



REGION 6 REGIONAL RESPONSE TEAM (RRT)

WINTER, 2010 MEETING

Dallas, Texas

TUESDAY, NOVEMBER 30, 2010

1430 - 1700

Executive Committee Meeting

WEDNESDAY, DECEMBER 1, 2010

0830 - 0900	Introduction / Welcome/Administrative Notes (RRT 6 Co-Chairs) / Approval of December, 2009 Meeting Minutes	CAPT James Hanzalik/ Sam Coleman, EPA
0900 - 0945	Committee Reports Executive - Steve Mason, EPA Response - Craig Carroll, EPA Preparedness -- Karolien Debusschere, LOSCO	Science & Technology - Michael Baccigalopi, TGLO Industry Work Group (IWG) -- John Temperilli, Witt & Associates
0945 - 1000	BREAK	
1000 - 1045	Revision of ACPs, RCP, pre-approvals	Sam Coleman, EPA; Capt. James Hanzalik
1045 - 1130	Surface Dispersant / Monitoring	Charlie Huber
1130 - 1300	LUNCH	
1300 - 1345	Oil Spill ARTES Program	Mike Cortez, BP ARTES Program
1345 - 1415	Introduction of Homeland Response Forces	Thomas Lewis, TX National Guard
1415 - 1430	BREAK	
1430 - 1545	State Agency Reports	
1545 - 1630	NCP/NRF Responses	Capt. Hanzalik, USCG
1630 - 1700	NLE 11 Update	Lorie Lafon, FEMA
1700 - 1730	National HAZMAT Fusion Center	Steve Mason, EPA

REGION 6 REGIONAL RESPONSE TEAM (RRT) 2010 WINTER MEETING
Dallas, TX

THURSDAY, DECEMBER 2, 2009

0800 - 0930	USCG Captain of the Ports Reports	USCG Captain of the Ports
0930 - 0945	BREAK	
0945 - 1030	Sub-Sea Dispersant / Monitoring	Sam Walker, NOAA; Jim Staves, EPA
1030 - 1130	Railroad Hazmat Response	Patrick Brady, BNSF
1130 - 1245	LUNCH	
1245 - 1330	Salvage & Marine FF Requirements for ACP	Tim Dikensheets ASA
1330 - 1345	BREAK	
1345 - 1445	Federal Agency Reports	Federal Agency Reps
1445 - 1515	EAGLE OTOME Case overview	John Plunkett, MSU Port Arthur
1515 - 1530	Closing Remarks	CAPT James Hanzalik / Sam Coleman, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 2 2010

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Revision of Area Contingency Plans/Regional Contingency Plans Regarding Use of Dispersants on Oil Spills – Interim Actions

FROM: Mathy Stanislaus
Assistant Administrator

A handwritten signature in black ink, appearing to read "Mathy Stanislaus", is written over the printed name and title.

TO: Regional Administrators

Experiences and knowledge gained in the Gulf should and must inform our future response activities. Accordingly, the agency is using this information to engage federal partners via the National Response Team (NRT) to reassess dispersant use guidelines under the National Contingency Plan (NCP) for future oil spills. In addition, we are initiating review of the criteria and testing requirements under Subpart J of the NCP for listing and delisting dispersants and other chemical countermeasures. This review will also examine the different conditions, circumstances, and durations of oil spills and how that affects the use of certain chemical countermeasures.

Until the NCP and Subpart J Product Schedule are revised, and to help guide those decisions, I request that Regional Administrators ensure Regional Response Team (RRT) representatives work with RRT partners to implement the following changes via revisions to Area Contingency Plans (ACP) and Regional Contingency Plans (RCP) with respect to dispersants and other chemical countermeasures:

- Develop a hierarchy of preferred oil spill response measures. During the BP Oil response, the following hierarchy was established and supported by the public: mechanical recovery (such as skimming/booming, controlled burning) followed by subsea dispersants, and surface dispersants.
- Site-specific and oil-specific rationale for, and conditions/limitations to, the use of dispersants and other chemical countermeasures should be well documented as part of the plan:
 - Rationale includes identification of environmental tradeoffs (e.g., proximity to shorelines including wetlands) and net environmental benefits, and documenting these, as appropriate to the length of the response and size of the spill;

- Conditions/limitations include:
 - Identification of favorable operational conditions for dispersant application (e.g., mixing energy, water depth, wind speed, distance from shorelines and/or populations), as well as methods to ensure that only the amount necessary is used (e.g., flying patterns and dispersant application locations, effectiveness);
 - Upfront monitoring protocols (e.g., SMART Level 3 with additional data collection), recordkeeping, and data parameters that govern rates and amounts of dispersants, coordinated with a regular re-evaluation of the operational conditions noted above.
- In longer-term responses, the ACP/RCP should include a process for regularly re-evaluating whether there is a continued need for dispersants. For example, this may include ongoing testing regarding effectiveness and impacts, addressing the local environment and/or the anticipated possible nature of locally spilled oil. Re-evaluation also includes identification of initial approval and shut-down criteria, and steps to modify these criteria if needed for individual responses;
- ACPs/RCPs should specify steps that will be taken to ensure that data and decisions are publicly transparent, and that decisions are reached with public outreach and involvement to the maximum extent possible given the nature of the spill;
- Specific roles and responsibilities for dispersant and chemical use (e.g. re-evaluation, making data and decisions public, decisions to stop application) should be clearly identified in the ACP/RCP; and,
- Each ACP's/RCP's Endangered Species Act (ESA) Emergency Consultation protocol should be reviewed, with consideration given to updating the procedures and incorporating lessons learned in more recent experiences. ESA section 7 consultations conducted on the ACPs/RCPs themselves should also be reviewed in light of current information. As appropriate, section 7 consultations on the ACPs/RCPs should be reinitiated with the ESA Wildlife Services to address new information and to ensure that consultation on the use of dispersants is included.

To ensure national consistency as appropriate, I am asking Dana Tulis and her Office of Emergency Management to be consulted on major issues associated with this interim effort, to collect best practices as ACPs/RCPs are revised, and to serve as a clearinghouse and source of advice and expertise as issues are addressed. As the Chair of the NRT, Dana will coordinate the issues with other NRT member agencies and with the RRT co-chairs. Please respond via email to Dana Tulis with recommended changes by December 30, 2010.

Thank you in advance for your efforts to make use of the new information the agency has to assist responders and to make decisions that protect both human health and the environment.

cc: Deputy Regional Administrators

EPA Regional Superfund Division Directors

EPA Regional Removal Managers

Dana Tulis, OEM

Mark Mjoness, OEM

Gilberto Irizzary, OEM

Craig Matthiessen, OEM

Scott Fulton, OGC

MaryKay Lynch, OGC

TCEQ RRT Update

Winter Meeting

December 1 & 2, 2010



Natural Disaster Operational Workgroup Update

- First Meeting April 27, 2009
- Participants: USCG, USEPA, TGLO, TCEQ and recently added TPWD
- Seven standard operating procedures created to date



Procedures Include:

- Rapid Needs Assessment (initial sizeup)
- Oil Spill Assessment (includes facilities and vessels)
- Oil Spill Recovery (the cleanup)
- Orphan Container Hazard Evaluation (formerly called reconnaissance)
- Orphan Container Recovery



- Infrastructure Evaluation (Public Drinking Water and Wastewater Treatment Plants)
- Response Manager Administrative Procedure (Primarily TCEQ/EPA internal procedure)



What Do You Get???

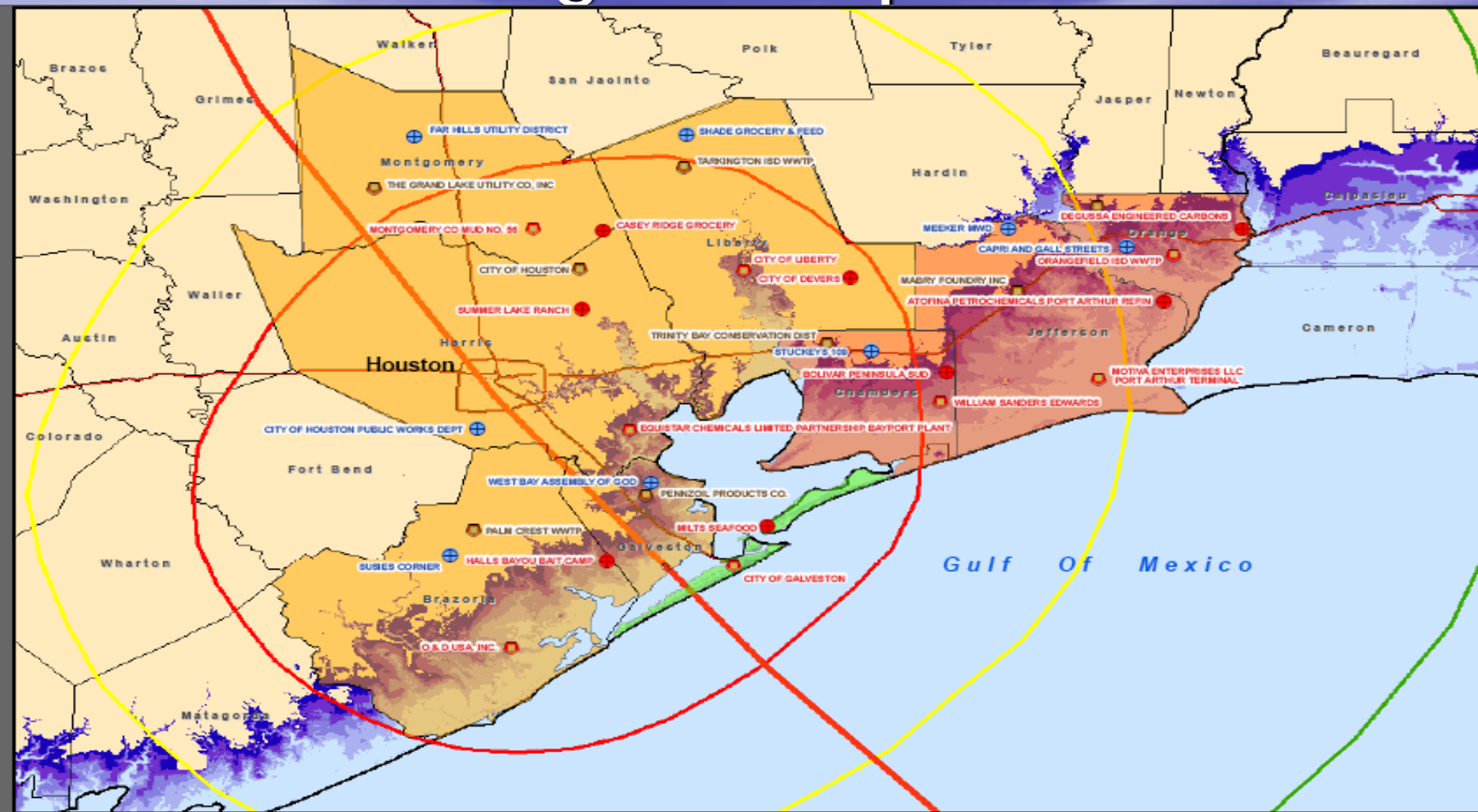
- Consistent disaster response procedures for ESF 10 & 3
- Redundant systems or processes
- Excellent planning, operations and GIS tool
- Common terminology, consistent questions



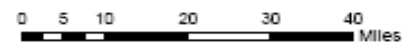
Redundancy

- PDA
- Laptop
- Field data sheet
- Specific record for each investigation from discovery to closure

Planning and Operations



Houston Hurricane Exercise Water Facility Status



Map Created: 06/25/2010 @ EPA Region 6 RRC



Current Status

- SOPs complete
- Training in progress
 - Day one – SOPs
 - Day two – Response Manager
 - Day three – Disaster tabletop exercise
- Corpus Christi, May 18 – 20, 2010
- Houston, November 30, December 1 & 2



Future Direction

- Institutionalization of these processes
- Development of "Quick Guides"
- Continue training (Beaumont, TX next)
- Development of other pertinent SOPs (e.g. debris staging site investigation)
- Continue workgroup and interagency cooperation



Where Can You Find Info??

- https://www.epaossc.org/site/site_profile.asp?site_id=4907



Agency Personnel

- EPA – Nic Brescia, Chris Ruhl & Dawn Ison
- USCG – LT Dan Denham
- TGLO – Bill Grimes & Bobby Rivera
- TCEQ – Jeff Lewellin & Jeff Kunze

Questions??





Homeland
Security



Eighth Coast Guard District

“Making Governance Work in the Face of Emergency: How are Oil Spills Different”

September 2010



U. S. COAST GUARD

Agenda

- Domestic U.S. response requirements
 - All-Hazard: National Response Framework (NRF)
 - Oil & HAZMAT: National Oil & Hazardous Substances Pollution Contingency Plan (NCP)
- Implementation of these incident management models
- Oil spill and natural disaster response implications



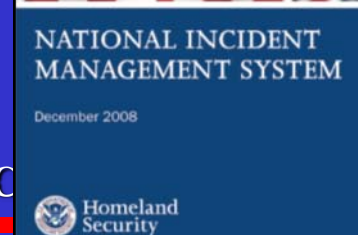
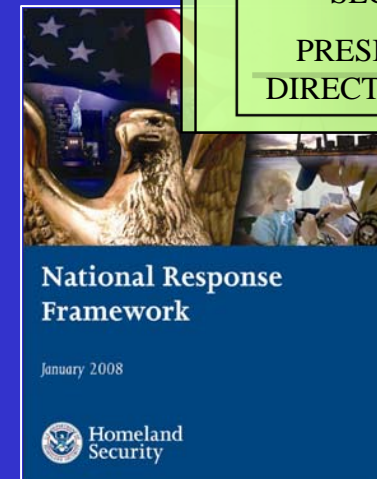
Domestic Mandate

Homeland Security Act of 2002 and HSPD-5 required a comprehensive national approach to domestic incident management through the development of a National Response Plan (revised as the National Response Framework (NRF) in 2008) & National Incident Management System (NIMS) .

NRP: Established...

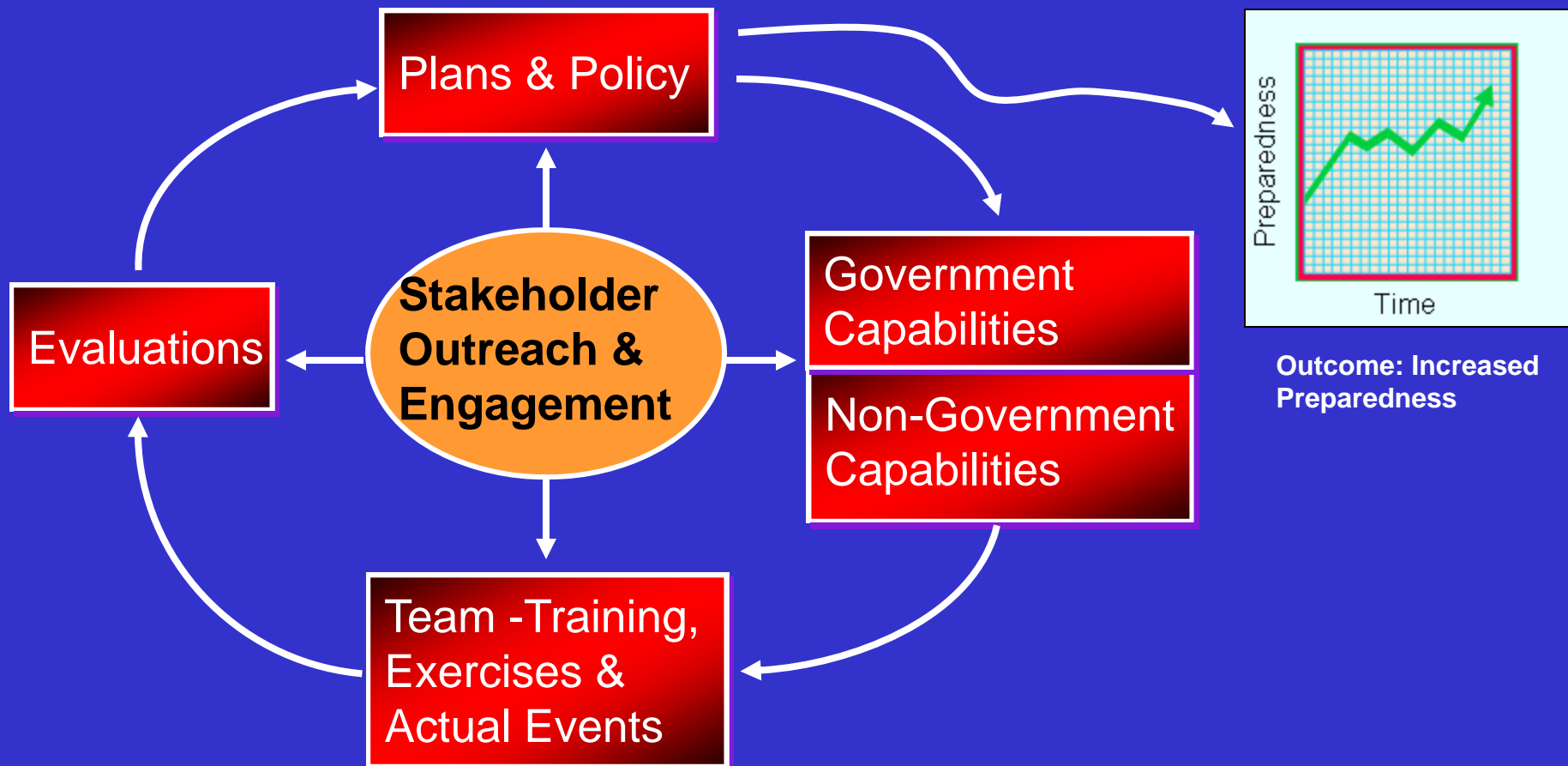
- Federal coordination structures/mechanisms
- Direction for incorporation of existing plans
- Consistent approach to managing incidents

NIMS: Standardizes incident management processes, protocols, and procedures for use by all responders.



U. S. C

Preparedness Model

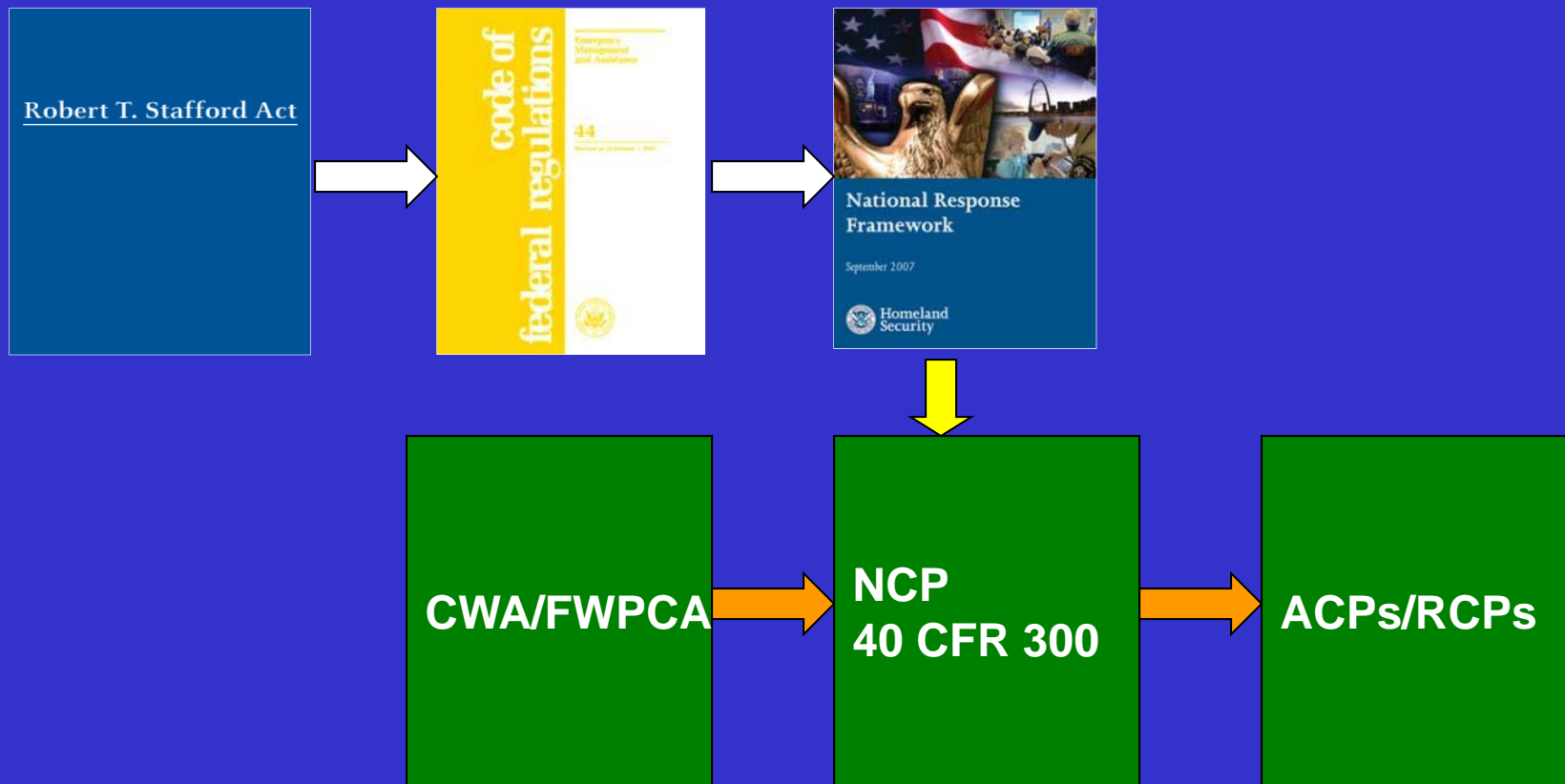


Response Doctrine – 5 Key Principles

1. Engaged partnership
2. Tiered response
3. Scalable, flexible and adaptable operational capabilities
4. Unity of effort through unified command
5. Readiness to act

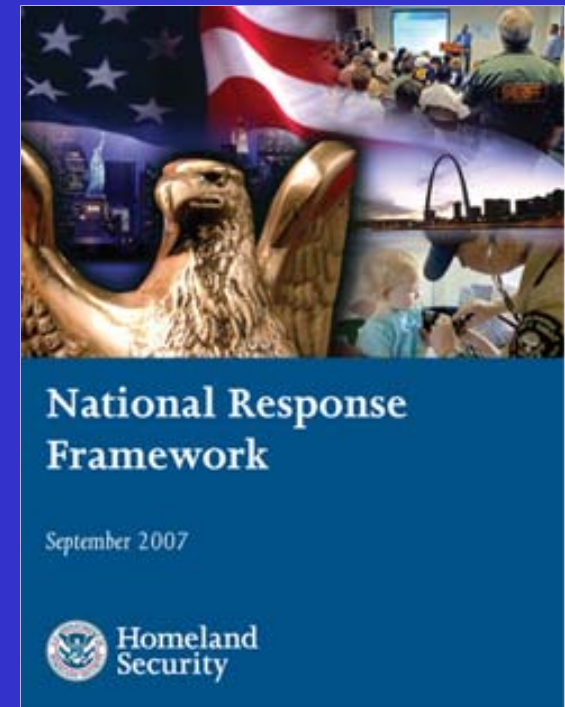


Authorities & Guidance



Disaster Response Plans

- **Federal Response Plan**
 - **Stafford Act authorized the Director of FEMA to prepare a Federal Response Plan**
 - **Created 1988**
 - **Emergency Support Functions (ESFs)**
 - **1994 - the Stafford Act was amended to incorporate most of the former Civil Defense Act of 1950**
- **National Response Plan**
 - **2004**
- **National Response Framework**
 - **2008**



NRP → NRF

National Preparedness Framework

NATIONAL RESPONSE FRAMEWORK (NRF)

Purpose:

- Establish a comprehensive, national, all-hazards approach to domestic incident response
- Present an overview of key response principles, roles and structures that guide the national response;
- Describe how communities, States, the Federal Government and private-sector and nongovernmental partners apply these principles for a coordinated, effective national response;
- Describe how these elements come together and are implemented by first responders, decision makers and supporting entities to provide a unified national response.



NRF Coordination Structures

Coast Guard Interface for Response Support

Federal Response Organization

National Operations Center

- **National focus – supports JFOs as necessary**
- Forum for intel and information, and coordinating national strategic decision-making to address broader national threat and/or impacts

NATIONAL

National Operations Center (NOC)

Joint Field Office

- **Regional focus – supports state and local response efforts as needed**
- Provides resource support to ICPs
- Aids in the resolution of policy conflicts
- Prioritizes resources between incidents
- Coordinates interagency efforts to address broader regional impacts

REGIONAL

Joint Field Office (JFO)

Incident Command Post

- **Focused on incident site – directs response at state and local levels**
- Directs on-scene emergency management
- Has tactical control of on-scene operations

FIELD

Incident Command Post(s)

Coast Guard Organization

Commandant

- Participates as member of the NOC
- CG LNO at NRCC
- Coordinates overall CG support to the incident
- Coordinates CG efforts to address national threat or impacts

Area/District Commander

- Participates in JFO Coordination Group as a Senior Federal Official (SFO) when appropriate
- Coordinates broader CG support to the incident
- Coordinates CG efforts to address regional threat or impacts

Sector Commander

- Participates in Unified Command



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Emergency Support Functions / Annexes

ESF #1 - Transportation

ESF #2 - Communications

ESF #3 - Public Works and Engineering

ESF #4 - Firefighting

ESF #5 - Emergency Management

ESF #6 - Mass Care, Emergency Assistance, Housing and Human Services

ESF #7 - Logistics Management and Resource Support

ESF #8 - Public Health and Medical Services

ESF #9 - Search and Rescue

ESF #10 - Oil and Hazardous Materials Response

ESF #11 - Agriculture and Natural Resources

ESF #12 - Energy

ESF #13 - Public Safety and Security

ESF #14 - Long-Term Community Recovery

ESF #15 - External Affairs



Emergency Support Function (ESF)

10 Annex

- Acknowledges that NRF does not have to be activated for hazmat & oil responses
- Is an operational supplement to the NRF
- NRS remains in place and RRTs can be used by the FOSC
- Has linkages to Terrorism LE & BRN Annexes
- Allows for NIC for SONS



National Contingency Plan (NCP)

- Created in 1968
- To protect the public health & welfare, property and the environment from the release of oil or hazardous substances
- FOSC directs - executes authority side by side with the States
- Several revisions
 - FWPCA 1972
 - CERCLA 1980
 - OPA 1990



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HSPD-5 and the National Contingency Plan

HSPD-5

National Response Framework

ESF support structure

ESF #10

Relies on the NCP

NIMS

Incident Command System (ICS)

NCP

Federal oversight authority (40 CFR 300.120)

Response Organization

Federal On-Scene Coordinator

Unified Command

Responsible Party

State

USCG

Unified Area Command

National Response System

Area Committees

Regional Response Teams

National Response Team

Spill of National Significance (SONS)
classification (40 CFR 300.323)

National Incident Commander



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About the National Response System (NRS)

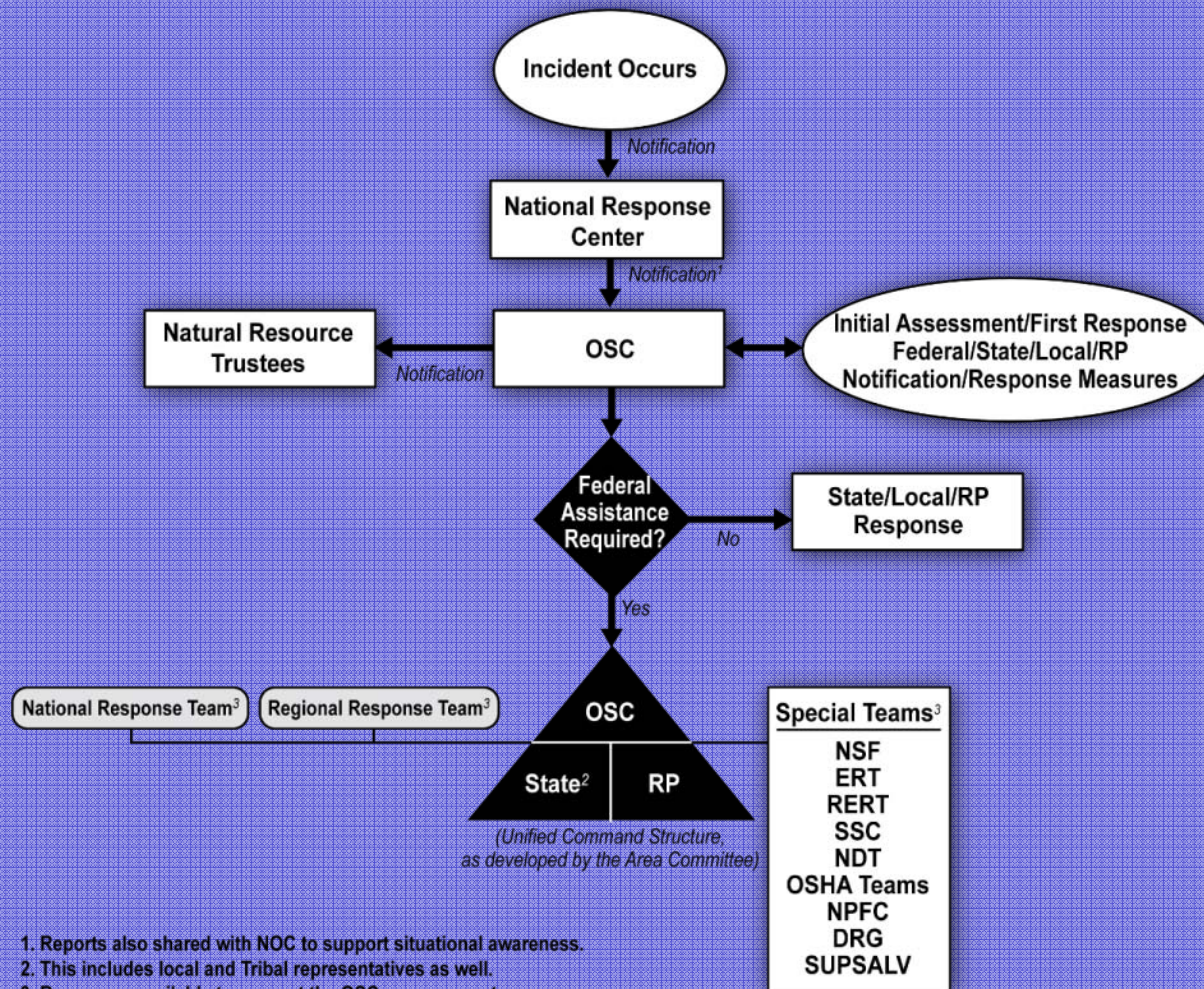
- NRS is divided into local, regional, and national organizational levels
- Participants include federal, state, local, and private sector agencies and organizations, with interests in or responsibilities for oil and hazardous materials emergencies
- Federal agencies in the NRS provide on-site response capability at the local level



Preparedness Components Under the NRS

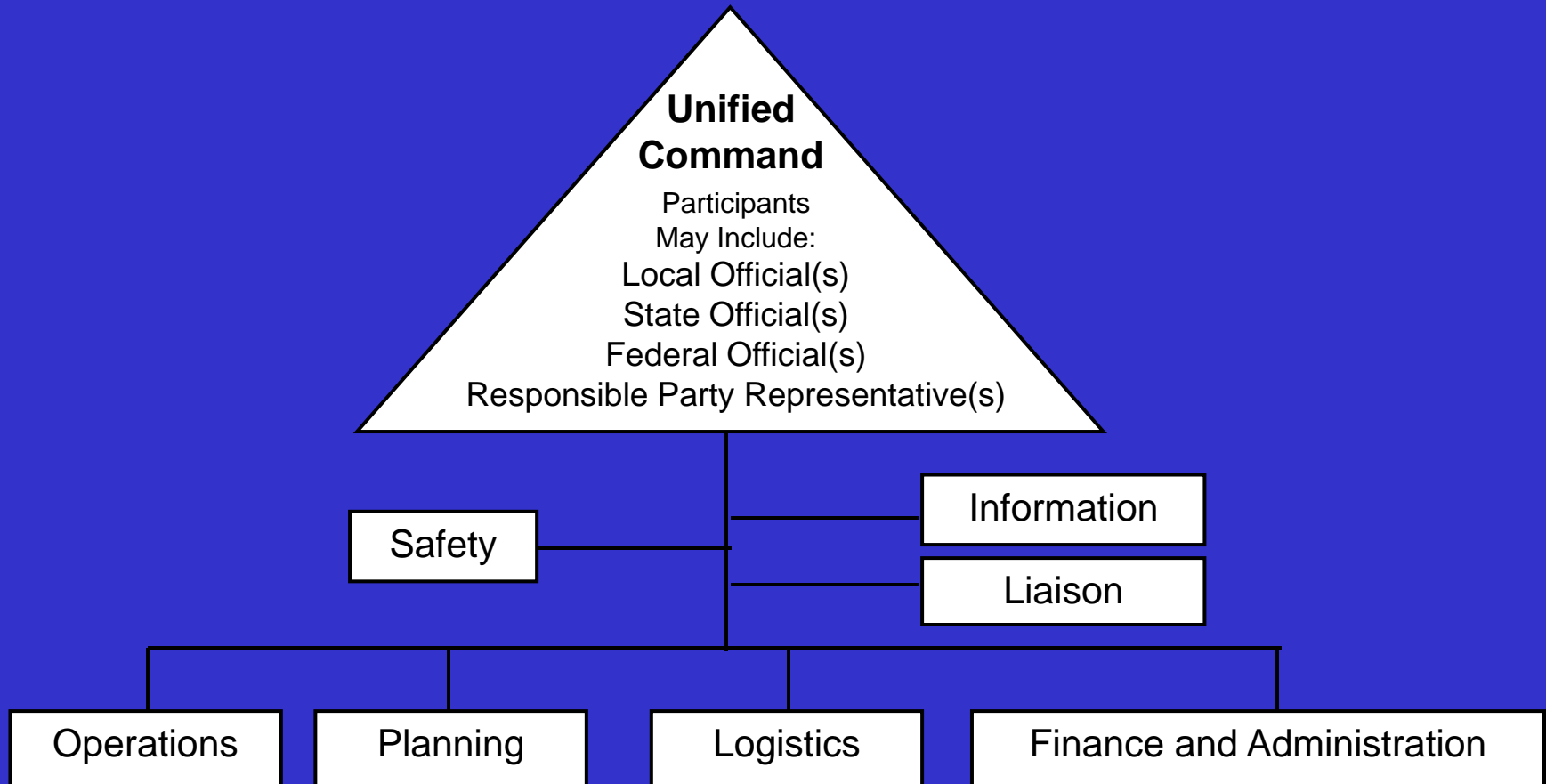


NRS Notification & Decision Process



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National Incident Management System (NIMS) Incident Command System



Why Federal Involvement On-Scene?



