DEEPWATER HORIZON | EAGLE OTOME | HAITI RESPONSE | PRINCESS KATHLEEN | PETN SPILL


# 2010 YEAR IN REVIEW

NATIONAL STRIKE FORCE
NSF
U.S. COAST GUARD

NEW RESOURCE POSTER INSIDE

# From the Commander

## Capt. Roderick Walker

Greetings and welcome to the National Strike Force Year in Review. As I prepare to turn over the reins as commander of the world's greatest responders and retire from the Coast Guard after serving more than 30 years, I am fascinated at how fast the time has passed since my arrival. It seems just a short time ago in 2007 that I told the assembled guests at my incoming ceremony that we were going to be safe, that we would take care of each other and our families, that we would be committed to doing well and that we would have fun. Fast forward to now and I find myself reflecting upon the incredible events of 2010 and how this command responded superbly, as detailed in this magazine.

To state the obvious, being Commander of the National Strike Force (NSF) is my career high point. My crew - PIAT, AST, GST, PST and NSFCC - served the Coast Guard and the public exceptionally well. Every member trained intently, responded fervently, volunteered willingly and never gave less than 100 percent. Their honor, passion, devotion to duty, intelligence and esprit de corps is unrivaled.

In 2010, we found ourselves at the tip of the spear of several extraordinary responses. The NSF provided technical expertise to the Maritime Transportation System Recovery Unit and helped reopen the port of Port-au-Prince following the devastating earthquake in Haiti. Soon thereafter, NSF members were some of the first to answer the call for help to the Deepwater Horizon disaster, and we continue to provide technical and critical incident management support. Throughout this event, 90 percent of NSF personnel deployed into theater, while the remaining staff oversaw personnel transitions, maintained the common operating picture of the nationwide oil spill response equipment database, and coordinated the repair, support and reconstitution of all the deployed Coast Guard-owned oil spill response equipment in the Gulf. In addition, I personally spent 60-plus days proudly serving as Chief of Staff for the Deepwater Horizon Federal On-Scene Coordinator Rear Admiral Paul Zukunft and saw firsthand the superlative performance of our deployed Coast Guard members.

During the height of the Deepwater Horizon response, the NSF supported the EPA's response to an 800,000 gallon crude oil spill into the Kalamazoo River; assisted Sector New York after an explosion on the chemical tanker Sichem Defiance; assisted MSU Port Arthur, Texas, during a discharge of more than 500,000 gallons of sour crude oil into the Sabine River; assisted Sector New Orleans during its response to a wellhead blow out; and assisted Sector Honolulu's efforts to safely offload thousands of gallons of fuel from a sunken ex-U.S. Navy vessel in Pago Pago, American Samoa.

On top of our field response efforts, we overhauled our policy doctrine, standardized and recapitalized equipment and refined our training and qualification program. These accomplishments are even more extraordinary because of our diminished personnel capacity due to the ongoing Deepwater Horizon response.

Upon reflection of my time here, four years ago, the NSF had the potential to be great; in 2010, under incredible duress, we survived and thrived magnificently, all because of the selfless actions of the men and women who comprise the NSF. In 2011 and beyond, our potential is unlimited. I was proud to serve as the commanding officer of these superior professionals. I will cherish my time here forever. Semper Paratus!!!

Roderick E. Walker

Captain, U.S. Coast Guard
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# World's Best Responders:
## Any time, Any place, Any hazard


- Atlantic Strike Team
- Gulf Strike Team
- Pacific Strike Team
- Public Information Assist Team
- National Strike Force case in 2010
- Preventive Maintenance Verification (PMV)
- Preparedness Assessment Verification (PAV)
- Exercises supported
- # Indicates multiple responses to location

Total cases - 19
Hazardous material release - 9
Oil spill - 7
Urban flooding - 1

Not Depicted: Deployed PMV in Guam and American Samoa; Deployed PAV in Guam; Deployed GST and AST members to Port-au-Prince, Haiti

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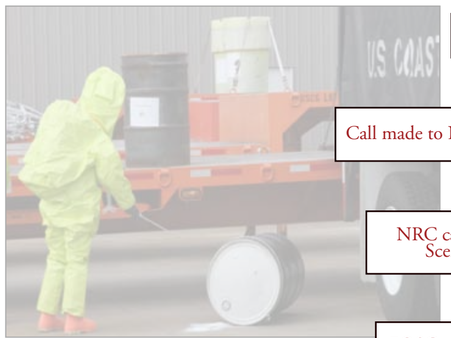
# Activation and Deployment



Incident occurs

Call made to National Response Center (NRC)

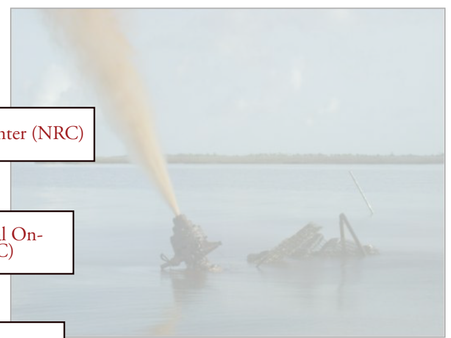
NRC calls CG or EPA Federal On-Scene Coordinator (FOSC)

