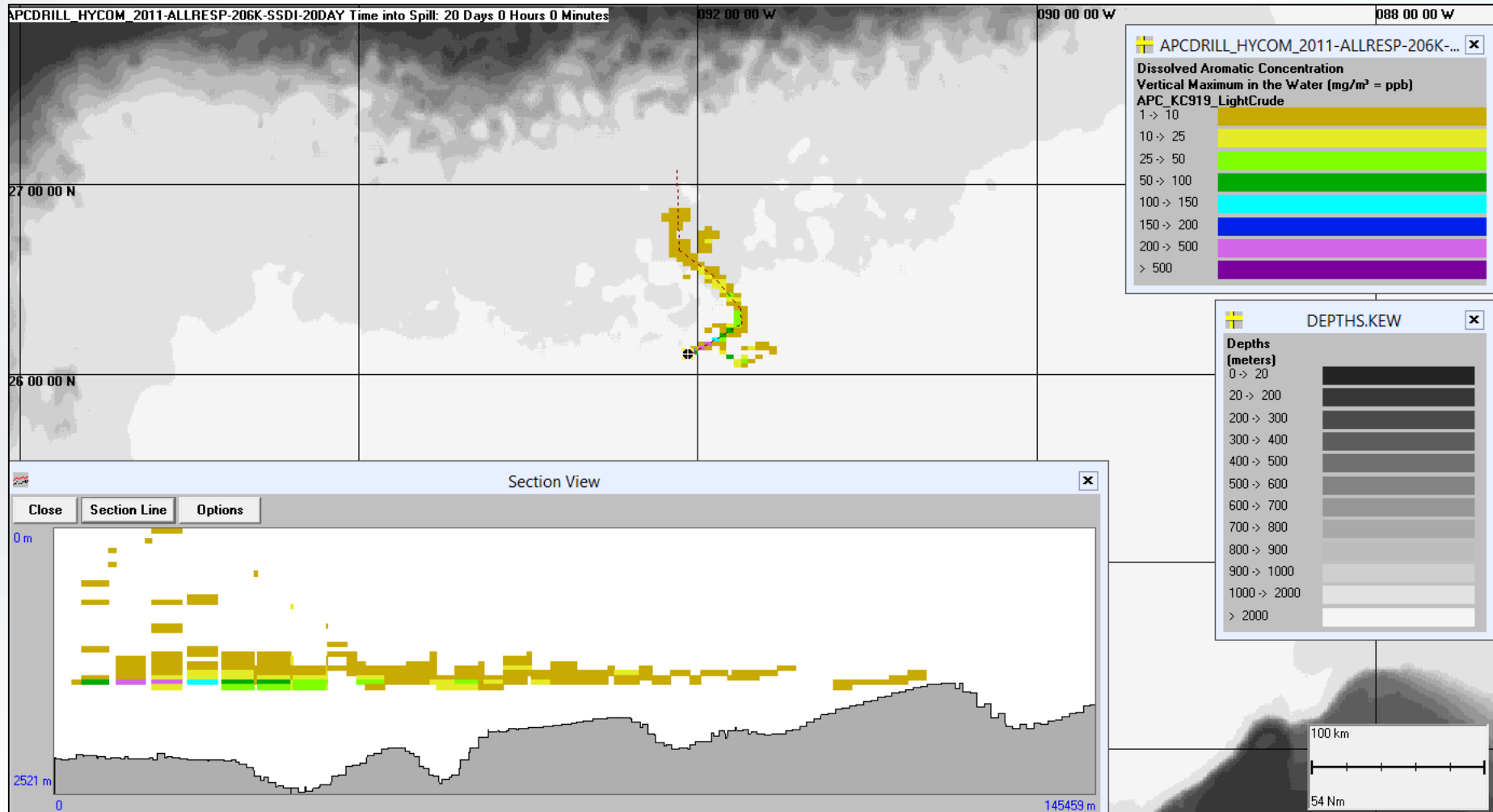
Scenario – **With SSDI** Day 20, Surface Oil



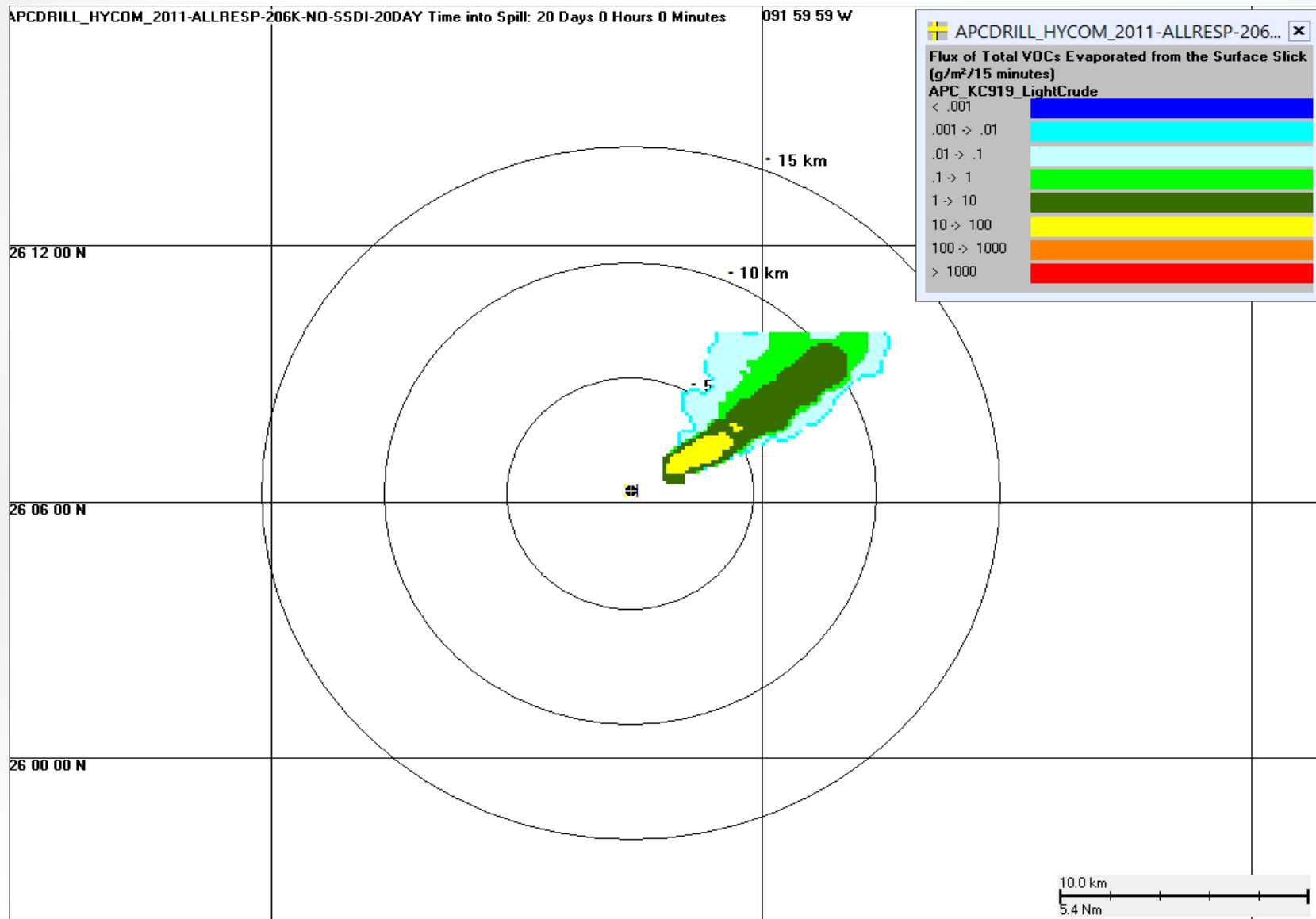
Scenario – No SSDI Day 20, Dissolved Aromatic Hydrocarbon (Less oil in water column)



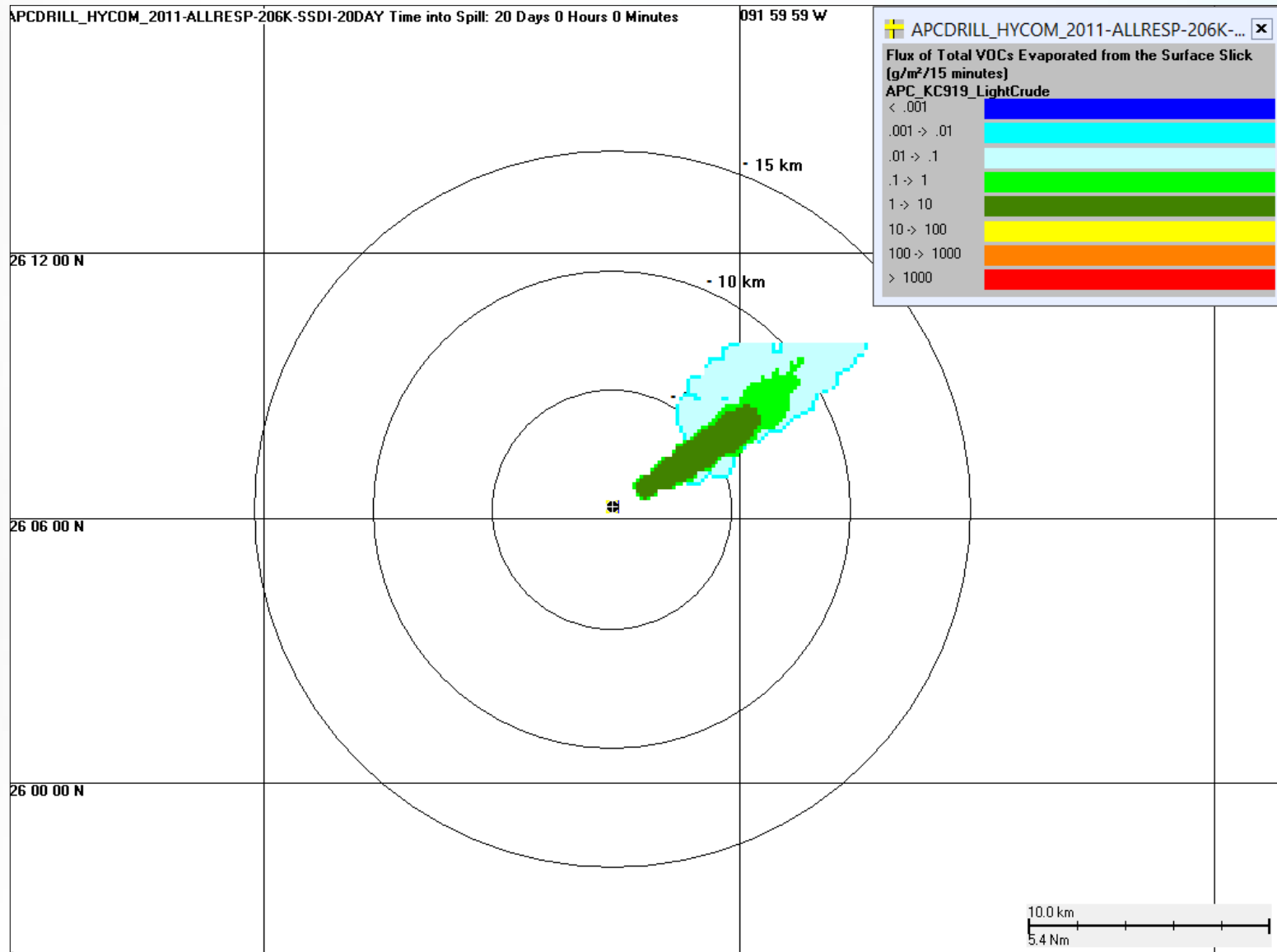
Scenario – **With SSDI** Day 20, Dissolved Aromatic Hydrocarbon (More oil in water column)



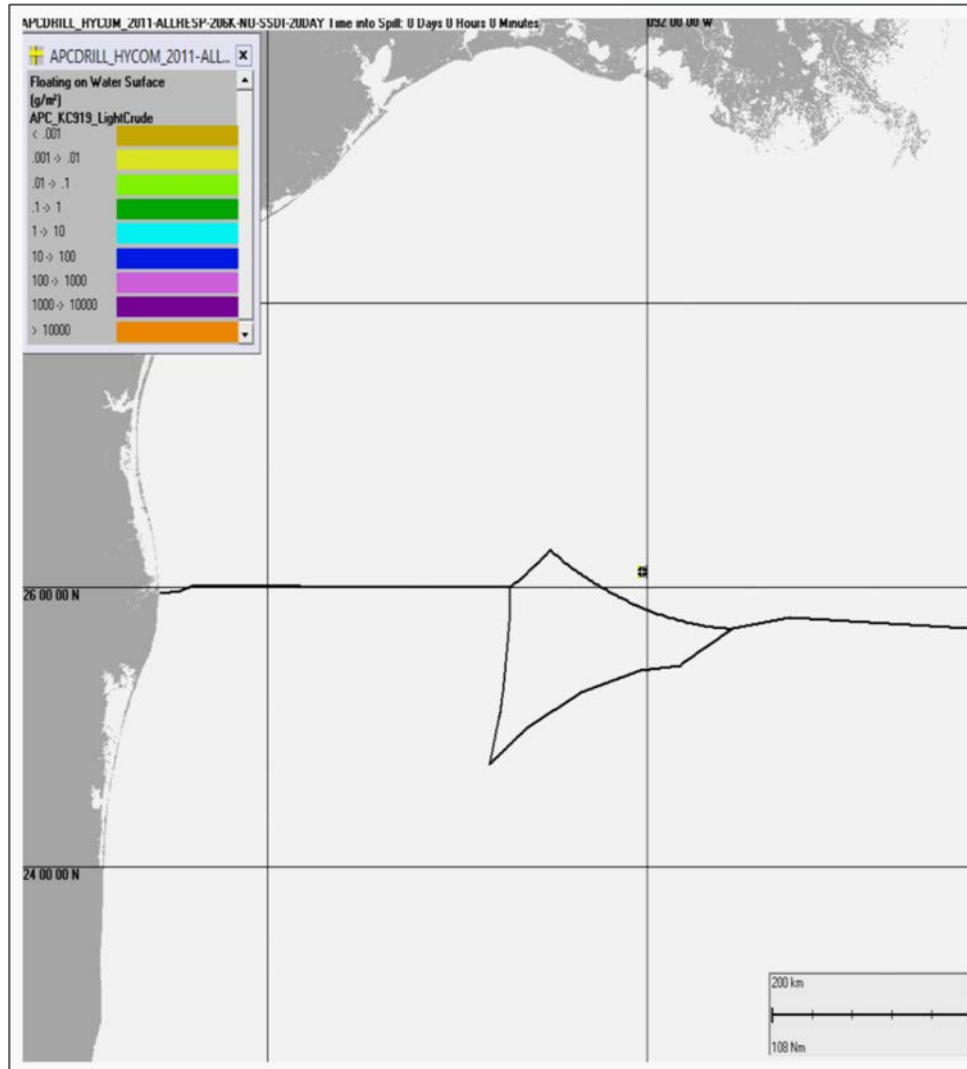
Scenario – No SSDI Day 20, VOCs (More VOCs)



Scenario – **With SSDI** Day 20, VOCs (less VOCs)



Spill Trajectory for 20 days, with all available response methods except dispersant use.