- Incidents can exceed capability of states and locals
- Public demand for national environmental response policy



- Incidents and impacts could cross state and int'l borders
- Response could involve foreign parties and int'l commerce



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NCP or NRF Response

National Contingency Plan

**National Incident Commander
NIC Support Staff serves as the
Unified Coord Group (NRT and other
senior officials)**

**Unified Area Command/Unified
Incident Commands
(USCG Federal OSC, State OSC(s)
Responsible Party)**

**Funding source Oil Spill Liability
Trust Fund (OSLTF) / Responsible
Party**

National Response Framework

**Joint Field Office and Unified Coord
Group (FEMA FCO, State SCO,
other senior officials)**

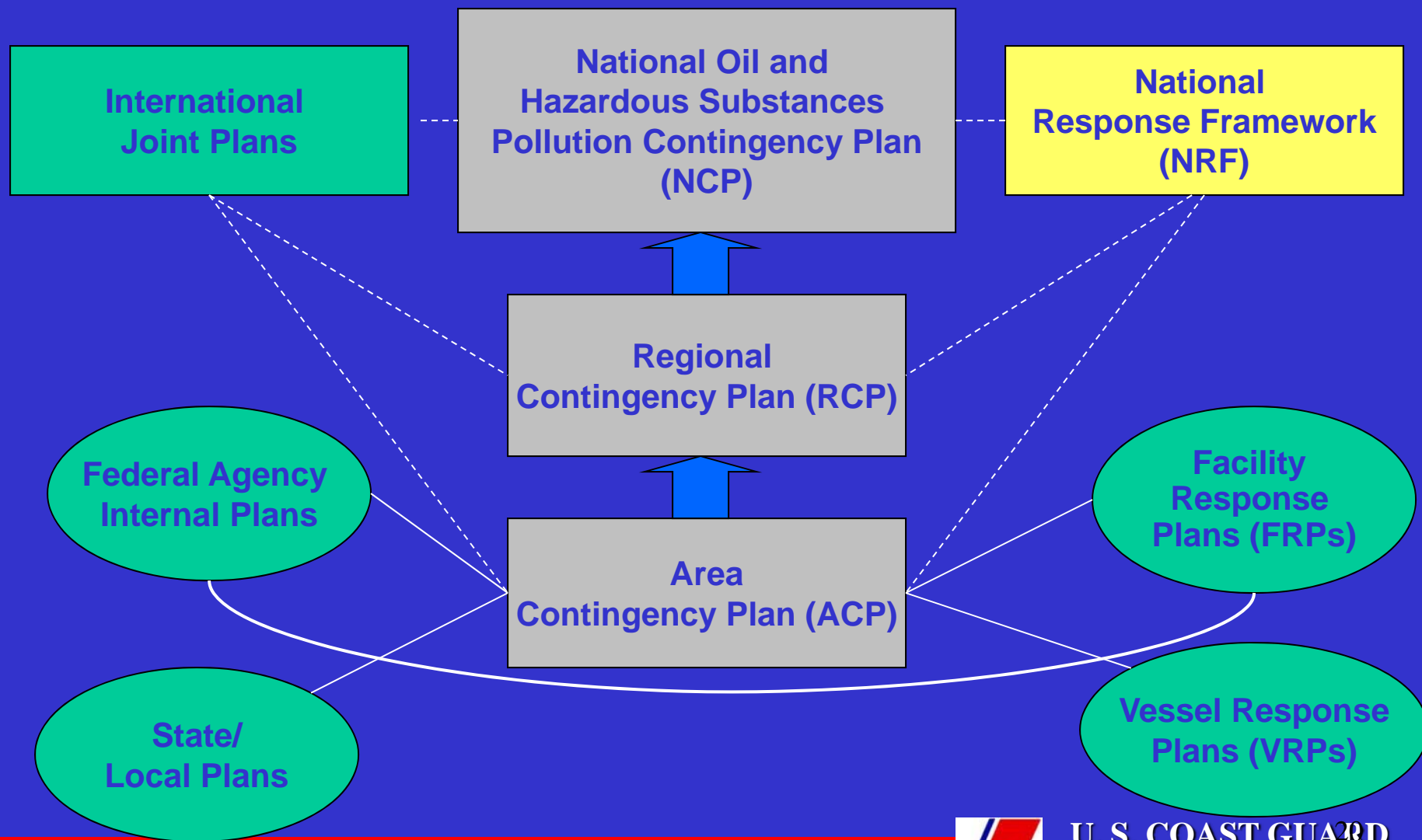
**State resources and capabilities are
exceeded
Federal support to the States cost
share coordinated through FEMA
FCO**

Funding source Stafford Act



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National Response Framework (NRF) & NCP Preparedness





National Contingency Plan

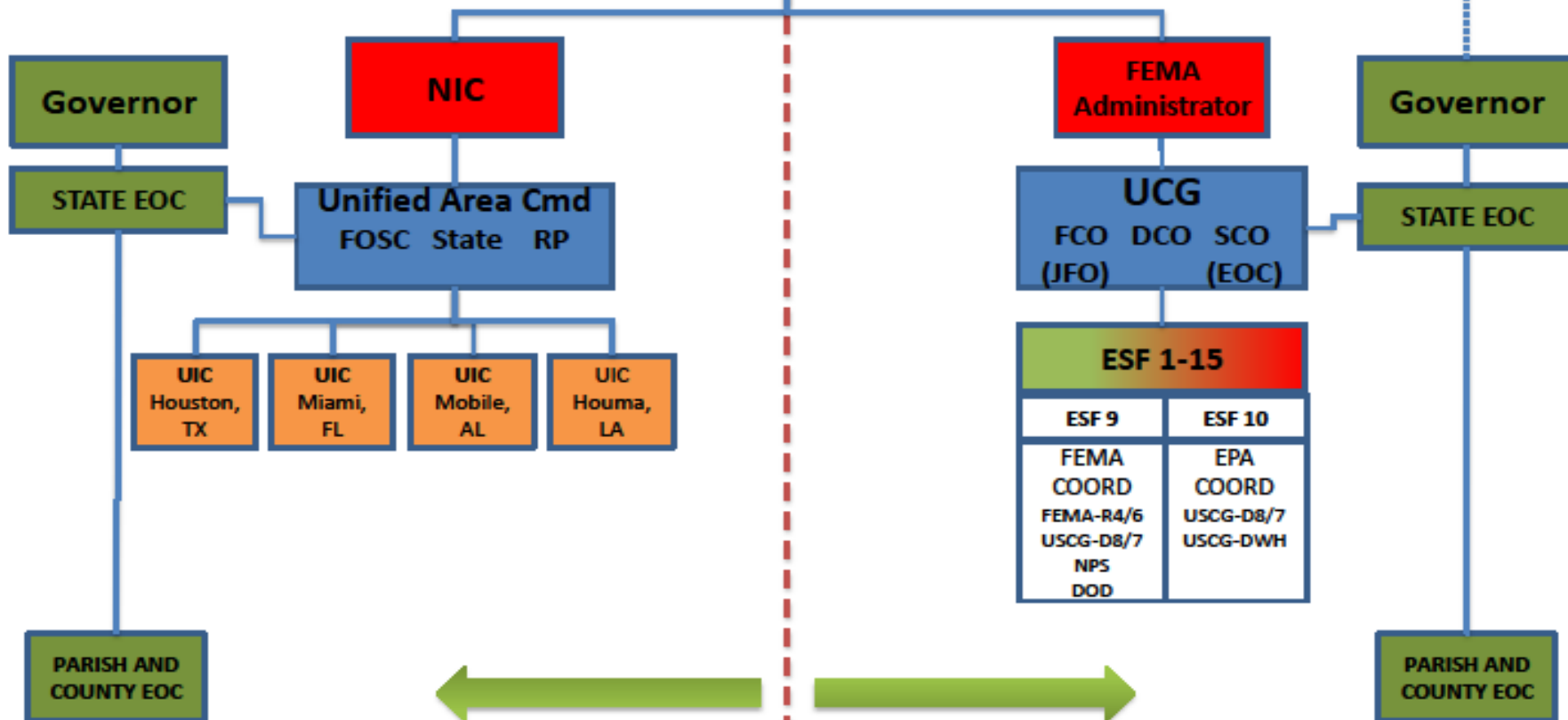
WHITE HOUSE

Secretary DHS

National Response Framework



Emergency And Disaster Declaration s

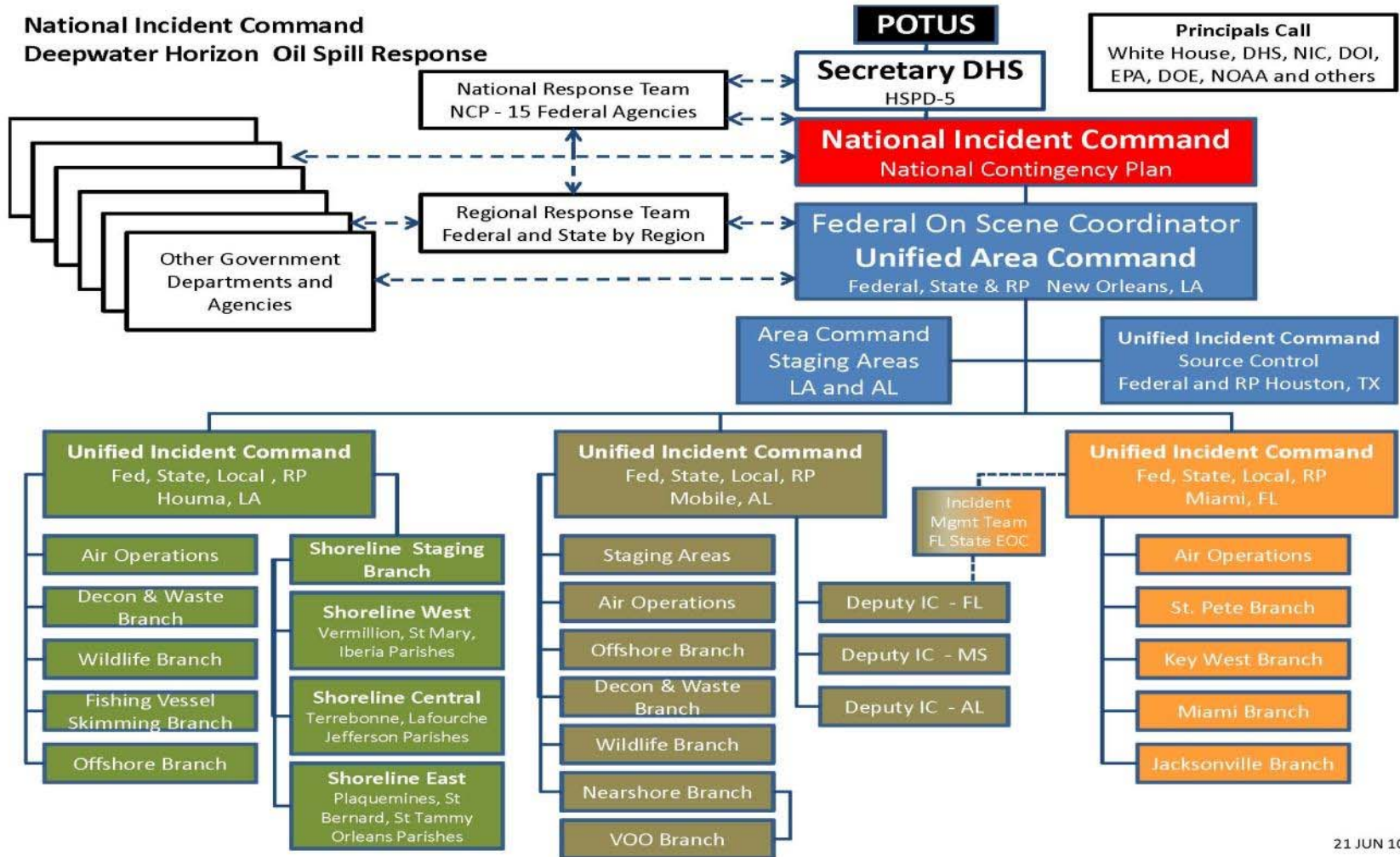


NCP = Federal Command/Control

NRF = Federal Support to State/Local



DEEP WATER HORIZON COMMAND AND CONTROL



Deepwater Horizon/MC-252 NCP Divergence

- **“Political Nullification of the NCP”**
- **Multi- State Spill**
- **Local & State Oil Spill Plans**
- **USCG Parish & County Liaison Program**
- **Stafford Act engagement by the States – GOHSEP, etc.**
- **External Affairs/Public Affairs**





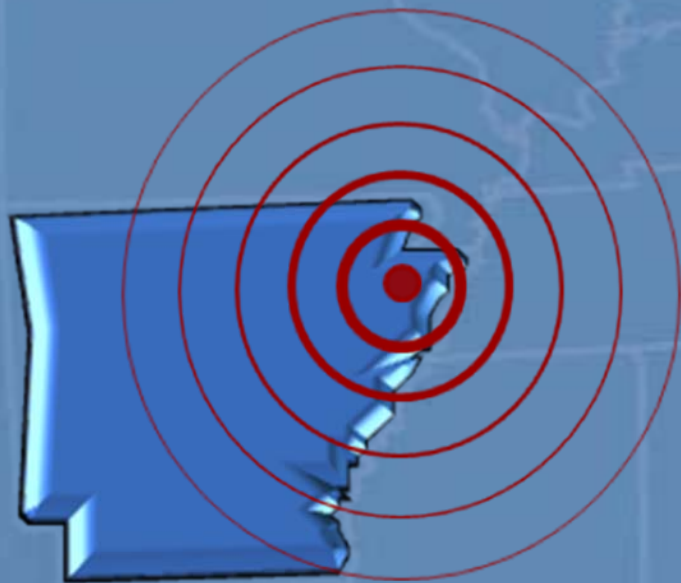
Thank You



U. S. COAST GUARD

New Madrid Seismic Zone

Brief



FEMA Region 6
Lorie Lafon

1 December 2010

Agenda



FEMA

- **NMSZ Planning Update**
- **Exercises Update**
- **HQ UACG Concept**
- **2010 NMSZ Planning Activities**
- **Questions**

Planning Update



FEMA

- Site visits conducted at Walnut Ridge, Stuttgart, and Searcy airfields
- SLSC approved objectives and COAs
- Final DRAFT Joint OPLAN delivered to HQ
- NMSZ Resource Allocation Workshop (RAW) conducted with 8 CUSEC States and Federal ESFs to support OPLANs
- NLE-2011 will be conducted 16-21 May 2011

Exercise Update



FEMA

- Conducted R6/State TTX to exercise Draft OPLAN and review E-Hour Timeline (8 Sep 10)



Summary:

- State and Federal ESFs (1, 5, 6, 7, 8, and 9) briefed their agency's actions during each phase of the response
- Several issues were identified that require additional work and planning:
 1. Need SOP for marking bridges once inspected (ESF #1)
 2. Need to plan for air space approval for power restoration teams (ESF #1)
 3. How do we place control measures on privately owned aircraft (ESF #1)
 4. Develop procedures for actions to take once aftershocks occur (All)

Exercise Update (Cont.)



FEMA

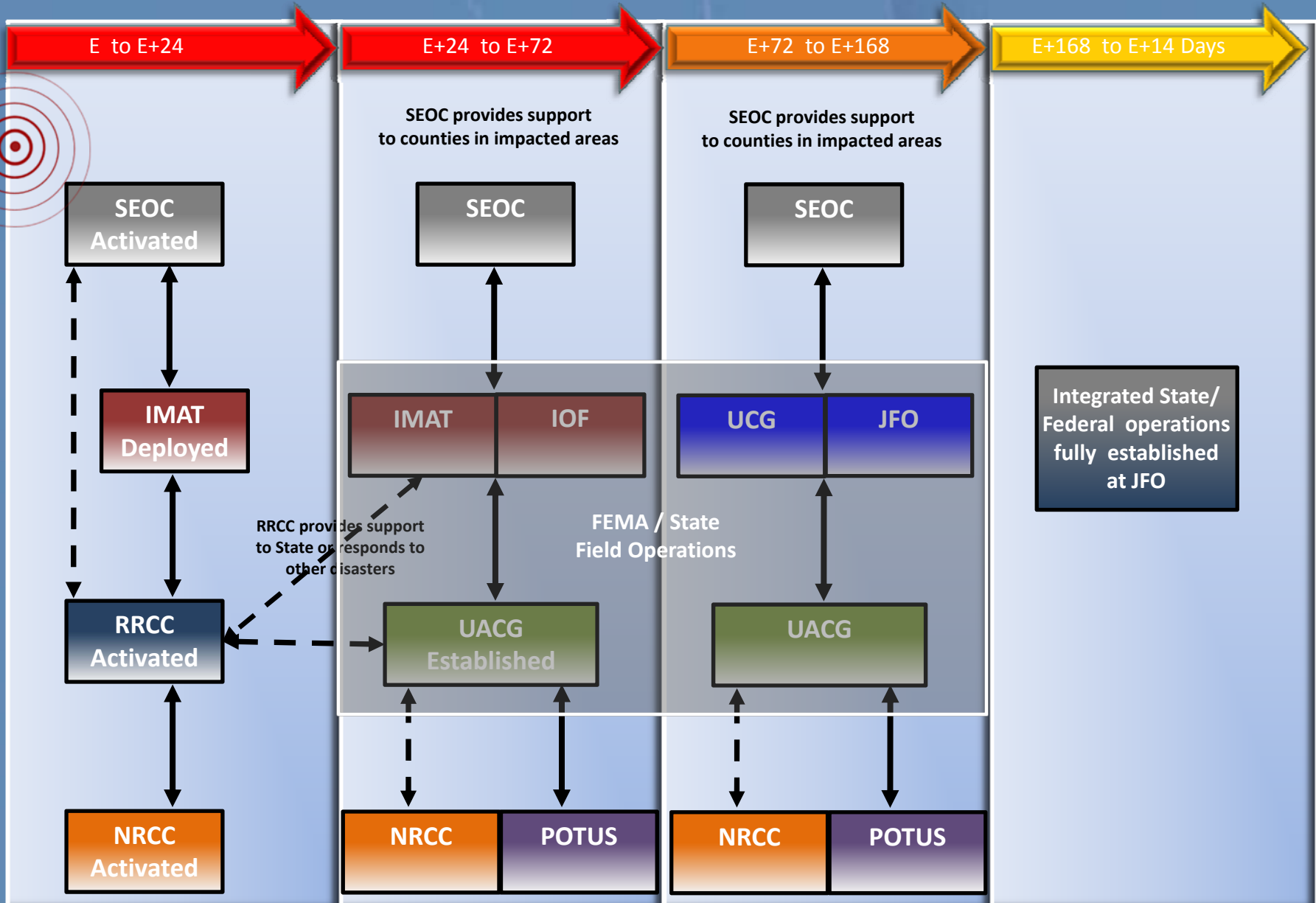
- Conducted R6/State Rehearsal of Concepts (ROC) Drill (27 Sep 10)



HQ UACG Concept



FEMA



2010 NMSZ Planning Events

	Milestones
	Planned Events
	Completed Events

As of 22 Sep 2010





Questions
are
guaranteed in
life;
Answers
aren't.

QUESTIONS ANSWERED

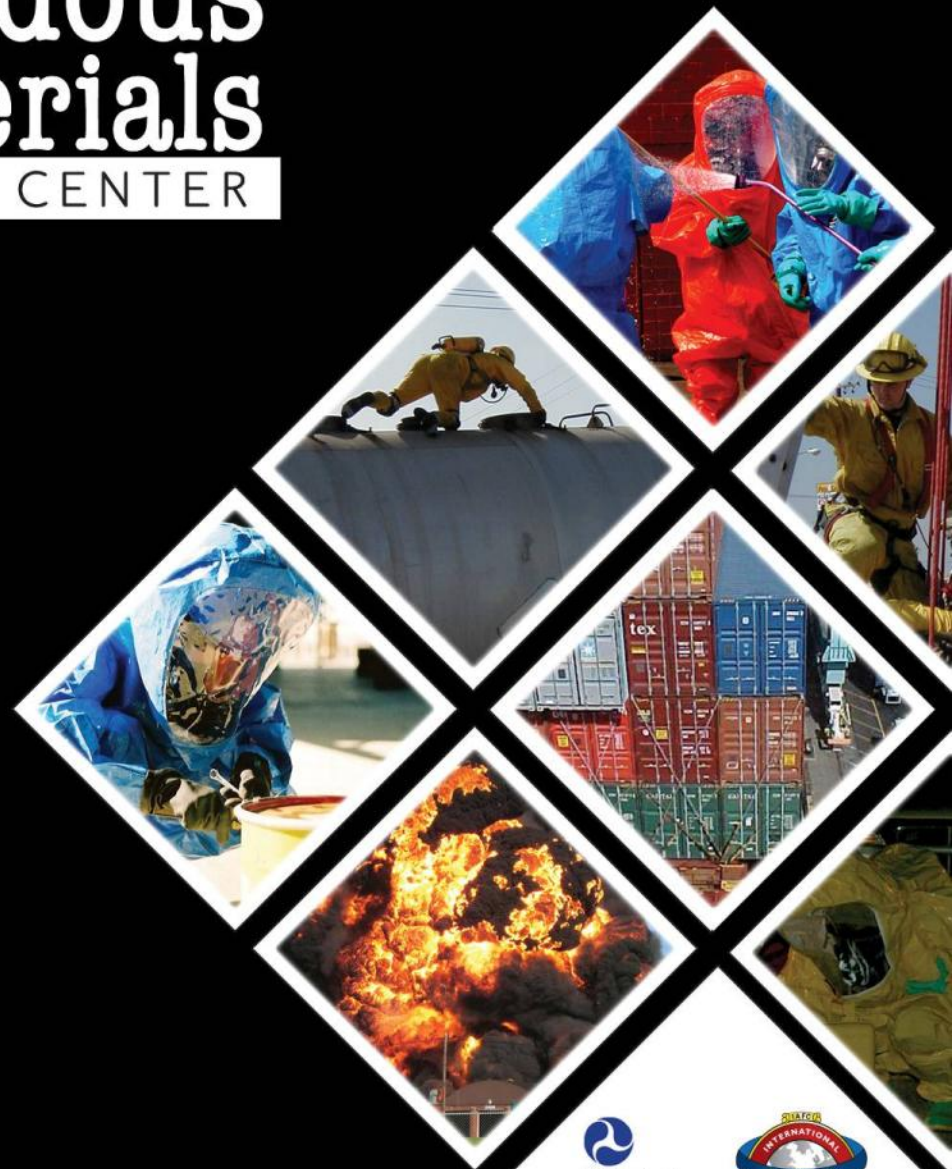
SIMPLE	50 cents
GUESSES	\$1.00
INTELLIGENT	\$2.00
HONEST	\$5.00

**DUMB LOOKS
ARE STILL FREE 😊**



Your Hazmat
Fusion Center

Nationwide
Release



Responders Helping Responders



Video Welcome



Nationwide Release



Cynthia Douglass

Chief Safety Officer

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety
Administration



Nationwide Release



Chief Jack Parow

President and Chairman of the Board
The International Association of Fire Chiefs



Nationwide Release



Ed Plaughter

Assistant Executive Director

The International Association of Fire Chiefs



Nationwide Release



Tom Wells

Program Manager

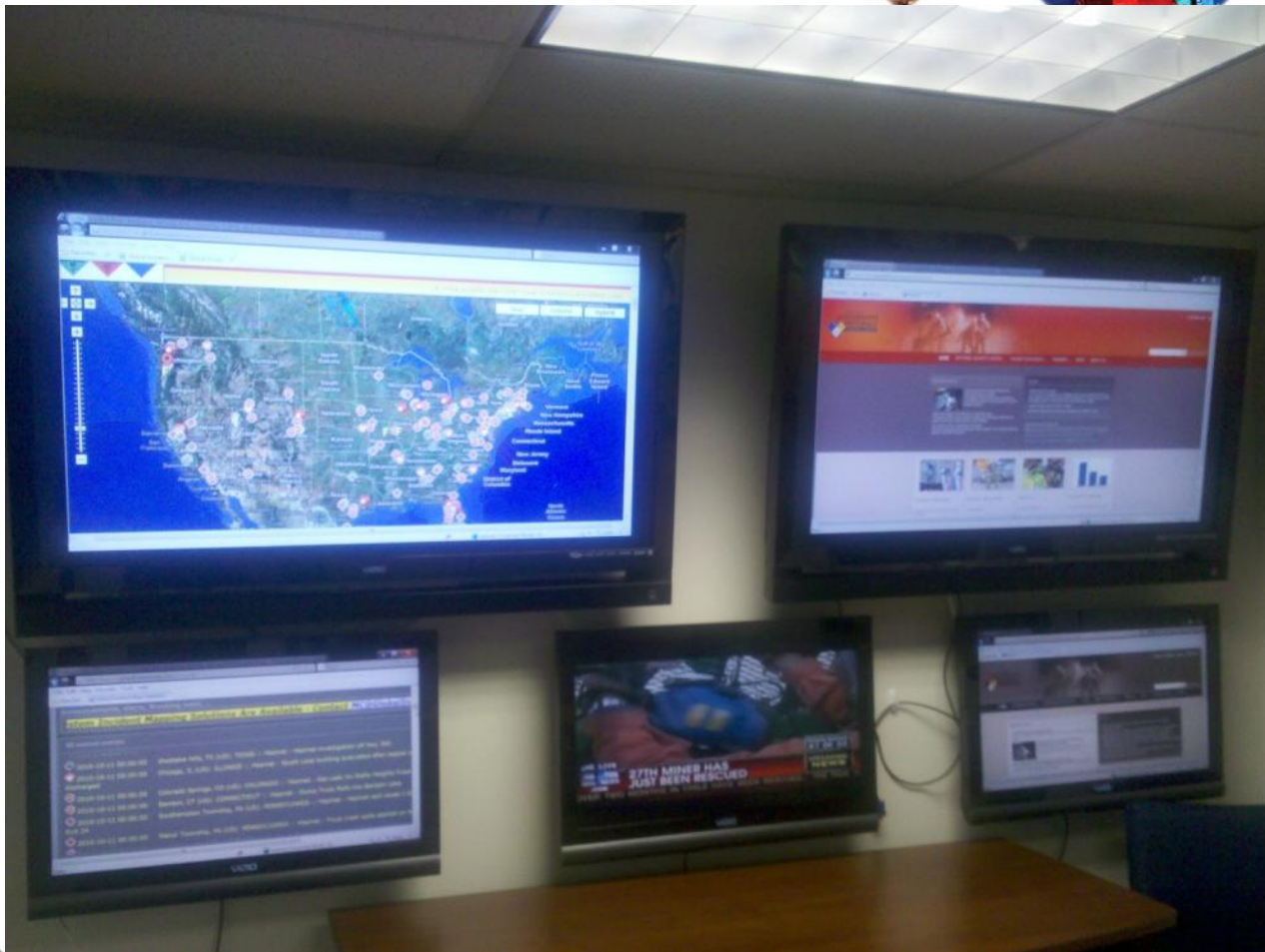
The International Association of Fire Chiefs



Fusion Center Entryway



Fusion Center Eye on Hazmat



Systematic Approach



- Data Collection
- Analysis
- Dissemination



Data Collection



- Regional Incident Survey Teams (RIST)
- Hazmat incident reporting system on the secure Web portal



Analysis & Dissemination



- Lessons learned
- Smart and effective practices
- What is shipped, spilled, and released
- Incident patterns and trends
- Safe response recommendations
- Planning tools and resources



Analysis & Dissemination Continued



- Effective training
- Product/incident specific training materials
- Hazmat response equipment

CRITICAL HAZMAT INFORMATION NOTIFICATION



BUILDING BRIDGES

PHMSA FRA

IAFC NFA

Industry: Rail, Truck,
Chemical, Pipeline

USCG LE NASTTPO

FBI NASFM TSA FMCSA

CHEMTREC NVFC IAFF

Organizations represented
on the workgroups



History



- Bottom-Up Development
- Fusion Center Workgroups
- Regional Focus Groups
- Hazmat Symposia
- Hazmat Team Collaboration
- National Outreach



Web Portal Development



- Crawl, walk, run
- Hazmat community develops the Portal and content
- Evolves based on input from hazmat community



Portal Rollout



- Soft launch of the public site in August
- Nationwide release October 15, 2010, at the HOTZONE Conference in Houston, Texas
- Register [HERE](#) for Members Only area or for team access to the Incident Reporting System



Web Portal Areas



- Public Area
 - Fusion Center and Hazmat Information
 - Summary statistics, trends and analysis
 - Summary RIST Reports
 - News
- Members Only Area (registration required)
 - Smart practices and lessons learned
 - Incident Reporting System
 - National and regional statistics, trends and analysis
 - Full RIST Reports
 - Hazmat Forum
 - Fusion Center Working Groups





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HIGHLIGHTS



Chemical Assisted Suicide Responder Information Now Available

The Hazmat Fusion Center has compiled an informational sheet for responding to chemical assisted suicides.

New Hydrochloric Acid Release Training Package

Produced by RIST, this is a great training tool with lessons learned and smart practices for responding to a HCL release.

New RIST Executive Summaries available

New RIST Executive Summaries have been posted in the Incident Reports section under RIST Reports.

NEWS

Registration Now Open!

You can now pre-register for "Members Only" Access. Hazmat Teams can also register to use the Incident Reporting System. Access will be granted in October 2010 in conjunction with the nationwide release.

Latest Hazmat Fusion Center E-Update

Hazardous Materials Emergency Preparedness (HMEP) Grants

ANNOUNCEMENTS

Title

Nationwide release of Hazmat Fusion Center Portal - Oct 2010

Members Only Area Is Temporarily Unavailable from 10/1 to 10/5



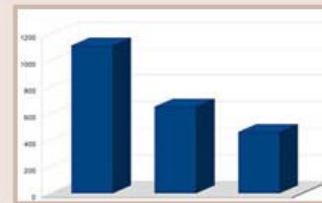
INCIDENT REPORTS



HAZMAT RESOURCES



TRAINING



STATISTICS & TRENDS

Members Only Site



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HIGHLIGHTS

Full RIST Reports Available Here!
Full RIST reports are available exclusively to members of the Hazmat Fusion Center.



Chemical Assisted Suicide Responder Information Now Available
We have compiled an informational sheet for responding to chemical assisted suicides.

New Hydrochloric Acid Release Training Package
Produced by RIST, this is a training tool full of lessons learned and smart practices for responding to a HCL release.

NEWS

Consider Registering your Hazmat Team to Use the Incident Reporting System
Now that you are a member of the National Hazmat Fusion Center, please consider having your hazmat team enter incidents into our Incident Reporting System. Not only will it help you to analyze and manage your incident data, it will also help create a national picture of hazardous materials response. We will be able to produce valuable statistics and trends for the entire hazmat community.

Hazardous Materials Emergency Preparedness (HMEP) Grants
Latest Hazmat Fusion Center E-Update

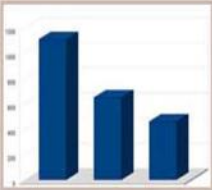
ANNOUNCEMENTS

Title
Nationwide release of Hazmat Fusion Center Portal - Oct 2010



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[Manage Reports](#)



NATIONAL REPORTS CENTER

[Lessons Learned/Smart Practices](#)



HAZMAT RESOURCES

[Events](#)



TRAINING

[Training Packages](#)

The Incident Reporting System



- Hazmat teams create, manage, print, and analyze their incident reports
- Creates a national picture of hazardous materials response
- Identifies hazmat trends regionally and nationally
- You own your data and the HFC doesn't have access to jurisdictional identifiable data unless you authorize it



Incident Reporting System



NHMFC Incident Reporting System

Hazmat Incidents For: DIFZ UNIT

Reports - All

Drag a column header and drop it here to group by that column

Date / Time	Incident Name	Material	Status	Training Exercise	Actions
7/15/2009	test	white powder	Submitted	No	Print Report
10/5/2010	Test	Chlorine	Draft	Yes	Print Report Ready for Review

Shortcuts:

[View All](#)

[View Drafts/Ready](#)

[View Submitted](#)

[Create New Incident](#)

Incident Report Form



Hazmat Incident: Test 1

Responsible Unit: DIFZ UNIT

Report Status: Ready for submission

☒ This is a training or exercise incident

Submit

Save and Close Report

- Summary
- Location
- Environment
- Weather
- Materials
- Factors
- Consequences
- Response Actions
- Involved Parties
- Narrative

Incident Summary

Save and Continue

All parts of this page are mandatory; please fill out all fields and select any/all checkboxes that apply.

* Incident Name: Test 1

Local Incident #: Test

* Incident Start Date: 10/5/2010

* Unit Dispatch time: 1500 Central Daylight Savings Time

Incident Location:

(Provide either the address including the ZIP and/or Lat/Long)

Address: 1234 Main St

City/Borough: Fairfax

County/Parish:

State: TX

ZipCode: 22033

-- OR --

Latitude/Longitude:

Form Navigation
Bar

Beta Testing



- Beta Testing
 - 8 teams & 8 additional teams since August soft launch
 - 133 incident reports
 - 230 users with an additional 120 since soft launch

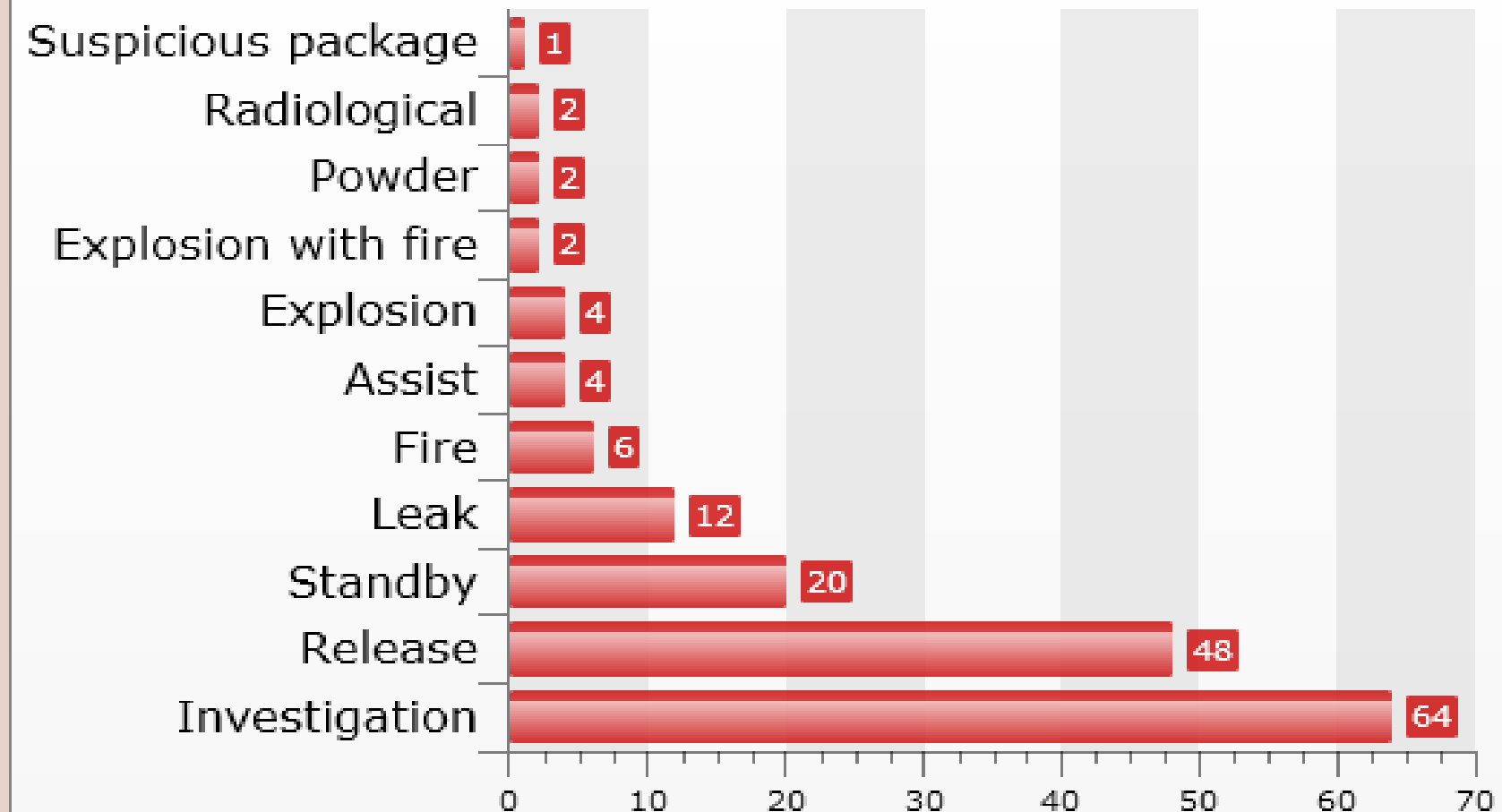


Beta Testing Data

Type of Incident



Incident Types

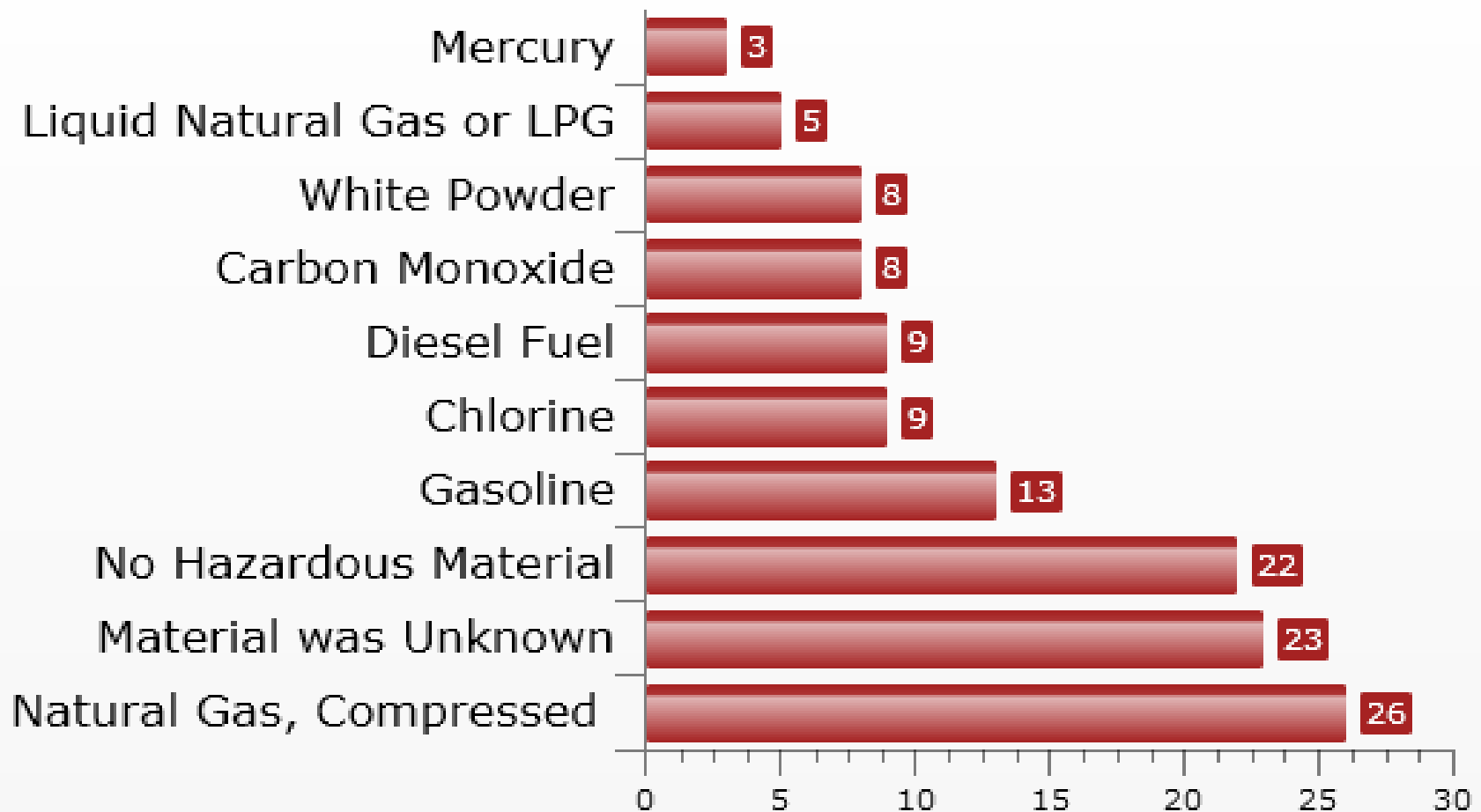


Beta Testing Data

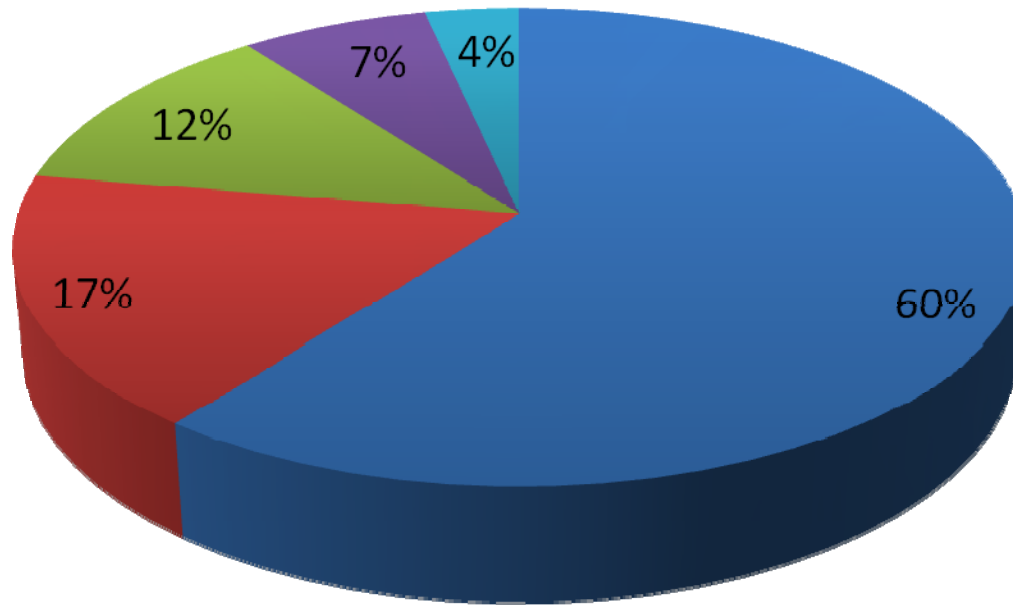
Top Materials Involved



Top Materials Involved



Beta Testing Data Material Identification



■ On-scene analysis

■ Placards/label

■ Responsible party

■ Shipping papers

■ Reference



RIST



What are they?