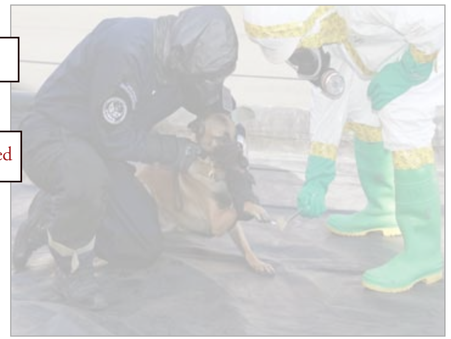
FOSC calls Strike Team for assistance

Strike Team mobilizes

Response work conducted

Strike Team released





# Atlantic Strike Team

The Atlantic Strike Team is based in Fort Dix, N.J. The AST's area of responsibility covers the Coast Guard's 1st, 5th, and 9th districts, Puerto Rico and the U.S. Virgin Islands in the 7th District and the northern portion of the 8th District. This corresponds to EPA Regions I, II, III, V and VII. The 83 active-duty, reserve, civilian and auxiliary members supported both Coast Guard and federal on scene coordinators in a variety of interesting and complex chemical and oil spill response cases in 2010. The following are a few of the case highlights.

In January, Sector New York requested AST assistance after pressurized cargo tanks ruptured and part of a deck collapsed during ethanol offloading operations on the 443-foot chemical tanker Sichem Defiance at anchor near the Verrazano Bridge in New York. The ship was carrying more than 40,000 barrels of ethanol as well as benzene and fuel oil. AST members conducted air monitoring and provided 24-hour support and oversight of product transfer and lightering operations of all cargo from the compromised tanks and spaces.

In February, the AST participated in a four-day, multi-agency weapons of mass destruction exercise at the Burlington County Fire Academy in Mount Holly, N.J. Multiple protective entries into suspect buildings were conducted to assess all hazards and collect samples. The exercise tested coordination between local, state, and federal agency emergency response teams, and highlighted each agency's capabilities and procedures.

The AST played an integral part in the Deepwater Horizon response, deploying 32 active duty and 22 reserve members, with 20 of them returning for multiple deployments. Team members provided incident management expertise, filled technical specialist roles and conducted media interviews and news briefings. The team was involved in offshore skimming, dispersant effectiveness monitoring, in-situ burn management, boom deployment, shoreline cleanup assessment, vessel decontamination, site safety and contractor oversight. During a period of nearly nine months, AST sent thousands of pounds of oil spill response equipment, including a Command and Control Trailer; two tractor trucks, four trailers carrying Vessel of Opportunity Skimming Systems, nine boom reels, temporary oil storage devices, DOP-160 hydraulic pumps, DS250 weir skimmers and dispersant fluorometers.

Sector Southeastern New England requested AST's assistance in June after crewmembers aboard the 145-foot clam dredger Ess Pursuit in New Bedford, Mass., experienced symptoms consistent with blister agent exposure. While fishing offshore, the vessel's crew pulled up several 1914 vintage mustard gas munitions canisters, one of which broke open on deck. The AST provided substantial chemical decontamination expertise and coordinated a weapons clearance plan for the Unified Command's approval. Team members donned Level B personal protective equipment and made entries into contaminated areas to take samples and conduct air monitoring.

In July, the AST responded to a call from EPA Region V for assistance when an underground Enbridge Energy pipeline ruptured in Marshall, Mich., spilling crude oil into Tallmadge Creek and the Kalamazoo River. The 30-inch pipeline, which spans over 300 miles from Indiana to Ontario, Canada, released an estimated 819,000 gallons of crude oil that impacted over 30 miles of river and shoreline. The AST provided health and safety plan development, air monitoring, site assessments, booming strategies and tactics, and contractor oversight.

The AST responded to a request in September from EPA Region II to conduct initial site assessment at an abandoned four-story chemical facility in Camden, N.J. Inside, responders found more than 300 types and sizes of containers holding hazardous materials used in the production of soaps, waxes and other commercial products. In addition to hazard assessments, the AST performed air monitoring and site safety, and product sampling, hazard categorization, and inventory.