Dispersant Utilization Rate

- Worst Case Discharge – 206,000 bopd
- Dispersant to Oil Injection Ratio - 1 to 100 (start)
- Approximately 60 gallons/minute (1.43 bbls/min) or 86,400 gallons/day (2060 bbls/day).
- Dispersants Proposed
 - COREXIT® 9500A
 - FINASOL® OSR 52
 - ACCELL CLEAN® DWD
- Proposed use described in Cascade Plan (SSDI Operations Plan)
- Safety Data Sheets (SDS) included in Operations Plan

Quantities of Dispersants Available:

➤ **COREXIT® 9500A – 575,000 gallons**

- CGA – 111,000 gallons in stock – Houma, LA
- MWCC – 200,000 gallons – Theodore, AL
- OSRL – 132,500 – Ft Lauderdale, FL
- OSRL – 132,500 – Brazil

➤ **FINASOL® OSR 52 – 834,250 gallons**

- OSRL – 132,500 gallons – Southampton, UK
- OSRL – 397,000 gallons – Europe
- OSRL – 92,750 gallons – Singapore
- OSRL – 212,000 gallons – South Africa

➤ **ACCELL CLEAN® DWD – 5,000 gallons**

- CGA – 5,000 gallons – Houma, LA

Additional Production Capacity:

➤ **ACCELL CLEAN® DWD**

- Advanced BioCatalytics Corporation (ABC) – Manufacturer
- 5-7 day plant start up
- 15,000 gallons in each facility – Chattanooga, TN and Dallas, TX
- Total 30,000 gallons per day
- Day 7-10 –could increase to 25,000 gallons per plant – Chatt & Dallas
- Could be Total of 50,000 per day if requested

➤ **COREXIT® 9500A**

- Nalco Environmental Solutions LLC – Manufacturer
- 10-14 day plant start up
- 25,000 gallons per day – Sugar Land, TX

➤ With current available stockpile of approximately 1,410,000 gallons, that gives Anadarko sixteen (16) days before any additional amounts are required.

➤ Manufacturers up and running to produce volumes needed.

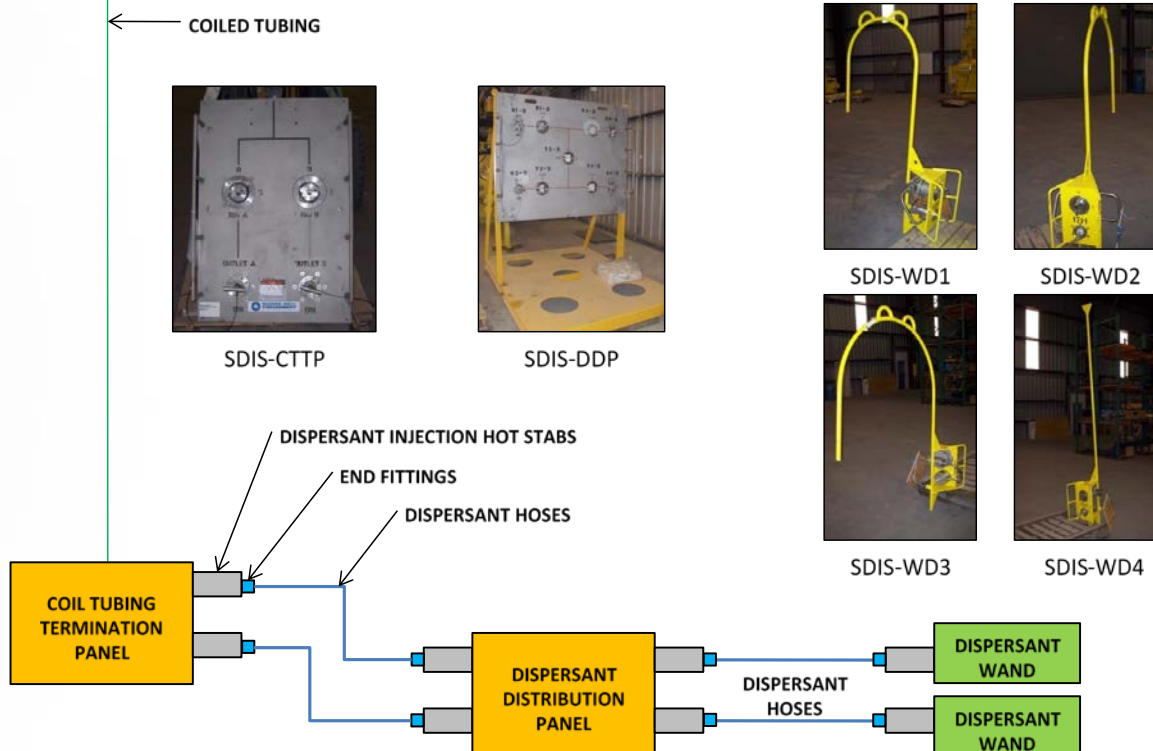
SSDI Equipment Furnished by MWCC

SUBSEA DISPERSANT INJECTION SYSTEM

PAGE #: 1



DISPERSANT VESSEL
(TOPSIDE EQUIPMENT AND COILED TUBING TO BE PROVIDED BY RP)





Support Vessels

➤ Three Offshore Supply Vessels for loading, unloading and transiting between shore base and subsea injection vessel

- OSV Cape Cod
- OSV John P. Lab
- OSV Red Lab



Subsea Dispersant Monitoring Kit and Mobile Lab



Specifications of Sensors (as reported by the manufacturer) Typically used in Instrument Packages for Hydrographic Profiling By Monitoring Equipment

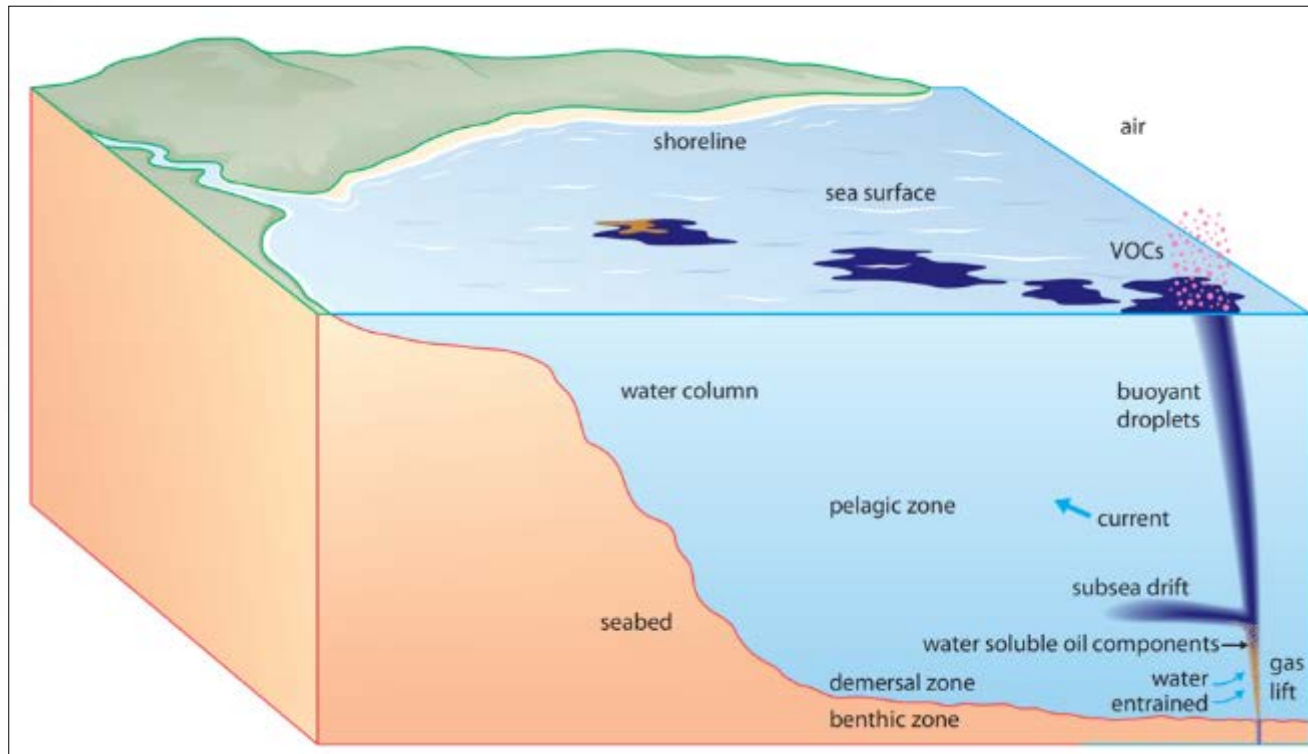
| Parameter | Unit | Measurement Range | Accuracy |
|---------------------------|-----------------------|----------------------------|-------------------------|
| Conductivity | $\mu\text{S cm}^{-1}$ | 0 to 100 | ± 0.0005 |
| Temperature | Celsius | -5 to +35 | ± 0.005 |
| Depth* | Meter | 0-3000 | ± 0.6 |
| Dissolved oxygen* | mg L^{-1} | 120% of surface saturation | $\pm 2\%$ of saturation |
| pH | Std. units | 0 - 14 | ± 0.1 |
| CDOM fluorescence* | mg m^{-3} | 0 - 500 | ± 0.09 |
| Chlorophyll fluorescence* | mg m^{-3} | 0 - 50 | ± 0.025 |
| Turbidity* | NTU | 0 - 25 | ± 0.01 |

Laboratory Analysis Guidelines for Seawater Sample Collection

| Parameter/Analyte(s) | Minimum Sample Volume | Container Type and Size | Handling, Storage Conditions, and/or Preservation Method | Holding Time |
|---|-----------------------|--|--|--------------|
| Total nutrients (TN, NO₂, NO₃, NH₄, TP) | 250 mL | 250-mL HDPE plastic bottle | Frozen; ship on dry ice | 28 d |
| Dissolved organic carbon | 250 mL | 250-mL HDPE plastic bottle | Frozen; ship on dry ice | 28 d |
| Total organic carbon | 250 mL | 250-mL HDPE plastic bottle | Frozen; ship on dry ice | 28 d |
| Total suspended solids | 1 L | 1-L HDPE plastic bottle | Cool to 4°C; ship on ice | 7 d |
| Hydrocarbons (TPH, alkanes, PAHs, DPnB) | 1 L | 1-L pre-acidified amber glass bottle | Cool to 4°C; ship on ice | 7 d |
| | 1 L | 1-L non-acidified amber glass bottle | Cool to 4°C; ship on ice | 14 d |
| VOC | 120 mL | 3x40-mL non-acidified glass VOA vials with septa | Cool to 4°C; ship on ice | 14 d |
| | 120 mL | 3 × 40-mL pre-acidified glass VOA vials with septa | Cool to 4°C; ship on ice | 14 d |

Spill Impact Mitigation Assessment (SIMA)

- “Expedited” for drill. An actual event would involve the EU, all resource trustees, and emergency consultation processes,
- Considered all environmental compartments
- Based on existing NOAA Northern GOM RAR
 - Modified to account for scenario specific conditions



Conclusions

➤ **Modelling illustrated that:**

- SSDI use would reduce particle sizes by at least an order of magnitude.
- The impact on the mass balance of oil would be a significant shift from the water surface to the water column.
- Levels of dispersed oil in the deep water column would increase temporarily, but over a relatively small area and depth.
- VOC reduction in source control work area for surface operations

➤ **SIMA found that:**

- The most significant exposure of RAR to oil would occur at the water surface.
- Use of mechanical recovery techniques alone would not be expected to produce significant reductions in RAR exposure at the water surface.
- SSDI use has the potential to produce significant reductions in exposure of RAR to oil at the surface and in the shallow water column.
- SSDI use could increase levels of exposure of organisms inhabiting deeper portions of the water column, but the areas impacted would be relatively smaller, and likely to decrease rapidly due to weathering and biodegradation.