- Seven member teams from the hazmat community
- Represent the spectrum of hazmat response
- Experienced hazmat responders



Where are they?



LEGEND

C	Central Region
E	Eastern Region
S	Southern Region
SW	Southwest Region
W	Western Region

	Hazmat Offices
	Pipeline Offices
	Headquarters
	Training Center

	Represented by RIST personnel and/or Executive Work Group Members
	Completed Surveys

RIST Survey Topics



Transportation

- Gasoline
- Styrene Monomer Solution
- Hydrofluoric Acid
- Ethanol & Ethanol Blends
- Asphalt
- Hydrochloric Acid
- Ammonia Nitrate
- Acrylic Acid
- Heating Oil



Fixed Facility

- Anhydrous Hydrochloric Acid
- Hydrogen
- Ammonia
- Gasoline

Other

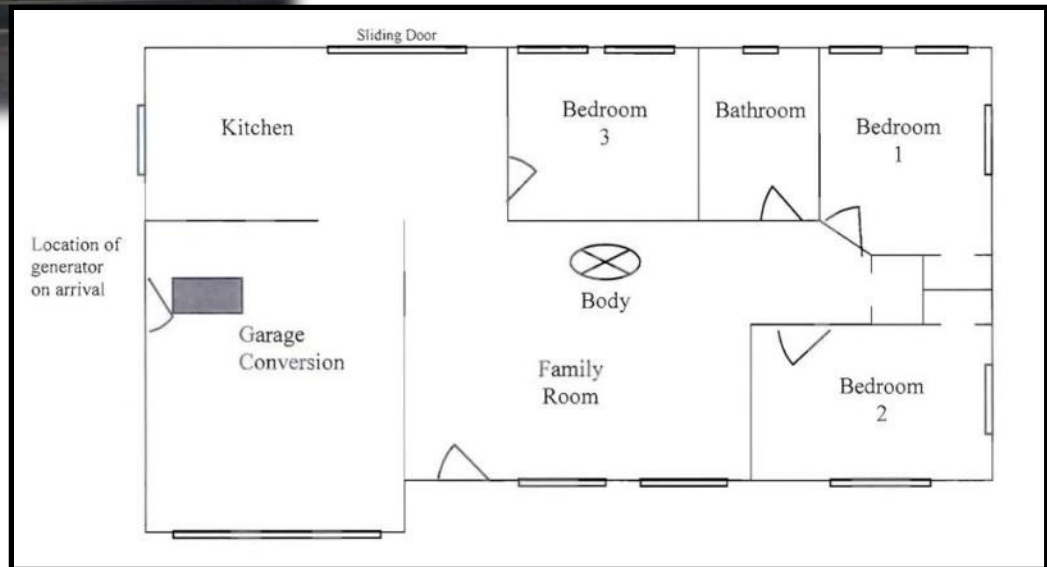
- Chlorine
- Carbon Monoxide
- Aluminum Sulfide



Chlorine Training Package



CO Training Package

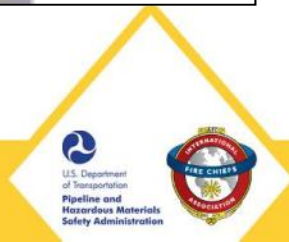
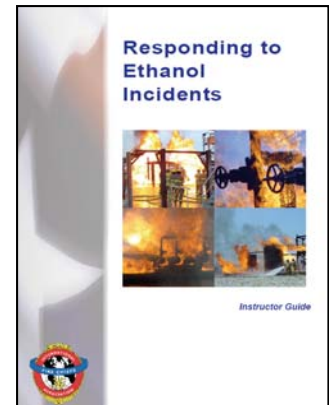
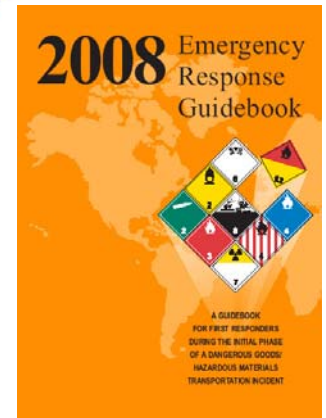


HCI Training Package



Other Projects

- ERG Video
- Ethanol: Response Considerations Training Package and Video
- Biodiesel: Response Considerations Training Package and Video
- Rural Emergency Response Planning
- Hydrogen Fuels Training & Education Research



Website



www.hazmatfc.com



The Future

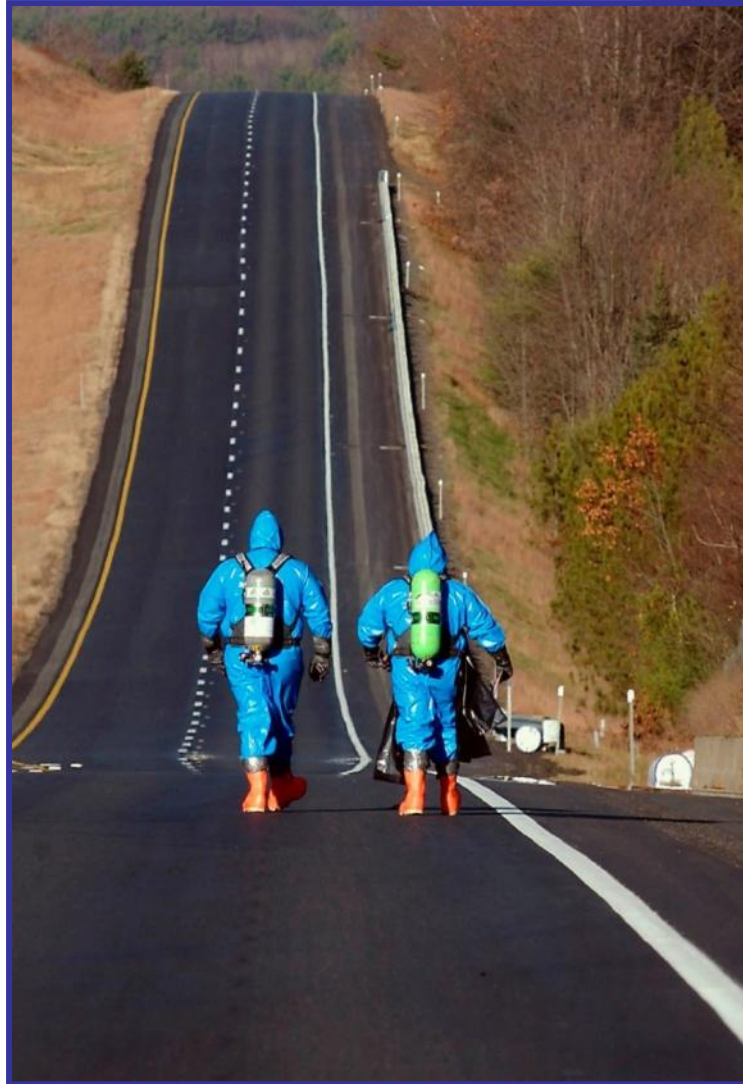


NATIONAL
**Hazardous
Materials**
FUSION CENTER

You

Are

Not



Alone!





Nationwide Release





Nationwide Release



Sector Corpus Christi

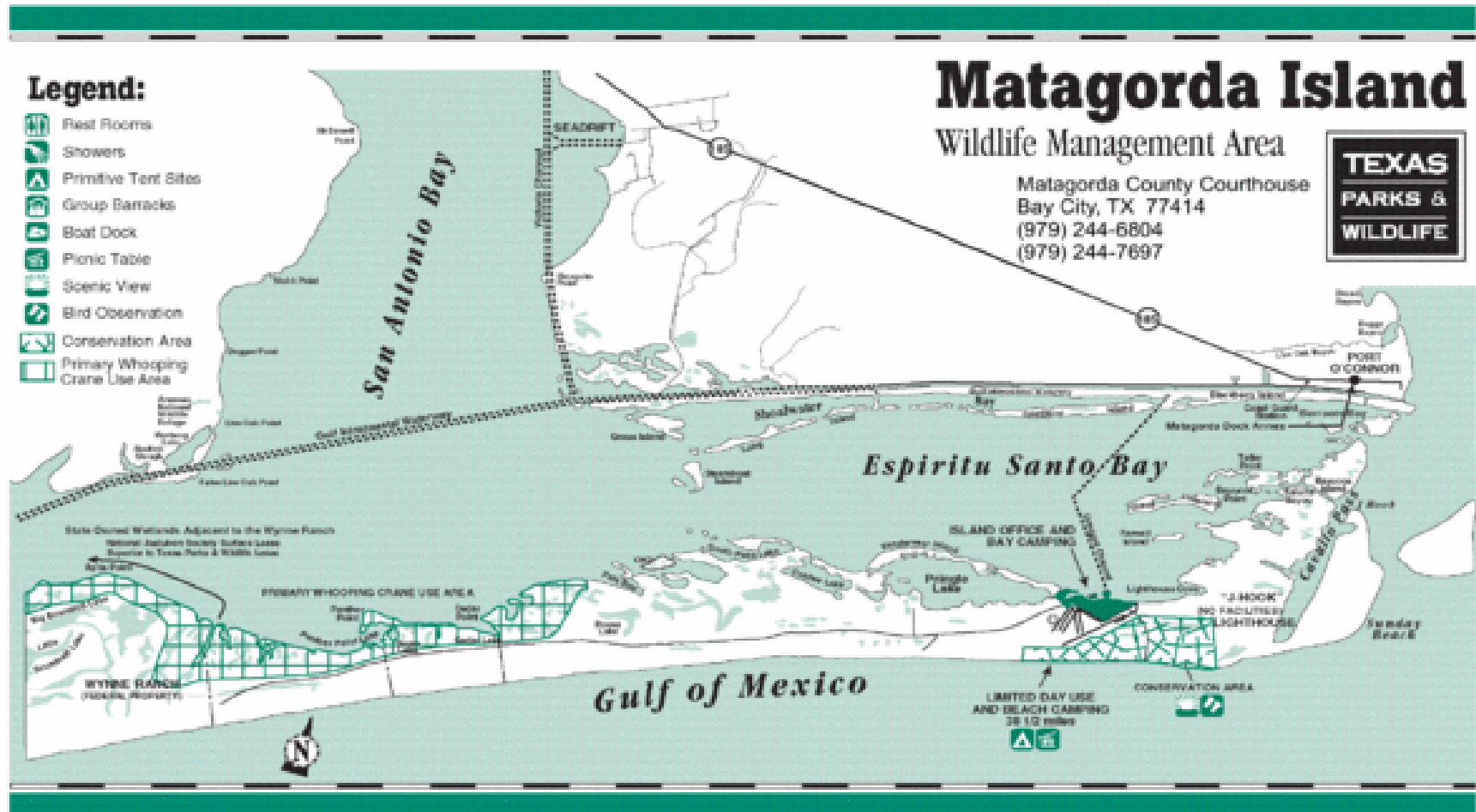


Captain of the Port Report
Regional Response Team Meeting
Winter 2010

Significant Events of 2010

- 52 pollution cases in CY10
 - 19 Letters of Warning issued
 - 9 Notices of Violation issued
 - 8 Federal Projects
- Matagorda Island Drum Run
- Nueces County Oil Spill Response Summit
- M/V FLORIN (PA)

Matagorda Island Drum Run



Response Objectives

- Recover Containers
- Identify Chemicals
- Proper Disposal



A Quick Look

- 2010
 - 5 Day Operation
 - 43 Containers
 - \$43,069.29
- 2009
 - 7 Day Operation
 - 201 Containers
 - \$148,849.56





Nueces County



Oil Spill Response Summit

Friday, July 9, 2010
2:30 PM — 4:30 PM

Sponsored By Nueces County Judge & Texas A&M University Corpus Christi

Nueces County Oil Spill Response Summit Agenda

2:30-4:30 Summit Public Forum

Opening Remarks & Key Note Address
Judge Loyd Neal

Presentations
United States Coast Guard
Texas General Land Office
National Weather Service
University of Texas Marine Science Institute
Texas Parks & Wildlife
US Fish & Wildlife

Question & Answer Session

*Panel Members available for
media and public*

M/V FLORIN (PA)



Fire Main

- USCG personnel taking samples from the fire main plug.
- Dismayed crewmember holding out his hands - showing what was coming out of the fire main.



Material Condition of Vessel



Poor housekeeping in engine room



Condition of head in engine room



Forward starboard side of engine crankcase
leaking oil



Storing drums & garbage bags full of oily rags.
Major fire hazard!

Sea Water Overboard Discharge Aft - Starboard Side

BEFORE INSPECTION



The pipe is clean white
before

AFTER INSPECTION



After opening &
examination, the pipe is
noticeably covered in oil

Questions?



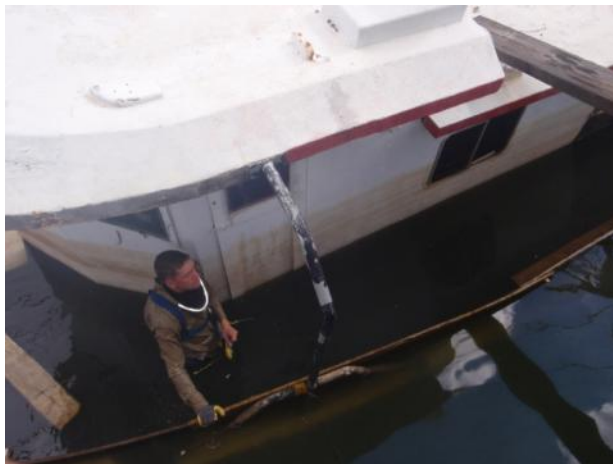
Marine Safety Unit Galveston



Marine Safety Unit Texas City



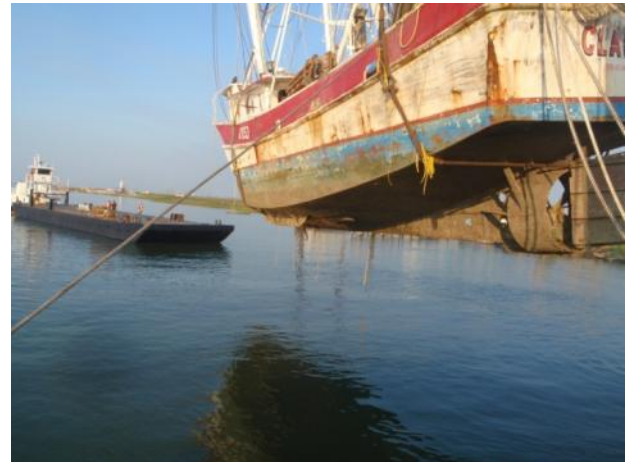
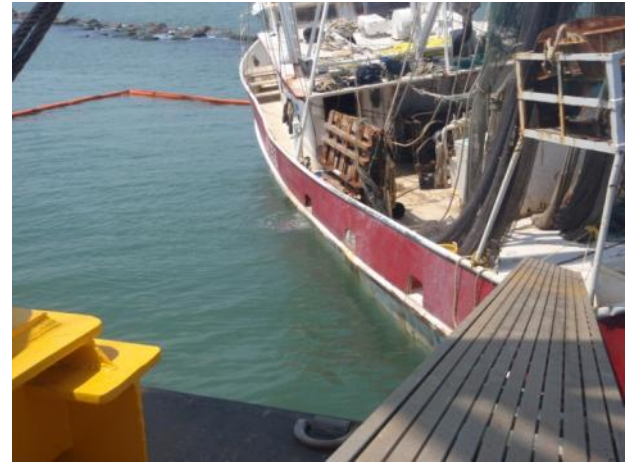
F/V Nelson Boys Sinking



T/V Isabel Knutsen



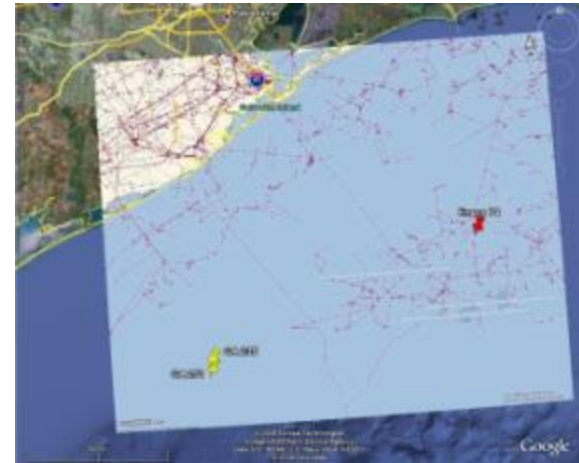
F/V Clarisa



East Breaks Block 164 Well Leak



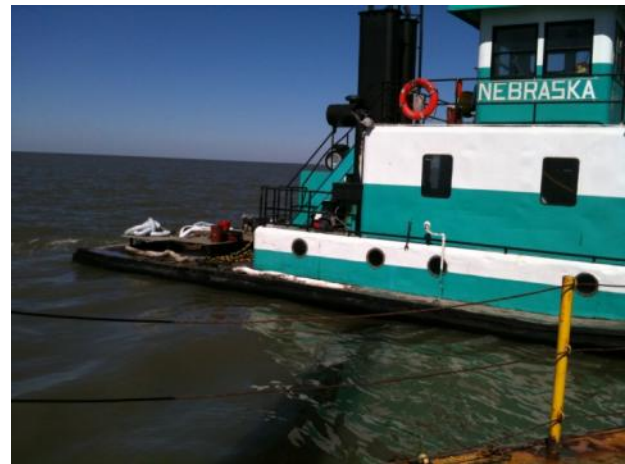
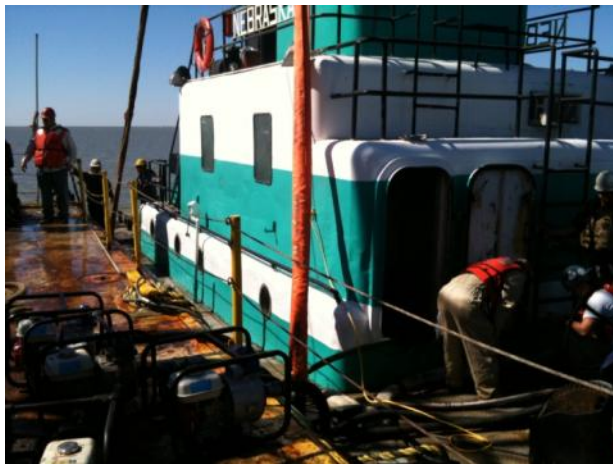
MODU Ensco 74 Wreck Removal



MODU Ensco 74 Wreck Removal



UTV Nebraska Salvage Operation

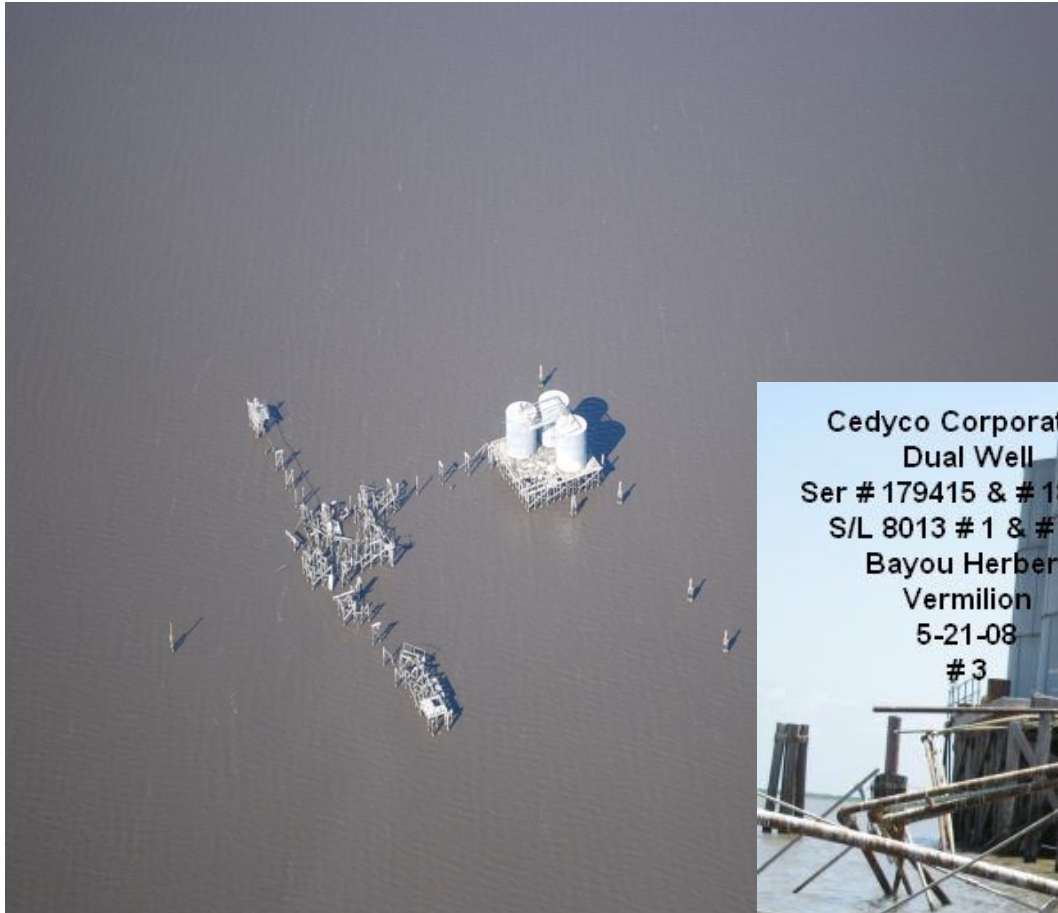


Tank Barge Kirby 28115 Salvage and Lightering Operation



Cedyco - Vermilion Bay Project

RRT VI Meeting 01-02 Dec
MSU Morgan City
By CAPT Jon Burton



Cedyco Corporation
Dual Well
Ser # 179415 & # 181923
S/L 8013 # 1 & # 1-D
Bayou Herbert
Vermilion
5-21-08
3

Water Well

PARTS SHED

BOAT DOCK

Wellhead

WATER WELL 109

Production Equipment

Sump

100'

SI. 8013 NO. 1 WELL

80'

100'

Missing Tank

3 tanks each with
1500 bbl capacity

AREA OF USCS JURISDICTION

80'

2000 BBL
GUNBARREL

1500 BBL
OIL TANK

1500 BBL
OIL TANK

1500 BBL
OIL TANK

Tank Shutdown Valve

Mooring Clusters
(5 wooden piles
around 8" pipe)

Drip Pan

OIL LOADING AREA

Load Hose Support
Fire Extinguisher

South Bayou Hebert
Facility Schematic

Scale: 1" = 30'
Drawn By: Chris Allen
Date: 3/25/97
Page: 1/1

State: Louisiana
Parish: Vermilion
File: sbhebert.skd
Revised:

Conditions posed a significant risk



Toxic or not?



Tank gives way on 22JUN10



Which pipe did that bubble come from?



Wellhead work



Tanks a threat to future spills!



Cedyco Vermillion Bay

- Initial estimated project cost - \$80,000
- Final cost information:
 - Total Coast Guard Costs: \$12,179.70
 - Total Contractor Costs: \$218,948.65
 - Total OGA Costs: \$0
- Date started: March 23rd, 2010
- Date completed: August 13th, 2010

Sector NOLA

Incident Management Division

IMD Cases

Notifications	Incident Investigation	Total NRC Reports JAN – SEP 2010
629	343	974

IMD Enforcement Actions Taken

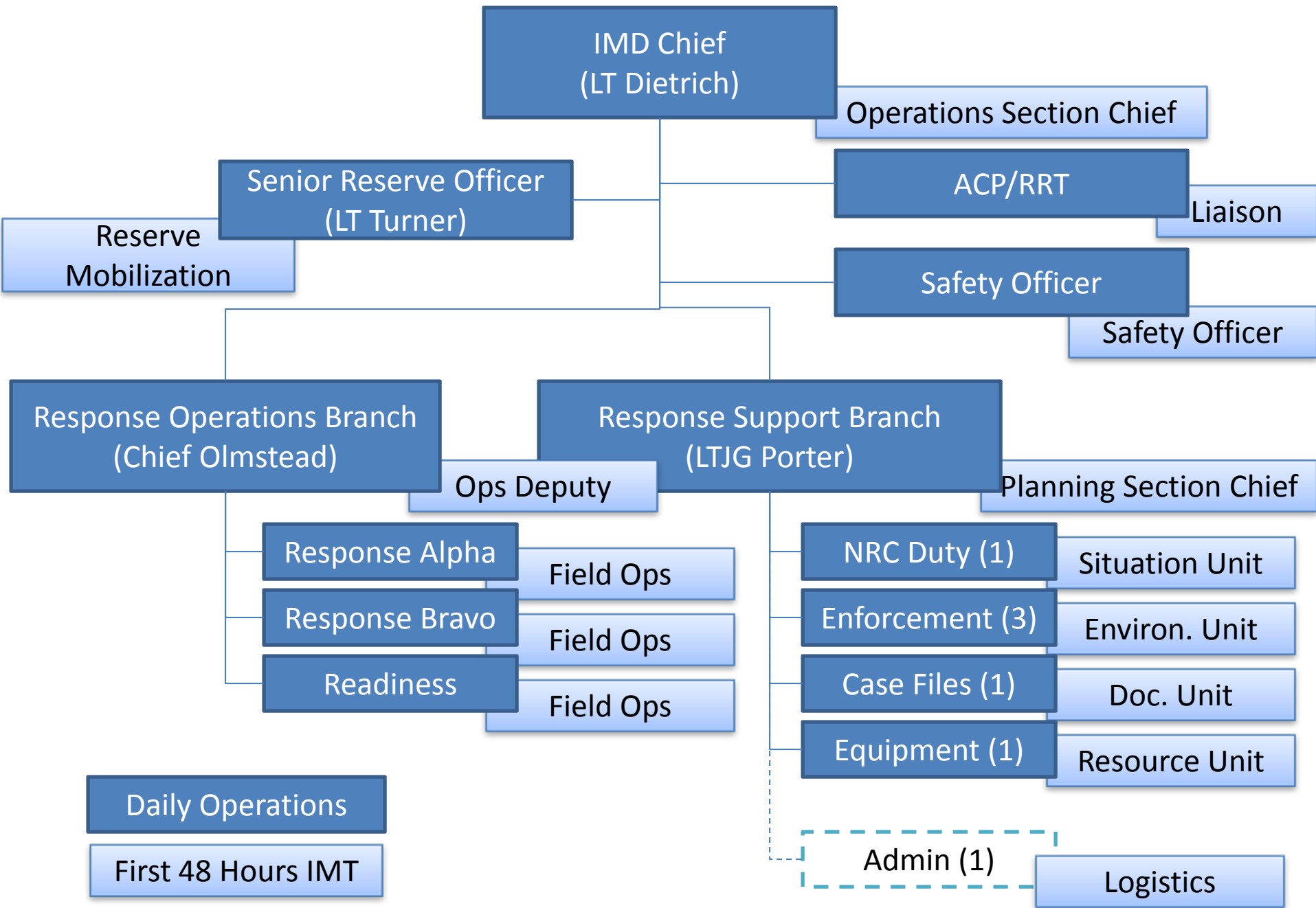
NOV's/ Warnings	Fines issued from Jan – Sept 2010
337	\$122,100

Federalized Projects

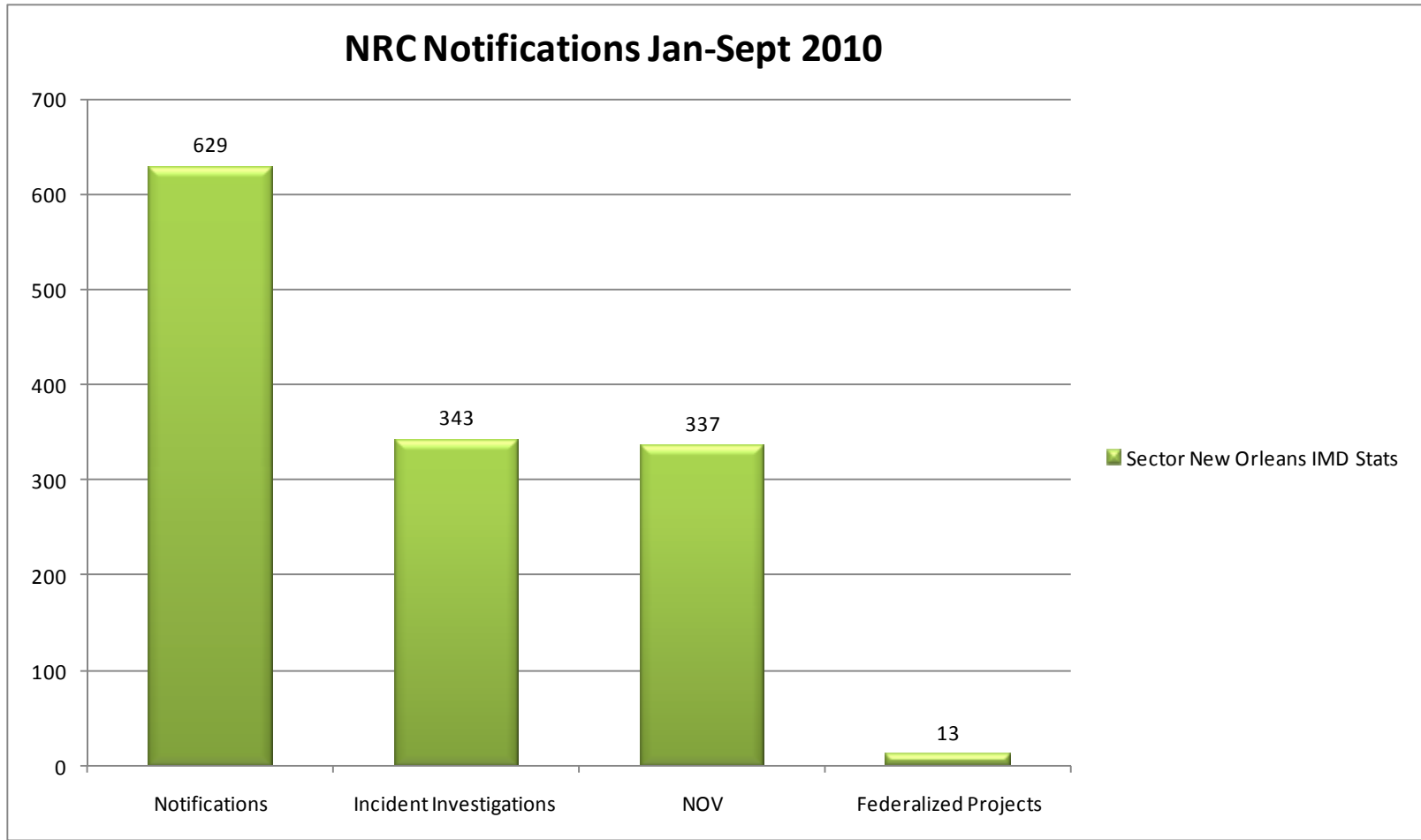
OSLTF Projects	CERCLA Projects
13	5



Sector New Orleans Incident Management Division Organization Plan August 10,2010



Sector New Orleans IMD Stats



Cedyco Mud Lake



Area Contingency Plan

- Last meeting was October 13, 2010
 - Attendance
 - Sign-up sheets for section updates
 - SMFF meeting after
- Workgroup tasking and ACP Plan of Action
- Next meeting scheduled for January 11, 2011



GC-IMT Coordination

- Back to normalcy
- NRC report coordination
- Same FOSC Authority different jurisdiction
- Transition













DWH Subsurface Monitoring Unit (SMU)

An

Interagency Effort to Characterize
the Subsurface Environment



Why SMU?