*From left to right:*

*Top row: Petty Officer 1st Class James Maida supervises oil boom deployment. Chief Petty Officer Bridgette Brown conducts a port assessment during the Haiti Earthquake response. Petty Officer 1st Class Richard Bradway and Petty Officer 1st Class Kenneth Cook review plans with the EPA during the motor vessel Ess Pursuit mustard gas response. Second row: Petty Officer 1st Class Ronald Lynn provides oversight to Level B dress out during the Concord Chemical response. Petty Officer 2nd Class Maria Sabat assists Petty Officer 1st Class Richard Bradway in Level B dress out during the Ess Pursuit response. Ensign Adam Mosley sets up the Hydro-lab during the Deepwater Horizon response. Third row: Petty Officer 2nd Class Andrew Johnson checks water samples during the Deepwater Horizon Response. Petty Officer 1st Class Richard Bradway conducts PPE checks before entry at the Concord Chemical response. Contractors prepare contaminated clams for transport at the Ess Pursuit response.*


# Gulf Strike Team

The Gulf Strike Team is based in Mobile, Ala. The GST's area of responsibility includes the Coast Guard's 7th District, with the exception of Puerto Rico and the U.S. Virgin Islands, the southern portion of the 8th District and part of the 5th District. This corresponds to EPA Regions IV and VI. The 79 active-duty, reserve, civilian and auxiliary members of the team had a remarkable year in 2010. A few of the highlights are described below.

In January, three GST members and one AST member deployed to Port-au-Prince, Haiti, after a 7.0 earthquake devastated the area. The team assessed the port infrastructure, surveyed hazardous materials, controlled vessel movements, developed alternative transfer procedures for petroleum gas and prioritized shipping containers for delivery. Team members assisted non-governmental organizations and port officials to supply a remote camp with food and supplies for 20,000 Haitians and provided vital language support for Spanish, French and English.

Also in January, the tank vessel Eagle Otome collided with the tug Dixie Vengeance in Sabine Neches Ship Channel in Texas, causing an estimated 500,000 gallons of sour crude oil to discharge into the waterway. The GST deployed seven team members to conduct contractor oversight, site safety, incident management support, shoreline assessment and cleanup, and cost documentation. The GST's quick response actions helped ensure the total cleanup of oil in less than two weeks, leading to a quick reopening of the waterway.

Six GST members responded January 12 to an accidental release of the explosive compound Pentaerythritol Tetra Nitrate (PETN) at the Port of Morehead City, N.C. All waterways were closed within a two-mile radius surrounding the port, nearby roads were closed and the local community was evacuated until the hazard could be mitigated. The team provided technical assistance with explosive handling, response protocols, contractor oversight and incident management support.

Seven team members responded January 26 to damaged hazardous material containers onboard the motor vessel Seaboard Intrepid, which shifted due to heavy weather and endangered the Port of Miami, Fla. The damaged containers held extremely hazardous materials including chlorine, pesticides and acids. The team performed air monitoring, site safety supervision, inspections and contractor oversight for eliminating the hazard.

EPA Region IV requested the GST's assistance in May with what would become record flooding in Nashville, Tenn., resulting from more than 19 inches of rainfall over a two-day period. The GST deployed team members to conduct contractor oversight and help with the removal of hazardous materials from the Cumberland River, adjacent shorelines and surrounding flooded areas. These materials included several hundred 50-gallon buckets, fuel containers, gas tanks and 55-gallon drums.

The GST deployed two teams to both Texas and Louisiana in late April in response to the Deepwater Horizon disaster. The teams helped establish incident command posts and create initial action plans. Members worked night and day on everything from source control to the rapid implementation of cleanup plans and operations in Houma, La., and Mobile, Ala. Cleanup plans included techniques such as dispersant applications using SMART fluorometry and more than 400 in-situ burn operations, which removed 265,000 barrels of oil and proved to be one of the most successful of all cleanup methods used.

In July, the tugboat Pere Ana C collided with a wellhead in Barataria Bay, La. The collision caused a 100-foot high oil and gas plume to blow into nearby marshes and coat the vegetation with crude oil. The GST deployed several members to provide technical assistance, initial response actions, and boom deployment and retrieval. They also conducted air monitoring and contractor oversight in support of well plugging and cleanup operations.

In August, the GST deployed five team members and its Hazardous Material Response Trailer to Millard Refrigeration in Mobile, Ala., after several hundred gallons of anhydrous ammonia spilled there. The GST conducted site safety, air monitoring, and cleanup and disposal of the chemical.

*From left to right:*

*Top row: Petty Officer 2nd Class Stephen Jakubowski operates a C3 Fluorometer. Petty Officer 3rd Class Juan Patino recovers oiled wildlife during the Chevron Pipeline spill in Venice, La. Cmdr. Virginia Kammer talks to media at the Deepwater Horizon response. Second row: Chief Warrant Officer Christopher Hinsch and Lt. Pete Zauner meet with Adm. Thad Allen at a staging area during the Deepwater Horion response. Senior Chief Petty Officer Noell Bolleurs surveys from the pier the damage of the Seaboard Intrepid. Ensign Crystal Barnett provides contractor oversight from a small boat at the Chevron Oil spill in Port Arthur, Texas. Third row: Chief Petty Officer Jason Tyger responds at the Cydeco Mud Lake well blowout. Coast Guard responds to the Eagle Otome collision in Port Arthur, Texas. Lt. Cmdr. Mark Shepard and Chief Petty Officer Bridgette Brown (AST) conduct air monitoring after the 7.0 magnitude earthquake in Haiti.*

# Pacific Strike Team

The Pacific Strike Team is based in Novato, Calif., and its area of responsibility covers the Coast Guard's 11th, 13th, 14th and 17th districts, and the northwest portion of the 8th District. This corresponds to EPA Regions VII, IX, and X. The team has 78 active duty, reserve, civilian and auxiliary members. Some of the year's highlights are outlined below.