Recommendation

As a result of the significant reduction of risk to RAR at the surface and in the shallow water column that is expected to result from the use of SSDI, and the relatively smaller increase in risks to the deep water column, SSDI use is recommended for this scenario.

Purpose for Requesting the RRT 6 Conference Call

➤ To review, discuss and potentially approve the request to apply subsea dispersants to:

- Mitigate the discharge
- Reduce volatile organic compounds (VOCs) exposure to responders
- Reduce oil impacts to the shoreline and resources at risk



RRT - Our Role

40 CFR 300.115

- The RRT WILL be activated during any discharge or release upon a request from the OSC/RPM, or from any RRT representative, to the chair of the RRT.
- The RRT MAY be activated by the chair as an incident-specific response team when a discharge or release:
 - Exceeds the response capability available to the OSC/RPM in the place where it occurs;
 - Transects state boundaries;
 - May pose a substantial threat to the public health or welfare of the United States or the environment, or to regionally significant amounts of property; or
 - Is a worst case discharge, as described in §300.324. RCPs shall specify detailed criteria for activation of RRTs.
- ***Note: There are NO preauthorizations for Subsea Dispersant use.***

ISRRT Telcon - Sample Agenda

1. Welcome & roll call
2. Purpose
3. Situation brief
4. Discussion
5. Consultation with natural resource trustee reps (DOC-NOAA; DOI USFWS)
6. Federal/State concerns (EPA, USCG, & States)
7. Concurrence to use subsea dispersants (EPA & States)
8. Identify issues/concerns – Action Items
9. Adjourn

Subsea Dispersants

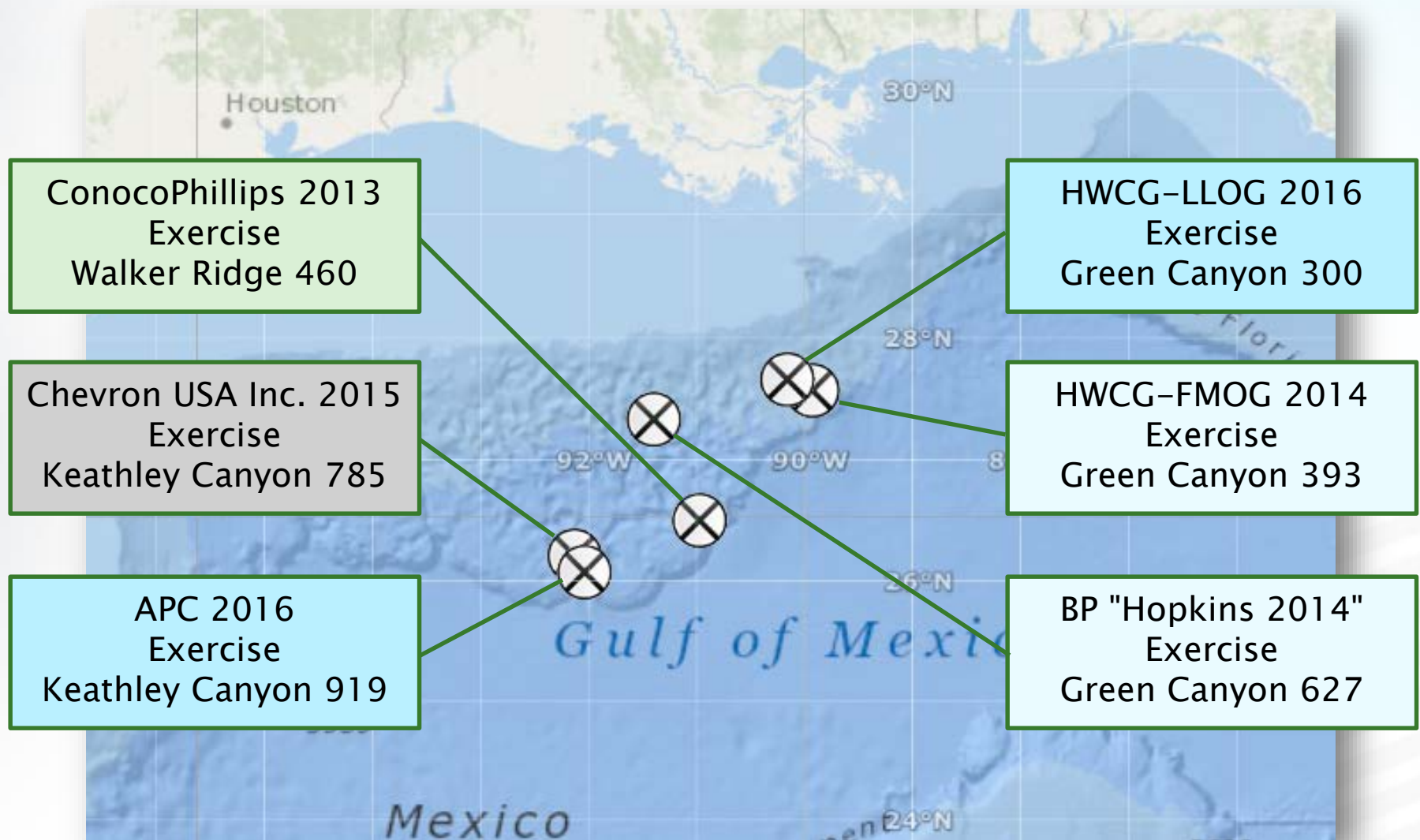
40 CFR 300.910 Subpart J

➤ RRTs and Area Committees shall address, as part of their planning activities, the desirability of using appropriate dispersants, etc.

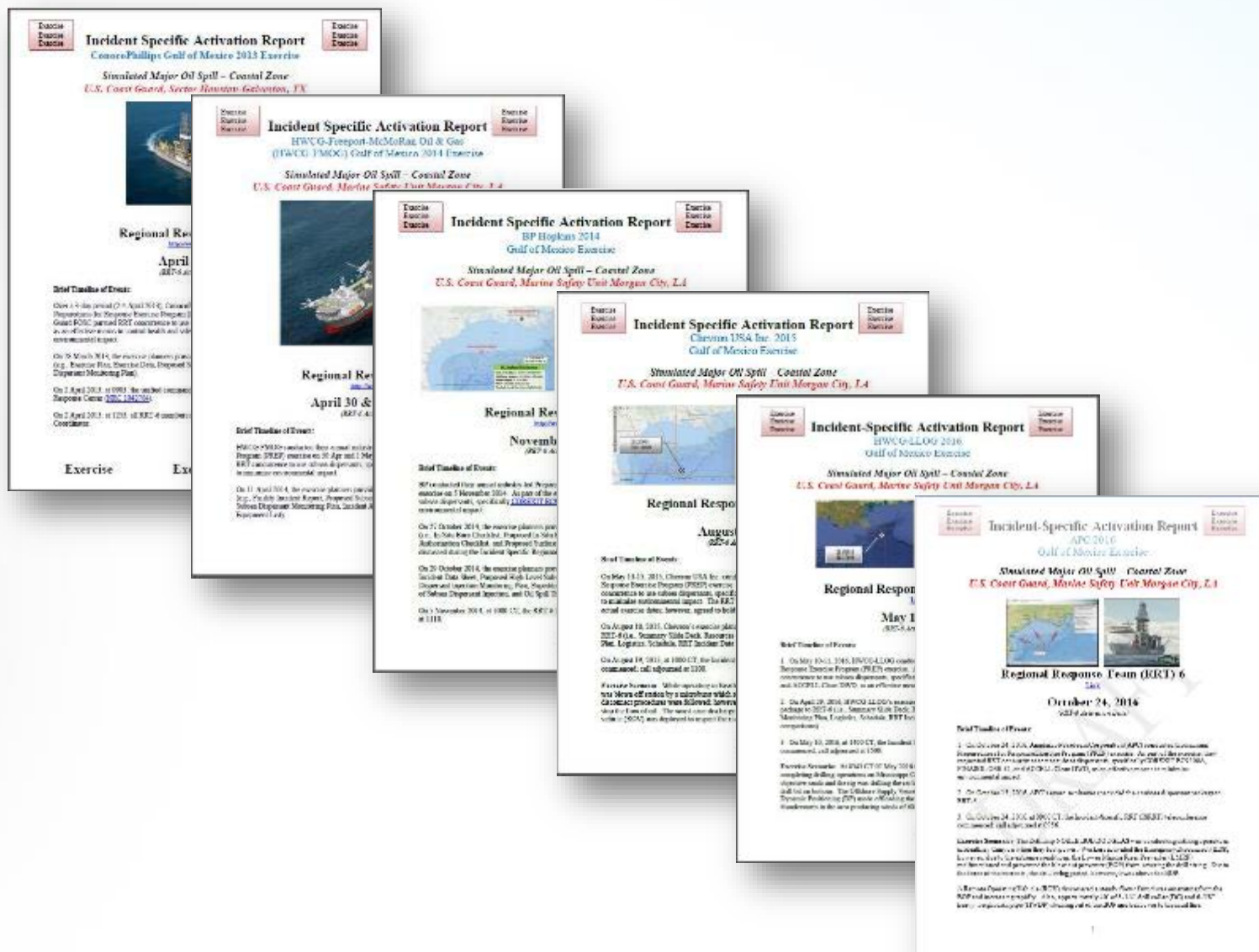
- Preauthorization plans
- Incident Specific
- Concurrence of the EPA
- As appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge
- Consultation with the DOC and DOI natural resource trustees, when practicable



Exercise History



Activation Summaries



Incident Specific Activation Report & Job-Aid



Exercise
Exercise
Exercise

Incident-Specific Activation Report

APC 2016
Gulf of Mexico Exercise

Simulated Major Oil Spill – Coastal Zone
U.S. Coast Guard, Marine Safety Unit Morgan City, LA

Exercise
Exercise
Exercise

Regional Response Team (RRT) 6
[Link](#)
October 24, 2016
(RRT-6 Activation Date)

Brief Timeline of Events:

- On October 24, 2016, Anadarko Petroleum Corporation (APC) conducted their annual Preparedness for Response Exercise Program (PREP) exercise. As part of the exercise, they requested RRT concurrence to use subsea dispersants, specifically COREXIT EC9500A, FINASOL OSR 52, and ACCCELL Clean DWD, as an effective means to minimize environmental impact.
- On October 13, 2016, APC's exercise planners provided their subsea dispersant package to RRT-6.
- On October 24, 2016, at 0900 CT, the Incident-Specific RRT (ISRRT) teleconference commenced; call adjourned at 0936.

Exercise Scenario: The Drillship NOBLE BOB DOUGLAS was conducting drilling operations in Kwahtley Canyon when they lost power. Workers activated the Emergency Disconnect (EDS), however, due to the extreme conditions, the Lower Marine Riser Preventer (LMRP) malfunctioned and prevented the blow out preventer (BOP) from severing the drill string. Due to the force of the currents, the drill string parted; however, it was above the BOP.

A Remotely Operating Vehicle (ROV) discovered a steady flow of mud was emanating from the BOP and increasing rapidly. Also, approximately 40' of 8-1/4" drill collar (DC) and 6-3/8" heavy weight drill pipe (HWDP) sticking out of the BOP and bent over to the mud line.

1

This is a Drill

This is a Drill

This is a Drill

RRT 6 - ART Evaluation Job-Aid - Dispersants

Incident Name: KC 518 Well Blowout Annual GOM Drill
NRC #: N/A
Incident date: 10/15/16
Date of RRT incident-specific call: Monday, 24 October 2016

Spill Zone (Check all that apply and use one form per Spill Zone):
☐ OFFSHORE/SURFACE Dispersant Application
☐ NEARSHORE/SURFACE Dispersant Application
☒ OFFSHORE/SUBSEA Dispersant Application

REF: 49 CFR 300.302

| Y | N | N/A | Key Components |
|----|---|-----|---|
| 1 | X | | Have the applicable forms been appropriately filled out and been submitted to the RRT? |
| 2 | X | | Is the spilled product dispersible? |
| 3 | X | | Is the dispersant listed on the NCP Product Schedule? |
| 4 | | X | Is mechanical response equipment alone deemed adequate (either availability or timeliness) to protect potential resources at risk? |
| 5 | X | | Will dispersant application support the desired environmental benefit for identified RARs? RARs were not provided for Texas |
| 6 | X | | Has sufficient dispersant and application equipment been confirmed to be available to be deployable within an acceptable time frame? |
| 7 | X | | Did the dispersant application contractor have a pre-existing contract to support the operation? |
| 8 | X | | Are weather conditions conducive for the proposed operation? |
| 9 | X | | Are operations to be conducted during daylight hours? |
| 10 | X | | Are operations to be conducted on 24hr basis? |
| 11 | X | | Will application personnel be using the required PPE? |
| 12 | X | | Are the personnel applying dispersants properly trained and qualified? |
| 13 | X | | Does the Dispersant Application System meet applicable guidelines? a) Aircraft spray systems in accordance with manufacturer and ASTM standards. b) Boat application equipment in accordance with ASTM standards. c) Fire monitor and/or nozzle equipment meet ASTM application standards. d) Subsea application systems in accordance with Best Available Technology (BAT).* |
| 14 | X | | Has the FOSC activated the SMART Program monitoring team? |
| 15 | X | | Will the SMART observer fly over to monitor dispersant applications? |
| 16 | X | | Is the subsea monitoring plan in accordance with BAT?* |
| 17 | | N/A | Will DOI/DOC provide an aerial survey specialist to accompany the SMART observer? |
| 18 | X | | Have ESA, EFH, and NHPA Section 106 consultations been initiated? |
| 19 | X | | Have all potentially affected jurisdictions been notified? States, BOEM, BSEE, and MX |

Recommendation:
☒ APPROVE
☐ DISAPPROVE
 Approve under the following stipulations: TX withheld concurrence pending submission and review of Texas RAR

*at this time BAT are NRT and API guidelines

This is a Drill This is a Drill This is a Drill

Path Forward

- Committed to refining Subsea Dispersant Protocols
- Up to two exercises per year
- Collaborate with Region 4 for maximum consistency within the Gulf of Mexico
- Finalize Job Aid and formally adopt



QUESTIONS??