- Unprecedented deep sea application of dispersants
- Uncertain applicability of existing plans and dispersant pre-authorizations
- No existing monitoring protocols
- No single organization with all required capabilities



Goals

Determine the efficacy of subsurface dispersant injection

Determine the vertical and lateral extent of any Subsurface dispersed oil plumes encountered

Monitor for attainment of Dissolved Oxygen and toxicity “Shut Off” criteria

SMU participants



- **NOAA** – Project leadership, lead scientists, vessel scheduling
- **EPA** – sampling and monitoring oversight, QA/QC, data management
- **BOEM** – fixed monitor data, technical expertise
- **BP** – vessels and staffing, analytical services, scientific support
- **Academic Institutions** – Unique sampling and monitoring capabilities

SMU Structure



Unified Area Command
SMU Liaison
(New Orleans)

Support Team
(Houma)

Data Management
Team
(Houma)

Guidance Team
(Houma)

Subsurface Monitoring Unit, ICP-Houma

Key Challenges

- Coordination of vessels from multiple sources (NOAA, BP, Academia)
- Coordination of monitoring, sampling, and analytical protocols
- Staffing
- Safety
- Data reporting and management

Sampling Strategy



Priority 1: Sentry sampling (red):

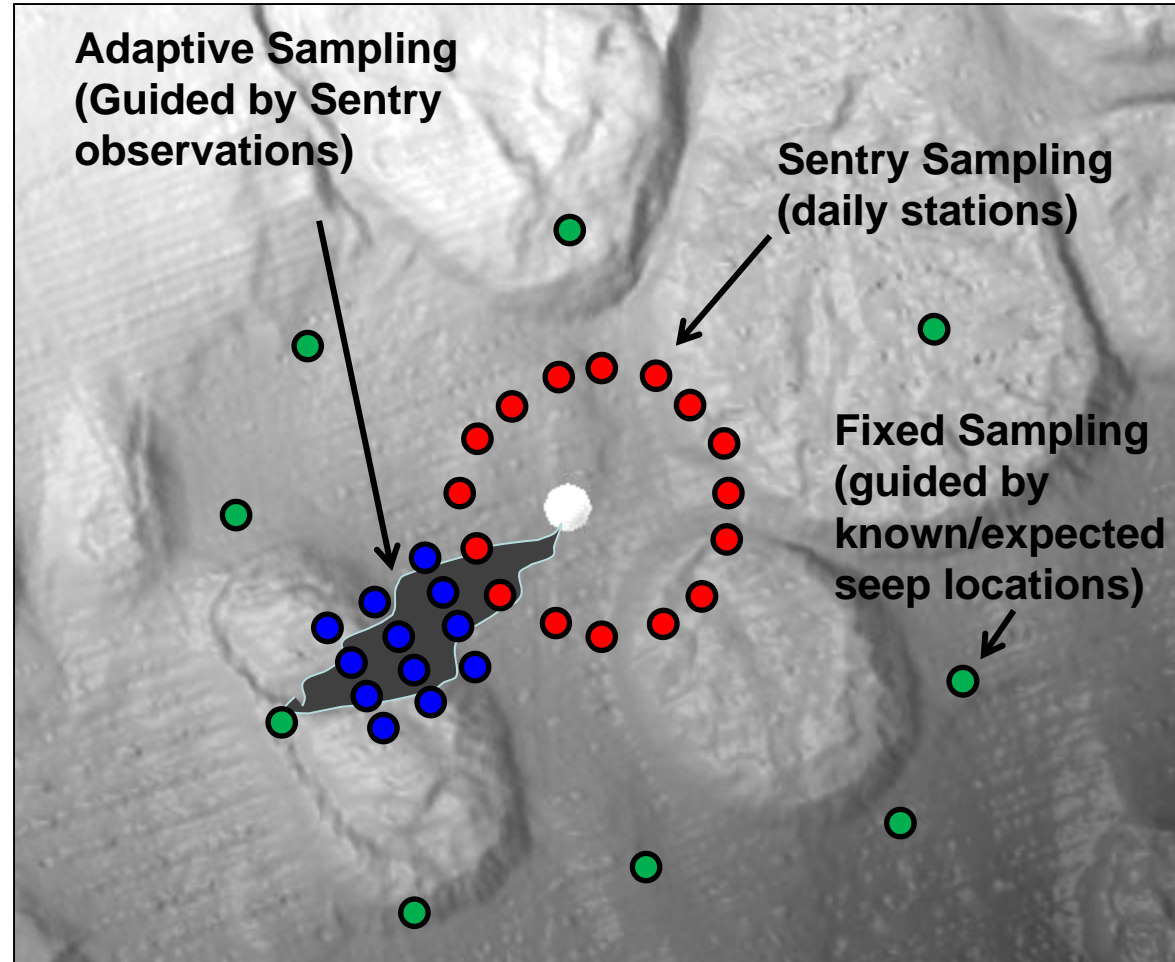
- Estimate flux (ADCP and model data)
- Guide adaptive sampling
- Inform subsea dispersant use

Priority 2: Adaptive sampling (blue):

- Understand horizontal dispersion
- Understand time evolution of oil (sample radials, downstream)

Priority 3: Fixed sampling (green):

- Understand background signal (w/respect to seeps, etc.)
- Evaluate anomalies



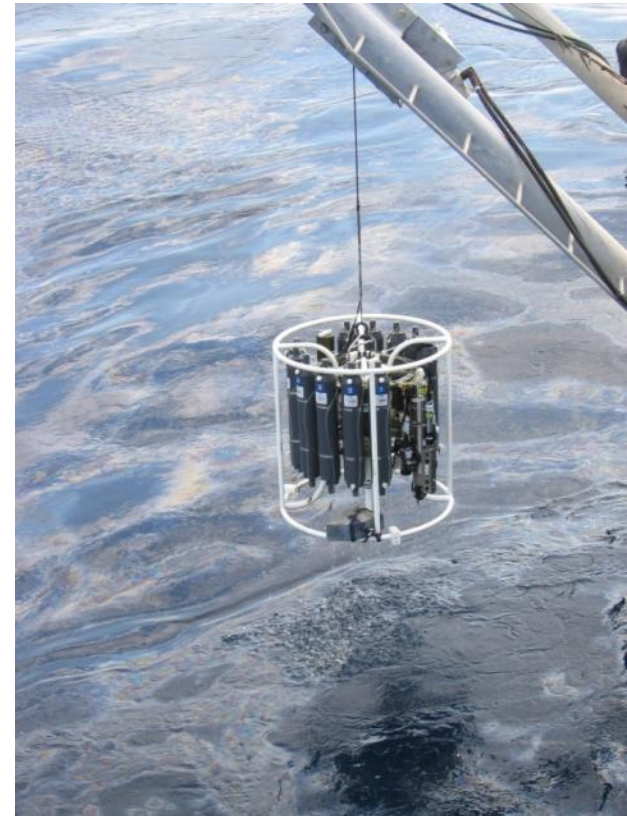
Deep Water Horizon

Subsurface Dispersant Monitoring



Methods and Analytical Parameters:

- Ship Based Acoustics
- ADCPs
- CTD probe results
- Dissolved Oxygen
- Rototox Toxicity
- TPH
- TPAH
- VOA
- LISST Particle analysis
- Dual wavelength Fluorescence
- Microbial Analysis

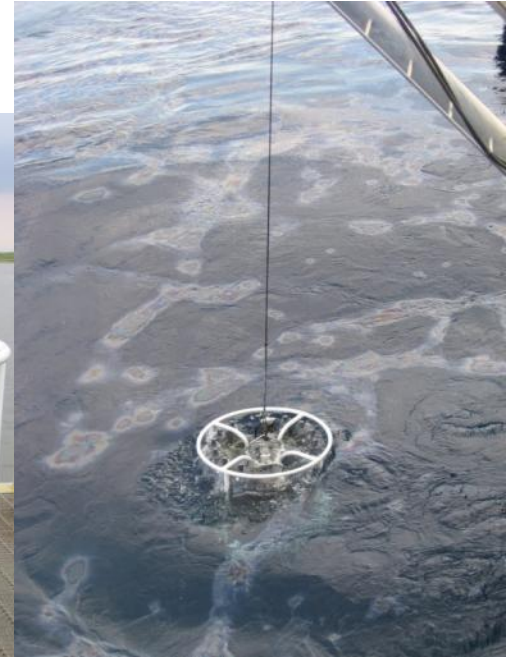


Deep Water Horizon

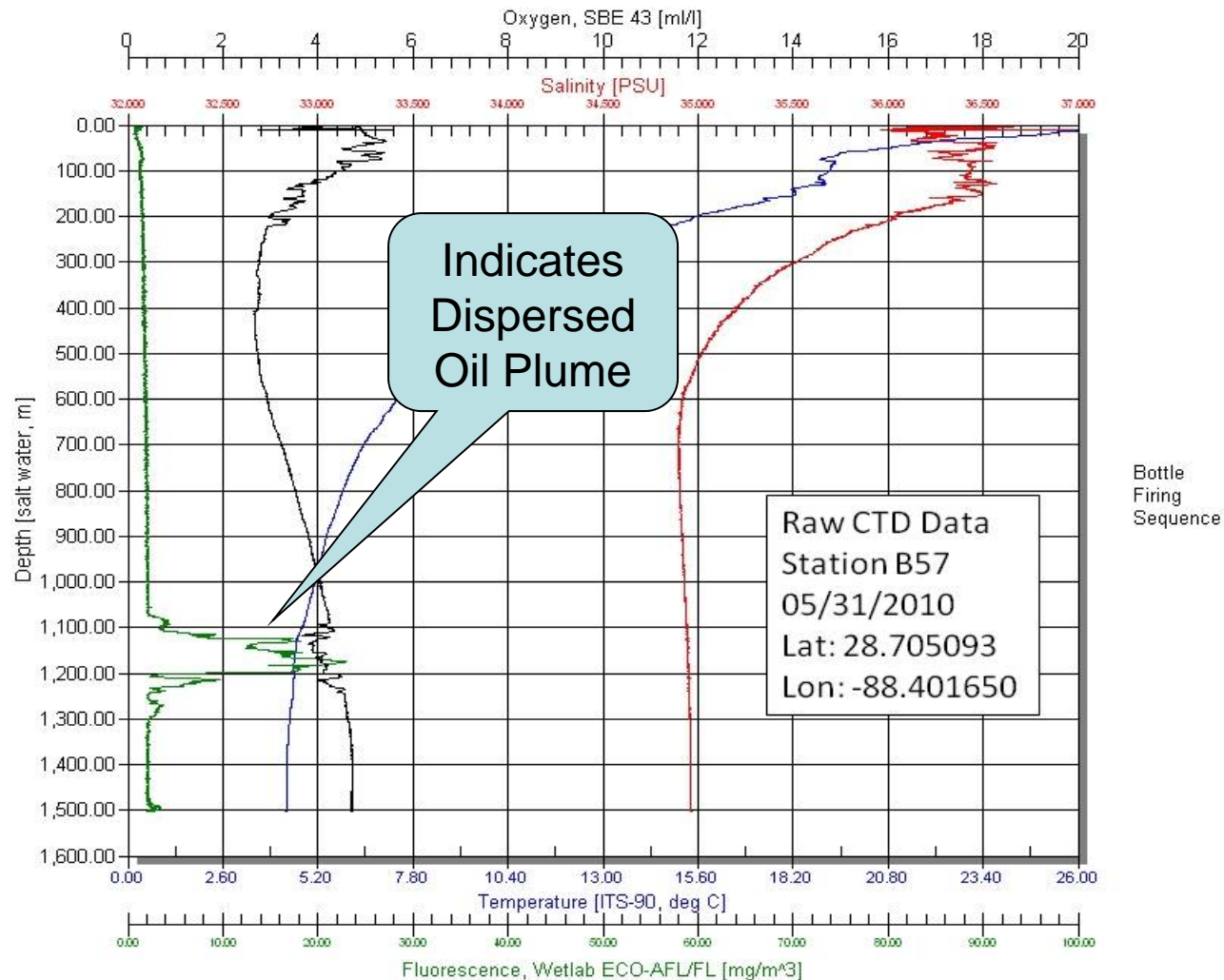
Subsurface Dispersant Monitoring



Conductivity,
Temperature,
UV Fluorescence
and Dissolved
Oxygen (CTD)
Probe on Rosette
Sampler



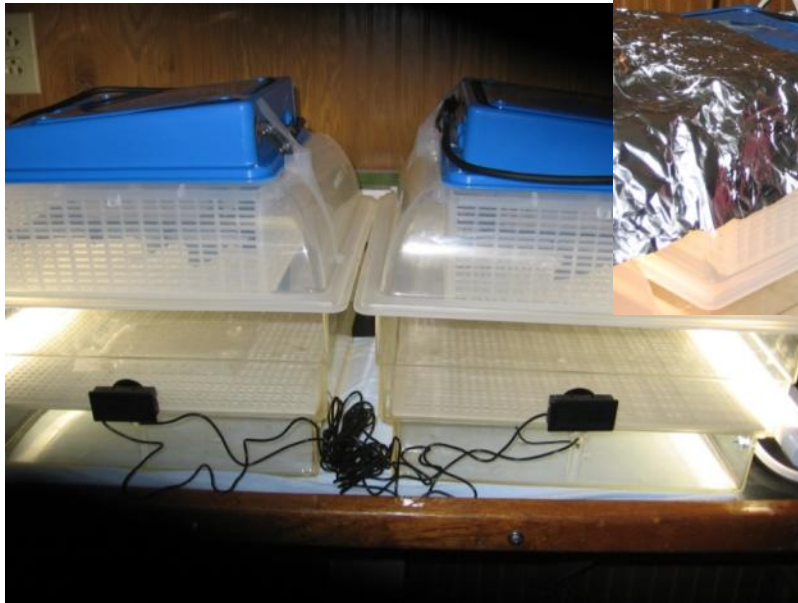
Deep Water Horizon



Deep Water Horizon

Subsurface Dispersant Monitoring

Rototox Toxicity Test

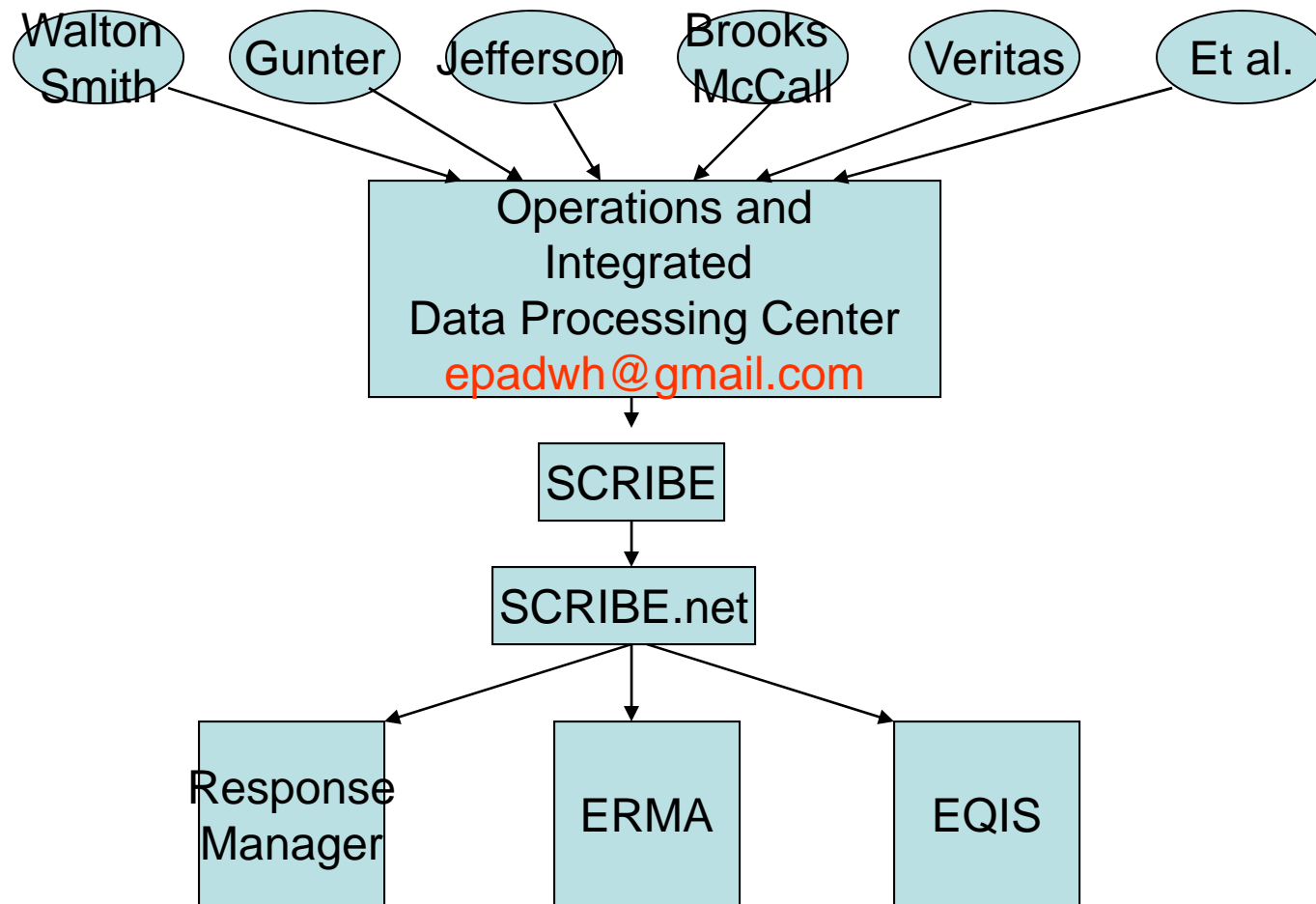


Deep Water Horizon

Subsurface Dispersant Monitoring



Data Flow





Lessons Learned

- Subsurface monitoring capability should be addressed in RCPs and ACPs.
- Data deliverables and management strategies must be developed early on.
- Monitoring and Analytical results must be communicated to unified command quickly.

Key Resources



- SMU Wiki

<https://www.st.nmfs.noaa.gov/confluence/display/OPP/Home>

- EPAOSC.net Data Access site

<http://www.epaosc.org/site/login.aspx>

- POCs:

Samuel Walker, PhD sam.walker@noaa.gov

Janet Baran, PhD janet.baran@noaa.gov

Jim Staves staves.james@epa.gov


Brandi Todd todd.brandi@epa.gov



Subsurface Monitoring Deepwater Horizon Response

Region 6 Regional Response Team
Winter Meeting
1-2 December 2010 - Addison, TX

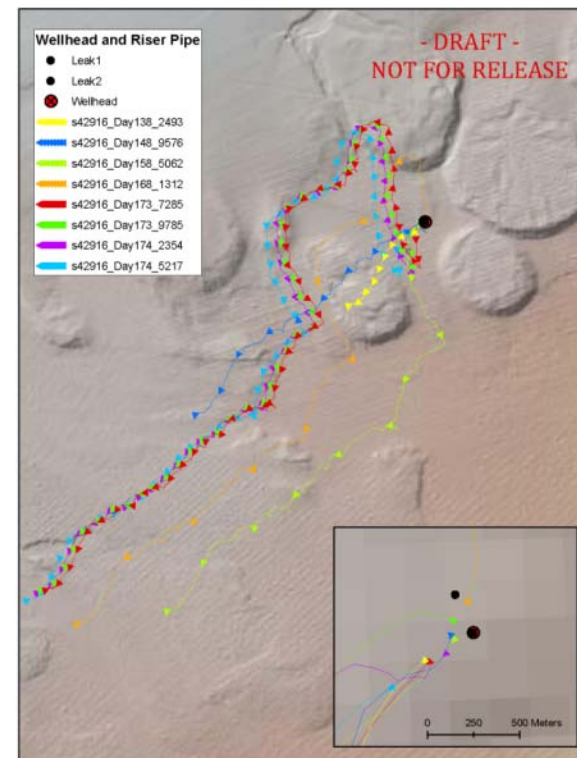
Dr. Samuel Walker
Integrated Ocean Observing System (IOOS) Program
NOAA, National Ocean Service

- 
- Role and Functions
 - Subsurface Monitoring
 - Results and Status
 - Lessons Learned

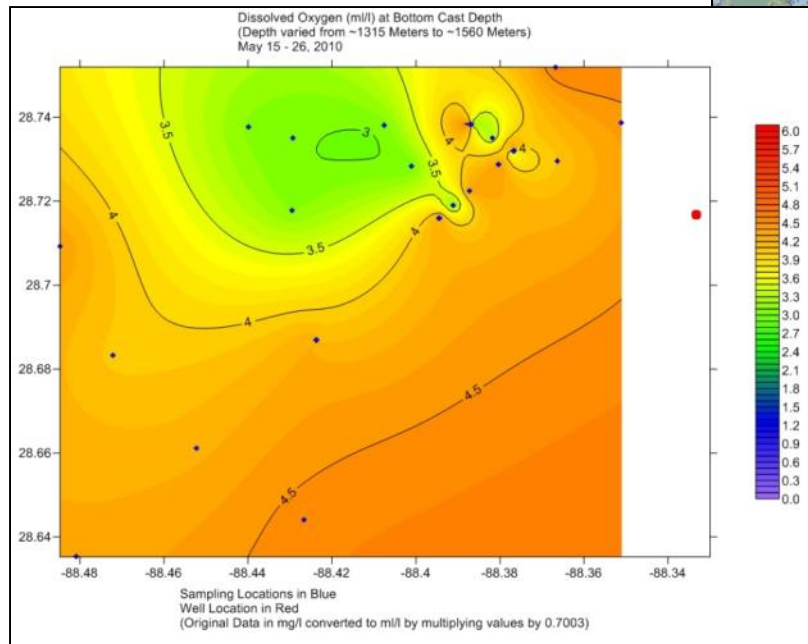
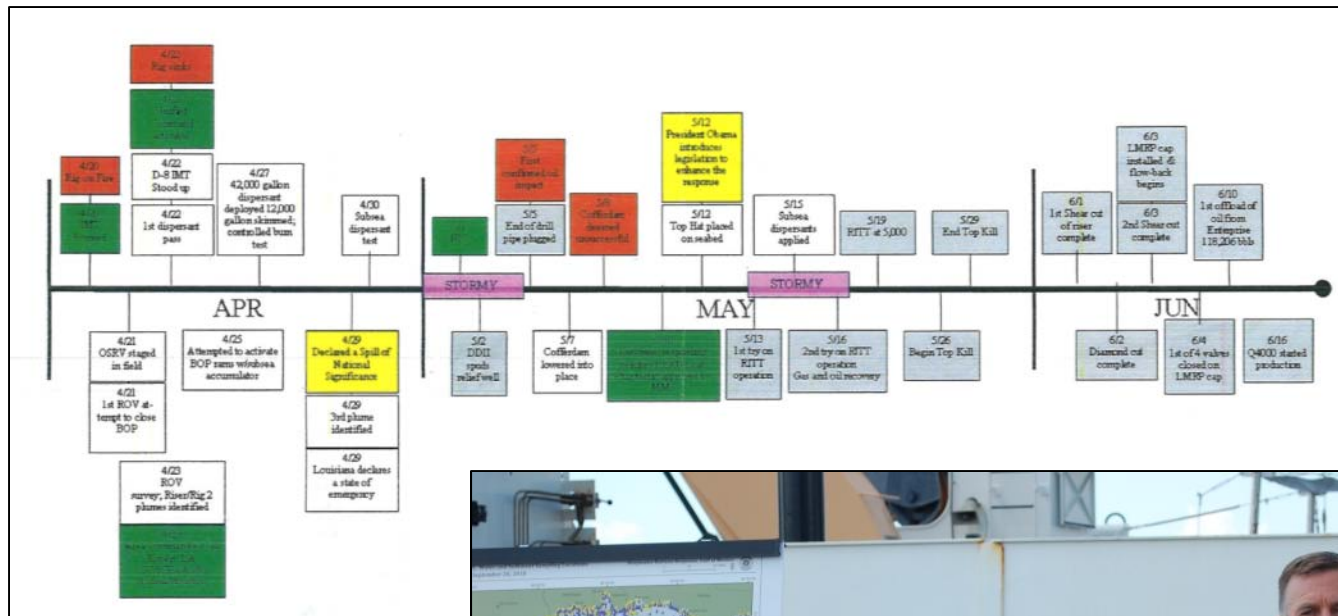
Primary Objectives

In support of the Unified Command response:

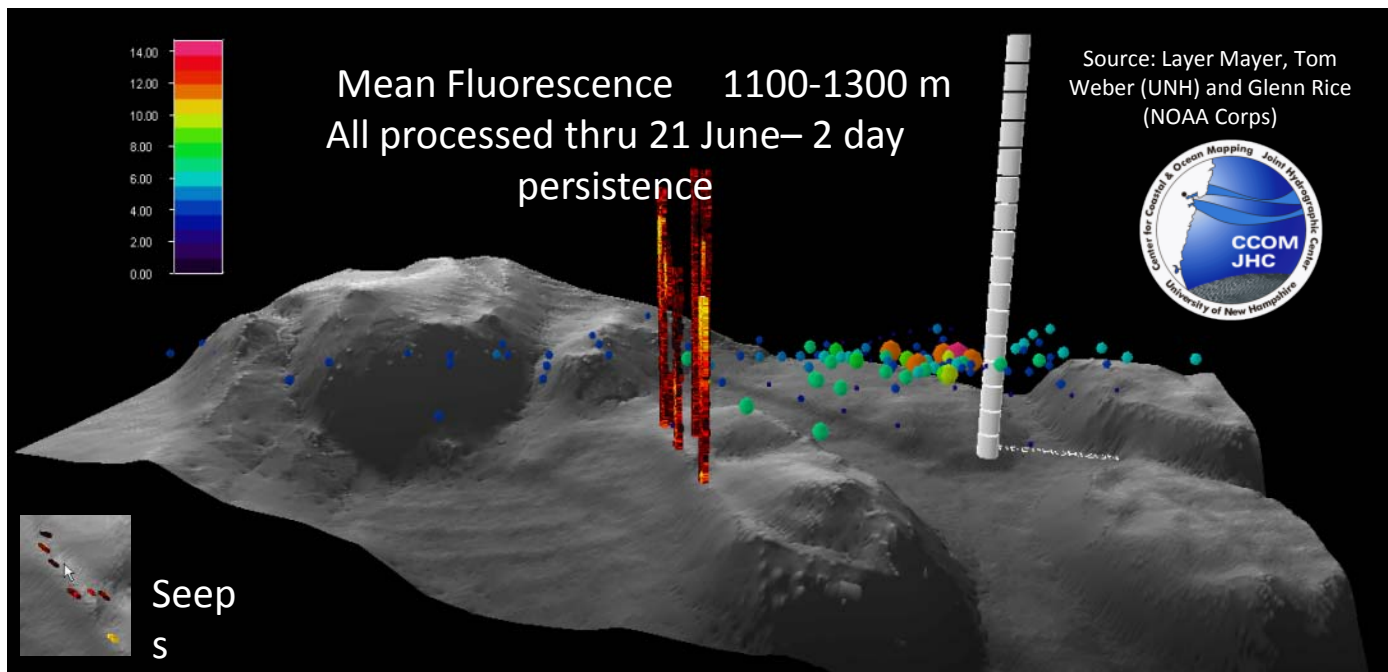
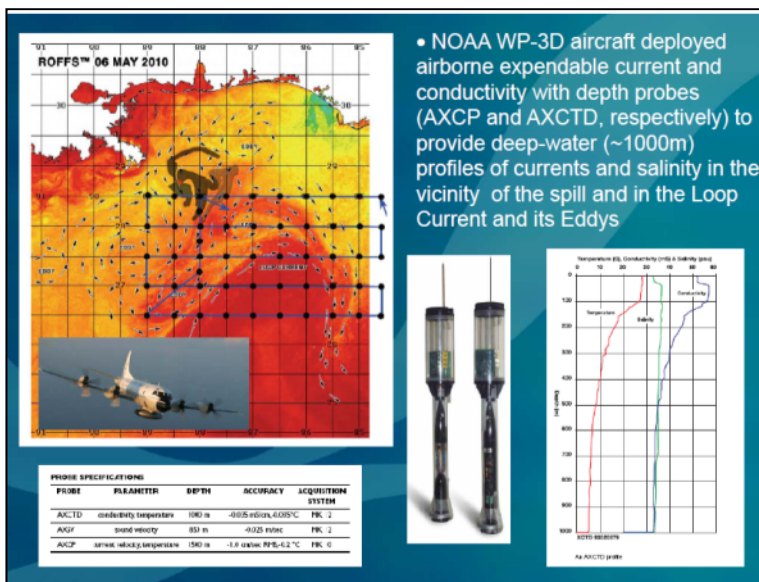
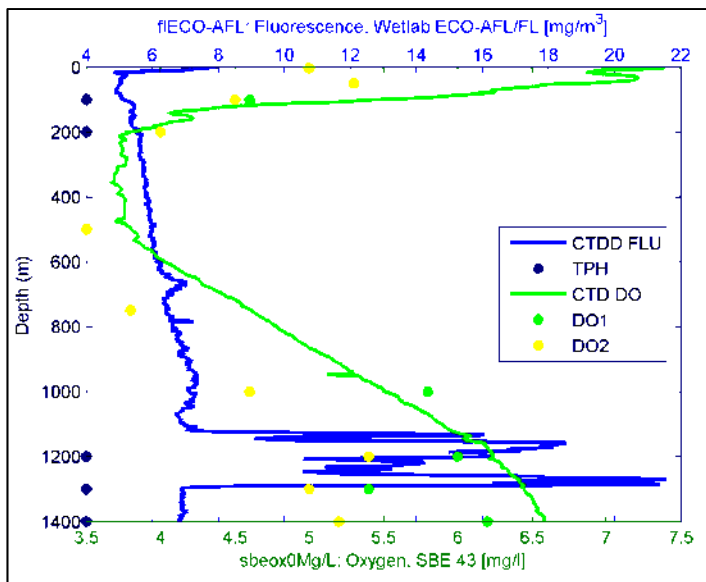
1. Characterize and determine the distribution of any subsurface oil beyond the immediate area of the release;
 - Presence/Absence (Where/Extent)
2. Identify changes in oil characteristics and transport associated with response measures at the release point;
 - Characteristics (What/Source)
3. Support verification of oil fate and transport models and
 - Fate/Transport (When/Forecast)
4. Provide context for longer-term integrated ecosystem assessment of oil spill impacts.
 - Impacts/Assessment



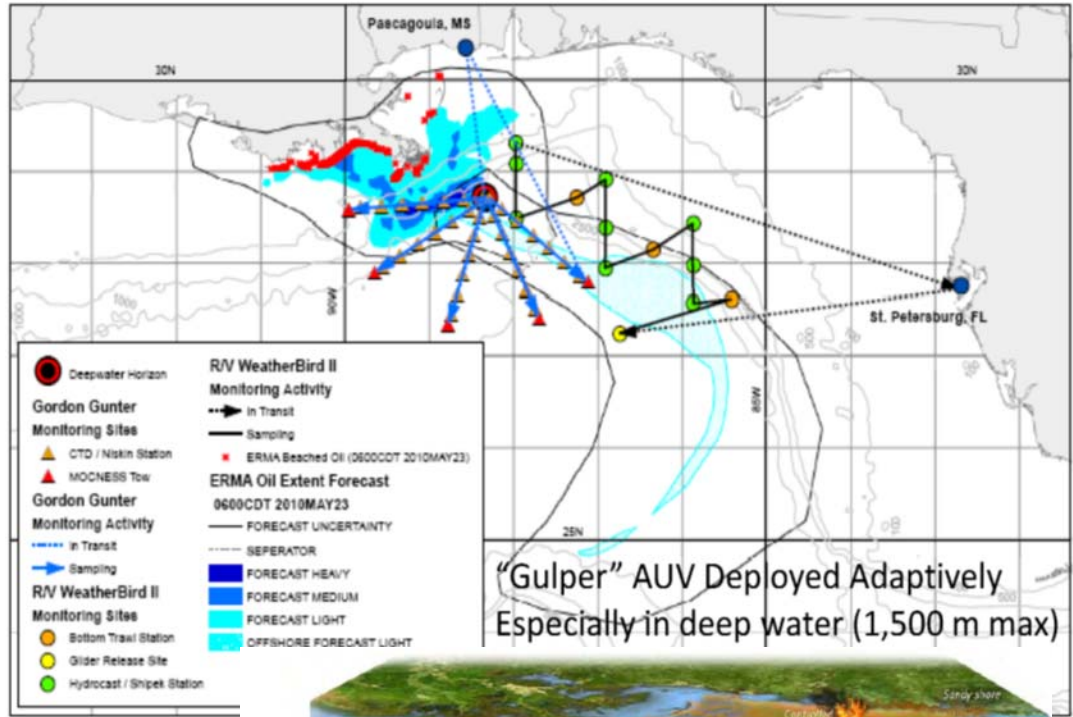
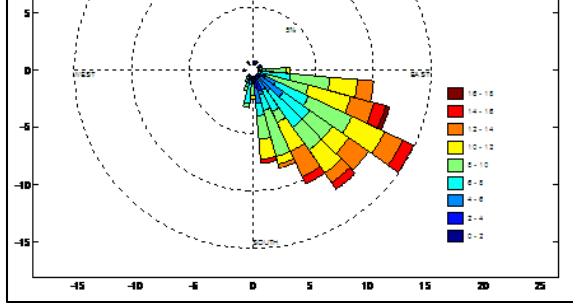
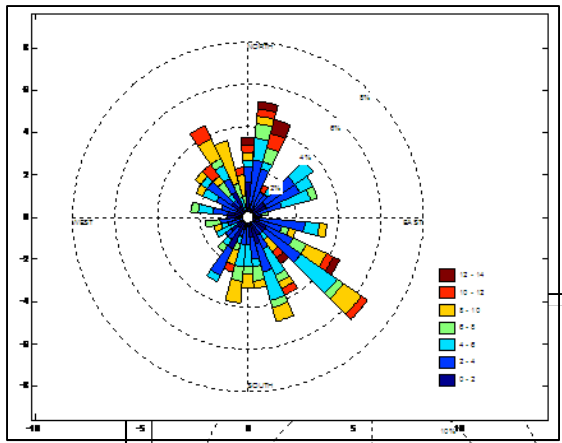
Addressing a Range of Operational Needs



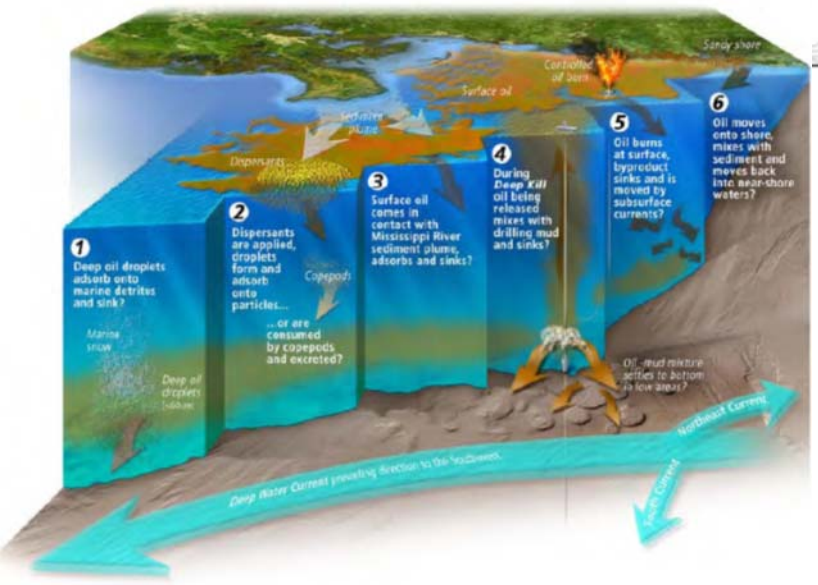
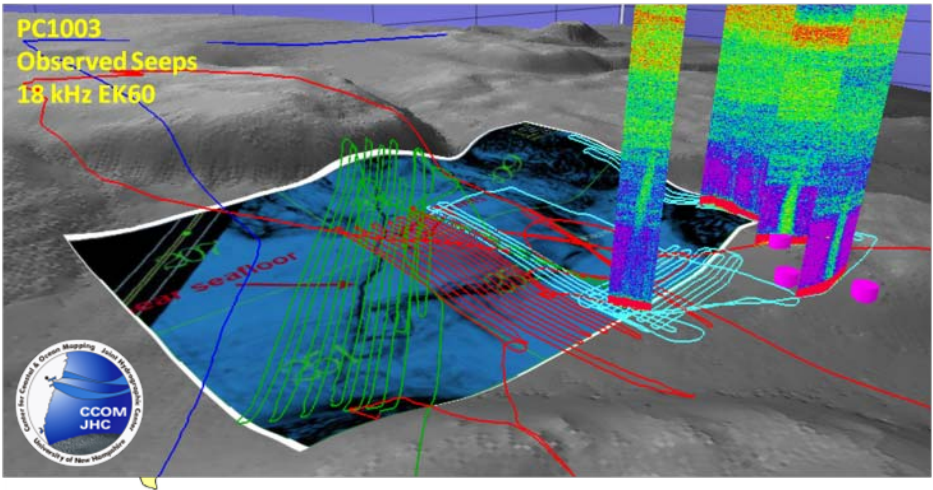
Changing Requirements



Changing Requirements

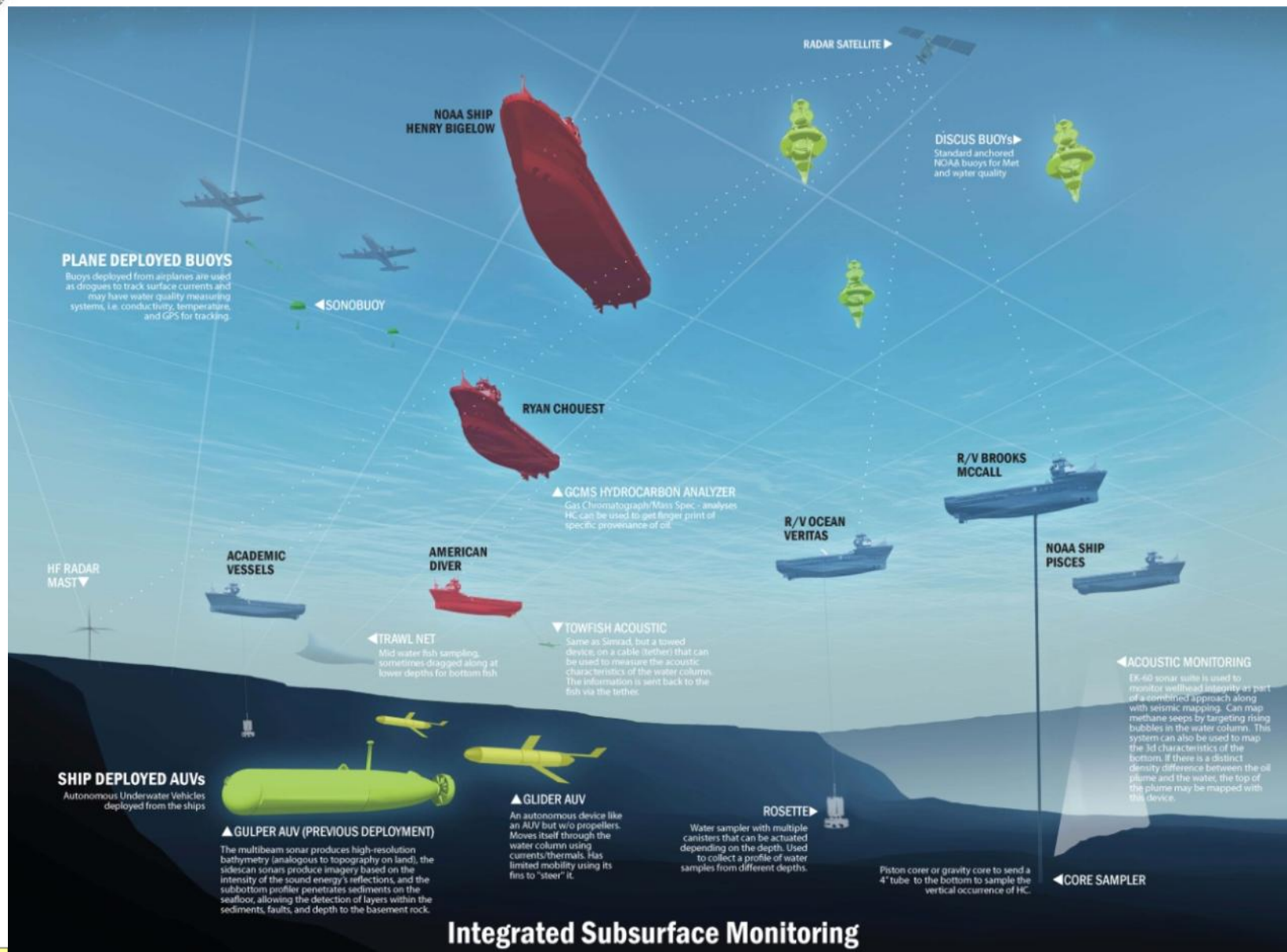


"Gulper" AUV Deployed Adaptively Especially in deep water (1,500 m max)



Req

Adaptive/Integrated Ocean Observing Approach



Integrated Subsurface Monitoring



Subsurface Monitoring Unit Composition



Key Positions:

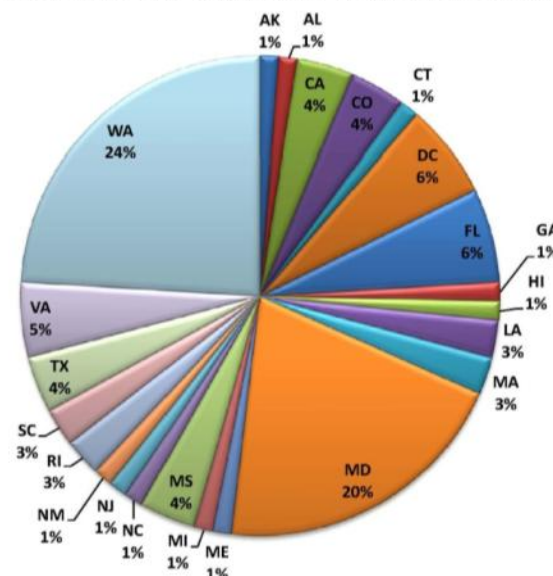
- Lead Scientist
- Chief (NOAA Corps)
- Operations/Staffing
- Logistics (NOAA/USCG)
- Data Coordinator
- GIS/SME
- Academic Liaison
- Data Embeds/IHs

- NOAA
- EPA
- USCG
- BOEMRE
- USGS
- NSF
- FL, MS, AL, LA
- NRDA/ASA

Related Teams:

- JAG
- OSAT
- Federal Data Centers
- ERMA/GeoPlatform
- Modeling

Personnel Associated with SMU -states represented



Sustained Monitoring Assets

Sub-surface assets:

- Surface vessels
- Ocean gliders
- Air-dropped profilers
- ADCPs
- Acoustics

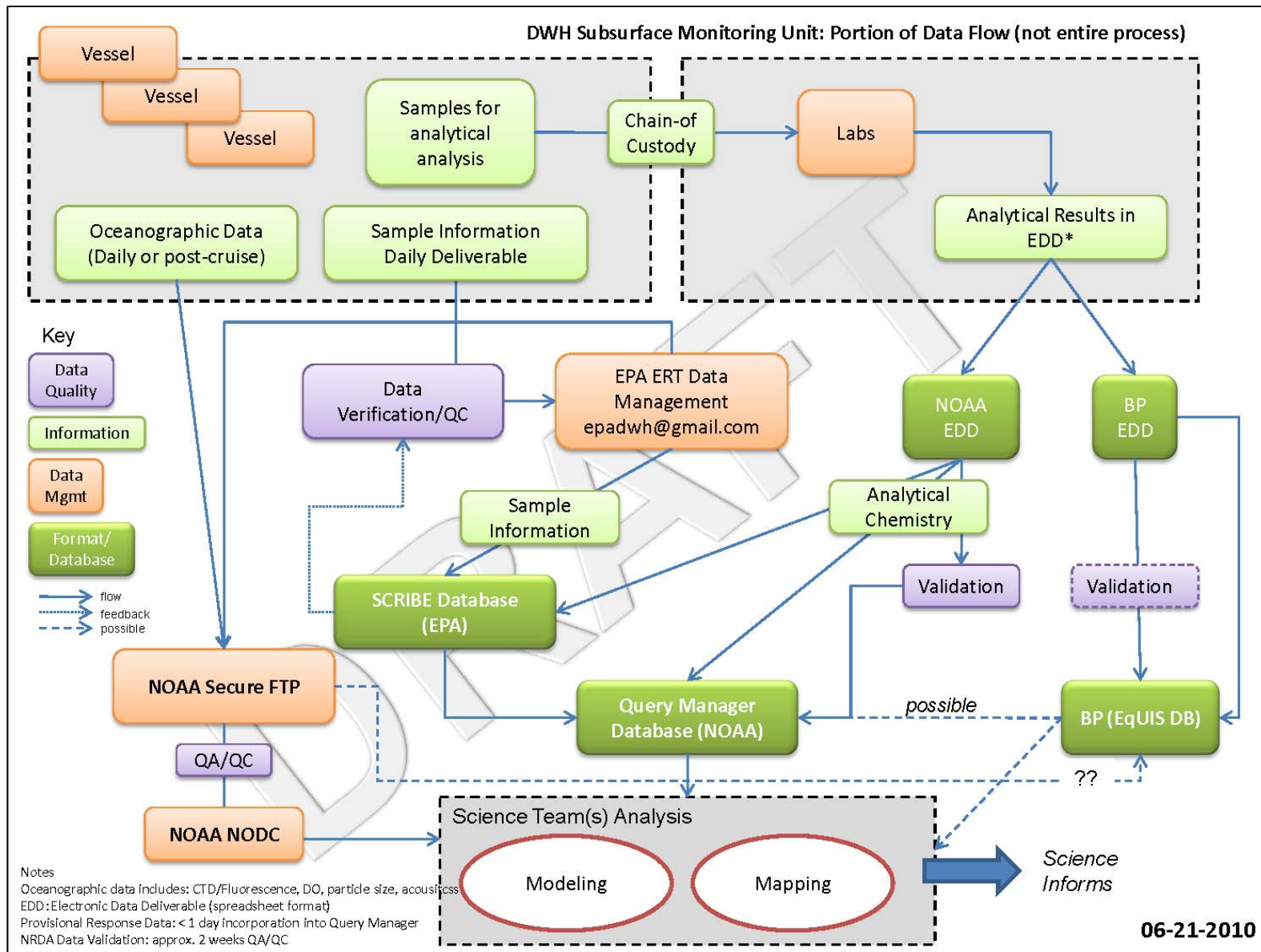
- Fluorescence
- Temperature
- Conductivity/Salinity
- Dissolved Oxygen
- LISST Particle Sizing
- TPH, TPAH, VOA

Surface assets:

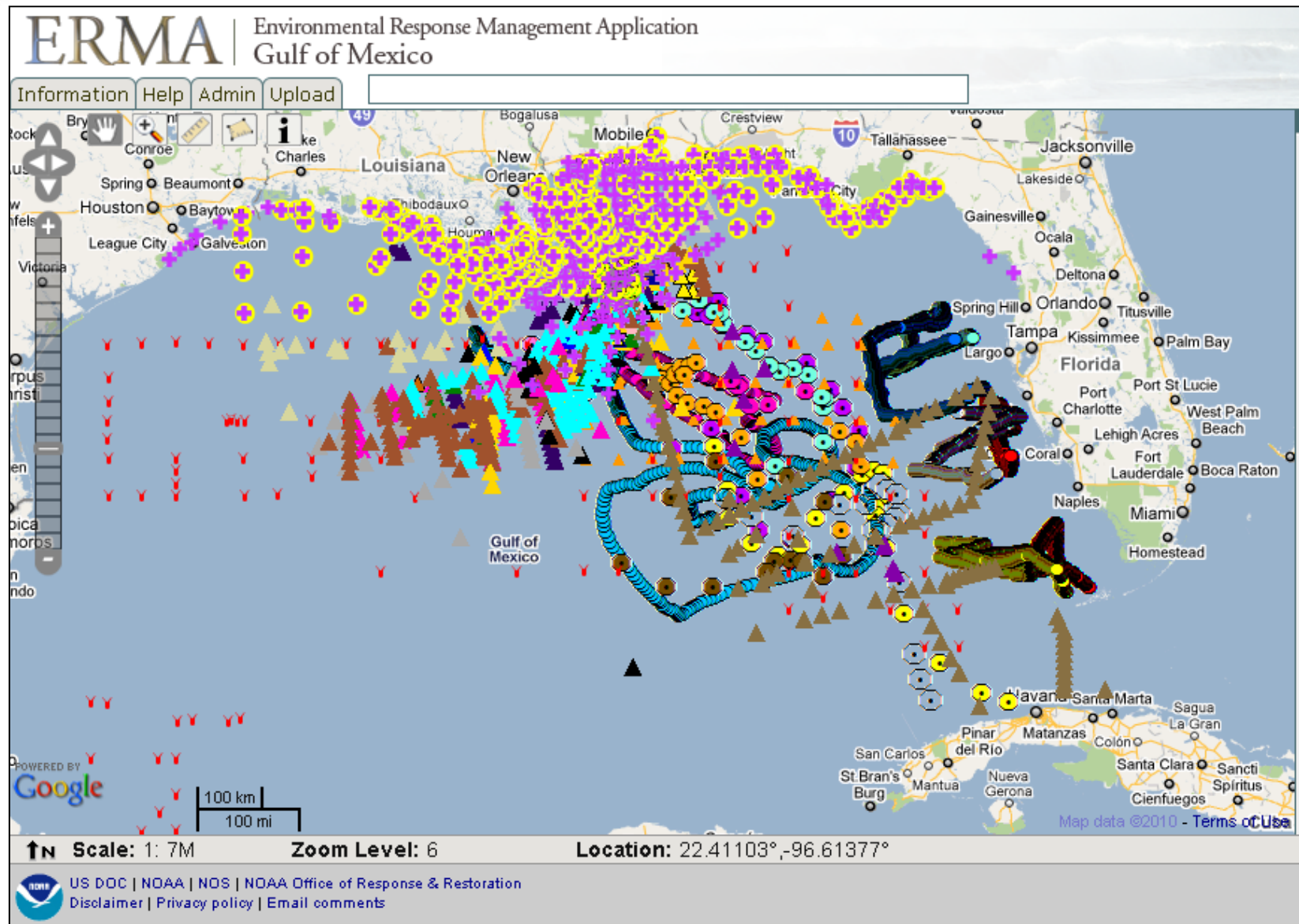
- High frequency radar
- Drifting buoys
- Remote sensing
- Moored buoys
- Wave gliders



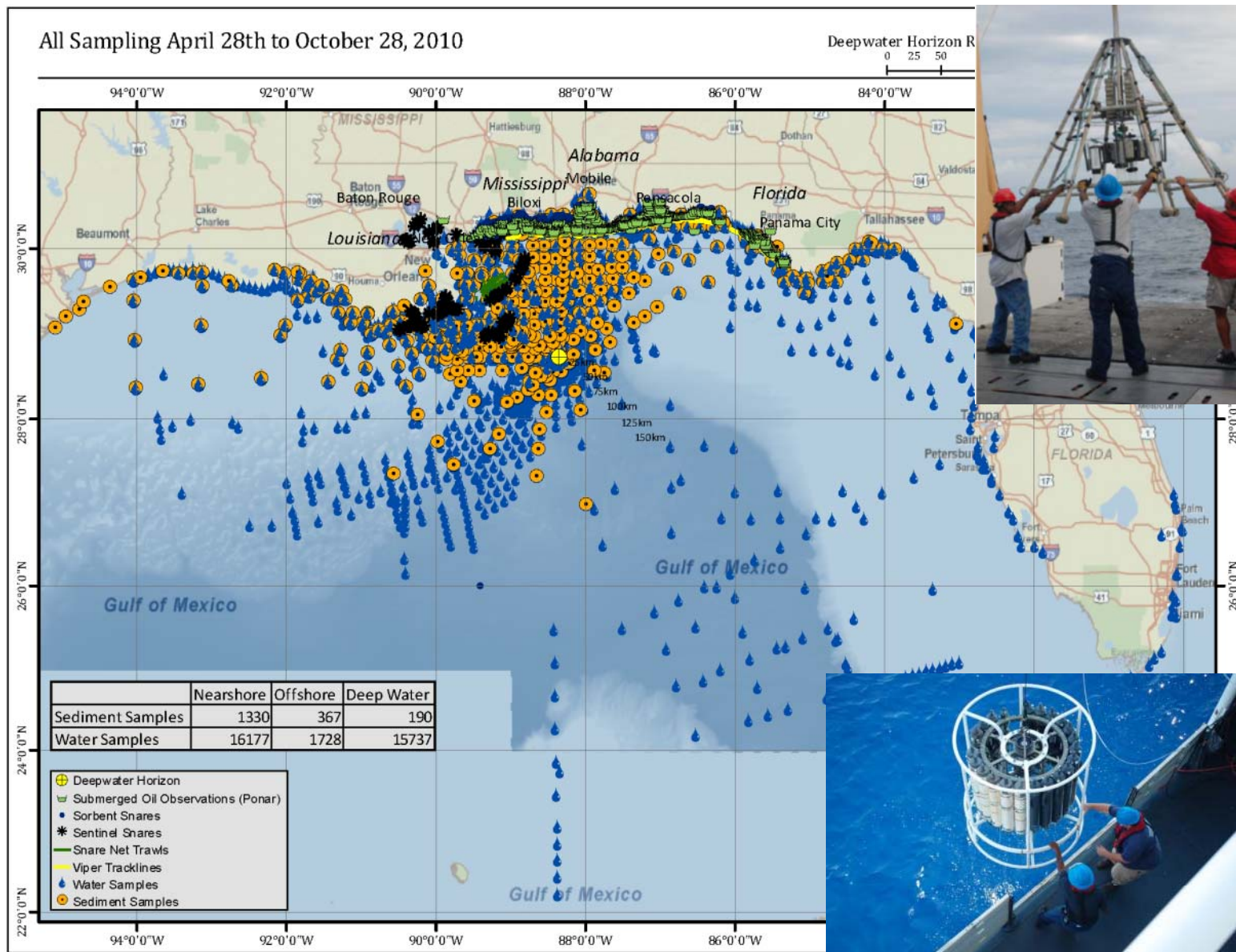
Generalized Subsurface Monitoring Data Flow



Subsurface Observing Locations for DWH Response

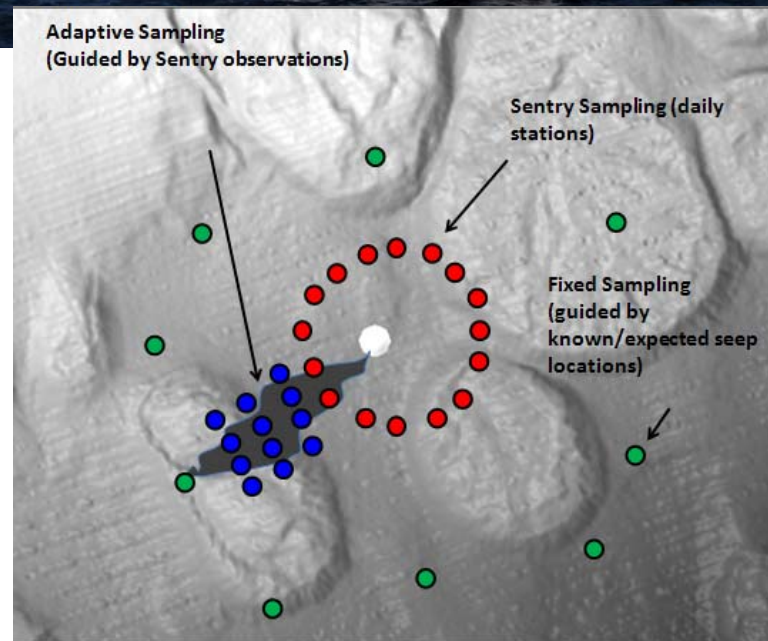


Location of Analyzed (Quantitative) Samples



Summary of Effort for SMU

- Over 25 open water vessels
- Over 125 dedicated cruises
- Over 850 days at sea
- Over 31,000 physical samples
- Over 40,000+ ocean obs. sites
- Data types collected:
 - Chemistry
 - Sediments
 - Acoustics
 - Imagery
 - Conditions



Synthesized Information to Define Sampling

- Source control/SIMOPS
- Model output
- Empirical data/statistics
- Understanding dynamics
 - Physical/chemical

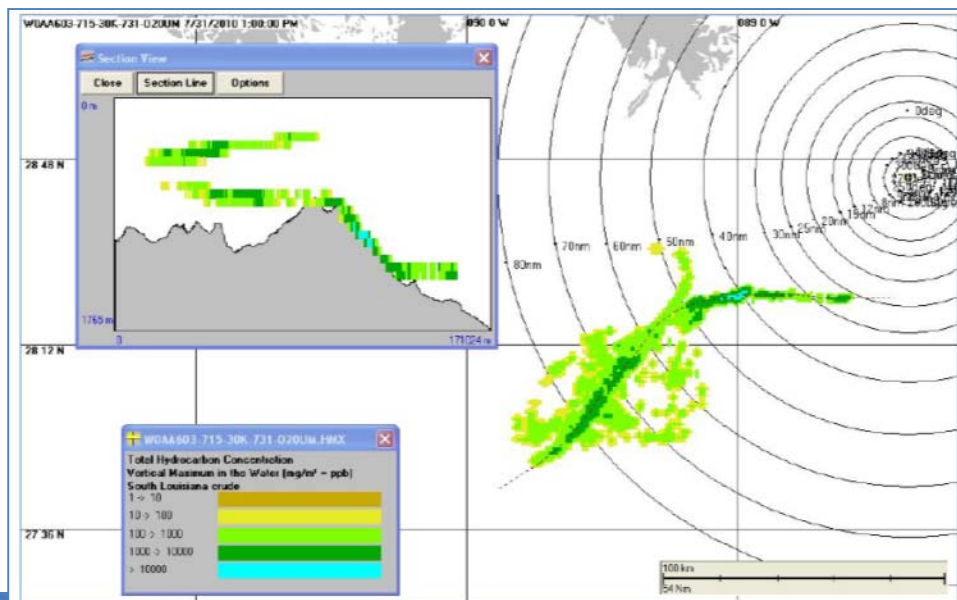
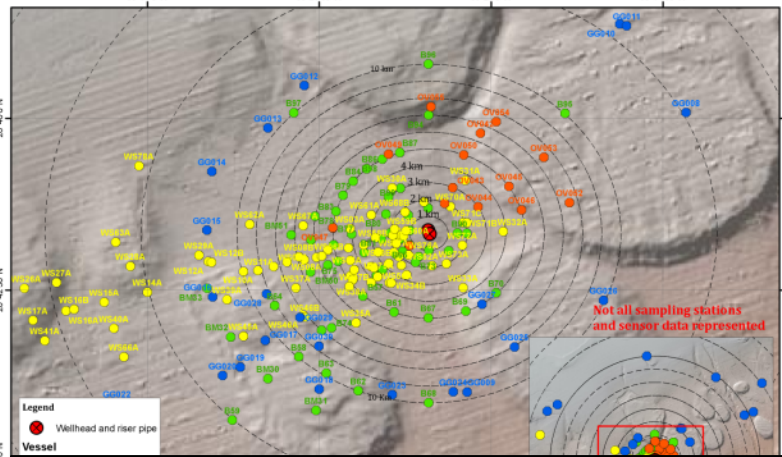


Figure 8. Modeled total hydrocarbon concentrations in oil droplets, assuming all droplets are 20µm in diameter (which also tracks movements of dissolved components), for a release from 3 June to 15 July, 2010 – snapshot taken Jul 31, 2010 at 1300 CDT – cross-section from W to E in the center of the plume.



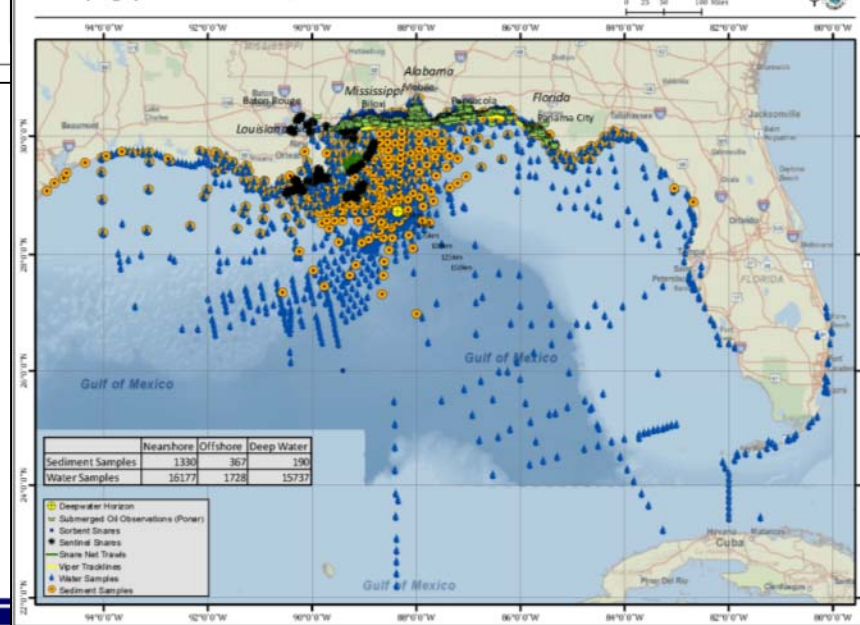
Sub-Surface Operational Products

Date: 06/24/2010
Subsurface Monitoring Stations
15 Km Area
CTD/Fluorescence/DO/Water Sampling Stations compiled by NODC 06/23/2010
Deepwater Horizon Response, Gulf of Mexico



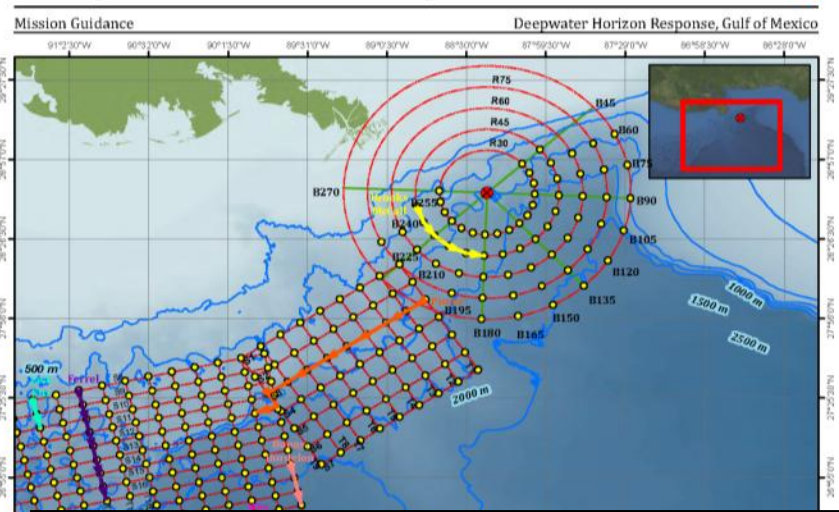
All Sampling April 28th to October 28, 2010

Deepwater Horizon Response, Gulf of Mexico



Date: 21-August-2010

Subsurface Monitoring: Mission Guidance

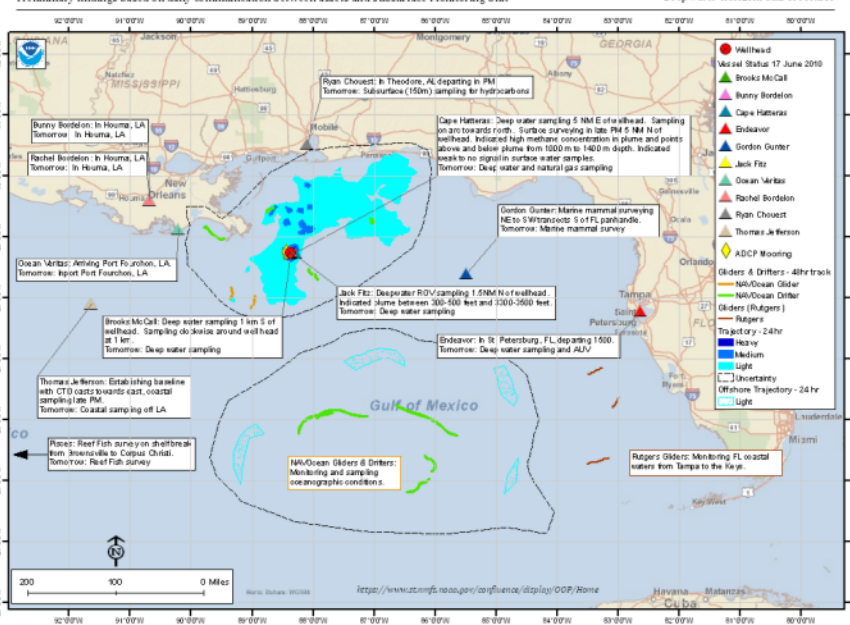


Date: 17-June-2010

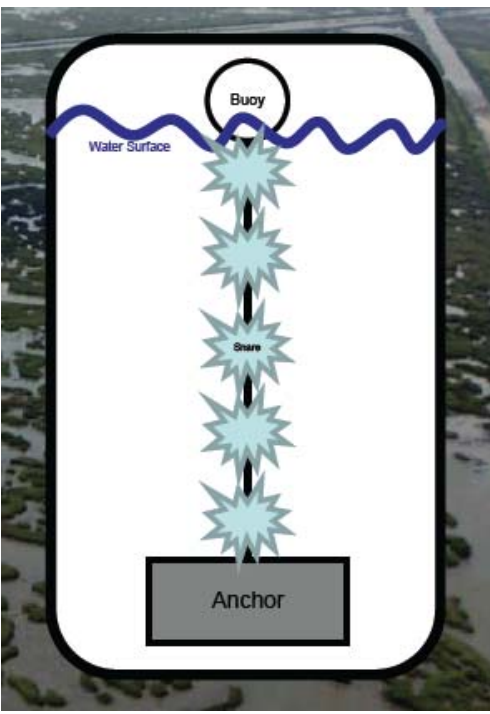
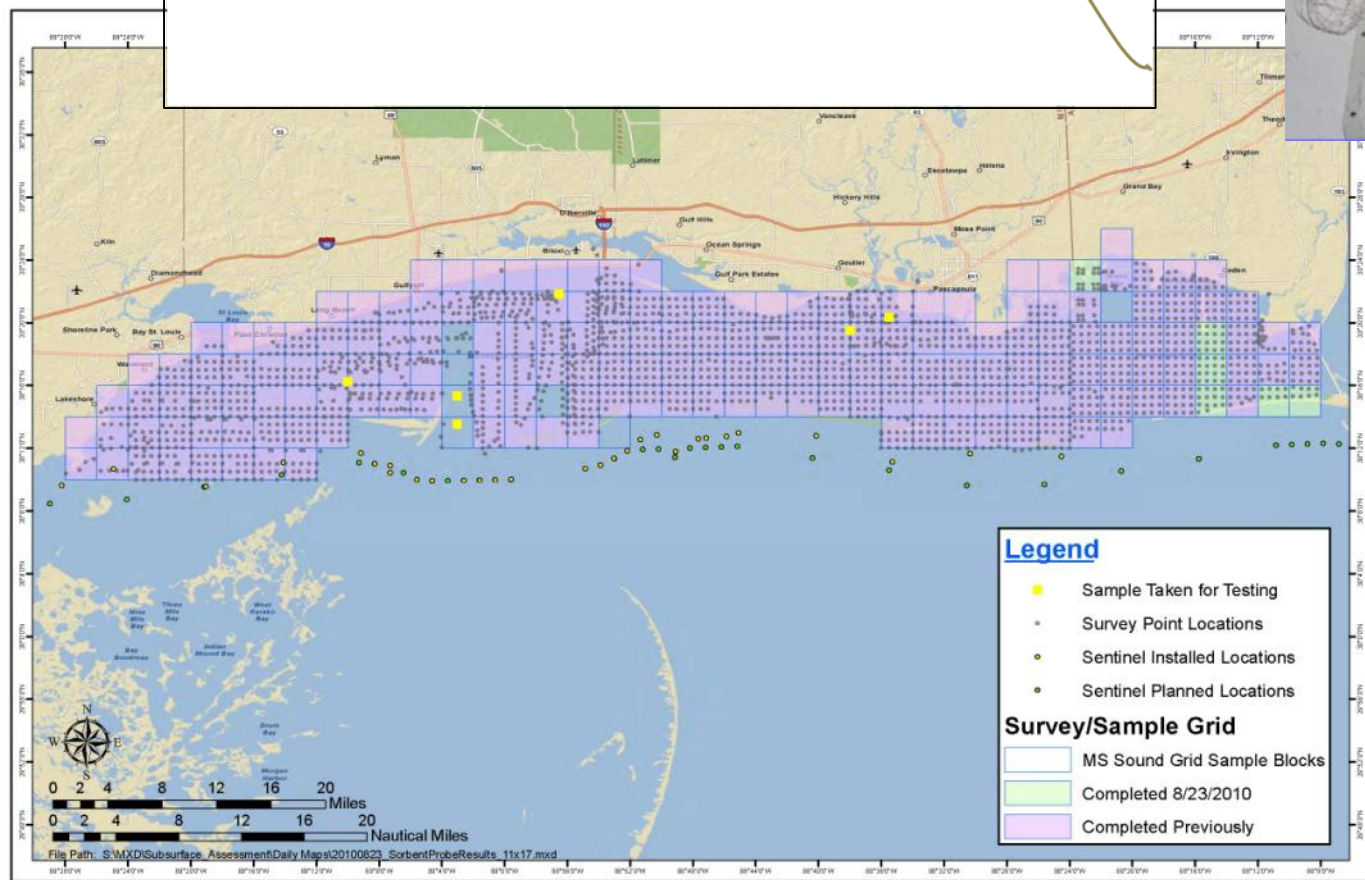
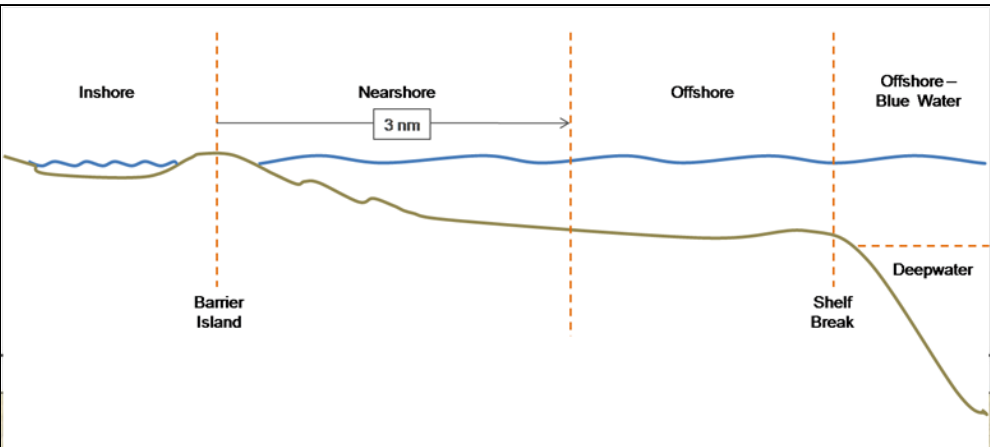
Subsurface Monitoring Ship Locations

OFFSHORE

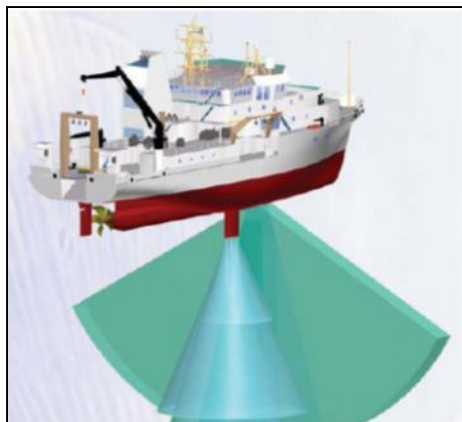
Preliminary findings based on daily communication between assets and Subsurface Monitoring Unit



Nearshore Sampling and Technologies

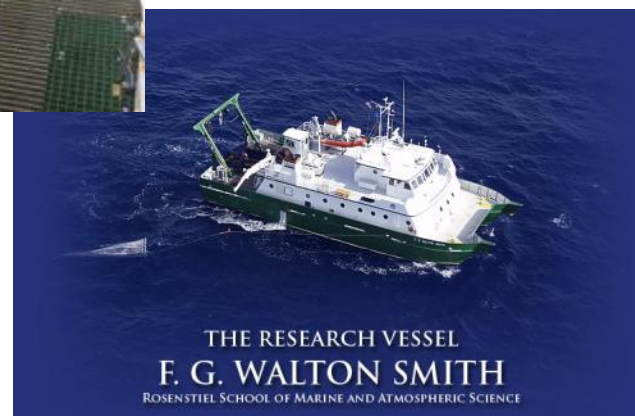
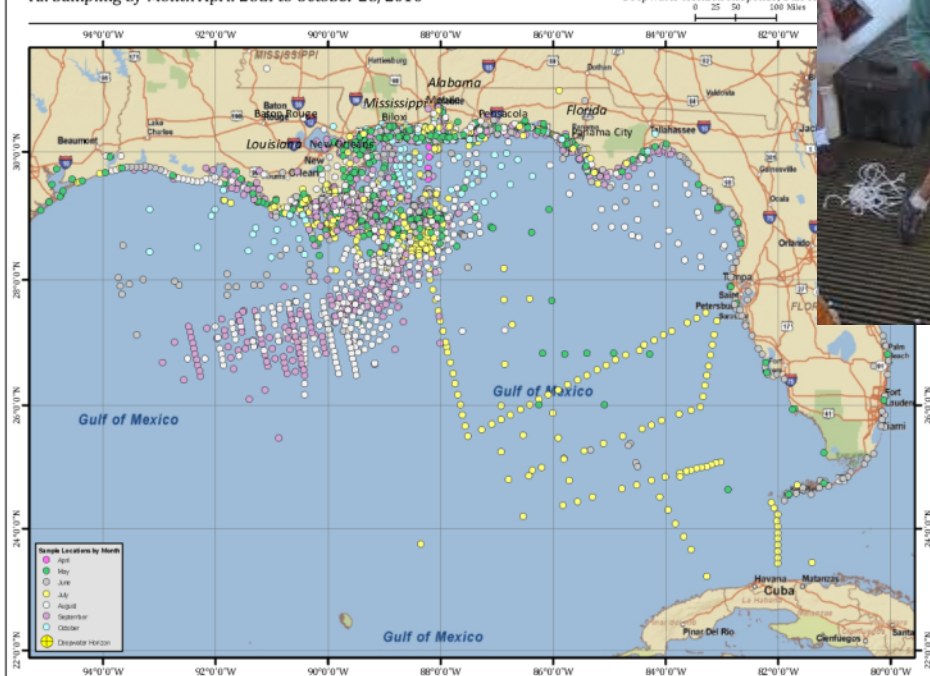


Offshore Sampling and Technologies

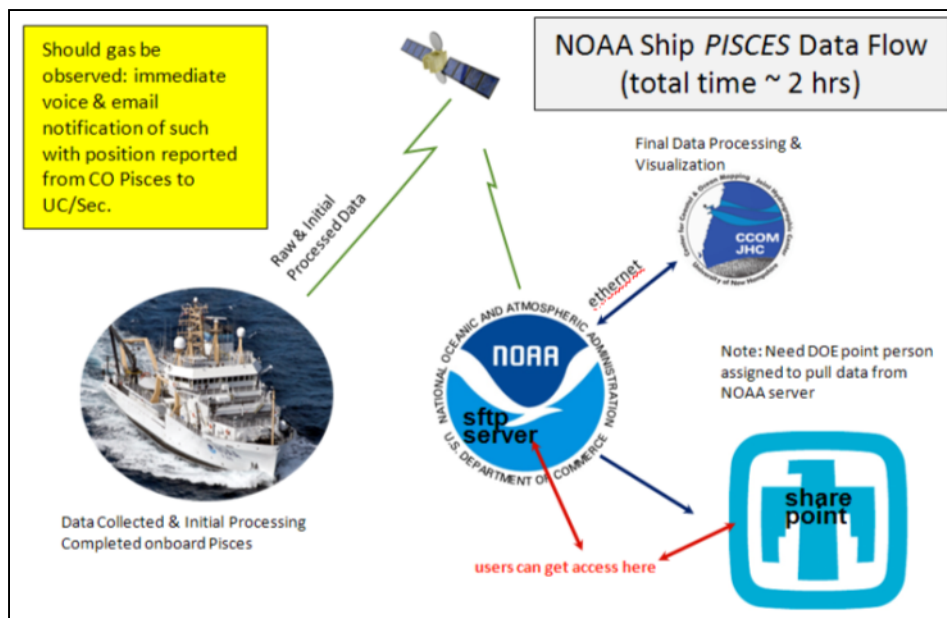
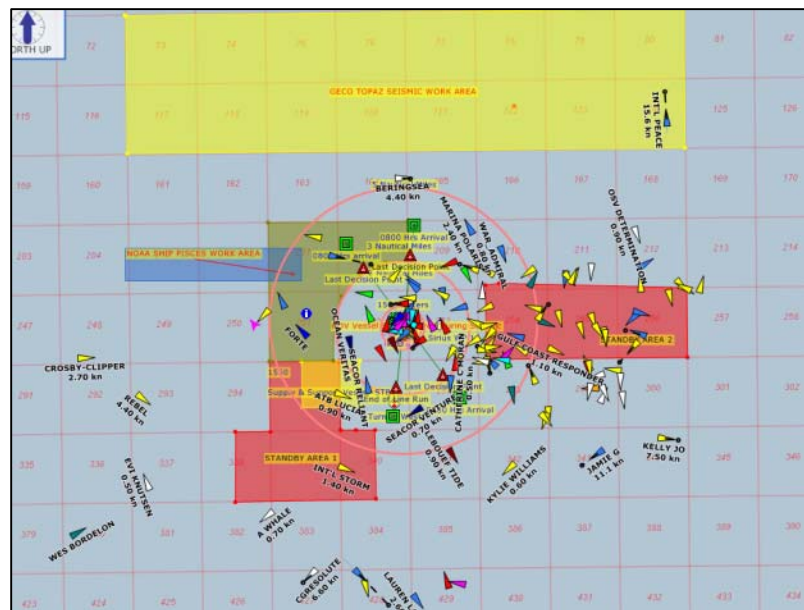
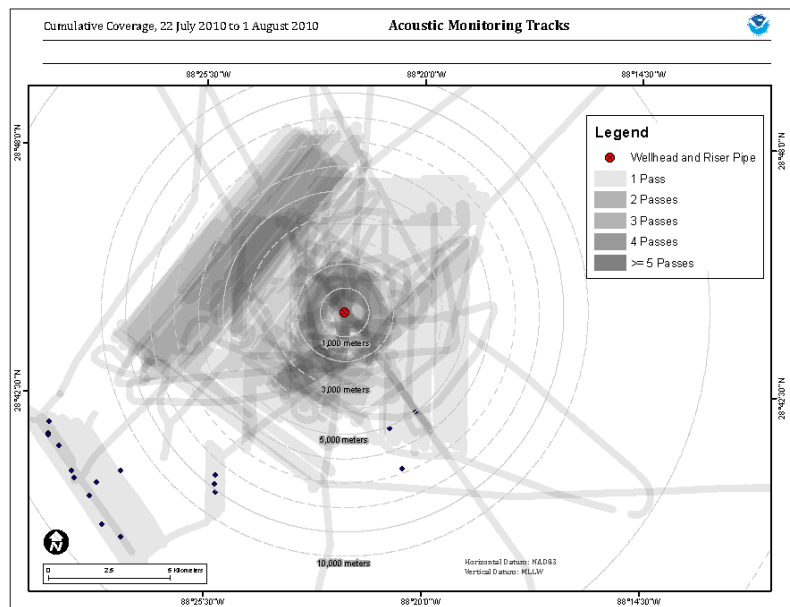
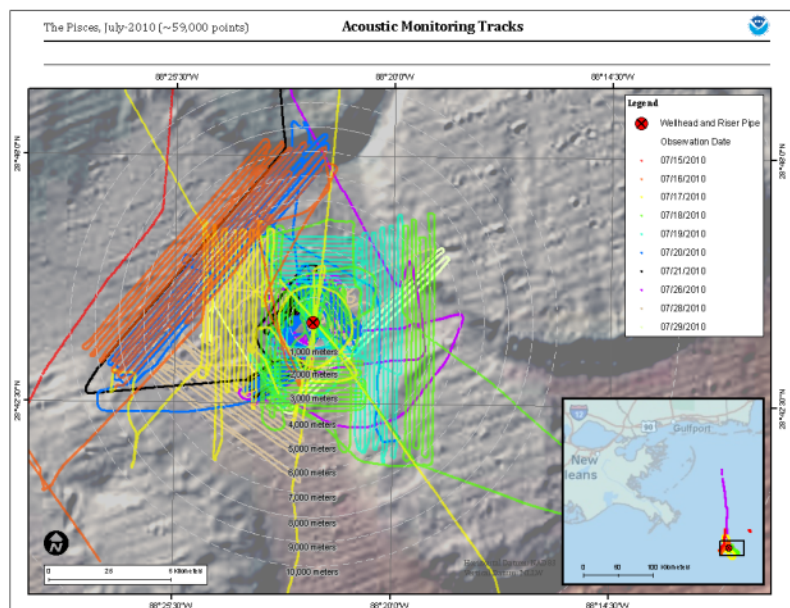