The PST rolled into 2010 with a request from EPA Region IX to conduct radiation assessments of several homes throughout the Church Rock area of the Navajo Nation in New Mexico. The PST deployed two team members who served as federal representatives, assisted in radiological sampling and monitoring, provided health and safety oversight, and provided site documentation and cost accounting support for government employees. The case, which actually began in November 2009, continued through late March.

In January, 12 PST members headed to Healdsburg, Calif., to assist EPA Region IX with the removal and over-packing of two abandoned chlorine cylinders discarded down a steep embankment from Mill Creek, in Lassen Volcanic National Park. The team members removed cylinders, provided air monitoring and site safety.

Also in January, the PST deployed three team members to Victorville, Calif., to assist EPA Region IX in the transportation and operation of the GeoProbe for soil sampling at the site of the NuWay Dry-Cleaning facility. The team also provided contractor oversight, assisted in sample preparation and operated a concrete coring drill to access the soil beneath the building's foundation.

Late in February, the team responded to a request from Coast Guard Sector Juneau to assist at the NOAA Auke Bay facility with the assessment of a sheen emanating from the sunken motor vessel Princess Kathleen. The vessel sank off Point Lena in 1952 with an estimated 155,000 gallons of Bunker C oil on board. The vessel had been giving off sheen several times per month and Sector Juneau accessed the Oil Spill Liability Trust Fund to determine the structural integrity of the vessel, and estimate the amount of fuel on board and its rate of discharge. The PST deployed eight team members to help manage the cleanup process, set up and participate in the Incident Command System, and perform contractor oversight and air monitoring activities.

The PST also made a substantial contribution during the Deepwater Horizon oil spill response and cleanup. The PST deployed 43 active duty and 14 reserve team members, 32 of them returning for multiple deployments. Members filled positions in the incident command post, supervised response teams in shoreline assessment and cleanup, led Vessel of Opportunity Skimming System evolutions, refined the SMART fluorometry protocols, and advised on in situ burns, vessel decontamination, and shoreline protection and treatment options. During a period of nearly six months, the team was responsible for the deployment of 10 boom reels, 250 hydraulic pumps, lancer barges and sea slugs used as temporary oil storage devices, SMART fluorometers and one Vessel of Opportunity Skimming System.

*From left to right:*

*Top row: Petty Officer 1st Class Kyle Chronister lowers a C3 submersible flourometer during the Deepwater Horizon response. Petty Officer 1st Class Erik Vonstockhausen and Petty Officer 1st Class Andrew Islas operate a Geoprobe at the NuWay Site. Petty Officer 2nd Class Dave Varela and Petty Officer 1st Class Andrew Islas conduct a site survey in full-face OBAs at the NuWay Dry Cleaning facility. Second row: PST members conduct flourometry readings at the Deepwater Horizon response. A PST Level B Entry team carts out an abandoned chlorine cylinder from the Mill Creek Site. Petty Officer 2nd Class David Martin lowers a fluorometer into the Gulf of Mexico to collect water samples and field data. Third row: PST members inventory equipment at the Princess Kathleen response in Juneau, Alaska. .Petty Officer 1st Class Daniell Lashbrook and Chief Petty Officer Carrie Gagnon supervise V.O.S.S. crew-members at the Deepwater Horizon response. Petty Officer 2nd Class Karen Sinkey works with a small boat crew and divers at Davis Dam training.*

# Public Information Assist Team

The Public Information Assist Team consists of four highly trained professionals who specialize in risk communication during oil and hazardous substances releases and natural disasters.

The PIAT's roots can be traced to 1978 when it was established at Coast Guard Headquarters as part of the National Contingency Plan.

The PIAT's primary mission is to provide unique, interagency environmental response communication expertise to assist Incident Commanders in meeting their objectives of truth and transparency of operations for the public.

When not traveling to incident responses throughout all Coast Guard Districts and EPA Regions, the PIAT provides joint information center and risk communication training to the nationwide response community.

In 2010, the PIAT participated in the Spill of National Significance exercise in Portland, Maine, and oil spill response exercises in Key West, Fla., Savannah, Ga., and New York City as part of the Preparedness for Response Exercise program.

The PIAT responded to several notable incidents in 2010, and each case was fundamentally different and presented unique challenges.

January 12, when a forklift operator punctured a shipping container and damaged cylinders filled with the explosive PETN, two PIAT members deployed to assist Sector North Carolina with public information activities. PETN is the same explosive used by the so-called "underwear bomber" in the 2009 Christmas Day attempt to blow up a U.S. airliner.