Updates to PREP Guidelines



EPA Inland ACP Workgroup Call,
October 2016

Eddie Murphy, DOT-PHMSA
J. Troy Swackhammer, OEM-RID

2016 National Preparedness for Response Exercise Program (PREP) Guidelines

- On April 11, 2016, the United States Coast Guard announced the updated 2016 National Preparedness for Response Exercise Program (PREP) Guidelines ([81 FR 21362](#)). PREP was developed to establish a workable exercise program that meets the intent of section 4202(a) of the Oil Pollution Act of 1990 (OPA 90). PREP provides a mechanism for compliance with the exercise requirements.
- Completion of the exercises described in the PREP Guidelines is one option for maintaining compliance with OPA 90-mandated federal oil pollution response exercise requirements. **Guidelines became effective June 10, 2016.**
- See EPA link at: <https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/2016-national-preparedness-response-exercise>

PREP Guidelines Revisions by PHMSA

- Added language to Section 2.3.4 (Incident Management Team Exercises) on alternative WCD scenarios:

At least one IMT exercise in a triennial cycle must involve a WCD scenario. The exercise design team may use alternative WCD scenarios that are representative of a worst-case scenario (e.g., exercise of a pipeline line segment WCD) for environmental impact purposes. One or more plan holder representatives must participate in each exercise.

PREP Guidelines Revisions by PHMSA, *cont'd*

- Added language to Section 2.3.9.6 on railroad tank cars.
- No substantive changes to Section 5.0

2.3.9.6 Railroad Tank Cars and Motor Vehicle Tank Trucks

- Section 5 of these Guidelines (DOT/PHMSA-Regulated Facilities and Pipelines) is suitable for certain transportation-related facilities located landward of the coastline.
- For additional information on response planning requirements for railroad tank cars and motor vehicle tank trucks transporting oil, see 49 CFR § 130.
- The loading and offloading of railroad tank cars and tank trucks at certain non-transportation-related facilities may be covered by response plans prepared by a facility owner or operator subject to the requirements contained in 40 CFR § 112.

PREP Guidelines Revisions by EPA

- Added OSRO familiarization training recommendation to Section 2.
- Added alternatives to containment boom for inland plan holders.
- EPA's Section 4 does not have substantive changes.

2.3.6 Equipment Deployment Exercises, p. 2-5

- Plan holders are responsible for ensuring that all equipment types cited in their respective plans are exercised, whether the equipment is plan holder owned and operated, or supplied through an OSRO/SMFF provider.
- **Although not required as part of this section, plan holders are encouraged to use these exercises as an opportunity to validate response strategies detailed in ACPs.**

2016 PREP Guidelines

OSRO Familiarization Training

2.3.6.1 OSRO Involvement in Equipment Deployment Exercises

- Plan holders are encouraged to conduct familiarization training with each OSRO cited in the response plan to provide information such as equipment launching locations, tides and currents of the local area, and any other logistical problems or information specific to the particular area.
- This familiarization training may include a walk-through or actual equipment deployment as appropriate, such that each OSRO can be made aware of any logistical problems related to equipment deployment. It is the plan holder's responsibility to ensure that the OSRO has completed response exercise requirements.

2016 PREP Guidelines

Booming Systems

2.3.6.6.1 Oil Response Systems

Section 4. Booming Systems. Booming systems include protective and containment boom not exercised as part of a skimming or ISB system described above; 1,000 feet (or total amount of boom listed in plan, whichever is less, particularly for inland plan holders located near small water bodies) of each protective or containment boom system or alternative system listed in the plan and relied on by the plan holder in meeting response equipment capability requirements should be deployed.

2016 PREP Guidelines

Alternatives to Booming Systems

Section 4. Booming Systems (cont'd)

- h. Alternative systems, particularly for inland plan holders, may include the following:
 - i. Temporary dams
 - ii. Underflow dams
 - iii. Weirs
 - iv. Inflatable diaphragms for drainage culverts

These alternative systems may be used by the plan holder in the initial response to an oil discharge in conjunction with booming systems, which may be used further downstream in the planning distance.

2016 PREP Guidelines

Alternatives to Booming Systems

2.3.7.2 Government-Initiated Unannounced Exercises

2.3.7.2.3 Non-Transportation-Related Facilities Regulated by the EPA

Performance metrics to think about for FRP development:

- Arrival of containment boom and/or alternative systems as specified in the FRP within one hour of detection of the discharge and subsequent successful deployment.
- For alternative systems using temporary dams or underflow dams, simulated installation of these systems according to the FRP is expected to be performed for a successful GIUE.
- For plans using both containment boom and alternative systems, successful boom deployment and simulated installation of the alternative systems is expected for a successful GIUE.

PREP Exercise Components

| Element | Frequency* | Initiating Authority | Notes |
|---|---|----------------------------|---|
| QI Notification Exercises | Quarterly | Facility owner or operator | At least one exercise conducted during non-business hours. |
| Emergency Procedures Exercises | Quarterly | Facility owner or operator | <i>Optional: can be used by facilities as an unannounced exercise.</i> |
| Incident Management Team Tabletop Exercise | Annually | Facility owner or operator | At least one exercise every 3 years must involve a worst-case discharge scenario. |
| Equipment Deployment Exercises | Semiannually (Annual for OSRO-dependent) | Facility owner or operator | If OSRO-owned equipment is identified in the Plan, the OSRO equipment must also be deployed and operated. OSRO must provide documentation to facility owner or operator, if OSRO dependent. |
| Government-Initiated Unannounced Exercises | Triennially | EPA, USCG | If successfully completed, the facility can only be subject to a GIUE once every 3 years. |

* At least one exercise per year must be unannounced.

PREP Triennial Cycle Summary

- Triennial Exercise Expectations per PREP
 - QI notification exercises: 12
 - Tabletop exercises: 3, with 1 at WCD planning level
 - Unannounced exercises: 3, any of the exercises except QI notification exercises.
 - Equipment deployment exercises:
 - For facility-owned and operated equipment (small discharge planning level): 6
 - For OSRO-dependent facilities at all planning levels: 3
 - Triennial exercise of all plan components
 - Outlined in Appendix B to PREP guidelines
 - 15 core components
 - Protection components outlined in No. 8
- 5-yr records retention requirement should reveal if facility is following the triennial cycle.

§ 112.20(h)(8)

§ 112.21(c)

Appendix F, Sec 1.8

Questions





RRT 6 Presentation *2016 PREP Guidelines*

November 9, 2016

Jonathan R. Smith

National Program Manager

Area Contingency Planning & Preparedness

Jonathan.R.Smith@uscg.mil

(202) 372-2675 (o)

(202) 705-0730 (c)



U.S. Coast Guard
Office of Marine Environmental Response Policy



2016 NATIONAL PREPAREDNESS
FOR
RESPONSE EXERCISE PROGRAM
(PREP)
GUIDELINES

DEPARTMENT OF HOMELAND SECURITY
U.S. Coast Guard



ENVIRONMENTAL PROTECTION AGENCY



DEPARTMENT OF TRANSPORTATION
Pipeline and Hazardous Materials Safety Administration



DEPARTMENT OF THE INTERIOR
Bureau of Safety and Environmental Enforcement



Preparedness for Response Exercise Program



PREP Guidelines | Defined



PREP Guidelines Defined:

- A conglomeration of OPA-90 exercise requirements and associated policies consolidated into one guidebook. These guidelines are co-owned/co-authored by four agencies.
- PREP clarifies OPA-90 exercise objectives and provides a methodology for evaluating compliance with federal regulations.
- Guidelines are voluntary but are cited in regulations.
- The PREP Guidelines address **37** different exercise types which test **6** different response plans overseen by **4** different agencies.
- The PREP Guidelines address two exercise domains:
 - ✓ Facility/Vessel plan holder exercises
 - ✓ Area exercises (Area Contingency Plan).



PREP Guidelines | **NEW for 2016**



2016 PREP Guidelines revision:

- The 2016 revision is the first in over a decade.
- This revision modernizes the PREP Guidelines to better align policy with the existing regulations and improve interagency consistency.
- The new guidelines incorporate salvage, marine fire fighting and non-tank vessel requirements. Additionally, spill countermeasure topics are better addressed, including deep well discharge scenarios and alternatives to containment boom for inland plan holders.
- Over the past year, approximately 1000 comments were received and adjudicated through both public and *interagency* comment periods.



PREP | 37 Exercises, 6 Plans, 4 Agencies



APPENDIX B TO PREP GUIDELINES: EXERCISE REFERENCE MATRIX

| OIL SPILL RESPONSE PLAN AS REQUIRED BY CWA: | | Vessel Response Plans | Coastal Zone Facility Response Plans | Inland Facility Response Plans | Onshore Pipeline Response Plans | Offshore Facility Response Plans | Area Contingency Plans |
|--|--|---|--------------------------------------|--------------------------------|---------------------------------|----------------------------------|------------------------|
| | | USCG | USCG | EPA | DOT-PHMSA | DOI-BSEE | USCG and EPA |
| | | 33 CFR Part 155 | 33 CFR Part 154 | 40 CFR Part 112 | 49 CFR Part 194, Part 130 | 30 CFR Part 254 | 40 CFR Part 300 |
| PREP EXERCISES (ORGANIZED BY HSEEP* EXERCISE TYPE) | | Applicable Exercise Guidance Sections (specific guidance found on page number referenced) | | | | | |
| DISCUSSION BASED EXERCISES (Type Name) | | | | | | | |
| TTX | Incident Management Team Exercise –MTR Facilities | | 3-10 | | | | |
| TTX | Incident Management Team Exercise – Tank and Certain NTVs | 3-11 | | | | | |
| TTX | Shore-based Salvage Exercise | 3-12 | | | | | |
| TTX | Shore-based Marine Firefighting Exercise | 3-14 | | | | | |
| TTX | Incident Management Team Exercise –Inland Facilities | | | 4-4 | | | |
| TTX | Incident Management Team Exercise | | | | 5-3 | | |
| TTX | Incident Management Team Exercise –Area IMT | | | | | | 7-3 |
| OPERATIONS BASED EXERCISES (Type Name) | | | | | | | |
| DRILL | QI Notification –MTR Facility | | 3-2 | | | | |
| DRILL | QI Notification –Manned Vessel | 3-3 | | | | | |
| DRILL | QI Notification –Unmanned Tank Barge | 3-4 | | | | | |
| DRILL | QI Notification –Inland Facility | | | 4-2 | | | |
| DRILL | QI Notification | | | | 5-2 | | |
| DRILL | QI Notification –Offshore Facility | | | | | 6-2 | |
| DRILL | Quarterly Area Notification | | | | | | 7-2 |
| DRILL | Remote Assessment and Consultation – Manned Vessel | 3-5 | | | | | |
| DRILL | Remote Assessment and Consultation – Unmanned Tank Barge | 3-6 | | | | | |
| DRILL | On Board Emergency Procedures – Manned Vessels | 3-7 | | | | | |
| DRILL | Emergency Procedures –Tank Barges | 3-8 | | | | | |
| DRILL | Emergency Procedures –MTR Facilities (optional) | | 3-9 | | | | |
| DRILL | Emergency Procedures –Inland Facilities (optional) | | | 4-3 | | | |
| DRILL | Equipment Deployment –MTR Facilities (Facility-owned equipment) | | 3-15 | | | | |
| DRILL | Equipment Deployment –MTR Facilities (OSRO-owned equipment) | | 3-16 | | | | |
| DRILL | Equipment Deployment –Inland Facilities (Company-owned equipment) | | | 4-5 | | | |
| DRILL | Equipment Deployment –Inland Facilities (OSRO-owned equipment) | | | 4-6 | | | |
| DRILL | Equipment Deployment –Vessels (OSRO and SMFF Equipment) | 3-17 | | | | | |
| DRILL | Equipment Deployment | | | | 5-4 | | |
| DRILL | Equipment Deployment –Offshore Facility (Equipment staged offshore) | | | | | 6-6 | |
| DRILL | Equipment Deployment –Offshore Facility (Equipment staged onshore) | | | | | 6-7 | |
| DRILL | Equipment Deployment –Offshore Facility (Source control, subsea containment, and SSDI equipment) | | | | | 6-8 | |
| DRILL | Equipment Deployment –Area Committee | | | | | | 7-4 |
| FE | Incident Management Team Exercise –Offshore Facility | | | | | 6-4 | |
| FE+DRILL | Government-Initiated Unannounced Exercise –MTR Facilities | | 3-18 | | | | |
| FE+DRILL | Government-Initiated Unannounced Exercise –Vessels | 3-19 | | | | | |
| FE+DRILL | Government-Initiated Unannounced Exercise –Inland Facilities | | | 4-7 | | | |
| FE+DRILL | Government-Initiated Unannounced Exercise | | | | 5-5 | | |
| FE and/or DRILL | Government-Initiated Unannounced Exercise –Offshore Facilities | | | | | 6-9** | |
| FSE | Quadrennial Area Exercise | | | | | | 7-5 |