All Sampling by Month April 28th to October 28, 2010

Deepwater Horizon Response, Gulf of Mexico



Support of Wellhead Integrity Test (WIT)



Benthic and Wave Gliders

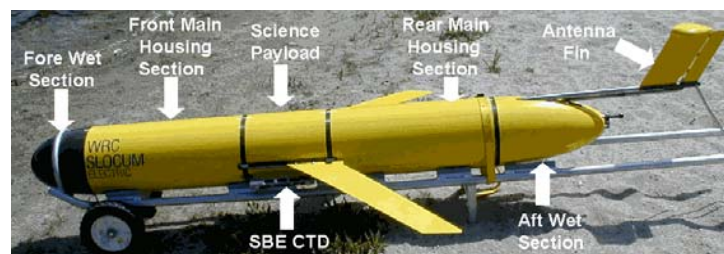
- Autonomous
- High Endurance
- Customized Payloads
- Typical Measurements:
 - temperature
 - salinity
 - currents
 - chlorophyll
 - fluorescence
 - acoustic backscatter
 - dissolved oxygen
 - XYZ, time



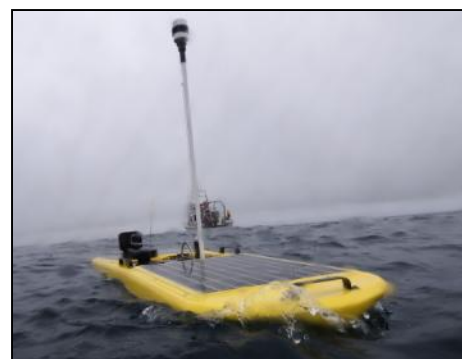
Spray Glider - Scripps



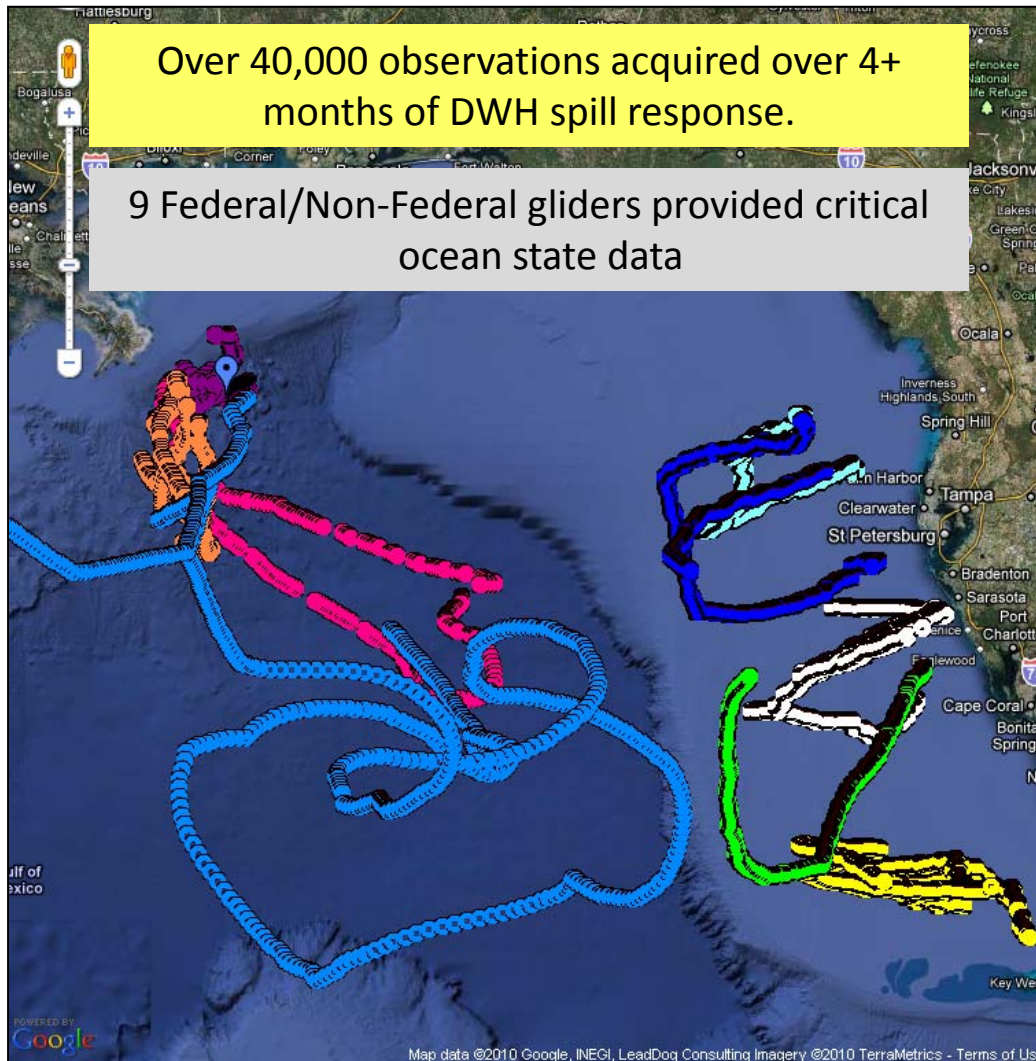
SeaGlider- IRobot®



Slocum Glider – Teledyne Webb Research



Wave Glider - Liquid Robotics®



<http://www.nodc.noaa.gov/General/DeepwaterHorizon/support.html>

<http://rucool.marine.rutgers.edu/deepwater/>

NATIONAL OCEANOGRAPHIC DATA CENTER (NODC)

[Back to Glider and Float Data](#) | [NODC Home](#)

Glider Data

Long load times are possible.

If all gliders do not appear please refresh the page.

An underwater glider is a type of autonomous underwater vehicle (AUV) that uses small changes in its buoyancy in conjunction with wings to convert vertical motion to horizontal, and thereby propel itself forward with very low power consumption. This is a Google Maps presentation of oceanographic data stored in the [Global Temperature and Salinity Profile Programme \(GTSP\)](#) database in the vicinity of the BP Deepwater oil spill.

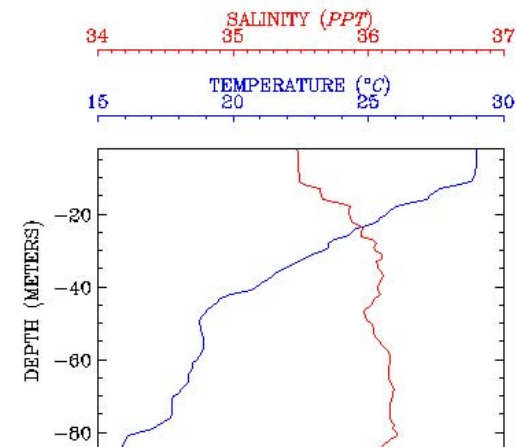
Click any data point to get detailed information about that point.

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Glider 48900 | <input checked="" type="checkbox"/> Glider 48901 | <input checked="" type="checkbox"/> Glider 48902 |
| <input checked="" type="checkbox"/> Glider 48903 | <input checked="" type="checkbox"/> Glider 48904 | <input checked="" type="checkbox"/> Glider 48905 |
| <input checked="" type="checkbox"/> Glider 48906 | <input checked="" type="checkbox"/> Glider 48908 | <input checked="" type="checkbox"/> Glider 48909 |
| <input checked="" type="checkbox"/> Glider 48910 | | |

CallSign: 48901

GTSP DBID: 9434472

LAT: 27.788°N LON: 84.425°W 2010/05/31 12:50 UTC



NOAA/NESDIS/NODC

Specialized Observing Platforms



MBARI Gulper:

- Hybrid AUV-Glider
- Deployed for DWH
- Capable of Sample Capture
- Carries Sensor Payload



MBARI Gulper being deployed from NOAA Ship *Gordon Gunter* in support of Deepwater Horizon response



Initial Sub-Surface Observations



- Fluorometry and CTD observations are excellent complementary tools
- Dissolved oxygen depression (but not hypoxia) observed
- Very few measured exceedences of human/ecological thresholds
- Subsurface model projections were validated by *in situ* observations
- Strong evidence of dispersed oil between 1000m-1400m (at depth)
- Particle-sizing is an important technique for determining dispersion path
- Ongoing evaluation of acoustic technology (dispersed oil and seeps)
- Both direct and indirect sampling/monitoring techniques were useful
- Degradation in deepwater environments remains an area for future study

Sampling Results and Status

Map Date: 27-August-2010

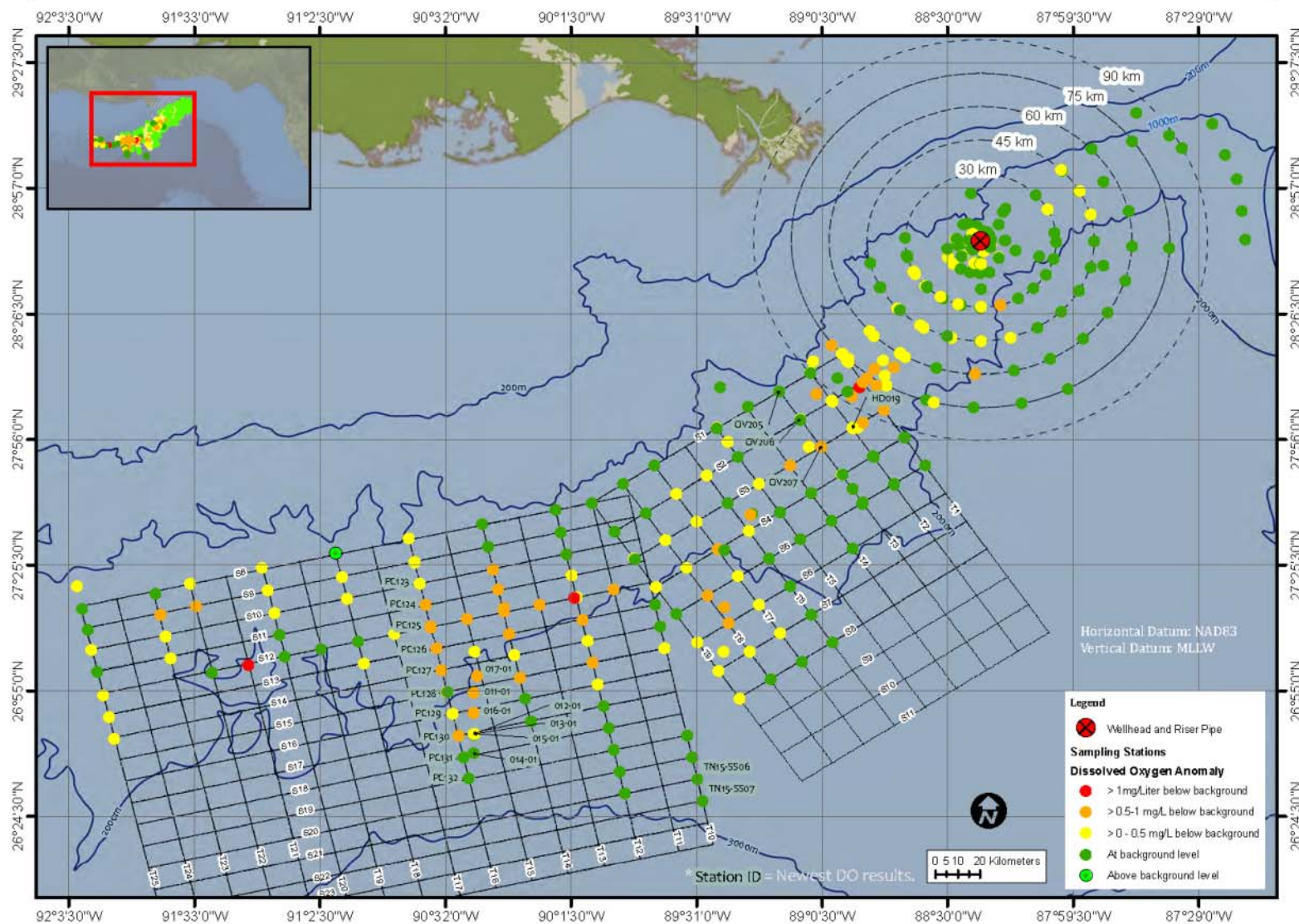
Dissolved Oxygen Results 1000 - 1500 Meter Depths

Mission Guidance

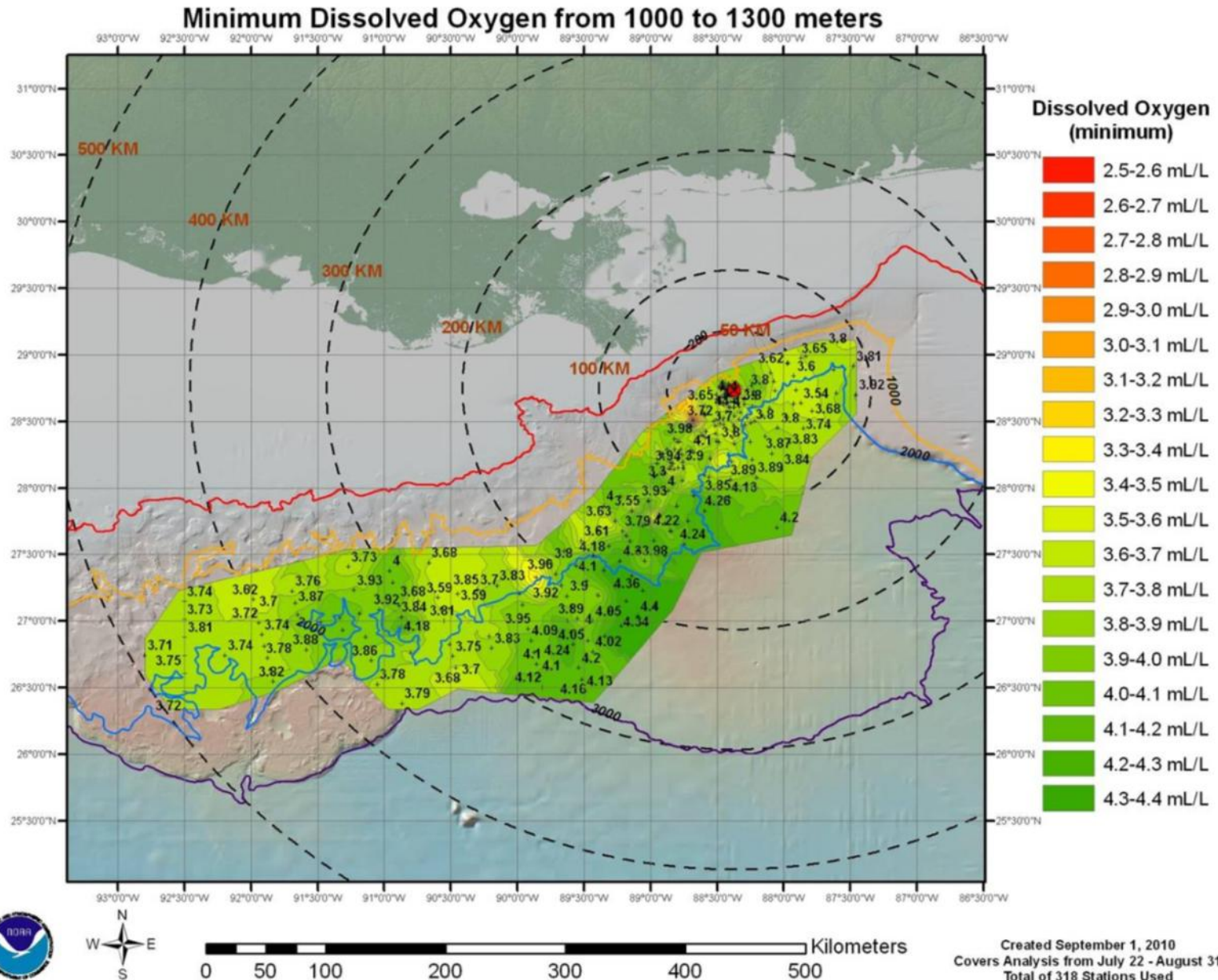


Data Cumulative from 03 Aug to 26 Aug, 2010

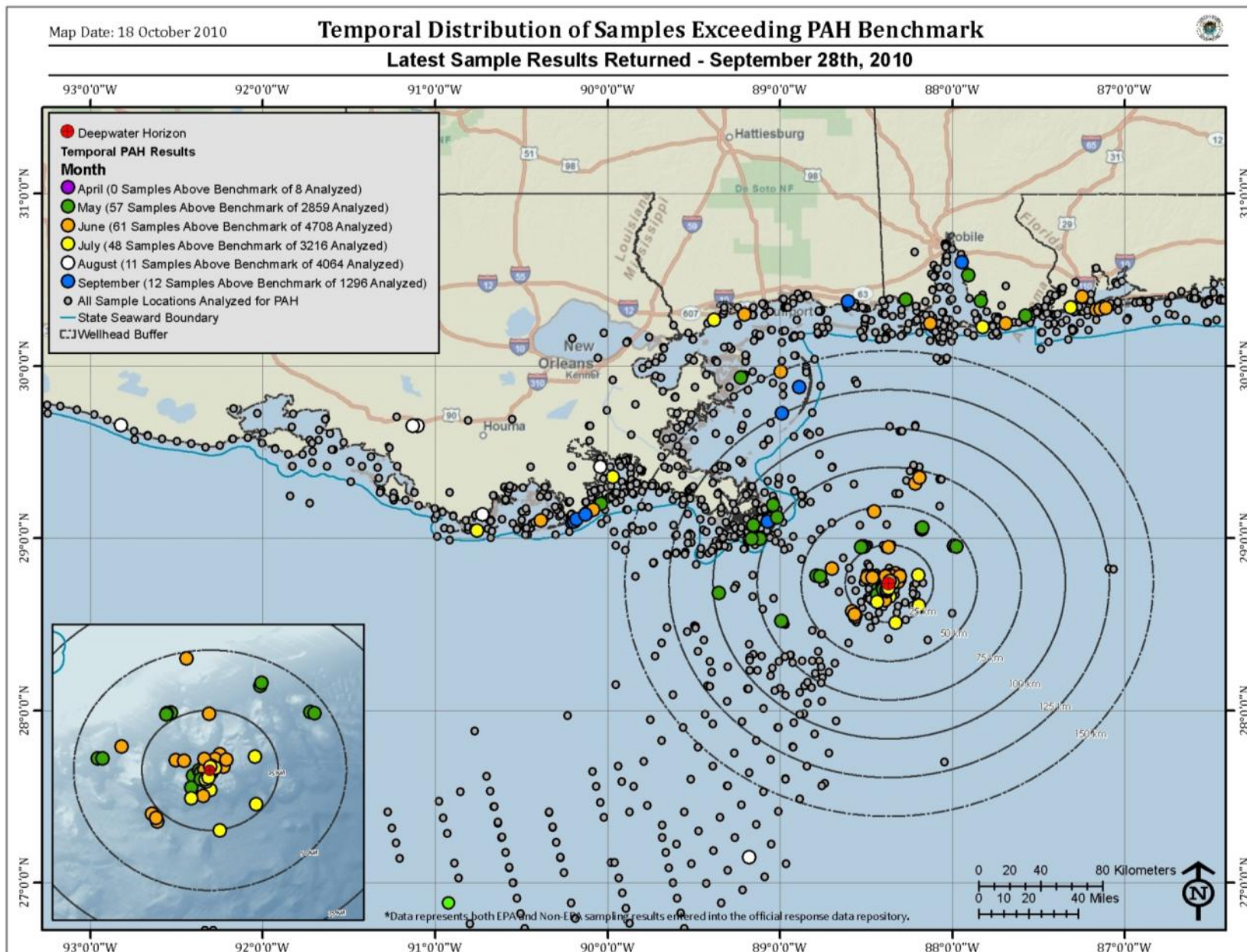
Deepwater Horizon Response, Gulf of Mexico



Sampling Results and Status

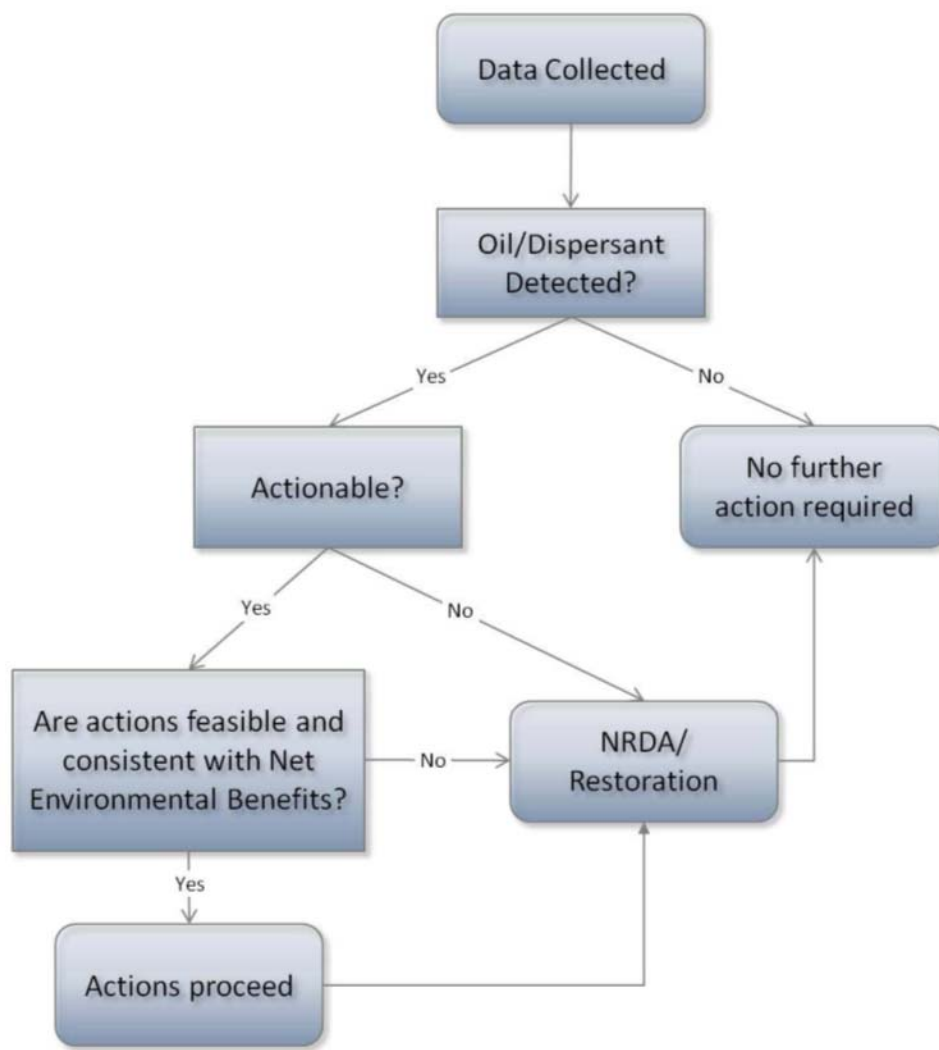


Temporal Distribution of PAH Exceedences

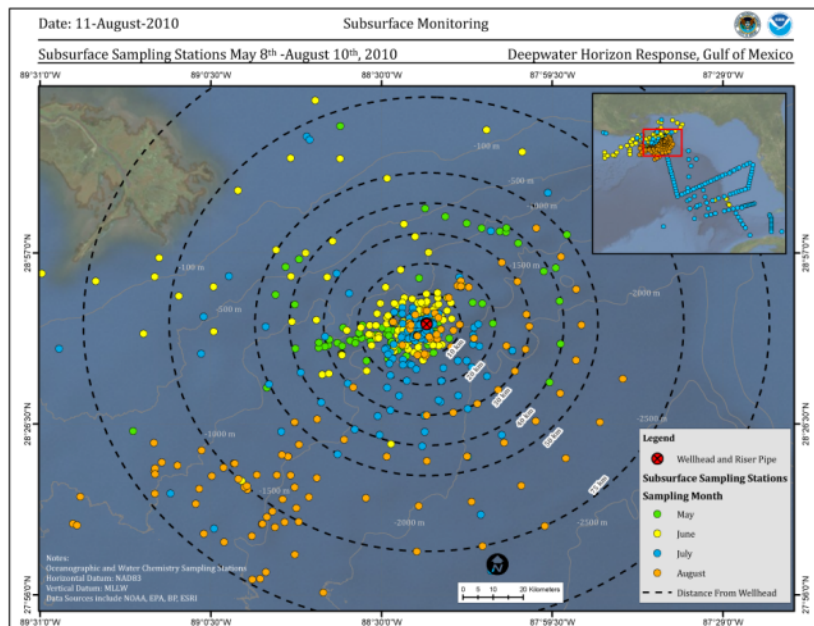
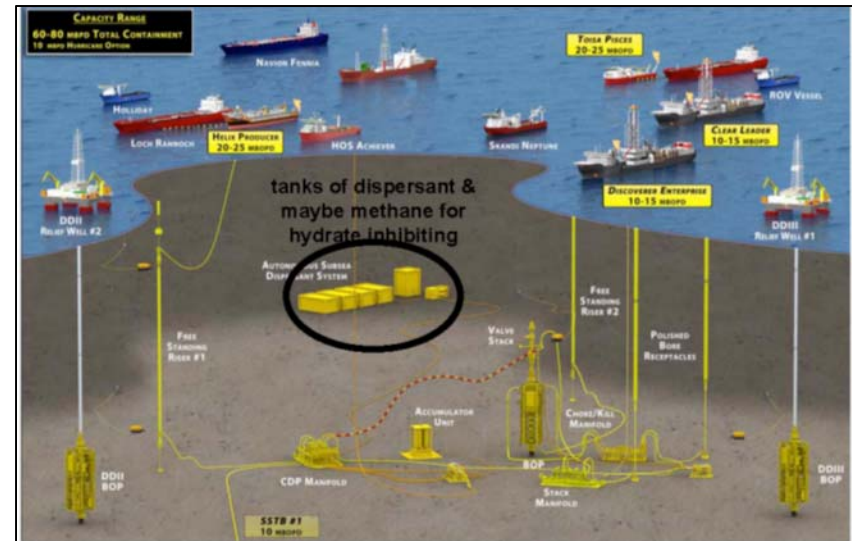


Current Status of SMU Effort

- Primary sampling complete
- Ongoing communications (JAG, OSAT, R4 Mobile reports)
- Comprehensive evaluation
 - Actionable sub-surface oil
 - Human health thresholds
 - Ecological thresholds
- Transition to NRDA teams
- Data Management:
 - Validation efforts
 - Transitioning off-site
 - Exposure and archive

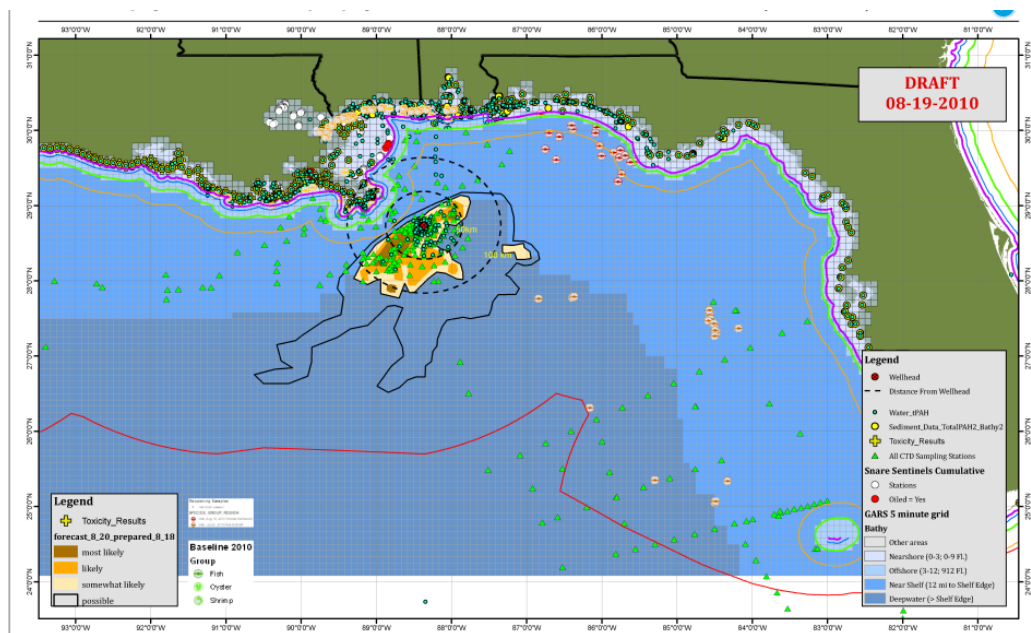


Communicating Results and Context



Lessons Learned

- Interagency collaboration was critical to success
- Redundant personnel rotations are optimal
- Modern communications had pros/cons (e.g., wiki)
- Data management is a crucial operational component
- Communicating results was challenging
- Research vs. Response
- Closer tie to modeling teams
- R&D opportunities abound



Research and Development Opportunities

- Rapid deployment and calibration
- Data integration and visualization
- Sustained ocean observing systems
- Additional acoustic mapping (seeps)
- NRT analysis is needed
 - Dedicated labs
 - In situ GC/MS
- AUVs and Gliders
 - Depth limitations
 - Need for centralized fleet (NAVO)
 - Air/water interface with wave gliders



Data and Information Sources



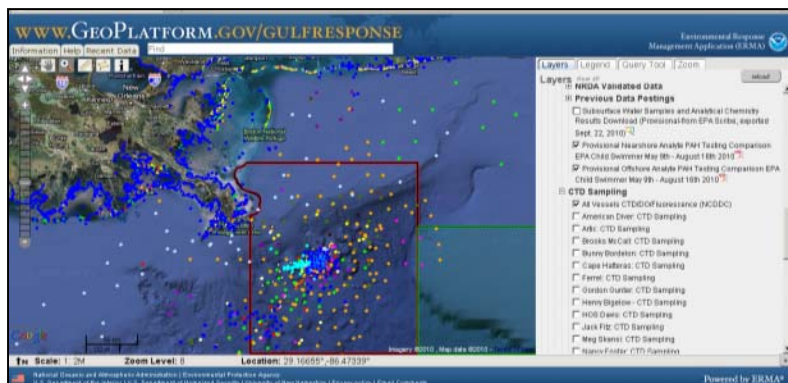
Ocean Observation Data

<http://www.nodc.noaa.gov/General/DeepwaterHorizon/support.html>



Restoration Efforts

<http://www.restorethegulf.gov>



Analytical Chemistry Data and Related DWH Data

<http://www.geoplatform.gov>



Subsurface Monitoring Program Updates

<http://www.restorethegulf.gov/release/2010/10/02/subsurface-oil-monitoring-overview>

BNSF Railway

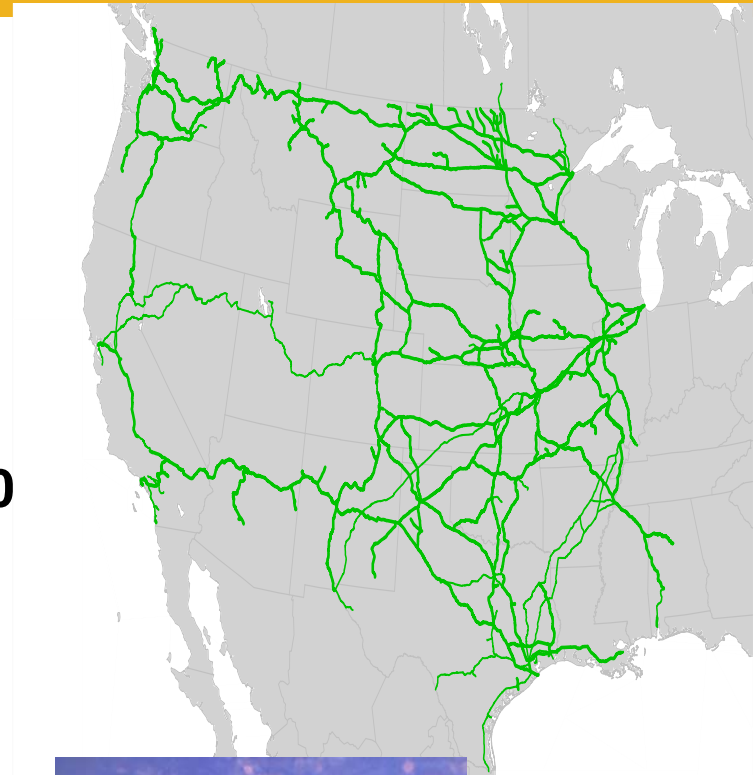
Hazardous Materials Safety



***Patrick Brady CIH, CSP
Asst. Director Hazmat***

BNSF Fast Facts

- **Corp. Offices = Fort Worth, TX**
- **Employees = 38,000**
- **Route Miles = 32,000**
- **States = 28**
- **Canadian Provinces = 2**
- **Highway-railroad grade crossing = 26,700**
- **Daily Trains Starts = 12,000**
- **Longest Train = 10,000 Feet**
- **Packages shipped on-time during typical holiday season = 50 million**
- **Carloads shipped in 2009 = 8.4 million**
- **Distance BNSF hauls 1 ton of freight on 1 gallon of diesel fuel = 495 miles**



How can you tell what railroad you are dealing with??

Does the color of the locomotives help?

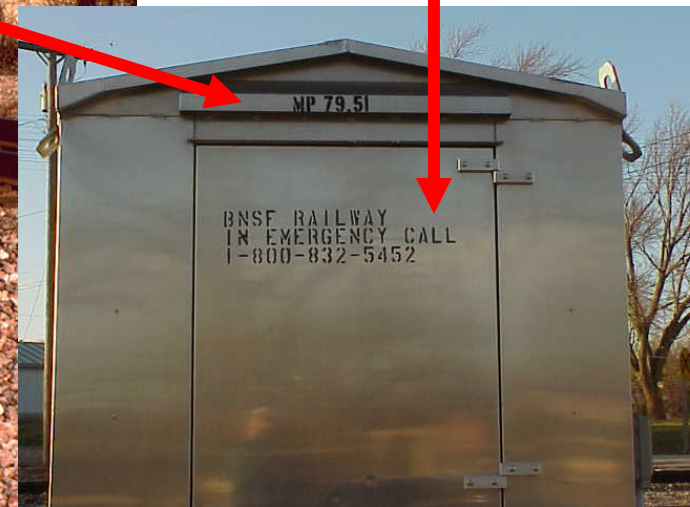
Not always!



Railroad
Mile Post
Number

DOT Crossing
Number

Emergency
Contact Number



How can you tell what railroad you are dealing with??