The spill caused a high concern in regional and national media. The PIAT members quickly established a joint information center with Coast Guard, state, and local representatives. The PIAT members addressed inaccuracies and rumors in media reports, easing the anxiety in the community while still meeting the needs of the media.

In mid-January two members of the PIAT deployed to assist Marine Safety Unit Port Arthur with public information activities after the tow vessel Dixie Vengeance and the two barges it was pushing collided with the 807-foot tank vessel Eagle Otome in Port Arthur, Texas. Using its expertise in risk communication the PIAT worked with the unified command to highlight operations and keep the public informed on the progress of the cleanup.

In late February, when the 58-year old wreck of the steam ship Princess Kathleen started to seep oil into the pristine waters near Juneau, Alaska, two members of the PIAT deployed to assist the local Coast Guard sector with community and media relations. The PIAT developed a communication plan and conducted public meetings to educate stakeholders on the tactics of recovering more than 155,000 gallons of bunker C oil from the fragile wreck.

Finally, on April 22, the PIAT deployed to Louisiana in support of the Deepwater Horizon disaster. The PIAT assisted with the establishment of a JIC at the Houma, La., Incident Command Post as well as the Emergency Support Function 15 at the Unified Area Command in Robert, La. Additionally, PIAT members established a forward operating base in Venice, La.

During the 142 days the PIAT was deployed to the Deepwater Horizon response, team members interacted daily with scores of local, national, international and entertainment media to educate the public on the scale of immense and unprecedented Federal oil spill response operations.

*From left to right:*

*Top row: Media personnel film from of a Jayhawk helicopter at the Deepwater Horizon response. Petty Officer 1st Class Lawrence Chambers assists media during the Eagle Otome response at Port Arthur, Texas. Members of the PIAT attend a Deepwater Horizon operations brief at the Incident Command Post in Houma, La. Second row: Petty Officer 2nd Class Matthew Schofield inventories the PIAT's response kits prior to deploying. A Coast Guard pilot plans a flight with Fox News reporter Rick Levanthal during the Deepwater Horizon response. Capt. June Ryan holds a press briefing during the PETN spill response. Third row: Petty Officer 3rd Class Seth Johnson works with participants during a Sector New York exercise. Chief Warrant Officer Lionel Bryant mediates during a press briefing at the Eagle Otome spill. Petty Officer 1st Class David Schuhlein discusses on-going operations at the Deepwater Horizon Joint Information Center in Houma, La.*

# Coordination Center

Throughout much of the past year, the National Strike Force Coordination Center (NSFCC) was fully engaged in the Deepwater Horizon response. The NSFCC coordinated the mobilization and deployment of $6.5 million of NSF pollution response equipment, and established a multi-million dollar contract to repair, maintain and refurbish all Coast Guard owned Marine Environmental Response (MER) equipment deployed in support of Deepwater Horizon. Additionally, the NSFCC managed the deployment and rotation of all NSF responders over the course of the response and provided personnel to serve on the National Incident Command (NIC) staff, and at the Unified Area Command and Incident Command Posts. Most notably, NSFCC staff maintained awareness of the national Oil Spill Response Organization (OSRO) capability using the Response Resource Inventory database, which kept senior leaders and the NIC informed of the national resource common operating picture.

Despite this period of intense operational support, the National Strike Force (NSF) continued to overhaul its response equipment and training program. Staying in alignment with the strategic transformation of the Coast Guard and applying lessons learned from the Deepwater Horizon response, the NSF continued to recapitalize its aging response equipment inventory and find solutions to develop better trained responders. The NSFCC led the Chemical, Training and Equipment Workgroups and made great strides to upgrade critical response equipment, standardize the NSF's training and qualification program, and update response policy and doctrine.

## New Equipment and Upgrades:

The NSF conducted an extensive overhaul of its respiratory equipment to be in compliance with recent changes in National Fire Protection Association standards and procured more than $500,000 of state-of-the-art chemical, biological, radiological and nuclear respiratory equipment from Mine Safety Appliance (MSA). The new MSA M7 responder respiratory equipment allows a single mask to be used interchangeably with a Self-Contained Breathing Apparatus, Air-Purifying Respirator or Powered Air-Purifying Respirator during response operations.

In addition, in 2010 the NSF upgraded its respiratory capability to include an enhanced communication system within the masks and an accountability system that allows the command post to monitor the status of entry teams. The NSF upgraded all RAE Systems to the new RAELink 3 modems, which integrates many current RAE Systems detectors and select third-party devices. The built-in Bluetooth connectivity provides sensor data and GPS coordinates to a command post up to two miles away. Furthermore, the NSF upgraded to the ProRAE Guardian software, which captures the real-time sensor data from the instruments and enables critical decision support.

Additionally in 2010, each NSF Strike Team received two standardized 26-foot Trailerable Aids to Navigation Boats (TANB). The TANBs will replace the 32-foot Munson and 23 and 24-foot Sea Arks currently in inventory. Additionally, the TANBs will integrate the NSF's small boats into the Coast Guard Small Boat Product Line, allowing for better maintenance and support.