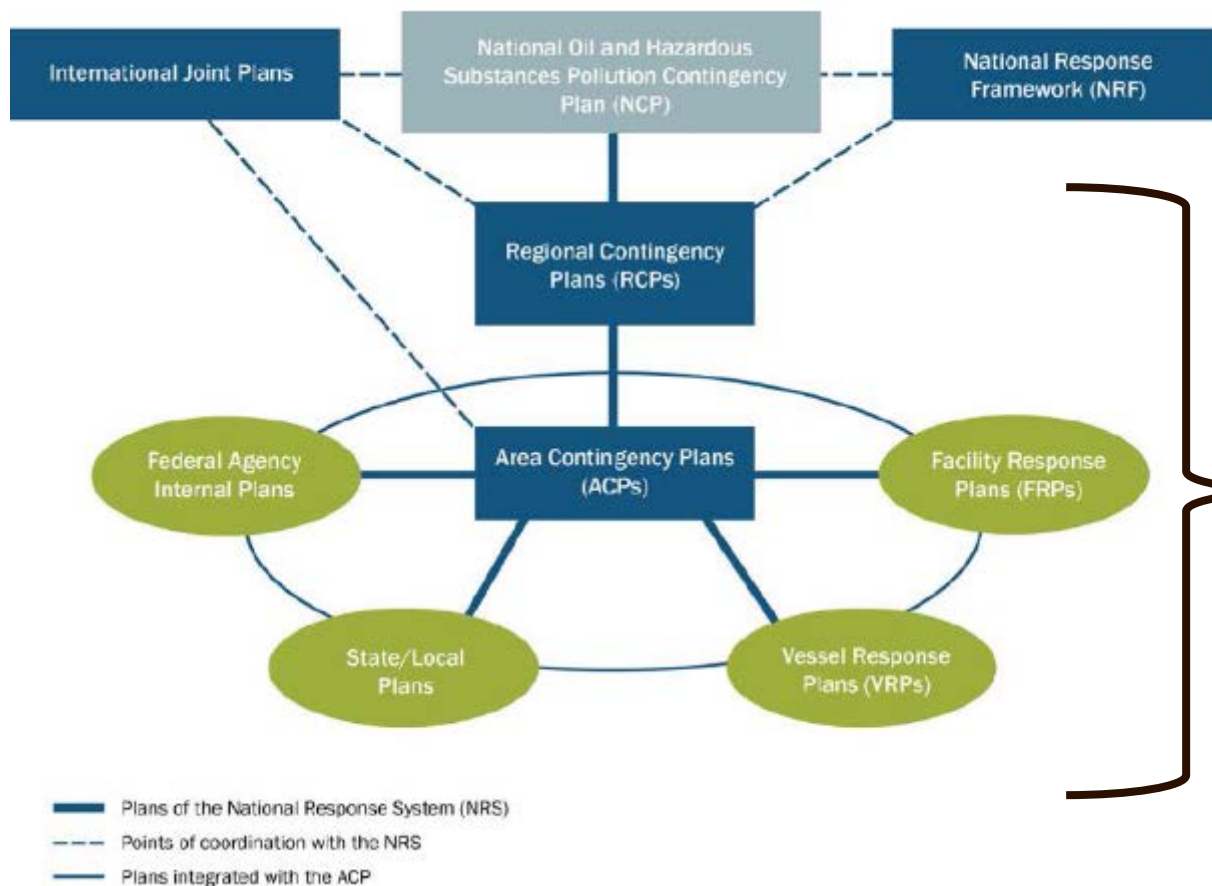
A Collaborative Effort | **PREP4C**



- The former PREP National Scheduling Coordination Committee, has been revamped and rebadged the PREP Compliance, Coordination and Consistency Committee, or PREP4C for short. PREP4C owns PREP guidelines.
- Now having a formal charter, *PREP4C fulfills a growing need for better interagency collaboration within the context of oil spill response plan preparedness.* This is especially important given the expansion of the North American derived oil products and associated transportation infrastructure (Energy Renaissance).



The BIG Picture | The National Response System



Preparedness Credo

If there is a plan, it must be exercised.

If an exercise is to be conducted, it must test a plan.

The exercise results must be used to improve the plan.



PREP Program | Over the Horizon



- As rail car regulations come on line, expect PREP to capture.
- PREP4C will continue to cement roles and functions and provide a needed venue for federal collaboration.
- Administrative changes to the guidelines will be made as needed (not done historically).
- PREP4C will maintain a national level common operating picture with respect to PREP exercises. This includes publishing a common national exercise schedule for EPA and CG area exercises.



Sector Jacksonville | 2016 Full Scale PREP Exercise



JACKSONVILLE, Fla. - A fuel oil spill response exercise will be held by members of the Coast Guard, Navy, federal, state, and local response agencies next week in Jacksonville.

The exercise, which is part of the National Preparedness for Response Exercise Program required under the Oil Pollution Act of 1990, is designed to test the Area Contingency Plan, as well as, federal, state, and industry spill response plans.

The scenario, which will take place Tuesday and Wednesday, will simulate a multi-agency response to a release of approximately 250,000 gallons of JP-5 fuel into the St. Johns River.

The exercise has several objectives, some of which include utilizing the National Incident Management System, standing up a Unified Incident Command Post, establishing a Joint Information Center to effectively communicate response activities to the media and public, and streamlining communications between all the parties involved.

"Conducting an exercise like this provides an invaluable opportunity to solidify our partnerships," said Capt. Jeffrey Dixon, commander of Coast Guard Sector Jacksonville. "This exercise will build upon our strengths and provide a chance to identify and rectify any lessons learned before a real world incident. I am grateful to all our partner agencies for their involvement in this exercise, and I look forward to continuing the great relationships we currently enjoy."

Boaters and members of the public can expect to see increased vessel activities throughout the area west of the Cameo Point Bridge to the mouth of the Trout River. Watchstanders in the Coast Guard Sector Jacksonville Command Center will issue a Broadcast Notice to Mariners throughout the duration of the exercise to notify boaters in the area of the event.

The agencies involved in the exercise include:

- U.S. Coast Guard
- U.S. Coast Guard Auxiliary
- U.S. Navy
- National Oceanic and Atmospheric Administration
- Environmental Protection Agency
- U.S. Fish and Wildlife
- Florida Department of Environmental Protection
- Florida Fish and Wildlife Conservation Commission
- City of Jacksonville
- The Defense Logistics Agency
- Jacksonville Fire and Rescue Department
- Jacksonville Port Authority
- Jacksonville Spillage Control

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- 2-day full scale PREP exercise conducted March 15-16.
- Multi-agency response to a simulated spill of approximately 250,000 gallons of JP-5 fuel from a Navy fuel depot tank into the St. Johns River (Naval Station Mayport) .
- Involved over 13 local, state and federal agencies, including DOD and Navy.
- Objectives included:
 - ✓ Utilizing the National Incident Management System.
 - ✓ Standing up a Unified Incident Command Post.
 - ✓ Establishing a Joint Information Center to effectively communicate response activities to the media and public.
- Many lessons learned that will ultimately feed the Area Contingency Plan revision.



Questions & Discussion

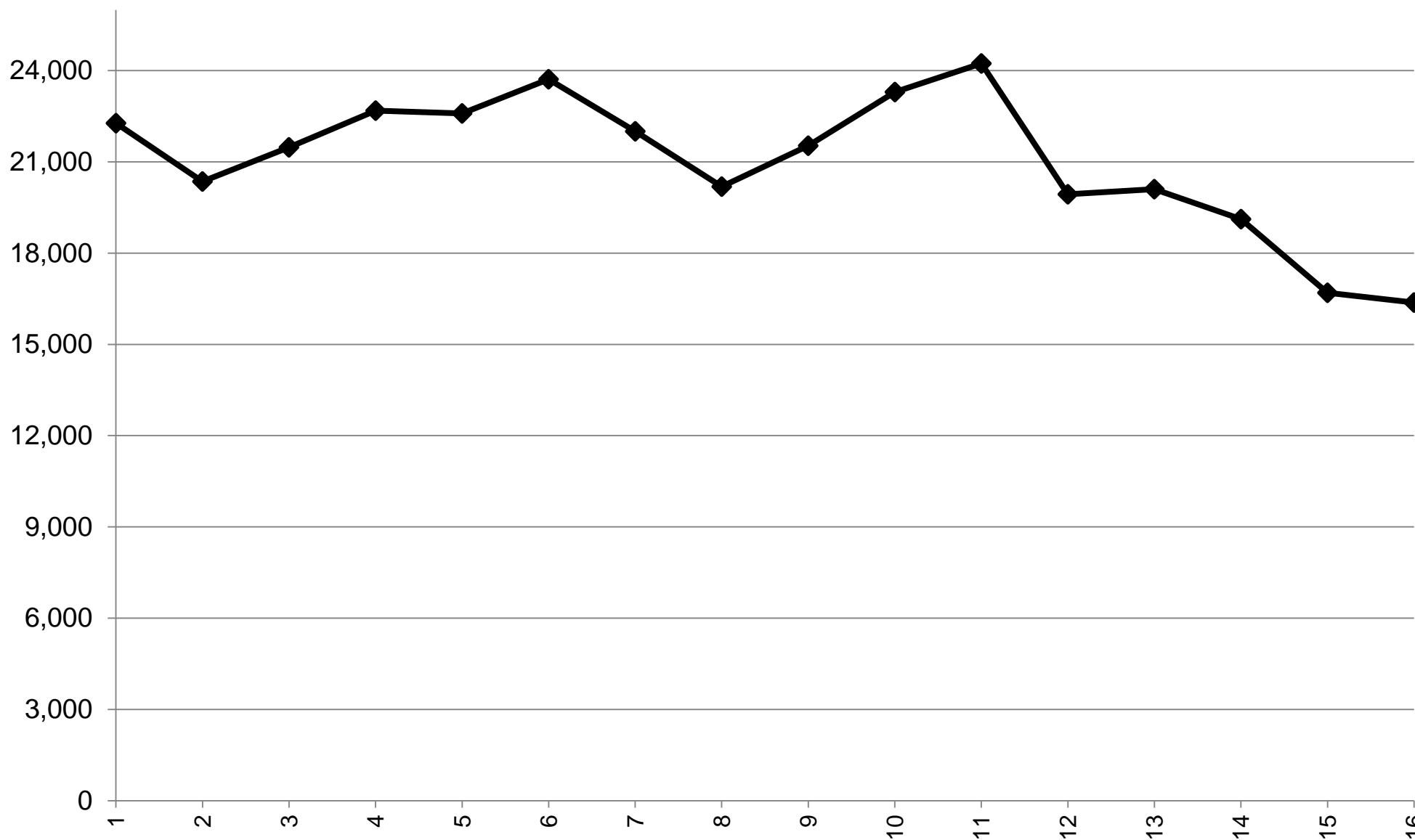




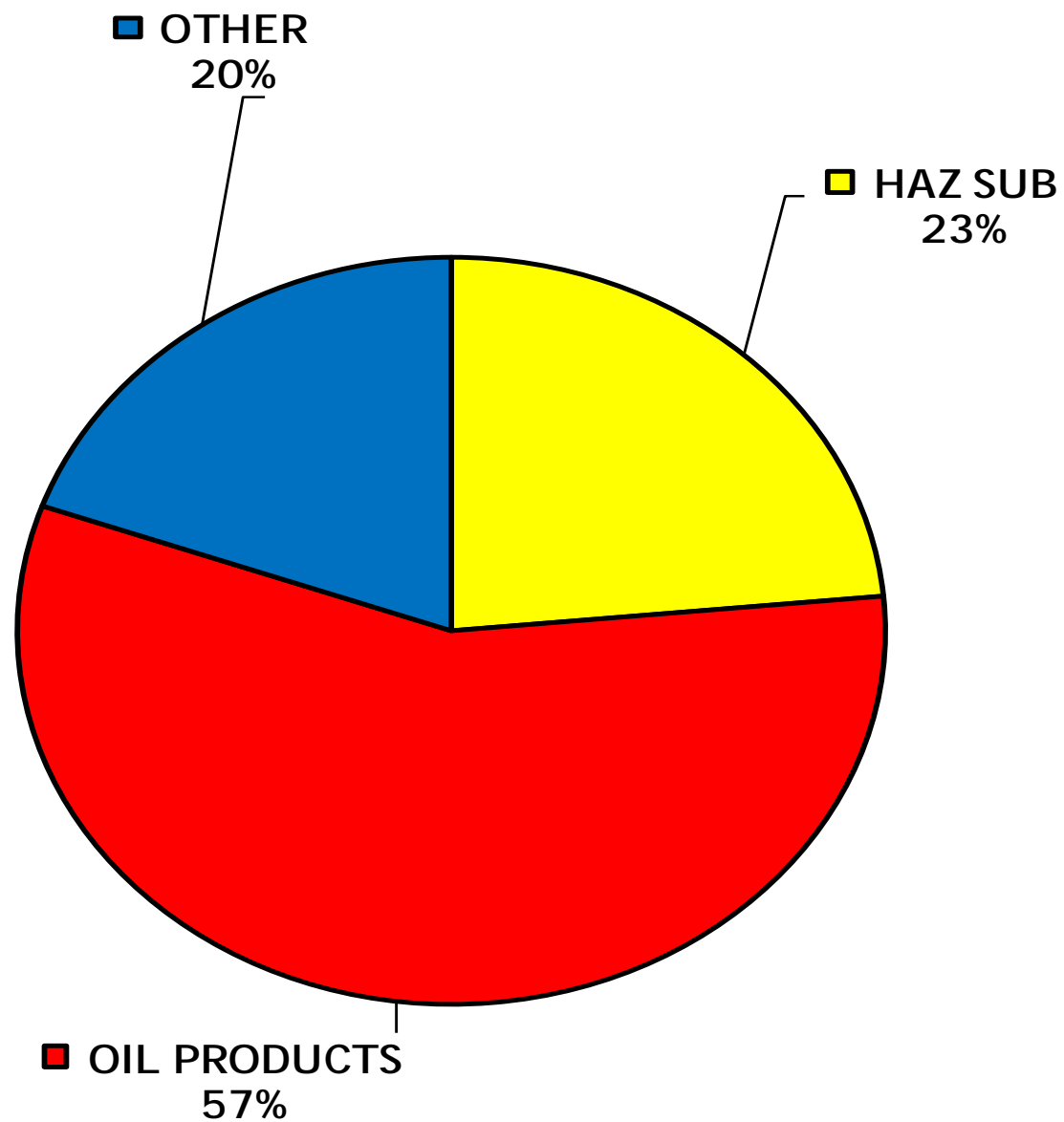
EPA National Accidental Release Information:

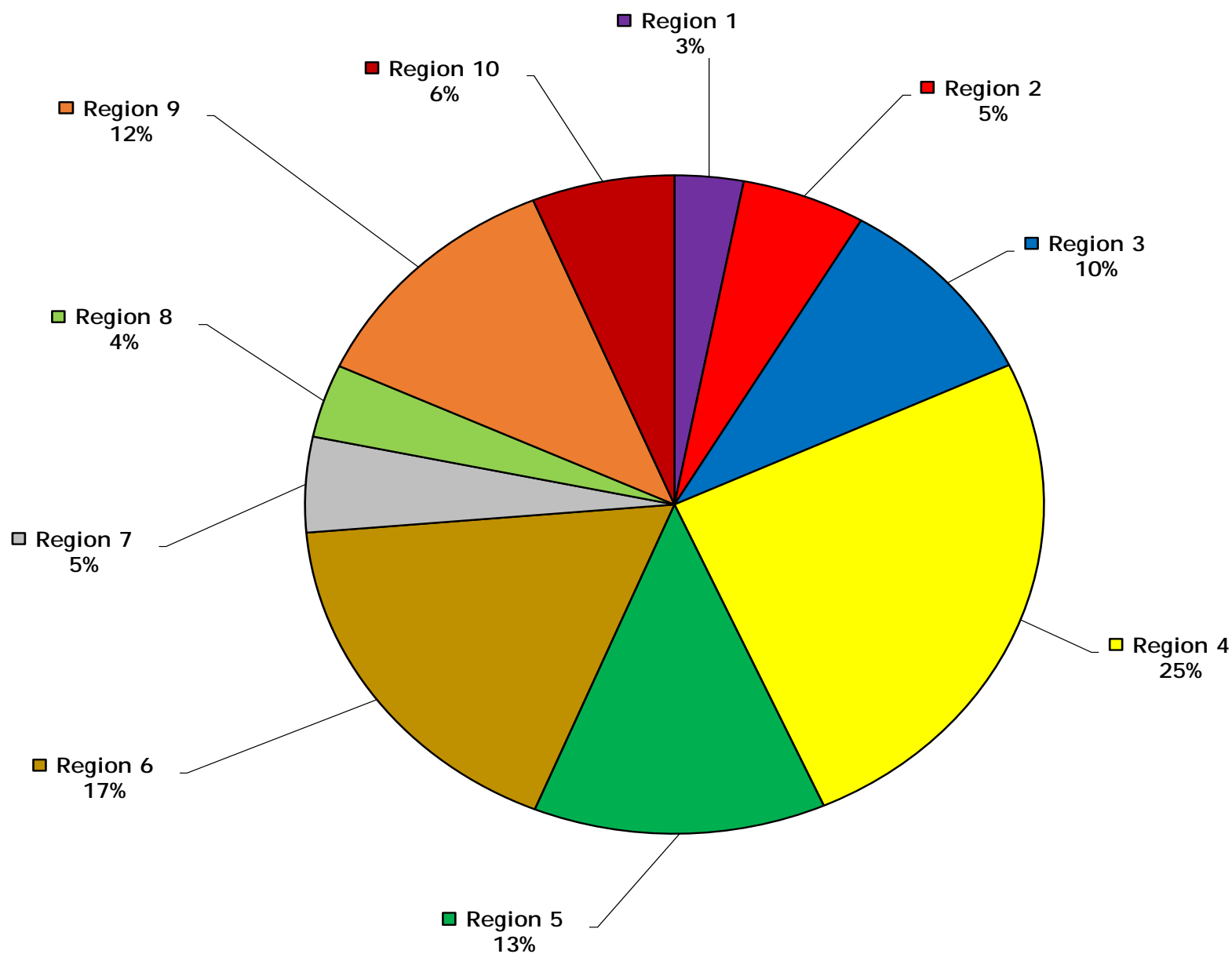
FY 2012 - 2016

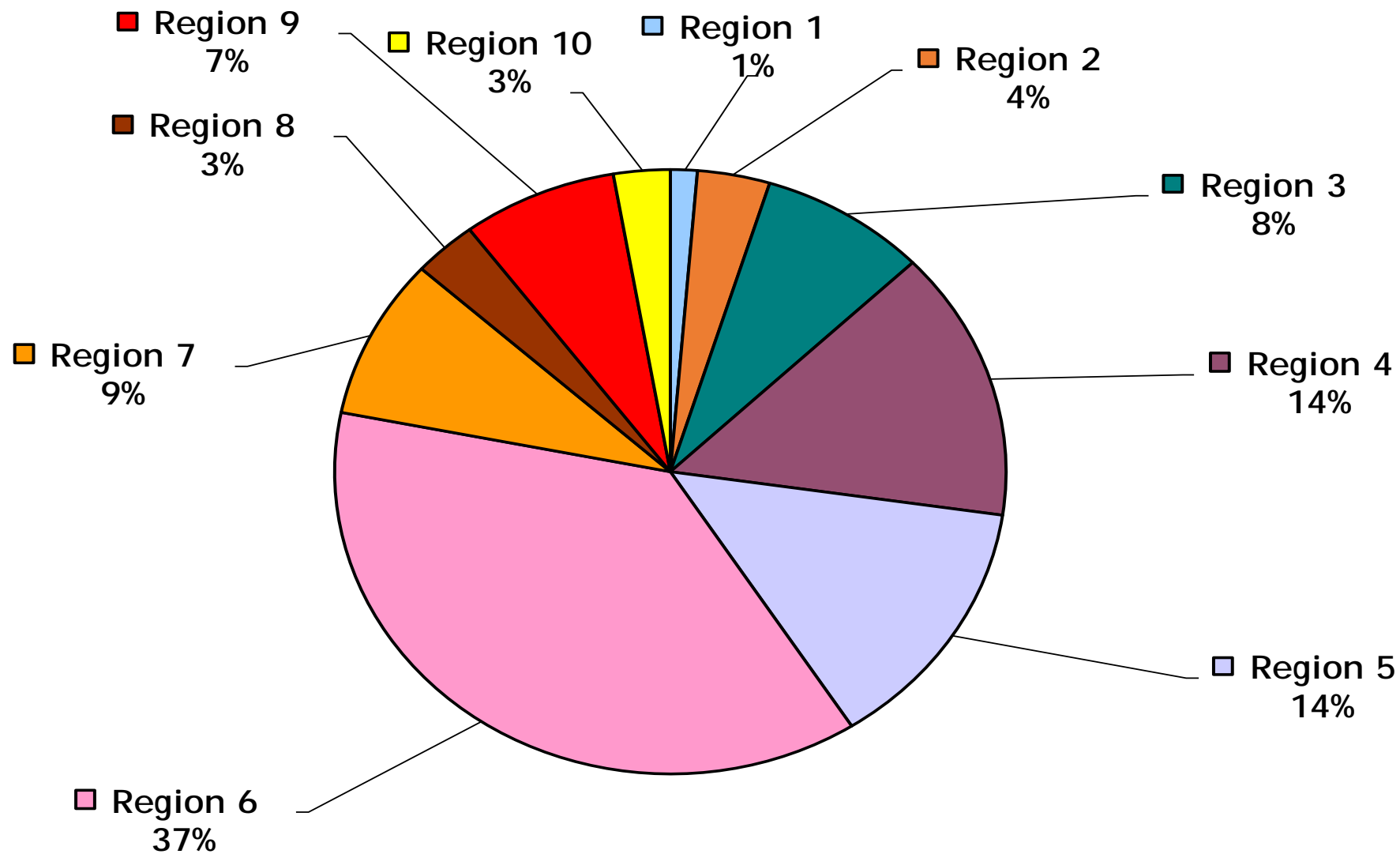
Over Thirty Years of Collecting Release / Spill Information



| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22,271 | 20,357 | 21,478 | 22,686 | 22,596 | 23,716 | 22,003 | 20,190 | 21,532 | 23,296 | 24,235 | 19,937 | 20,106 | 19,120 | 16,700 | 16,377 |