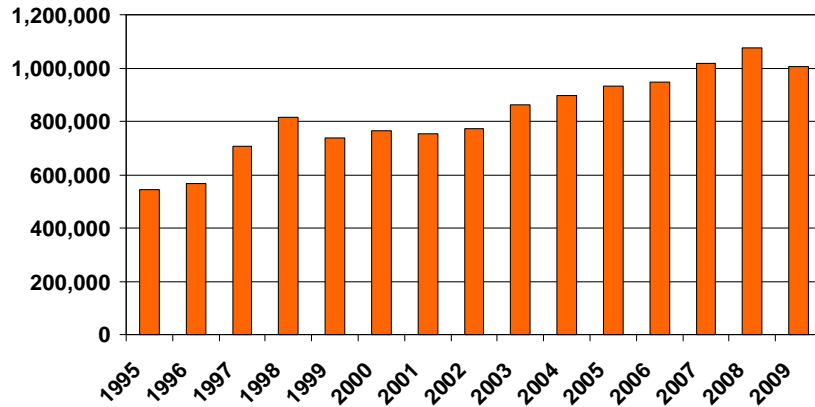
Federal Railroad Administration (FRA) Geographical Information System



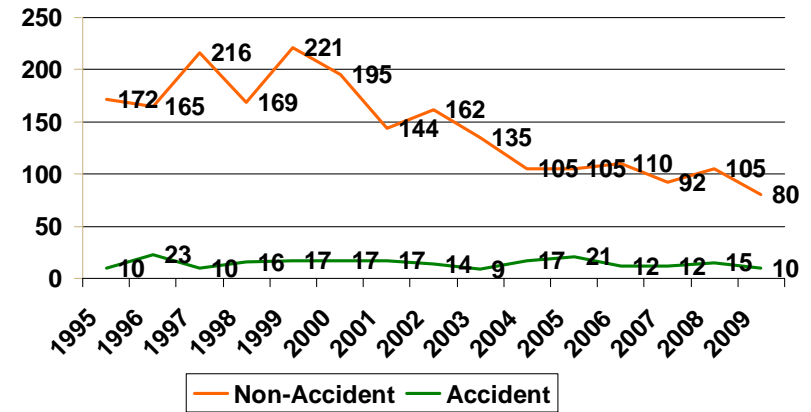
<http://fragis.frasafety.net/GISFRASafety/default.aspx>

Safety Results: BNSF Hazardous Materials Transport

Number of Shipments



Total Releases



Examples of Types of Releases



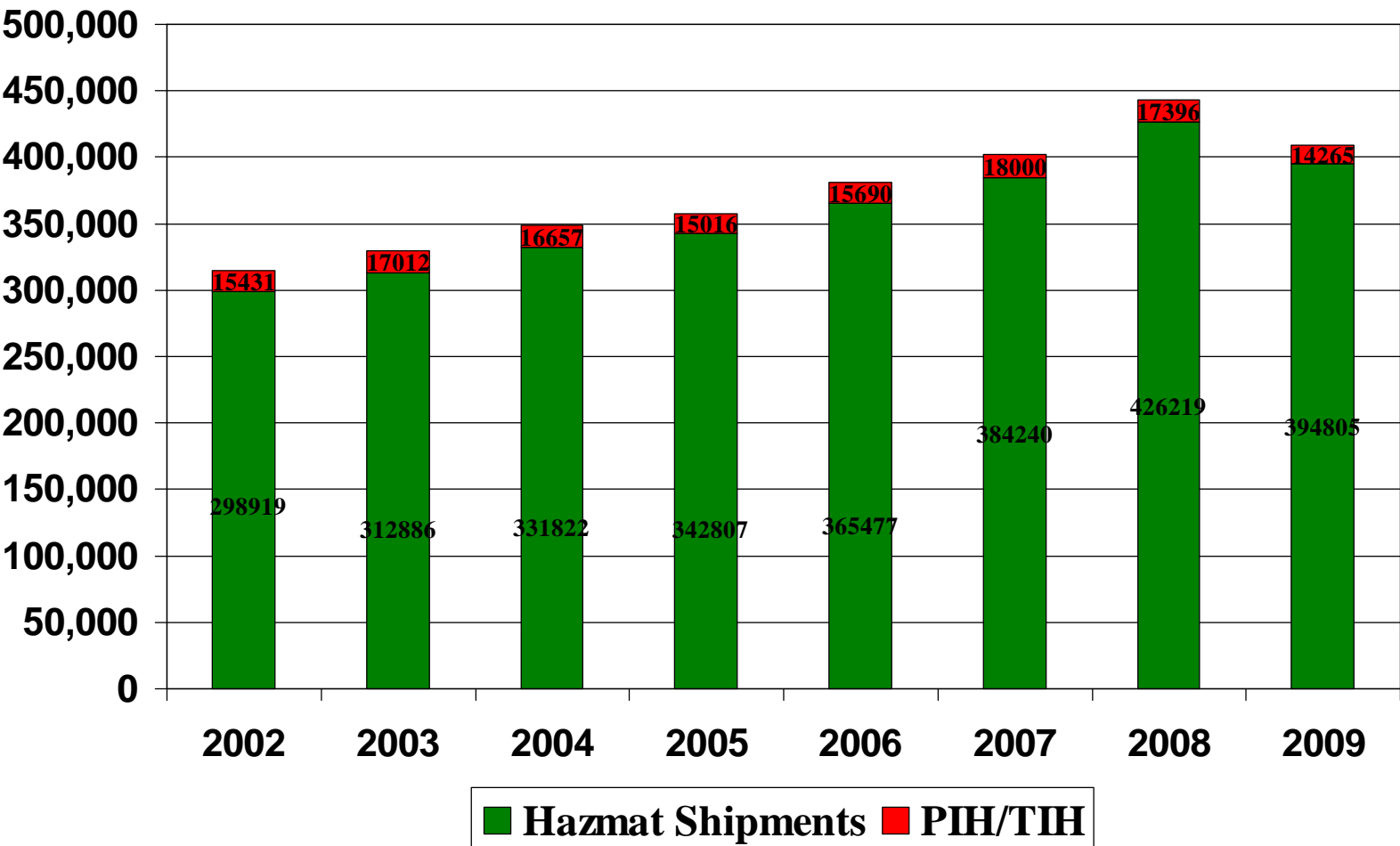
Non-Accident Release



Accident Release

BNSF Hazardous Materials Transport

Loaded Hazmat Cars



Tank Car



Intermodal Equipment



Hazardous Materials

For US Railroads Hazardous Materials Account for:

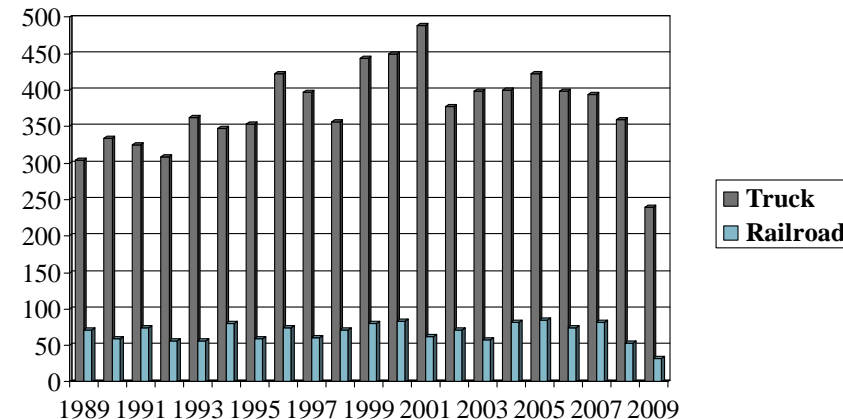
- **5% of total U.S. freight rail carloads**
- **5% of tonnage**
- **6% of ton-miles**
- **68% of rail hazmat travels in tank cars**
- **28% on intermodal flat cars, and the remainder in covered hoppers, gondolas, and other car types**
- **The most potentially hazardous materials, termed toxic inhalation hazards (TIH) are nearly all transported in tank cars. TIH materials constitutes only about 0.3 % of all rail carloads.**

Hazardous Materials Transport

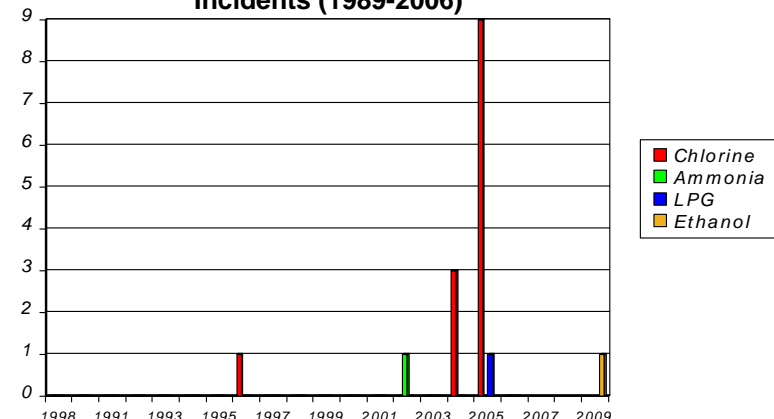
As common carriers, railroads are required under federal law to move hazardous materials

- Virtually all are shipped without an accident release (99.998%)
- Hazmat accident rates have declined by 90% since 1980 and nearly 50% since 1990
- Moving hazardous materials by rail is 16 times safer than moving them on the roads
- Railroads incurred 16 fatalities in since 1989 while trucks average nearly 11 annually. BNSF had none.

Serious Incidents
Rail and Truck (1989-2006)



Hazardous Materials Fatalities in Rail
Incidents (1989-2006)

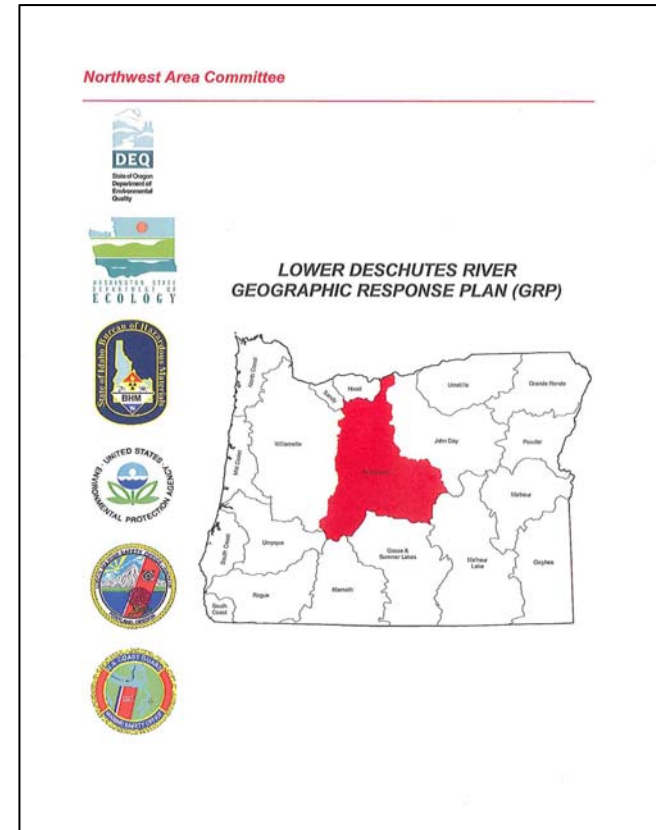


SYSTEM EMERGENCY RESPONSE PLAN

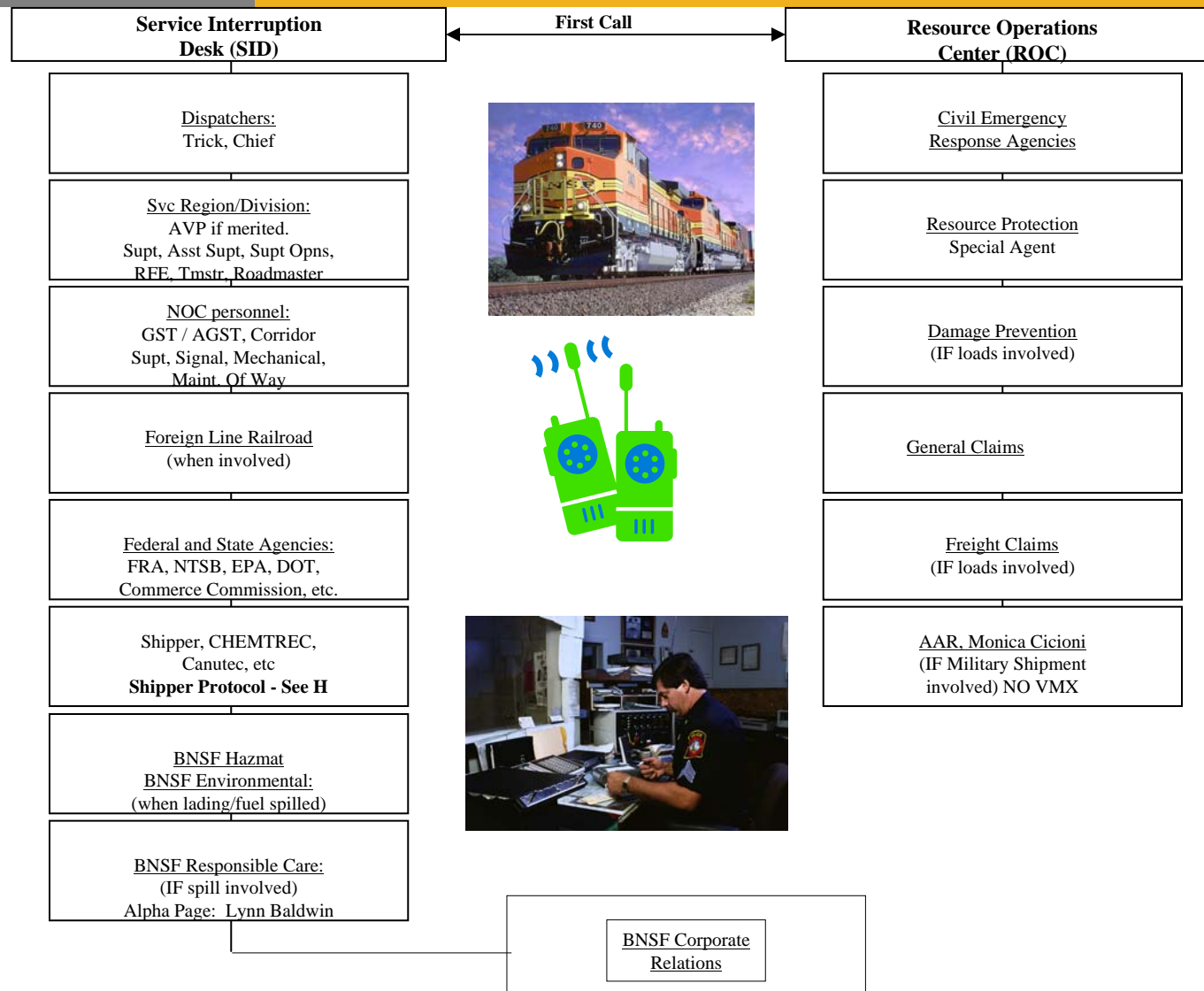


Geographical Response Plans (GRP)

- **Private/Public Partnerships (BNSF, State and Federal)**
 - Deschutes River – OR
 - Columbia River – OR, WA
 - Lower Colorado River – AZ
- **BNSF**
 - Copper River – MT
 - Wind River – WY
 - Kootenai - ID
 - Upper Colorado River - CO - 2011



Incident Notification





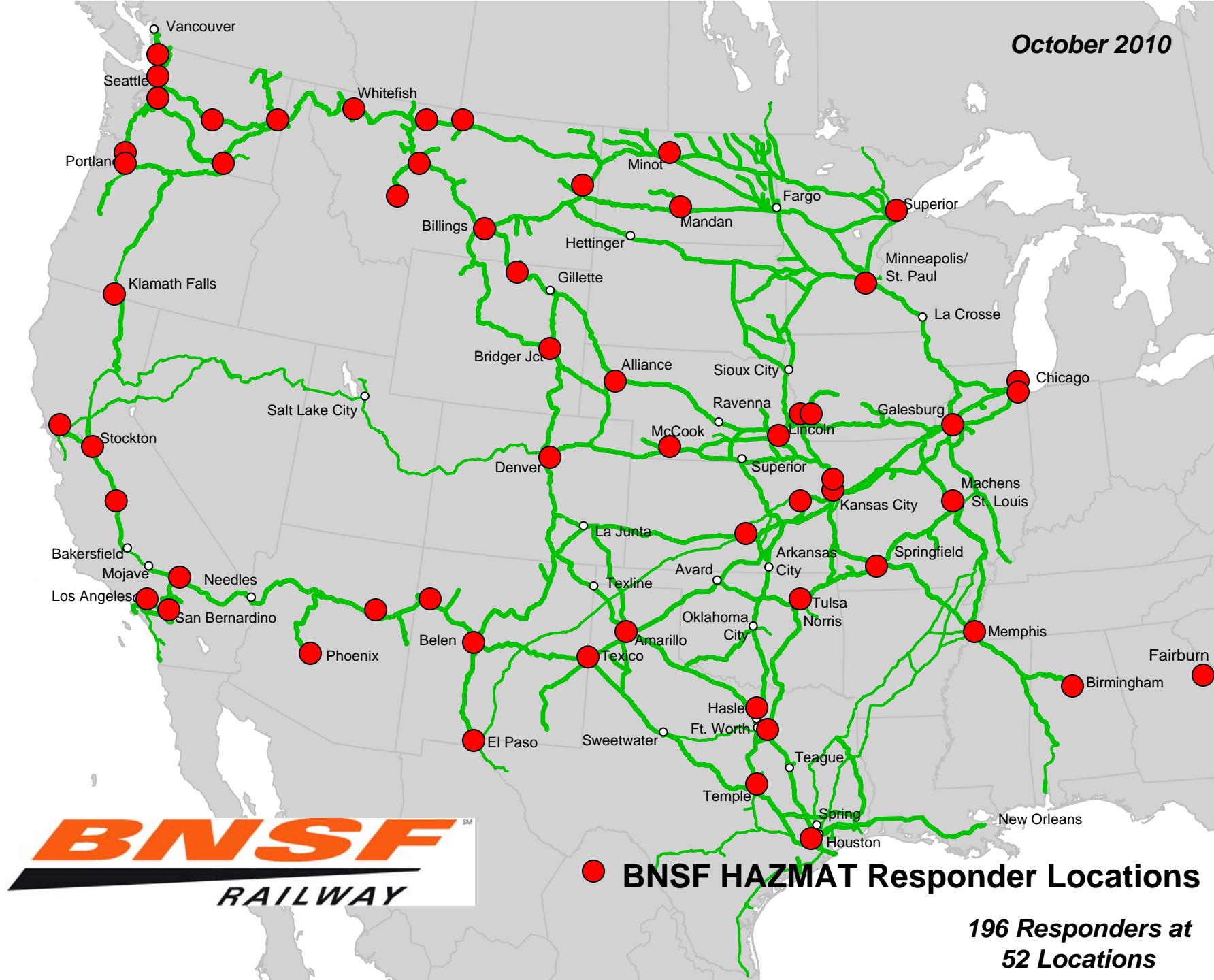
BNSF Emergency Response Team

BNSF hazardous material responders protect the safety of our employees, our communities and BNSF's velocity.

- **Currently 205 responders at 56 BNSF locations**
 - **126 Mechanical**
 - **29 Environmental / Hazmat**
 - **22 Load and Ride Solutions**
 - **9 Operating**
 - **3 Safety**
 - **1 Engineering**
 - **1 Intermodal**
- **All but one are exempt employees**
- **Provide direct response until BNSF Environmental / Hazmat and hazmat contractors arrive**



October 2010



196 Responders at
52 Locations

Training and Response: BNSF Emergency Response Team

BNSF hazardous material responders go through intensive initial and refresher training

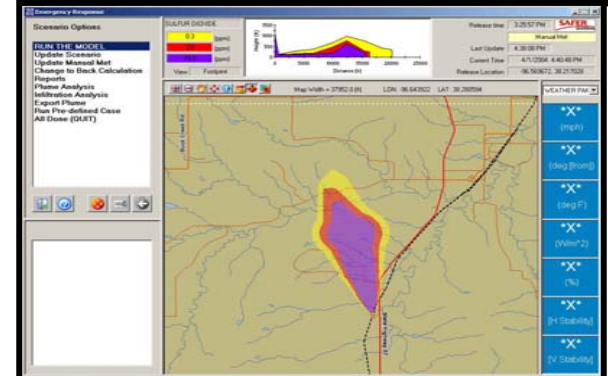
- Initial training
 - 80 Hour Hazmat Technician
 - Emergency Response Training Center – Pueblo, CO
- Annual refresher (32-40 hrs.)
 - Tank car
 - Advanced tank car
 - Incident command
 - Air monitoring
 - Advanced technology
- BNSF Hazmat Task Force



Contracted Response - Expectations



- Experience
- Locations
- Limitations
- Ability
- Duties
- Equipment
- Regulatory Compliance
 - Training
 - Respiratory
 - Med. Surveillance
- Contract Compliance
 - Audit
 - Drills
 - Experience



ICS and NIMS

BNSF hazardous material responders, operations supervisors and traincrews will work within the Unified Incident Command



Hazard Communications

Emergency Responders can obtain hazardous materials information during emergencies.



***Contacting the Network
Operations Center
800-832-5452***



***Traincrew's
Trainlist***



***Tank car's Placard,
Marking and Stencils***

Training and Response - Community

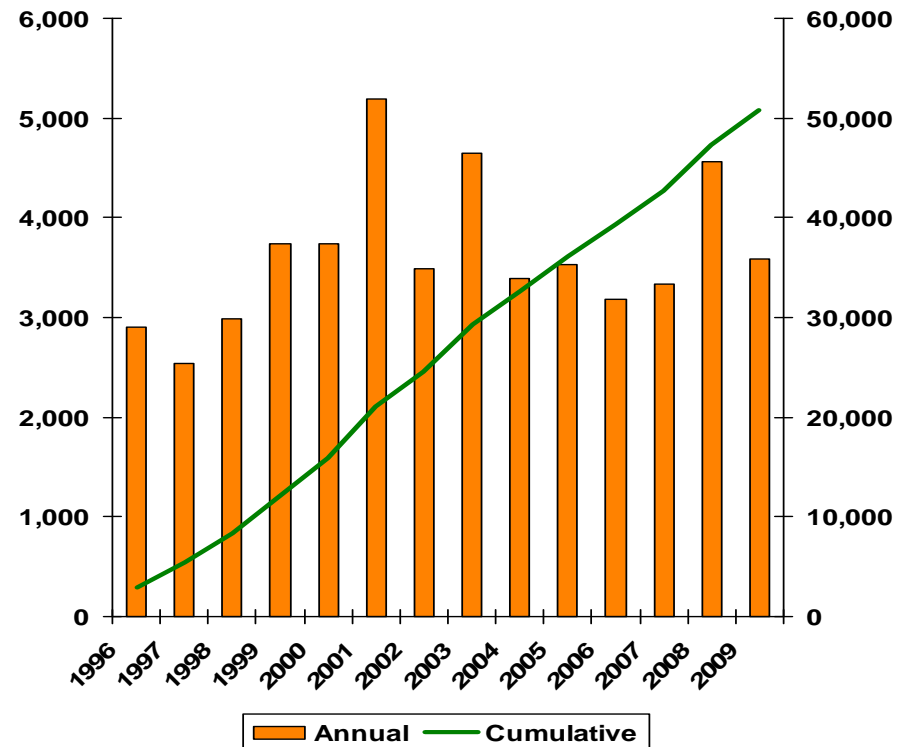
Community focus is on training responders and providing interpretative information. Training is available via instructor lead or computer based training.

- **Training topics include:**

- Train list / shipping papers
- Placards
- Equipment
- Incident Assessment
- *Hands-on equipment in field – Instructor lead*

- **2011 Ammonia Tour**

Number of Responders Trained



Training and Response: Community

Community focus is on training of responders and providing required information for emergency preplanning.

- **Information:**

- **Hazmat traffic flows for communities**
- **Last 12 mo. shipments**
- **Written request required**
- **Dallas County**
 - **Top 5 account for 80% of total**
 - **Liquefied Petroleum Gas – 7,317**
 - **Alcohols – 936**
 - **Petroleum Distillates - 773**
 - **Sulfuric Acid – 760**
 - **Asphalt – 274**



Roles

Fire Department is focused on the protection of the public and the railroad is focused on the safe and efficient mitigation of the incident

- Fire Department
 - Incident Command
 - Assessment
 - Air Monitoring
 - Evacuation/Shelter in place
 - Fire Protection
- Railroad
 - Incident Command
 - Assessment
 - Air Monitoring/modeling
 - Mitigation
 - Plug and Patch
 - Transfer
 - Environmental Remediation

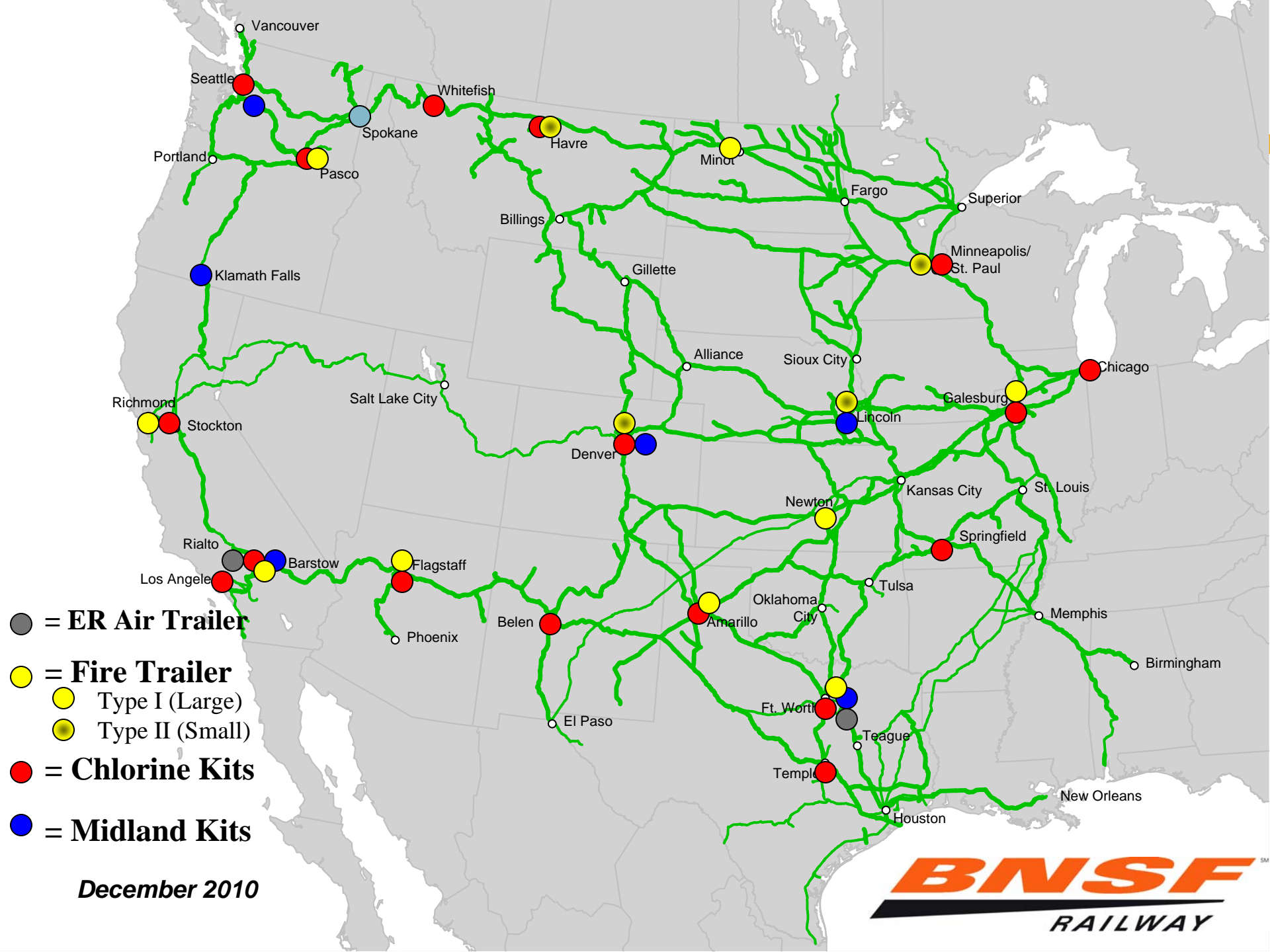


Fires

Crude Oil
Ethanol







December 2010

BNSF
RAILWAY

**So you're first
on the scene ?**



**What do you
see here?**

Do a good size up of the scene.

- What are your wind and weather conditions?
- Any smoke or vapor visible?
- Any liquids or leaks visible?
- What can the train crew or rail personnel tell you?
- What kind of rail cars do you see?

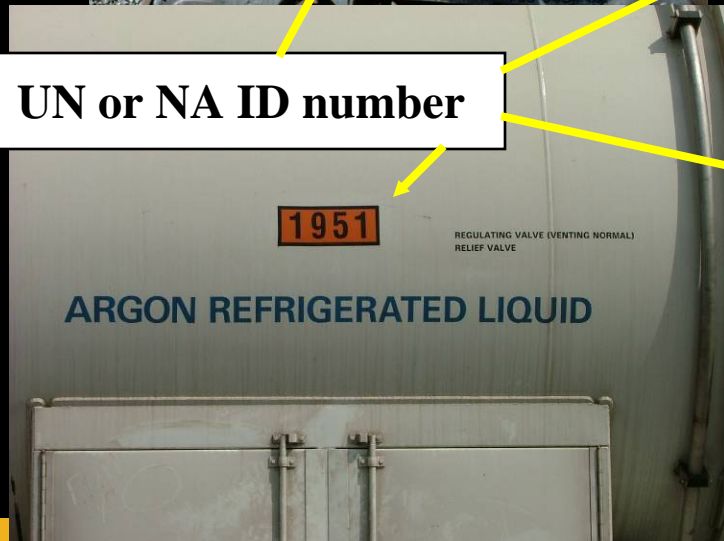
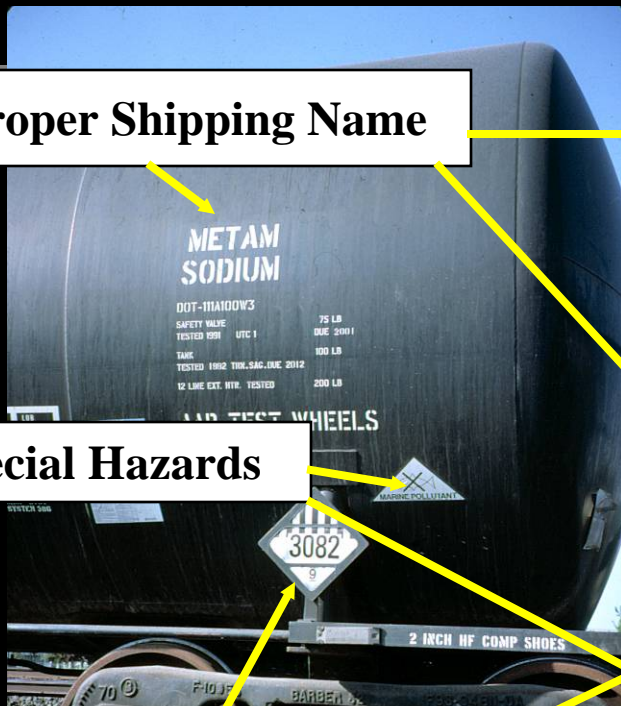


Tank cars have additional markings

Proper Shipping Name

Special Hazards

UN or NA ID number





Power header
(locomotives)

Train List starts
here.

SAMPLE MANIFEST TRAIN LIST

**** Train Documents ****

--- We Can Move Your World ---

Train	H	KCKBAR1	05A	Passed	MAINE	AZ	01/05/02	1225	2 hr 10 min Ahead						
Head End				Dyn	Evt	2Wy	Cum	Loco	Online		----Isolated----				
Locos		HP	Av1HP	Brk	Rec	ETD	Axl	Tons	Dir	Destin	Cd	From	To		
BNSF	8248	4300	4300	8EF	Y	Y	6	198	WEST	BARSCA					
BNSF	974	4400	4400	8EF	Y	Y	12	196	EAST	BARSCA					
ATSF	824	4135	4135	8EF	Y	Y	18	198	WEST	BARSCA					
BN	6351	3000	3000	6EF	Y	N	24	195	WEST	BARSCA					
Total		15835	15835												

Actual HPT = 2.1 (15835 HP/7786 TONS)

Scheduled HPT = 2.5

Seq Num	Init	Number	Car Knd	L E	Contents	Online Destin	J T	RAJP	Grs Ton	Consignee	Final City	Dest ST	Cum Axle
1 NP	BNSF	512019	GO5	L	SHAPES	LOSANG			94	IMMLERSTEEL	LOSANG	CA	28
2 ER	CGLX	582069	C5P	L	PLASTC	LOSANG		LAJ	127	LESBRO	LOSANG	CA	32
3 LV BN	NAHX	550932	C5P	L	AGGRGT	LOSANG			127	AKZCHM	LOSANG	CA	36
4 LV BN	NAHX	550341	C5P	I	AGGRGT	LOSANG			132	AKZCHM	LOSANG	CA	40
5 6 FL	KCS	152471	N55	L	PRTPPR	LAMIRA			107	CALFODISC	LAMIRADA	CA	44
	ACFX	42663	T5H	L	HAZMAT	LAMIRA			129	PLASTICHEM	LAMIRADA	CA	48

* HAZMAT *

EMERGENCY CONTACT: 800-424-9300
CHEMTREC

1 TNK // 192799 LB
STYRENE MONOMER, INHIBITED
3
UN2055 // PG II
RQ (STYRENE)
HAZMAT STCC: 4907265

TO/CONSIGNEE
PLASTICHEM
LAMIRADA CA

FROM/SHIPPER
DUPONT
BRUNSWICK NJ

7	GATX	153931	TGI	L	LUBOIL	LOSANG			114	MOBILOIL	LOSANG	CA	52
NP					NO PLACARDS REQUIRED								
8	CCR	6099	A63	L	PULP	VERNAC		LAJ	116	EXELOGIS	CITCOMM	CA	56
9	FPAX	820169	C5P	L	PLASTC	LOSANG			132	LESBRO	CITCOMM	CA	60
10	DOWX	129077	TGI	L	GLYCOL	PICRIV			127	GENFELIN	PICRIVERA	CA	64
LV					LOADED TO FULL VISIBLE CAPACITY								
11	HS	151203	LB4	L	CORNML	LOSANG			103	AZTECAML	LOSANG	CA	68
12	MR	121203	LB4	L	CORNML	LOSANG			102	AZTECAML	LOSANG	CA	72
13	LNAC	5286	LB4	L	CORNML	LOSANG			103	AZTECAML	LOSANG	CA	76

Block Totals 13 Cars 13 Loads 0 Empties 1651 Tons 715 Feet

14	RBOX	38512	B23	L	COTTON	LOSANG			74	PRIMEWSH	LOSANGHAR	CA	80
RP					RAIL CONTROLLED PRIVATE								
15	DOWX	70359	T4F	L	PLASTIC	TORRAN			125	DOWCHEM	TORRARNCE	CA	84

Hazardous Materials Shipping Papers

- Find the train crew.
- The conductor will have the most complete train list immediately available to you.
- Never trust paperwork found lying around on the floor of the locomotive or in an unoccupied caboose.
- All responding railroad officials should have copies of the train list or paperwork.
- If the train crew is disabled and unable to provide paperwork call the railroad 800 number!
- Use ALL the resources you have !







Find the train crew and get the train list !

Power header
(locomotives)

Train List starts
here.

SAMPLE MANIFEST TRAIN LIST

*** Train Documents ***

--- We Can Move Your World ---

Train	H	KCKBAR1	05A	Passed	MAINE	AZ	01/05/08	1225	2 hr	10 min	Ahead	---Isolated---		
Head End				Dyn	Evt	2Wy	Cum	Loco	Online			From	To	
Locos	HP	Av1HP	Brk	Rec	ETD	Axl	Tons	Dir	Destin	Cd				
BNSF	8248	4300	4300	8EF	Y	Y	6	198	WEST	BARSCA				
BNSF	974	4400	4400	8EF	Y	Y	12	196	EAST	BARSCA				
BNSF	824	4135	4135	8EF	Y	Y	18	198	WEST	BARSCA				
BNSF	6351	3000	3000	6EF	Y	N	24	195	WEST	BARSCA				
Total	15835	15835												

Actual HPT = 2.1 (15835 HP/7786 TONS)

Scheduled HPT = 2.5

Seq Num	Init	Number	Car Knd	L E	Contents	Online Destin	J T	RAJP	Grs Ton	Consignee	Final City	Dest ST	Cum Axle
1 NP	BNSF	512019	G05	L	SHAPES	LOSANG			94	IMMLERSTEEL	LOSANG	CA	28
2 ER	CGLX	582069	C5P	L	PLASTC	LOSANG	LAJ		127	LESBRO	LOSANG	CA	32
3 LV BN	NAHX	550932	C5P	L	AGGRGT	LOSANG			127	AKZOCHM	LOSANG	CA	36
4 LV BN	NAHX	550341	C5P	L	AGGRGT	LOSANG			132	AKZOCHM	LOSANG	CA	40
5	KCS	152471	N55	L	PRTPPR	LAMIRA			107	CALFODISC	LAMIRADA	CA	44
6 FL	ACFX	42663	T5H	L	HAZMAT	LAMIRA			129	PLASTICHEM	LAMIRADA	CA	48

HAZMAT

EMERGENCY CONTACT: 800-424-9300
CHEMTREC

1 TNK // 192799 LB
STYRENE MONOMER, STABILIZED
3
UN2055 // PG II
RQ (STYRENE)
HAZMAT STCC: 4907265

RAIL/CONSIGNEE
PLASTICHEM
LAMIRADA CA

RAIL/SHIPPER
DUPONT
BRUNSWICK NJ

7	GATX	153931	TGI	L	LUBOIL	LOSANG		114	MOBILOIL	LOSANG	CA	52
NP					NO PLACARDS REQUIRED							
8	CCR	6099	A63	L	PULP	VERNAC	LAJ	116	EXELOGIS	CITCOMM	CA	56
9	FPAX	820169	C5P	L	PLASTC	LOSANG		132	LESBRO	CITCOMM	CA	60
10	DOWX	129077	TGI	L	GLYCOL	PICRIV		127	GENFELIN	PICRIVERA	CA	64
LV					LOADED TO FULL VISIBLE CAPACITY							
11	HS	151203	LB4	L	CORNML	LOSANG		103	AZTECAML	LOSANG	CA	68
12	MR	121203	LB4	L	CORNML	LOSANG		102	AZTECAML	LOSANG	CA	72
13	LNAC	5286	LB4	L	CORNML	LOSANG		103	AZTECAML	LOSANG	CA	76

Block Totals 13 Cars 13 Loads 0 Empties 1651 Tons 715 Feet

14	RBOX	38512	B23	L	COTTON	LOSANG		74	PRIMEWSH	LOSANGHAR	CA	80
RP					RAIL CONTROLLED PRIVATE							
15	DOWX	70359	T4F	L	PLASTIC	TORRAN		125	DOWCHEM	TORRARNCE	CA	84

Seq Num	Init	Number	Car Knd	L E	Contents	Online Destin	J T	RAJP	Grs Ton	Consignee	Final City	Dest ST	Cum Axle
1 NP	BNSF	512019	GO5	L	SHAPES NO PLACARDS REQUIRED	LOSANG			94	IMMLERSTEEL	LOSANG	CA	28
2 ER	CGLX	582069	C5P	L	PLASTC RETURN EMPTY VIA REVERSE ROUTE	LOSANG		LAJ	127	LESBRO	LOSANG	CA	32
3 LV BN	NAHX	550932	C5P	L	AGGRGT LOADED TO FULL VISIBLE CAPACITY IF BAD ORDER NOTIFY SHIPPER	LOSANG			127	AKZOCHM	LOSANG	CA	36
4 LV BN	NAHX	550341	C5P	L	AGGRGT LOADED TO FULL VISIBLE CAPACITY IF BAD ORDER NOTIFY SHIPPER	LOSANG			132	AKZOCHM	LOSANG	CA	40
5	KCS	152471	N55	L	PRTPPR	LAMIRA			107	CALEODISC	LAMIRADA	CA	44
6 FL	ACFX	42663	T5H	L	HAZMAT	LAMIRA			129	PLASTICHEM	LAMIRADA	CA	48
*****										1 TNK // 192799 LB STYRENE MONOMER, STABILIZED			
* HAZMAT *										3 UN2055 // PG II			
*****										RQ (STYRENE) HAZMAT STCC: 4907265			
EMERGENCY CONTACT: 800-424-9300 CHEMTREC													
RAIL/CONSIGNEE PLASTICHEM LAMIRADA CA										RAIL/SHIPPER DUPONT BRUNSWICK NJ			
7 NP	GATX	153931	TGI	L	LUBOIL NO PLACARDS REQUIRED	LOSANG			114	MOBILOIL	LOSANG	CA	52
8	CCR	6099	A63	L	PULP	VERNAC		LAJ	116	EXELOGIS	CITCOMM	CA	56
9	FPAX	820169	C5P	L	PLASTC	LOSANG			132	LESBRO	CITCOMM	CA	60
10 LV	DOWX	129077	TGI	L	GLYCOL LOADED TO FULL VISIBLE CAPACITY	PICRIV			127	GENFELIN	PICRIVERA	CA	64
11	HS	151203	LB4	L	CORNML	LOSANG			103	AZTECAML	LOSANG	CA	68
12	MR	121203	LB4	L	CORNML	LOSANG			102	AZTECAML	LOSANG	CA	72
13	LNAC	5286	LB4	L	CORNML	LOSANG			103	AZTECAML	LOSANG	CA	76
Block Totals			13 Cars			13 Loads			0 Empties	1651 Tons	715 Feet		
14 RP	RBOX	38512	B23	L	COTTON RAIL CONTROLLED PRIVATE	LOSANG			74	PRIMEWSH	LOSANGHAR	CA	80
15	DOWX	70359	T4F	L	PLASTIC	TORRAN			125	DOWCHEM	TORRARNCE	CA	84

First Haz Mat
shipment



EXAMPLE: Special hazards

16 ACFX 86225 T6H E HAZMAT WATSON 128 SHELL WATSON CA 88
PO

> > > KEY SHIPMENT (FIVE) < < <

* HAZMAT *

EMERGENCY CONTACT: 800-424-9300

RAIL CONSIGNEE
SHELL CO
WATSON CA

1 TNK // 0 LB
RESIDUE: LAST CONTAINED
CHLORINE
2.3
UN1017
RQ (CHLORINE)
MARINE POLLUTANT
POISON INHALATION HAZARD
ZONE B
HAZMAT STCC: 4920523

RAIL /SHIPPER
OXYCHEM
PASADENA TX



Hazardous Materials Response Information

16 CARS FROM HEAD END ACFX 86225

CLASSIFICATION: (POISON A) EFFECTIVE 10 01 1991 EXPIRES 12 31 2050

COMMODITY NUMBER IS: 4920523

CHLORINE

(POISON A)

DIVISION 2.3 (POISON GAS)

UN1017

(POISON A)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE

(RQ-10/4.54)

(POISON A)

CHLORINE IS A GREENISH YELLOW GAS WITH A PUNGENT SUFFOCATING ODOR. IT IS TOXIC BY INHALATION. IT IS SLIGHTLY SOLUBLE IN WATER. IT REACTS EXPLOSIVELY OR FORMS EXPLOSIVE COMPOUNDS, WITH MANY COMMON CHEMICALS. CONTACT WITH LIQUID

SHOULD BE AVOIDED AS IT CAN CAUSE FROSTBITE. THE LIQUID READILY VAPORIZES TO

A GAS. CHLORINE DOES NOT BURN BUT WILL SUPPORT COMBUSTION (LETS OTHER ARTICLES BURN). LONG TERM EXPOSURE TO LOW CONCENTRATIONS OR SHORT TERM EXPOSURE TO HIGH CONCENTRATIONS MAY RESULT IN ADVERSE HEALTH EFFECTS FROM

INHALATION. THE VAPORS ARE MUCH HEAVIER THAN AIR AND TEND TO SETTLE IN LOW

AREAS. CONTACT CHEMTREC TO ACTIVATE CHLORINE RESPONSE TEAM (800 424-9300 OR

202 483-7616). IT WEIGHS 13.0 LBS./GAL. IT IS USED TO PURIFY WATER, BLEACH WOOD PULP, AND TO MAKE OTHER CHEMICALS.