## NSF Preparedness Programs:

The NSFCC administers several National Preparedness Programs as part of its legally mandated mission. In addition to coordinating public and private resources during the Deepwater Horizon Spill of National Significance, the NSFCC worked with OSROs to prepare the Response Resource Inventory for the implementation of the new Dispersant Regulations and Salvage and Marine Firefighting Regulations.

The NSFCC is working closely with Coast Guard Headquarters and the Bureau of Ocean Energy Management Regulation and Enforcement to conduct OSRO inspections. The agencies will share information on Preparedness Assessment Verifications to improve outer continental shelf response preparedness and ensure the Coast Guard maintains a robust interim capability.

## NSF Responder Development Program:

Throughout the history of the NSF, training standards have evolved to reflect the highest expectations of a Hazardous Materials Responder, and 2010 was no exception. Last year, the NSFCC created the NSF's Responder Development Program, which established the training and qualification standards for Strike Team members.

The NSF has four qualifications: Response Member, Response Technician, Response Supervisor and Response Officer. The NSF Responder Development Program contains all four qualifications and the NSF Course Map, comprised of all courses needed to obtain or maintain a NSF qualification. In addition, the NSFCC was instrumental in developing a salvage course for the NSF while also filling a critical training gap for district and sector personnel.

Through the continued focus of the NSFCC, innovative changes and initiatives were implemented that allow NSF Strike Team and PIAT responders to be better equipped and possess enhanced technical knowledge and skills to remain the World's Best Responders: Any time, Any place, Any hazard.

*From left to right:*

*Top row: Petty Officer 2nd Class Adam Evans works with a HAZMAT crew during a Preparedness Assessment Verification. Lt. Lauren Fullam receives a brief during a Preparedness Assessment Verification. Dale Hemenway and Marlene Meads tracks resources for the Deepwater Horizon response at a field office in Pensacola, Fla. Second row: Petty Officer 2nd Class Wyatt Ingram checks paperwork during a Preparedness Assessment Verification. Petty Officer 2nd Class Wyatt Ingram inspects oil spill response equipment during a Preparedness Assessment Verification. Petty Officer 2nd Class Wyatt Ingram conducts training during a Preparedness Assesment Verification. Third row: Petty Officer 1st Class Todd Legutki and Lt. Raymond Jackson inspect a trailer containing oil boom. Carol Gilbert updates resource T-cards at a field office in Pensacola, Fla. Lt. Raymond Jackson discusses facility requirements during a Preparedness Assessment Verification.*

# DEEPWATER HORIZON

Flaring operations continue aboard the drillship Discoverer Enterprise Friday, June 25, 2010. Overflights of the oil spill response were conducted daily to assess the situation. U.S. Coast Guard photo by Petty Officer 2nd Class Jaclyn Young.

**Story by Petty Officer 2nd Class Jaclyn Young**
**Public Information Assist Team**

When the offshore oil platform Deepwater Horizon exploded in the Gulf of Mexico in April, the National Strike Force found itself at the center of one of the largest and most complex responses in U.S. history. The immense scale of the disaster required the NSF to rethink its approach to operations in order to combat the expansion of a widespread environmental impact.

The Federal On-Scene Coordinator (FOSC) called upon the NSF within hours of the incident, and the NSF focused its collective effort on several fundamental strategies to clean up the seemingly unending flow of oil. These strategies were to capture the oil on the water's surface, remove it from the water, and keep it away from environmentally sensitive areas.

"This is what we train for," said Lt. Cmdr. Tedd Hutley, the NSF operations officer based at the National Strike Force Coordination Center in Elizabeth City, N.C. "Even though the magnitude of what we were dealing with was unprecedented, we were ready to apply our technical expertise, equipment and leadership for this spill."

The Gulf Strike Team was the first NSF component to deploy to the region because the spill was located in its area of responsibility. It quickly became clear, however, that the response required personnel and equipment from all three strike teams and the NSFCC.

"Each component of the NSF has its own identity, areas of responsibility and unique capabilities," said Hutley. "However, because we share a common vision and are standardized in our training and procedures, when we are faced with a large response like Deepwater Horizon, the team boundaries come down and we respond as one National Strike Force."

A challenge that the NSF shared with the rest of the Coast Guard's response units was that the spill occurred during the height of personnel transfer season, and some of the most experienced oil spill experts on scene were in the middle of moving their families. For NSF members, this meant that nearly one third of its qualified members were transferred during the summer months, making the expectations of new personnel exceptionally high.

"New NSF members had to come up to speed very quickly," said Hutley. "Our new people received initial core training, and then had to hit the decks running."

Despite these challenges, NSF members provided support and filled supervisory roles in nearly every aspect of the response; ninety percent of the NSF's 235 members deployed to the Gulf for at least one tour.

In addition to the resources deployed at the explosion site, 32 staging areas were set up along the Gulf Coast to respond to reports of oil and protect sensitive shoreline areas. The NSF played a pivotal role in five unique facets: in situ burn, skimming operations, near-shore cleanup, resource management, and equipment accountability.