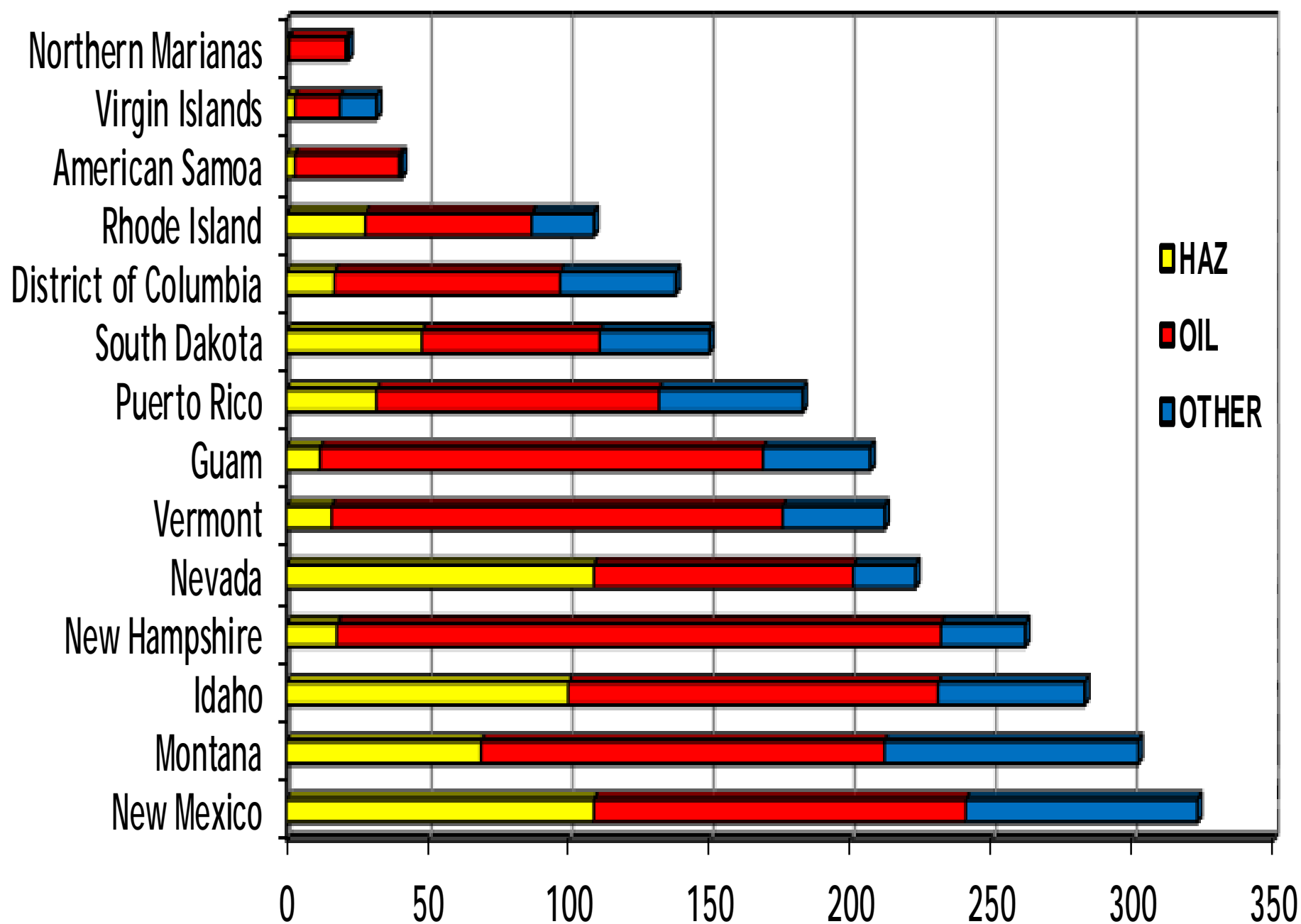


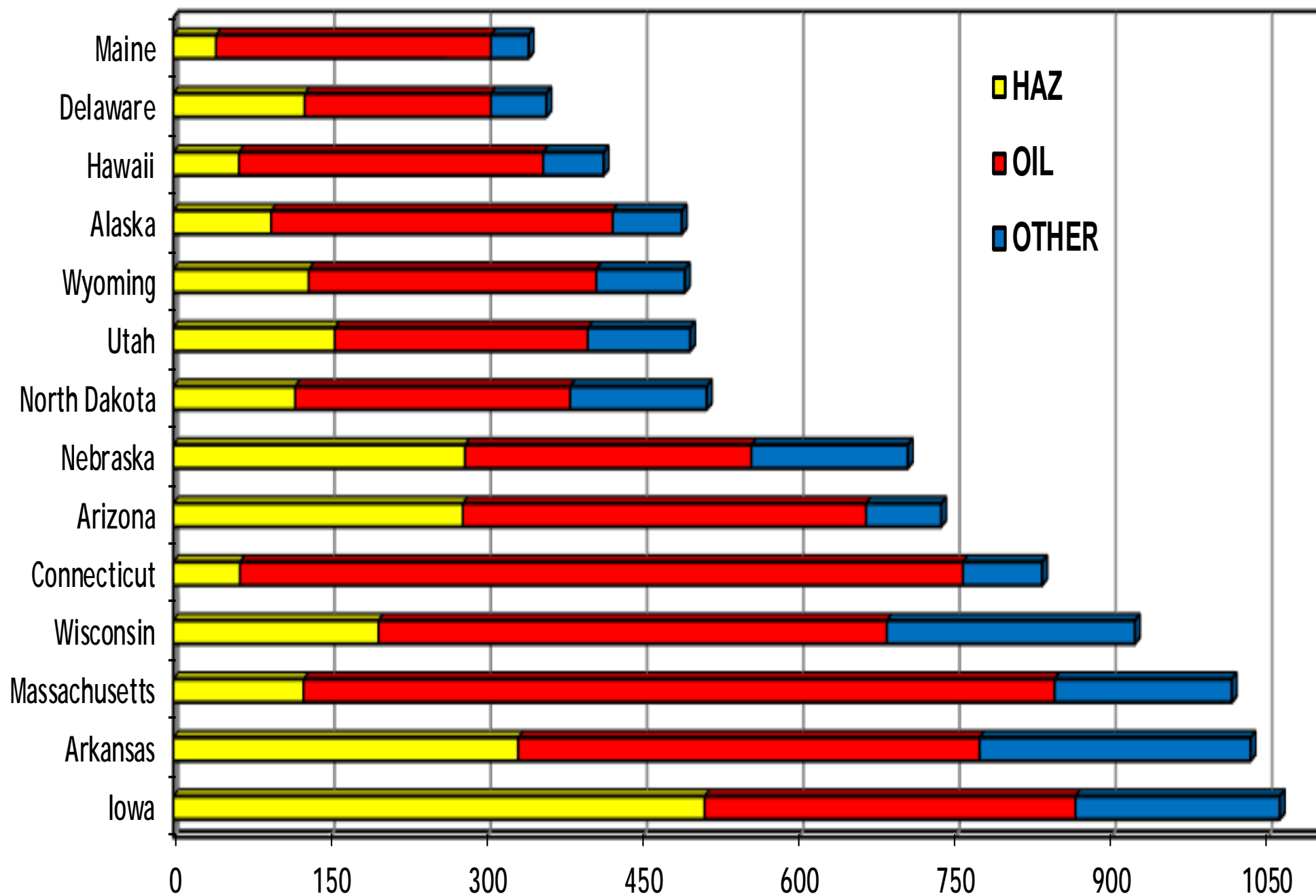


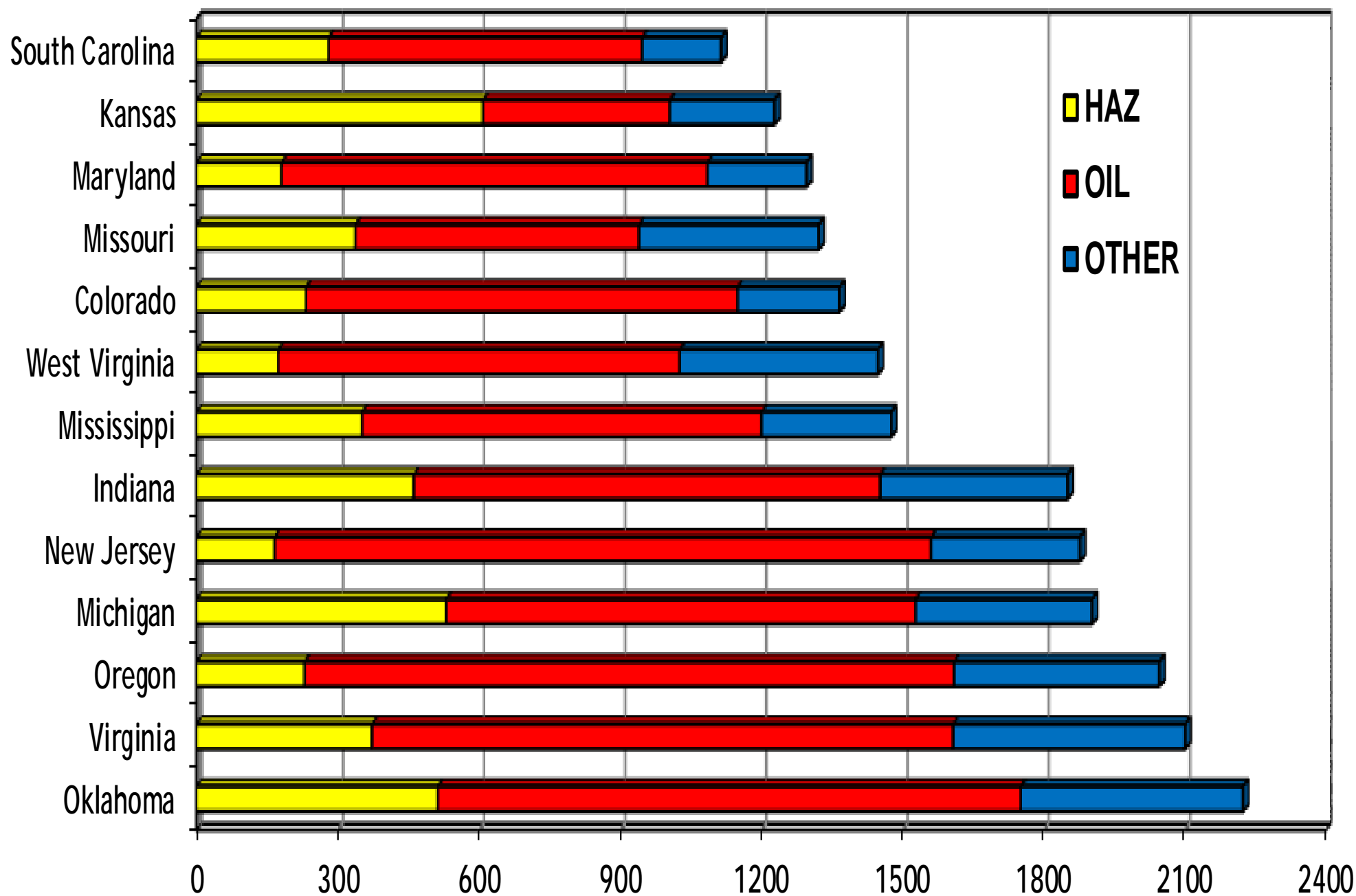
Since 2012, approximately 7.6% of all release reports involved a significant event (death, injury, community evacuation, evacuation of a facility, shelter-in-place)

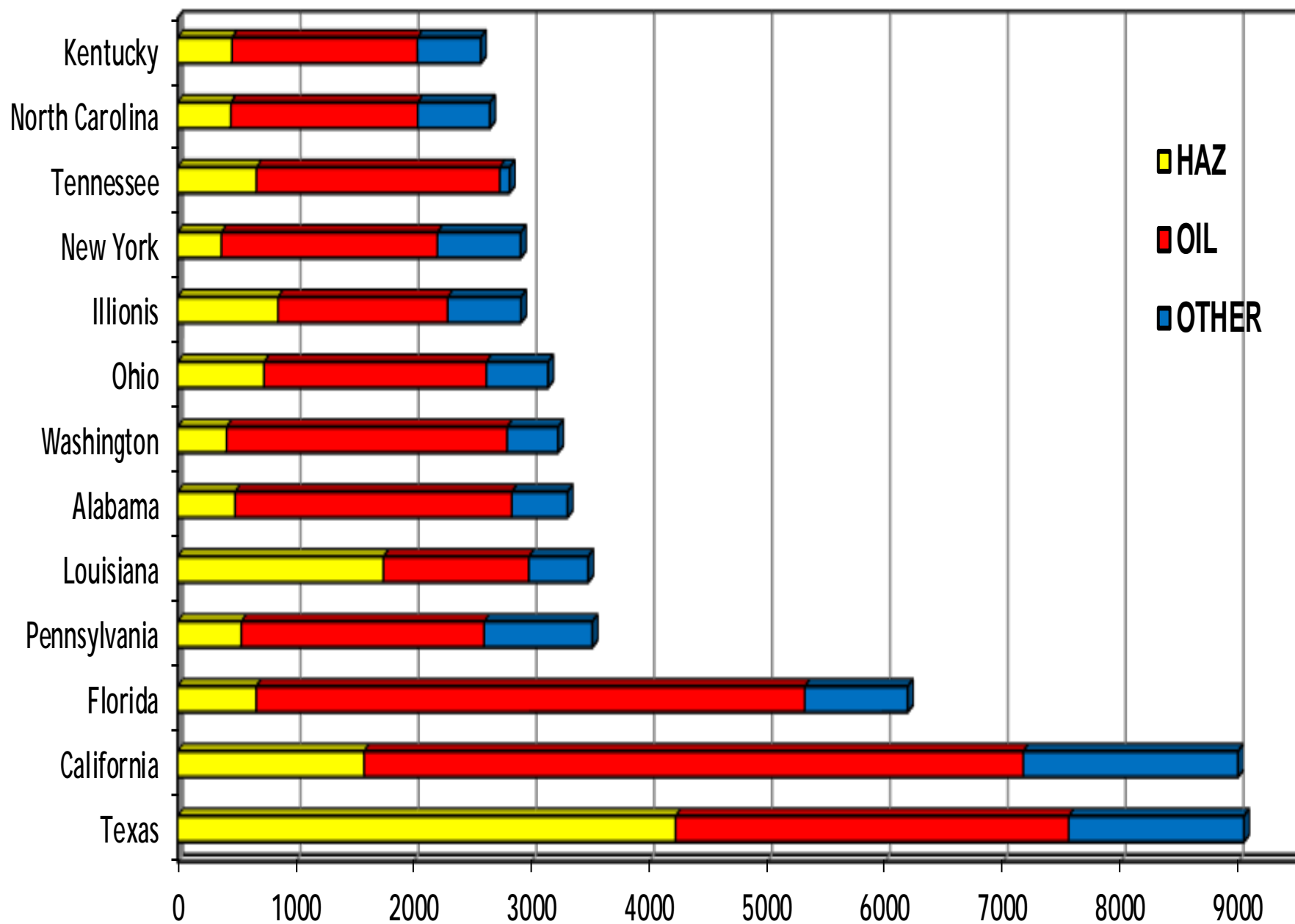
Deaths, injuries, and evacuations may not be directly due to exposure, but as a consequence of the accident resulting in the release

Since 2012, statistically there is approximately eight (8) shelter-in-places or evacuations of a community (whole or part) or of a facility due to a hazardous substance, oil, or other material incident somewhere, on a weekly basis