17 BADX 1007 T6H L HAZMAT RIVSID 108 UNOCAL RIVERSIDE CA 92

IH > > > KEY SHIPMENT (FIVE) < < <

* HAZMAT *

EMERGENCY CONTACT: 800-424-9300
CHEMTREC

1 TNK // 178650 LB
AMMONIA ANHYDROUS
2.2
UN1005
RQ (AMMONIA)
INHALATION HAZARD
HAZMAT STCC: 4904210

TO/CONSIGNEE
UNOCAL
RIVERSIDE CA

FROM/SHIPPER
AGLAND COOP
CORCORAN MO



Multiple
shipments in
each trailer or
container

Small or large
amounts

SAMPLE INTERMODAL TRAIN LIST

Train Documents

--- We Can Move Your World ---

Train	Z	ALTLAC9	05A	Passed	WICFALLS	TX	01/05/05		0844	0 hr 24 min Ahead		
Head End				Dyn	Evt	2Wy	Cum	Loco	Online	----Isolated----		
Locos		HP	Av1HP	Brk	Rec	ETD	Axl	Tons	Dir	Destin	Cd	From To
BNSF	4558	4400	4400	8EF	Y	Y	6	210	WEST	LOSANG		
BNSF	1075	4135	4135	8EF	Y	N	12	197	EAST	LOSANG		
BNSF	844	4135	4135	8EF	Y	N	18	197	WEST	LOSANG		
BNSF	1017	4400	4400	6EF	Y	N	24	196	WEST	LOSANG		
Total		17070	17070				Actual	HPT = 3.9 (17070 HP/4366 TONS)				

Actual HPT = 3.9 (17070 HP/4366 TONS)
Scheduled HPT = 3.5

Seq Num	Init	Number	Car Knd	L E	Contents	Online Destin	J T	RAJP	Grs Ton	Consignee	Final City	Dest ST	Cum Axle
Block	PHNX1	Setout	WINSLOW	AZ									
1	RTTX	975501	QM1	L	HAZMAT	PHOENI			109	UNITEDPARSER	PHOENIX	AZ	28
NP		NO PLACARDS REQUIRED											
G	NONZ	2758	V	L	FAK	PHOENI			28T	UNITEDPARSER	PHOENIX	AZ	
G	UPSU	621732	V	L	FAK	PHOENI			28T	UNITEDPARSER	PHOENIX	AZ	
G	UPSU	295985	V	L	HAZMAT	PHOENI			28T	UNITEDPARSER	PHOENIX	AZ	
NP		NO PLACARDS REQUIRED											

* HAZMAT *

EMERGENCY CONTACT: 800-424-9300

RAIL/CONSIGNEE
UNITEDPARSER
PHOENIX AZ

* HAZMAT *

EMERGENCY CONTACT: 800-424-9300

RAIL/CONSIGNEE
UNITEDPARSER
PHOENIX AZ

1 PK // 0015 LT
ETHANOL
3
UN1170 // PG II
HAZMAT STCC: 4909159

RAIL/SHIPPER
UNITEDPARSER
MESQUITE TX

1 PK // 0001 LT
PHOSPHORIC ACID
8
UN1805 // PG III
HAZMAT STCC: 4930249

RAIL/SHIPPER
UNITEDPARSER
MESQUITE TX

2	TTEX	353965	QBI	L	FAK	PHOENI			146	UNITEDPARSER	PHOENIX	AZ	36
G	BMDZ	632390	V1G	L	FAK	PHOENI			45T	UNITEDPARSER	PHOENIX	AZ	
G	TIPZ	223165	V1R	L	FAK	PHOENI			48T	UNITEDPARSER	PHOENIX	AZ	
G	UPSZ	846456	V17	L	FAK	PHOENI			45T	UNITEDPARSER	PHOENIX	AZ	
3	TTRX	37116	QM1	L	HAZMAT	PHOENI			107	UNITEDPARSER	PHOENIX	AZ	44
NP		NO PLACARDS REQUIRED											
G	ESTU	623691	V	L	FAK	PHOENI			28T	UNITEDPARSER	PHOENIX	AZ	



Hey Pat...

***The guy from the EPA wants
a list of **EVERYTHING** in those
containers and trailers and he
wants it **NOW!*****

Intermodal Freight of all Kinds (FAK)

- Materials that are NOT HAZMAT are not listed on the shipping Papers
- Example:
UPS shipments have approximately 2000 customers per Trailer and that includes holiday gifts.



Contact Information

Patrick Brady CIH, CSP

Asst. Director Hazmat

4200 Deen Road

Fort Worth, TX 76106

Patrick.Brady@bnsf.com

817-740-7358



Eagle Otome Spill Response



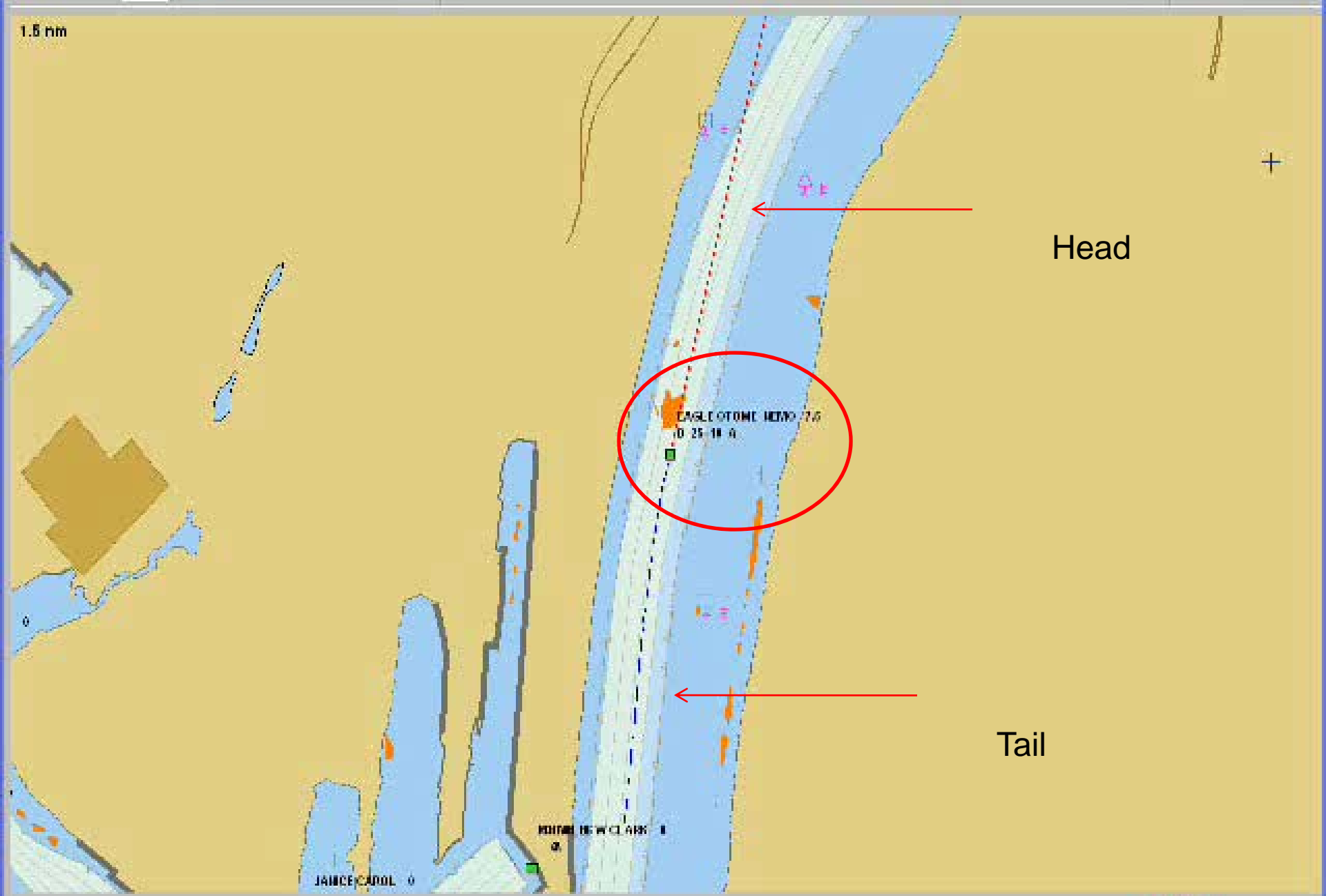
Captain J.J. Plunkett
FOSC
MSU Port Arthur

Mr. J.T. Ewing
SOSC
Region 1 Director, TGLO

Initial Incident facts

- On 23 JAN 2010, TV EAGLE OTOME allided with MV GULL ARROW and then barge 30406.
 - The Barge 30406 breached the double hull of the TV EAGLE OTOME resulting in a report of an 11,000 bbls crude oil spill
 - The EAGLE OTOME and Barge decoupled 24 JAN with no incident, and the barge was able to moor S of the MLK bridge
- USCG, TGLO, NOAA, Local Emergency Response, TX Parks and Wildlife, and involved companies all immediately responded to the incident.
- Initial concern over barge possibly leaking cargo (aromatic hydrocarbons), H₂S levels and fire hazard resulted in an evacuation in nearby area.







1145 23 JAN 2010

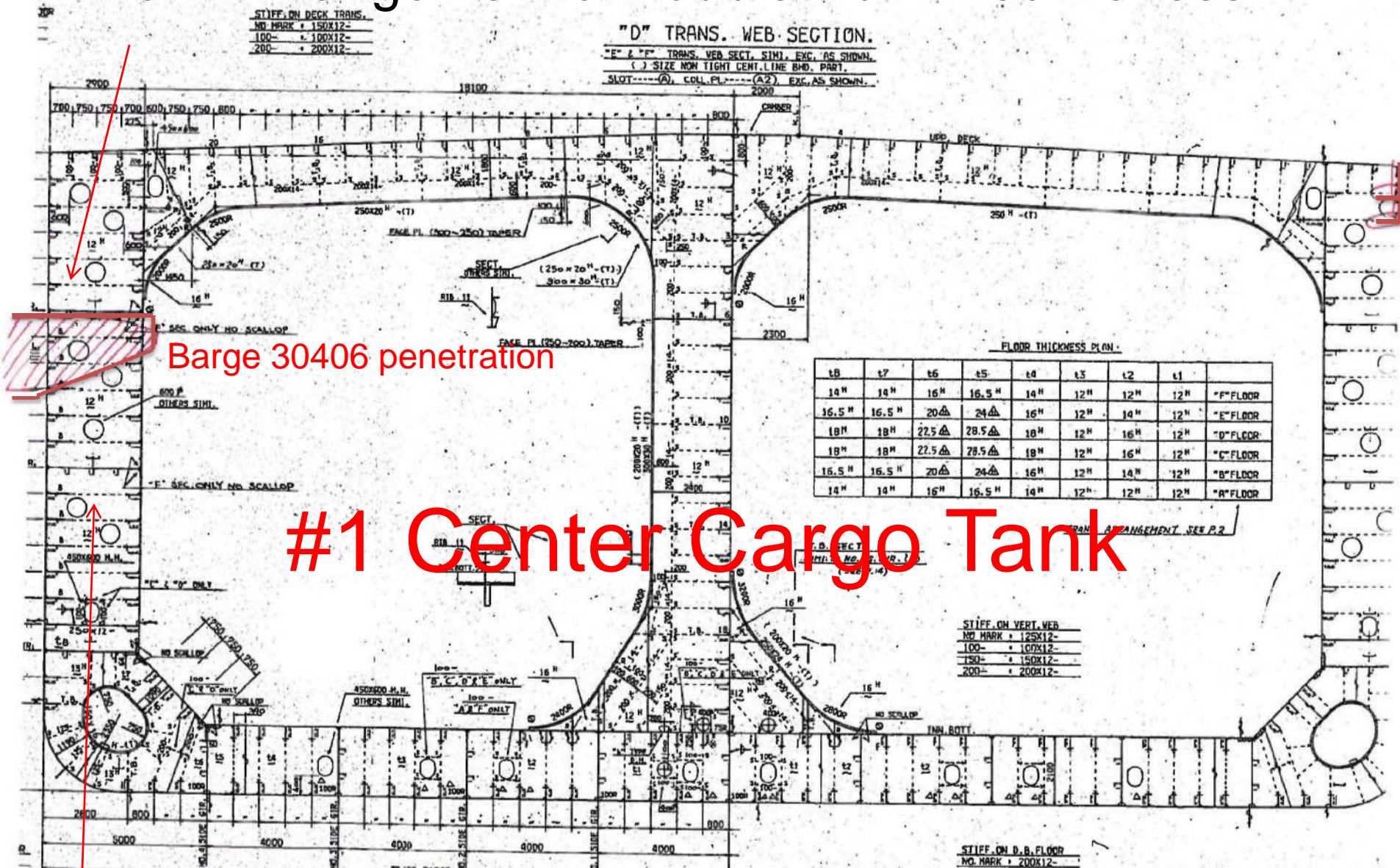
Decoupling Dilemma



“Crumple Zone”

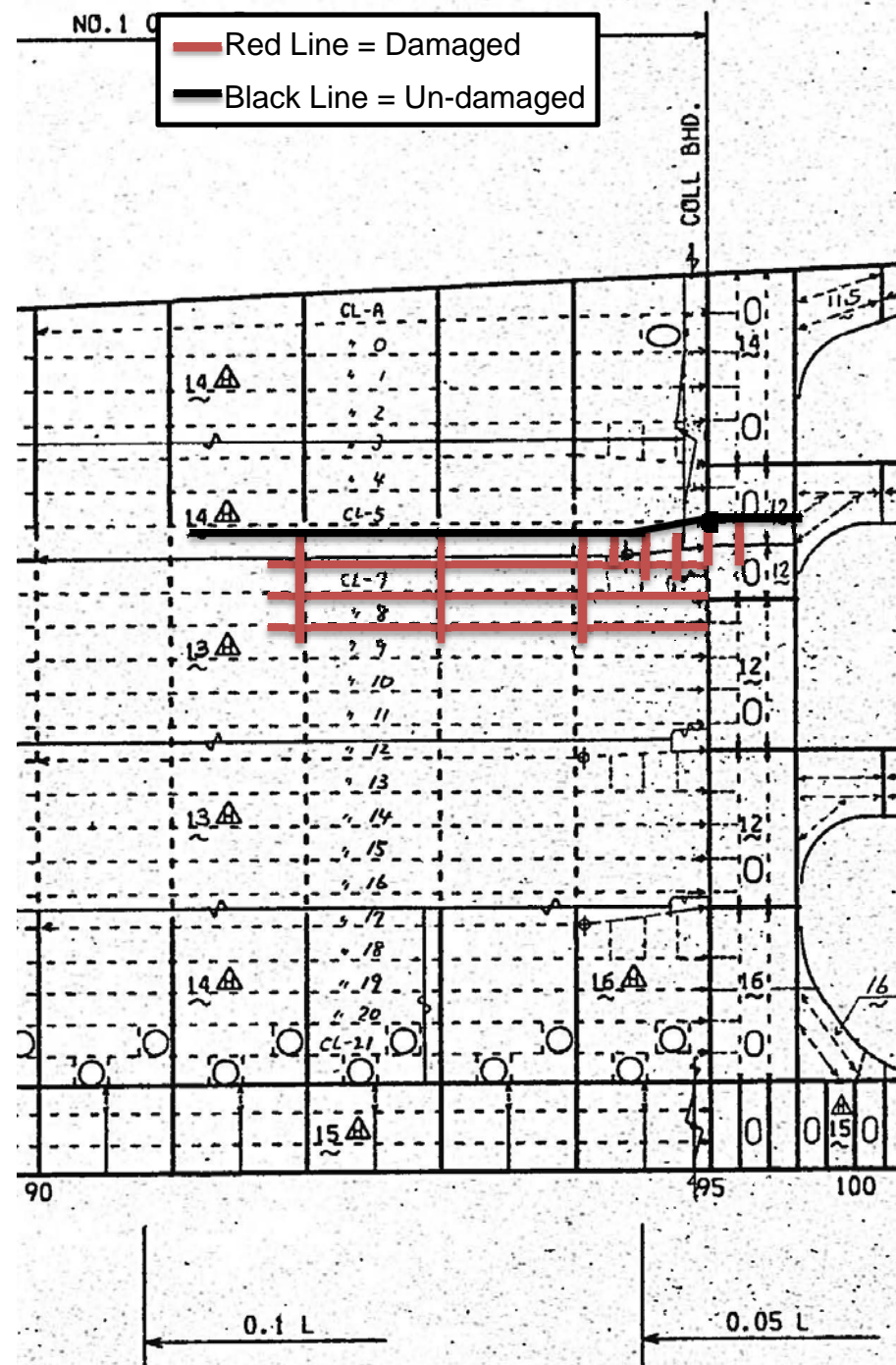


Tank Arrangement & Double Hull Effectiveness



#1 Stbd Ballast Tank

Side Shell Plan



"Simplest things are difficult"



Evacuation Area

Northern slick boundary

SBF

Incident Location

Southern slick boundary



“A Plan for Success”

1. Ensure the safety of public and responders
2. Minimize environmental impacts
3. Minimize economic impacts
4. Involve stakeholders
5. Inspire public confidence in response effort

1. Ensure the Safety of Responders

Firefighting



Tank Entry & Response Worker Safety



Air Monitoring



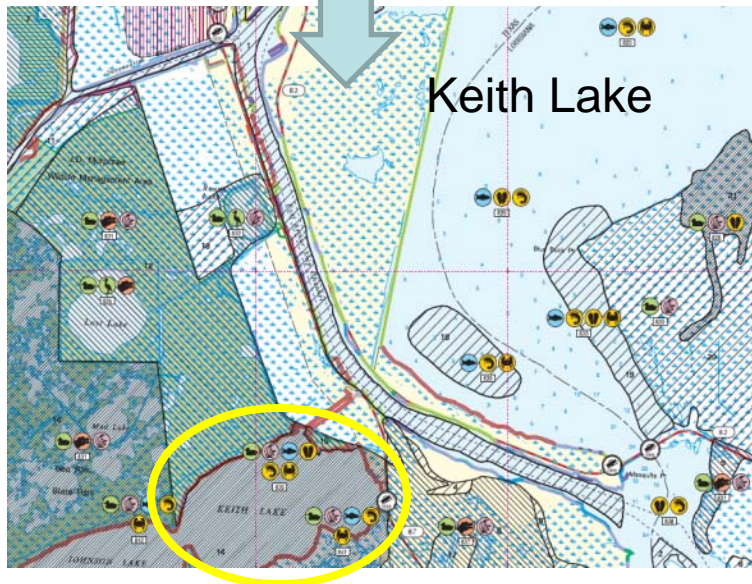
Initially VERY high LEL & H₂S Levels
(only in immediate vicinity of ship; no dangerous
levels found elsewhere)



Initially, there were concerns about air quality / fire hazards, so air monitoring was set up to monitor levels of chemicals in the atmosphere.

- The barge was carrying aromatic hydrocarbons.
- The ship was carrying Olmeca Crude, a very sour crude with a high sulfur content.

2. Minimize environmental impacts



Keith Lake



Keith Lake is a breeding ground for shrimp and other small fish. It is also a major migratory bird destination

In this location, several protective layers of hard boom was used to prevent oil from entering Keith Lake Cut.

Some sheening did occur, and black oil was reported in Keith's Lake along the N side, but much of the oil was able to be contained and diverted away from Keith's Lake.



Application of a Natural Sorbent was approved for the impacted areas of Keith Lake, and impact to wildlife was minimal.



Keith Lake Cut

Protective Booming Strategy



Keith Lake Cut



Containment & Recovery





Before & after



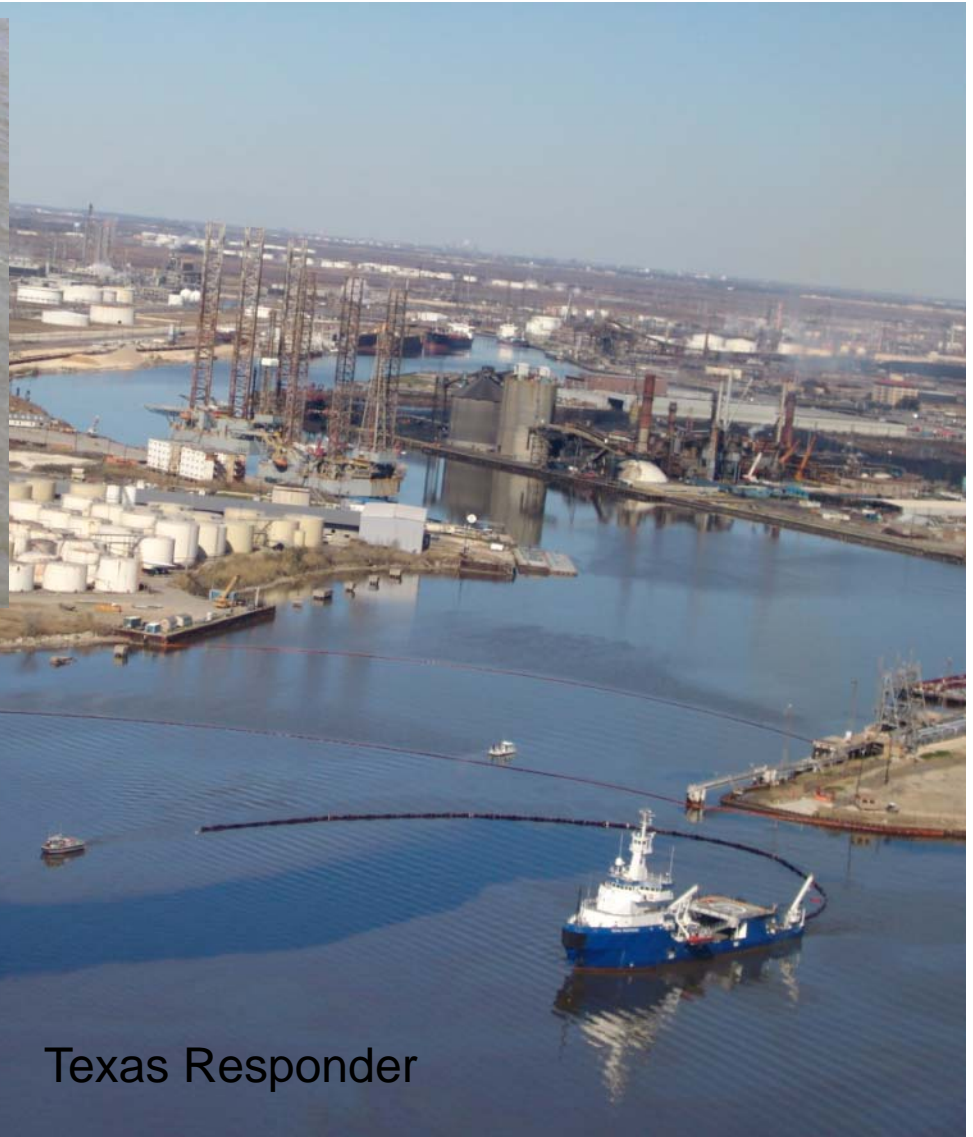
On-water recovery operations



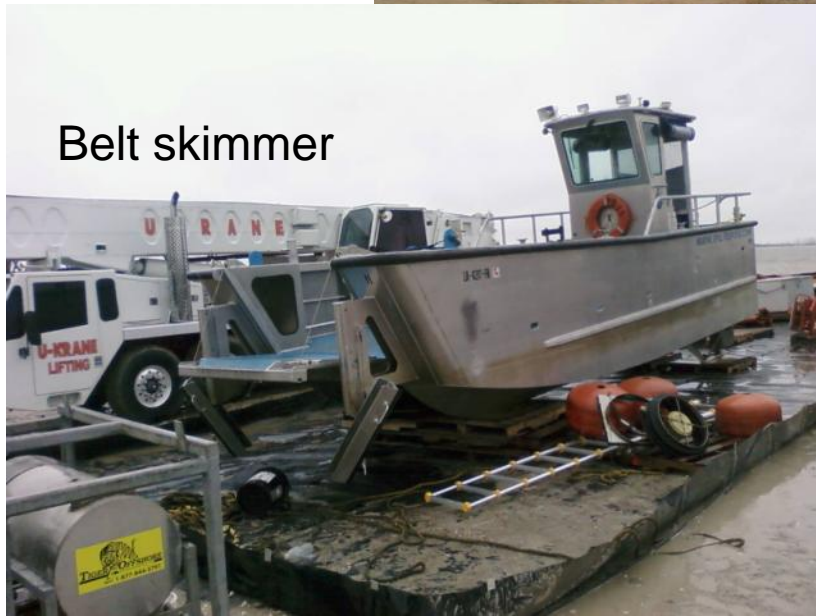
High Capacity Skimming Vessel



Clean Channel Barge



Texas Responder



Belt skimmer

3. Minimize economic impacts

- #1 U.S. Crude Tanker arrival port (#4 worldwide) (MARAD)
- #3 Petrochemical complex (total tonnage)
- Nation's 4th busiest waterway (total trade tonnage) (AAPA)
- 11% of Nation's refined petroleum products (DOE)
- Nation's busiest commercial military outload port (SDDC)
- Supplies 2 of the Nation's 5 SPRs (54.6%) (DOE)
- Delivers 400,000 BCD of waterborne crude via pipeline to 7 states and Canada. (ACOE)
- Delivers 470,000 barrels per day of refined products via pipeline to 20 states (ACOE)



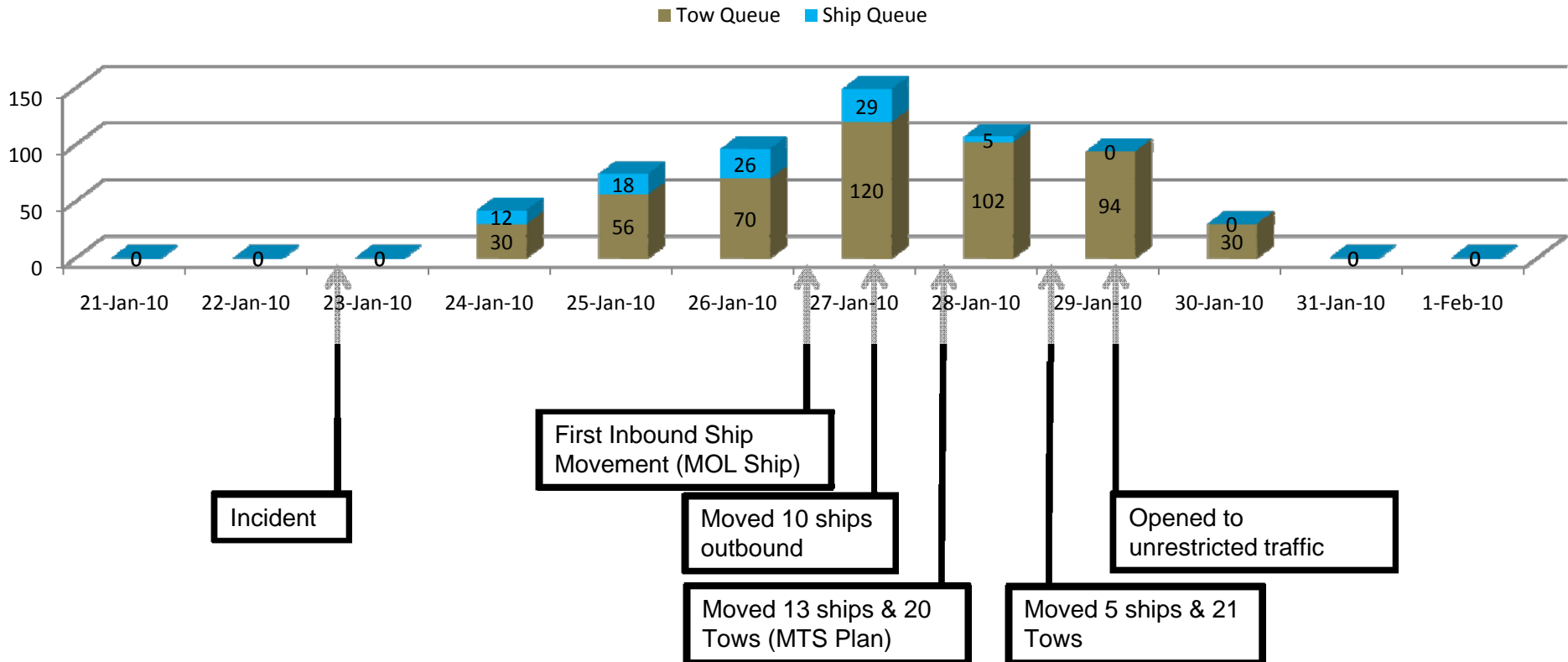


MT EAGLE
OTOME
vessel
cleaning and
movement
operations

Trade-offs w/ clean up ops



Traffic Resumption Timeline

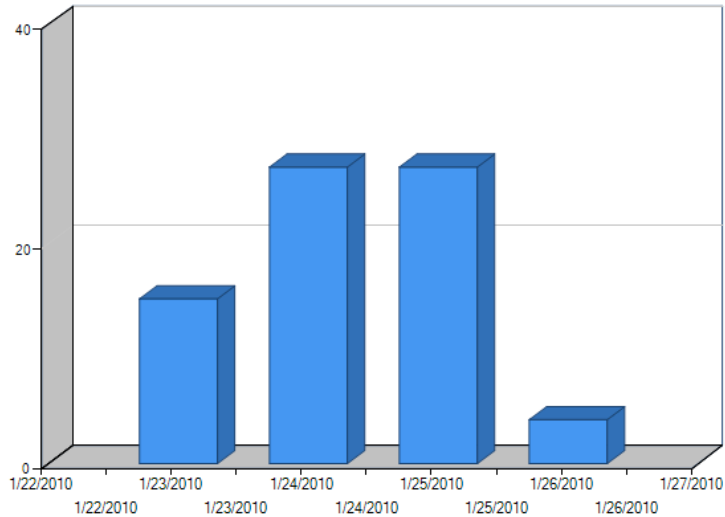


4. Involve stakeholders

- Liaison Officer
- Marine Transportation System Recovery Unit
- Port Coordination Team
- Stakeholder meetings
- Formal Public hearing

5. Inspire public confidence

Articles over Time



Best Practices:

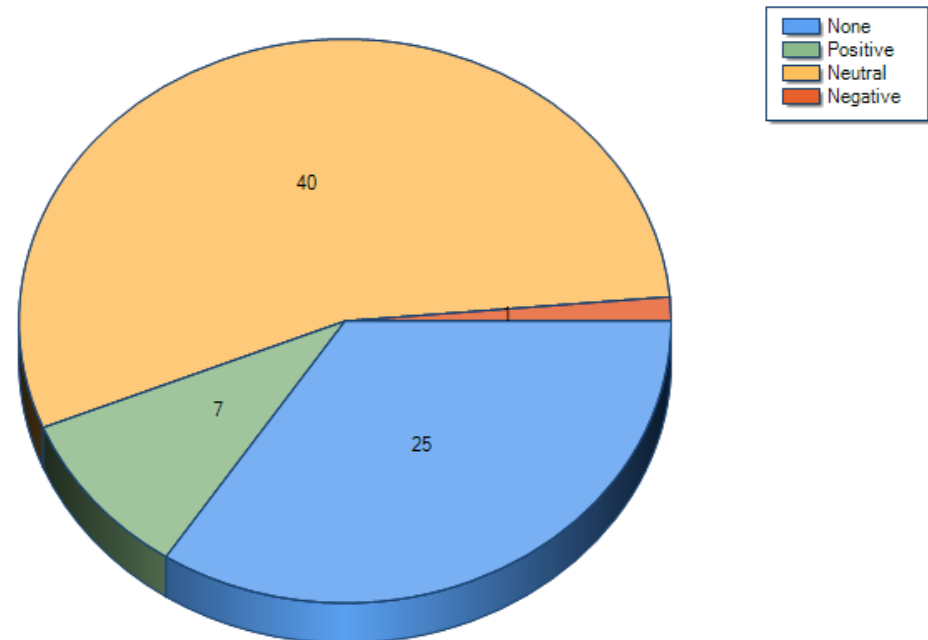
- Quickly establish a JIC
- Provide an initial accurate “holding statement”
- Monitor and correct any erroneous press
- Schedule press conference within 24 hours
- Be accessible in between scheduled press conferences
- Remain unified, the entire UC should appear at a press conference

Article Map



Over 721 articles surveyed!

Tonality



Initial report from a local TV station

“According to a worker who had to evacuated this morning, the ship "Gull Arrow Nassau" was coming into the port when it lost power. It kept moving without power until it collided with the ship "Eagle Otome" as it was in the process of refueling from a barge. All three vessels collided. Police and fire could yet not verify that this is how the accident happened.”

By the numbers

- **11 minutes** from passing arrangement between the Eagle Otome & the Dixie Vengeance till they collided
- **500,000 bbls** of crude onboard Eagle Otome
- **9,451.48 bbls** of Olmecca crude were spilled from the Eagle Otome
- **Combined 60,000 bbls** of aromatic concentrate being pushed by Dixie Vengeance
- **\$1.2M/day** burn rate; **<\$36M** in direct response costs

Some more numbers to remember

- **Ensure Safety - 0 reportable injuries**
- **Minimize Environmental Impacts – recovered 32% of oil spilled**
 - 1200 OSRO Field Personnel
 - 160,000 ft of 18" Containment Boom Deployed
 - 76 miles or 400,000 ft of 5 inch Sorbent boom & Snare on a Rope
 - 83 Vacuum Trucks (130 bbl & 70 bbl) & 123 Skimming systems
 - 114 response vessels/small boats
- **Minimize Economic impacts: reopened strategic waterway < 100 hrs after the incident**
- **Involve stakeholders - distributed info & requested input**
 - 1 command post & 1 Unified Command to distribute info & coordinate response
- **Inspire public confidence**
 - 1 Joint Info Center & regular press conferences

Any Questions?