# IN SITU BURNS

On April 28, NSF team members supervised the first in situ burn of surface oil since 1989 when responders conducted test burns during the Exxon Valdez spill. In situ burn, also known as controlled burn, proved to be highly effective in the Gulf and was used at the spill site throughout the response.

"Characteristics of this spill made in situ burning an extremely effective oil removal strategy," said Hutley. "We had a continuous supply of product on the water that was suitable for burning and it was far away enough from shore to have minimal environmental impact."

Though the in situ burn method is simple in concept, it required responders to be perfectly coordinated through every step of the process. From a command vessel, NSF strike team members supervised four task forces, each comprised of barge cranes, shrimp boats and smaller boats, and dozens of crewmembers. When given the green light, two shrimp vessels towed flame-resistant boom between them in a U-shape, and pulled the trapped oil a safe distance to ignite it.

Responders faced inherent dangers during in situ burn operations. The crews endured excessively hot temperatures while wearing bulky personal protective equipment and had to fight against ocean waves to ignite the corralled oil.

Weather conditions also had a significant impact on in situ burn operations. Winds, sea state, and the oil's concentration on the surface all had to complement each other in order for a burn to be successful.

"Some days it was too stormy, waves were too high, and conditions were better for dispersants," said the Gulf Strike Team's Petty Officer 1st Class Ken Bond, who was assigned as an in situ burn supervisor.

Despite the challenges, more than 400 controlled burns were conducted, removing approximately 11 million gallons of oil. According to the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling final report to President Obama, this accounted for about five percent of the total oil spilled.

"The response showed just how viable it [in situ] is, and hopefully, it will be used on a much more frequent level in the future," said Bond.


Petty Officer 1st Class Justin Sawyer with the Gulf Strike Team supervises in situ burn operations in the Gulf of Mexico, May 5, 2010. U.S. Navy photo by Mass Communication Specialist 1st Class Jeffery Tilghman.

A boat with the Vessel of Opportunity program stands by while oil and gas is flared off during an in situ burn operation July 17, 2010. U.S. Air Force photo by Tech. Sgt. Polly Bennett.


Clockwise from top left:

Responder George Ross places an igniter package in oil contained by fire boom in the Gulf of Mexico, July 10, 2010. U.S. Air Force photo by Tech. Sgt. Cheryl Hackley. Dark clouds of smoke emerge as oil catches fire during an in situ burn, May 6, 2010. U.S. Navy photo by Mass Communication Specialist 2nd Class Justin Stumberg. Crewmembers aboard the vessel Braxton Perry recover a deflection boom after an in situ burn in the Gulf of Mexico, May 7, 2010. U.S. Navy photo by Mass Communication Specialist 2nd Class Justin Stumberg. An igniter package rests on the deck of a response vessel prior to being used in an in situ burn, May 6, 2010. U.S. Navy photo by Mass Communication Specialist 2nd Class Justin Stumberg.

# SKIMMING

Crewmembers use a fire hose from the buoy deck of the Coast Guard Cutter Juniper, homeported in Newport, R.I., to direct surface oil into the Spilled Oil Recovery System (SORS) pump June 13, 2010. U.S. Coast Guard photo by Petty Officer 3rd Class Colin White.

Another highly effective day-to-day method of oil recovery used during the Deepwater Horizon response was surface skimming. When weather was favorable, skimming operations collected approximately 63,000 gallons of oily-water mix a day. The NSF oversaw two types of surface skimming operations: the Vessel of Opportunity Skimming Systems (VOSS) and the Spilled Oil Recovery Systems (SORS).

The VOSS were installed aboard different types and sizes of contracted vessels. NSF personnel acted as team leaders aboard VOSS vessels and supervised crews of seven or eight people.

Petty Officer 1st Class Daniell Lashbrook with the Pacific Strike Team was assigned as lead supervisor for skimming operations on the 130-foot supply vessel Odyssey Mariner.

"This was the first time I had used the VOSS in a real-life scenario," said Lashbrook. "When I first arrived to the response, I was assigned to a team with another strike force member and we had both only been with the NSF a year each. It was definitely a challenge to apply our training in such a massive operation."

The SORS equipment is pre-staged around the U.S. onboard 225-foot Coast Guard buoy tenders, and those crews are required to train regularly on the system's operation and deployment. SORS are usually kept in reserve and only brought out when commercial resources are limited. Deepwater Horizon was just such an occasion.

"The spill was so large that all available resources needed to be applied, including government-owned equipment," said Hutley.

To ensure coordinated cleanup efforts, a command vessel directed teams of SORS and VOSS-equipped vessels to heavily-oiled areas, which were tracked daily during overflights.

Reminiscent of an on-water SWAT team, skimming teams were in constant motion in the Gulf, when weather permitted, and communicated closely with each other in an effort to capture the maximum amount of oil.