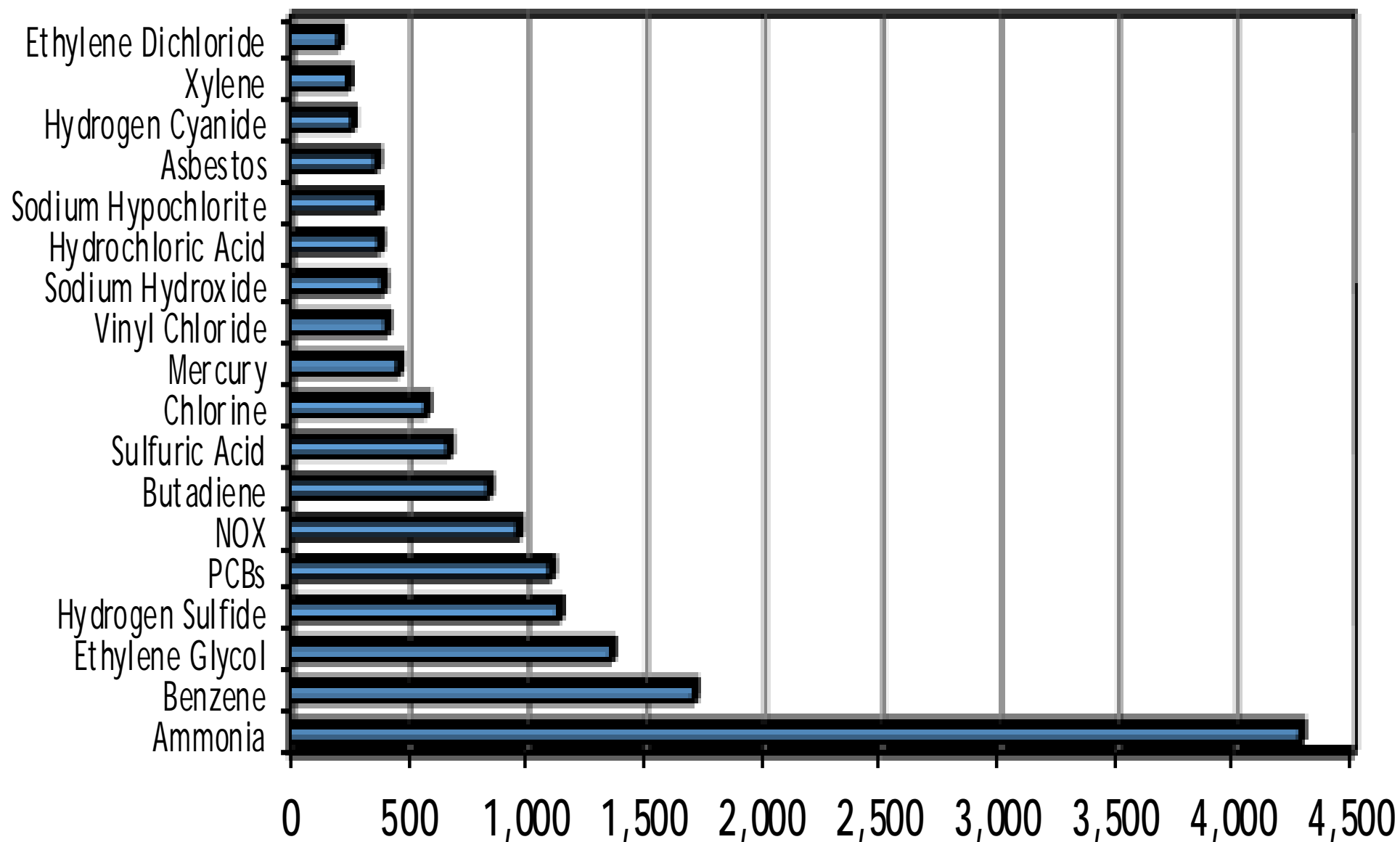




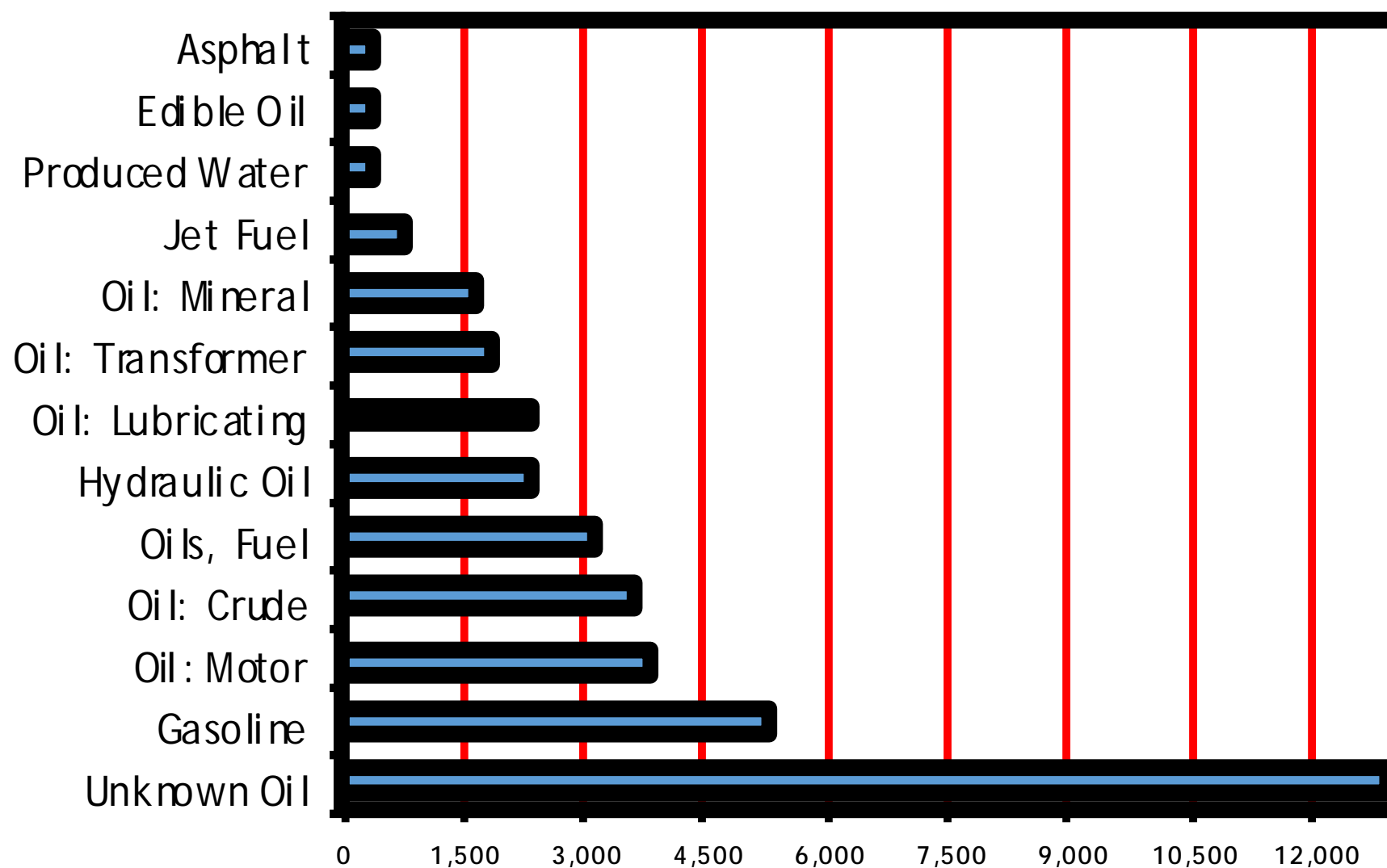




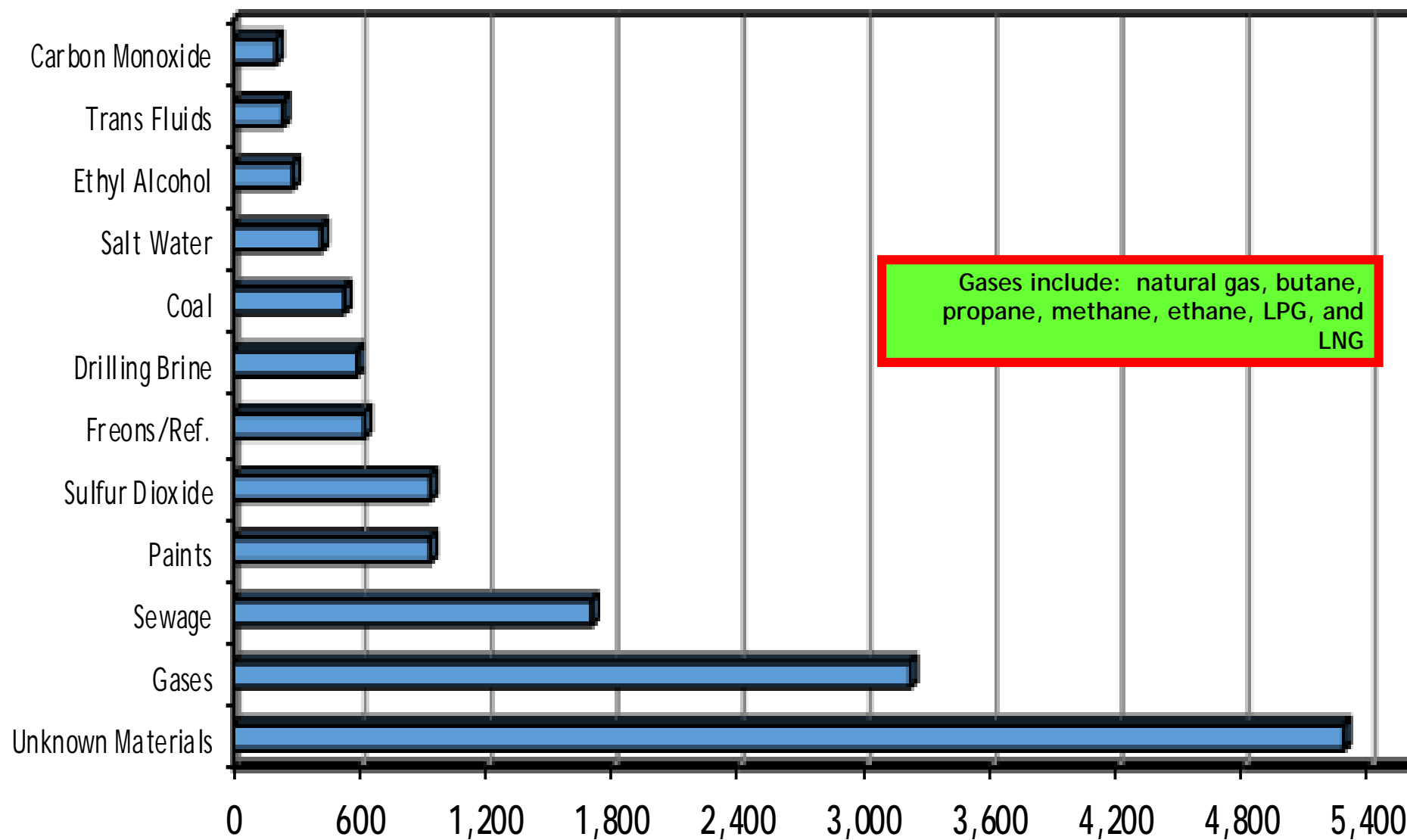
The substances listed below account for 56 % of all hazardous substance release reports nationally since 2012



The oil / oil products listed below account for 88 % of all oil / oil product releases nationally since 2012



The materials listed below account for 90 % of all other material releases nationally since 2012





M/V AFRAMAX RIVER



ALL THREATS ALWAYS READY



The Initial Response

- Closed Houston Ship Channel to traffic.
- Fire Suppression
- Personnel Accountability
- Direct Vessel Movement to safe location



ALL THREATS ALWAYS READY



M/V AFRAMAX RIVER



ALL THREATS ALWAYS READY



Incident Map





M/V AFRAMAX RIVER



ALL THREATS ALWAYS READY



Recoverable Product Site: 1 (Battleship Texas)

BEFORE



ALL THREATS ALWAYS READY



Recoverable Product Site: 1 (Battleship Texas)

AFTER



ALL THREATS ALWAYS READY



Recoverable Product Site: 2

(North San Jacinto Park)



ALL THREATS ALWAYS READY



Recoverable Product Site: 3

(Kirby Barge Fleet)

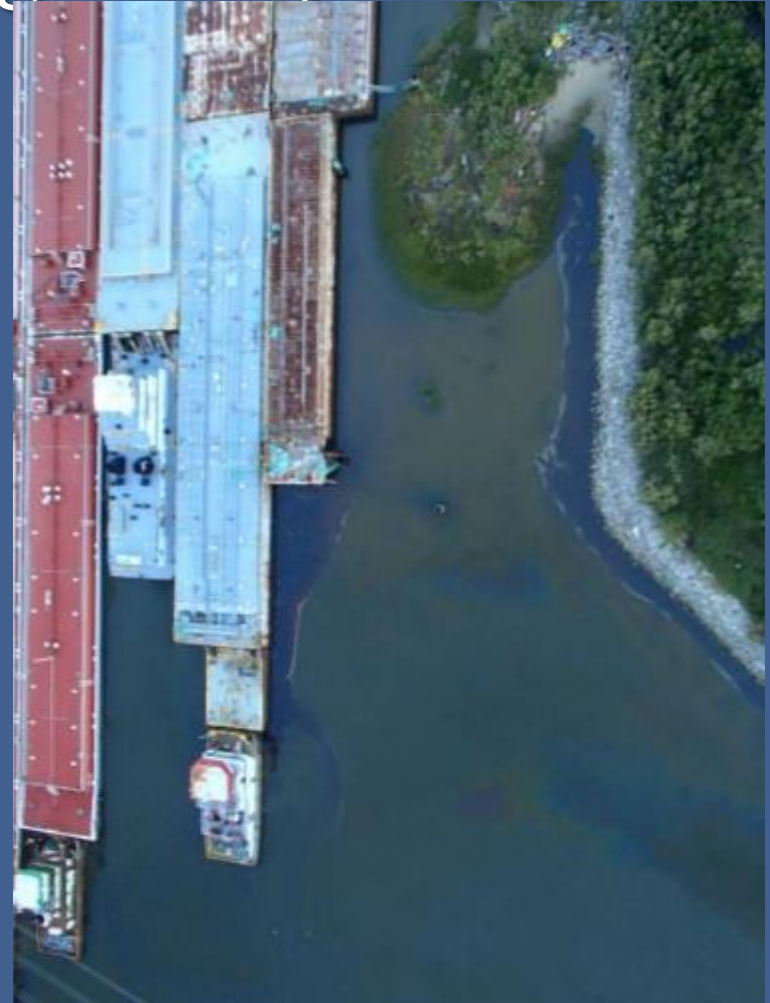


ALL THREATS ALWAYS READY



Recoverable Product Site: 3

(Kirby Barge Fleet)



ALL THREATS ALWAYS READY



Recoverable Product Site: 4 (Lynchburg Ferry)



ALL THREATS ALWAYS READY



Recoverable Product Site: 5 (Carpenter's Bayou Barge Fleet)



ALL HAZARDS
ALWAYS READY



Recoverable Product Site: 6 (Radio Tower)



ALL THREATS ALWAYS READY



Recoverable Product Site: 6 (Radio Tower)



ALL THREATS ALWAYS READY



Recoverable Product Site: 7 (Oil States Boat Shack)



ALL THREATS ALWAYS READY



Recoverable Product Site: 7 (Oil States Boat Shack)

AFTER



ALL HAZARDS
ALL THREATS ALWAYS READY



Lessons Learned And Questions



LCDR Brent C. Yezefski
Chief, Incident Management
CG Sector Houston-Galveston
13411 Hilliard Street
Houston, TX 77034
(281) 464-4863

ALL THREATS. ALWAYS READY.