"We would wait for the streamer of oil from the current and let the skimmer catch it," said Lashbrook. "Oil was so thick we used a fire hose to push oil into the skimmer because there was often so much debris blocking it."

Oiled-boom and equipment combined with high heat and humidity presented constant dangers to the skimming teams. Vigilance was vital to avoid injuries.

"We worked long 12-hour days," said Lashbrook. "We would start the day early and try to secure the decks by sunset. The decks were very dangerous at night because oil was everywhere."

The Coast Guard Cutter Aspen, homeported in San Francisco, recovers fast sweep boom about one mile from shore after oil skimming operations in the Gulf of Mexico June 28, 2010. U.S. Coast Guard photo.

Clockwise from top left:

Crewmembers aboard the Coast Guard Cutter Juniper demonstrate the Spilled Oil Recovery System for local and national media, June 10, 2010. U.S. Coast Guard photo by Petty Officer 3rd Class Colin White. Crewmembers aboard the Coast Guard Cutter Harry Claiborne, homeported in Galveston, Texas, remove an oil covered boom from the Gulf of Mexico, May 8, 2010. U.S. Navy photo by Petty Officer 2nd Class Johnathen Davis. Chief Petty Officer Jason Rizzi, with the Pacific Strike Team, tends a skimmer during the response operations in the Gulf of Mexico, June 3, 2010. U.S. Coast Guard photo. Response vessels conduct skimming operations, June 25, 2010. U.S. Coast Guard photo by Petty Officer 2nd Class Jaclyn Young. The Coast Guard Cutter Oak, homeported in Charleston, S.C., skims oil with the help of the tugboat Todd Danos off the coast of Alabama, June 21, 2010. U.S. Coast Guard photo.

# NEAR SHORE CLEANUP

Sensitive coastlines along the entire Gulf Coast were at risk, and hundreds of miles of containment boom were deployed to corral the oil, collect it, or deflect it before it could damage marshlands, mangroves and fishing areas.

Similar to the firehouse mindset of the skimming teams, the responders in charge of near shore cleanup operations wanted the ability to descend on affected areas as soon as reports came in. Near shore operations posed a significant challenge because the intrusion of man and man-made oil spill cleanup equipment could potentially cause as much – if not more – damage to delicate wetlands than the oil itself.

One solution came in the form of the Quick Response Force. QRFs have been used throughout history as part of war time strategy, and NSF members and the unified command designed a way to apply the QRF model to combat the encroachment of pollution during Deepwater Horizon.

Constructed for mobility and rapid response, QRFs were led by NSF members, and were comprised of rapid response equipment and experienced contractors qualified to operate it.

The NSF's built-in ability to adapt to constantly changing environments was a perfect fit, said Atlantic Strike Team's, Chief Petty Officer Bridgette Brown, deputy operations section chief during Deepwater Horizon.

To be successful, the QRFs needed the freedom to move about independently to investigate reports of impacted areas, Brown said. Requiring QRFs to obtain multiple levels of approvals before shifting gears was counterproductive.

Fortunately, Brown said, the QRF teams were fully empowered through the command structure, largely due to the expertise of the NSF members supervising the operations.

The QRF was not exempt from staffing issues, Brown said.

"It was challenging to sustain enough NSF personnel in the positions as field supervisors for such a large and lengthy response," she said.

In order to sustain the operations, the teams recruited heavily from reserve and prior NSF members to fill roles as QRF supervisors for each of the various missions in the field.

"The reliance on all NSF members, no matter the active duty, reserve or former NSF member status, played one of the most pivotal roles in the NSF's continued success," said Brown. "The overwhelming success of the QRF teams throughout the various mission assignments proved the concept worked, and worked well."

In fact, according to Brown, news of the QRF concept spread, and in June, the NSF deployed on an EPA case, and the unified command of that response employed the same QRF concept.

Coast Guard Petty Officer 3rd Class Juan Patino with the Gulf Strike Team prepares a fluorometer to collect real time data during dispersant operations, May 27, 2010. U.S. Coast Guard photo by Petty Officer 2nd Class Luke Pinneo.

Containment boom is staged around Breton National Wildlife Refuge near Venice, La., April 29, 2010. Breton Island is home to the threatened brown pelican, which was recently removed from the endangered species list. U.S. Coast Guard photo.



# RESOURCE MANAGEMENT

The Deepwater Horizon response called for the deployment of millions of feet boom, thousands of vessels and skimmers, nearly a million gallons of dispersant as well as all of the resources needed to support the thousands of people involved with the cleanup effort. This widespread mobilization of resources created an extremely high demand for real-time resource information.

To meet this immense demand, the NSFCC used the Response Resource Inventory, an electronic database of the nation's Oil Spill Removal Organizations and their available pollution response equipment.

"Early on in the Deepwater Horizon response, the RRI was particularly crucial to on-scene commanders looking for resources," said Lt. Raymond Jackson, response support division chief at NSFCC, and the RRI administrator. "The RRI was used to identify available resources across the nation needed to combat the spill."

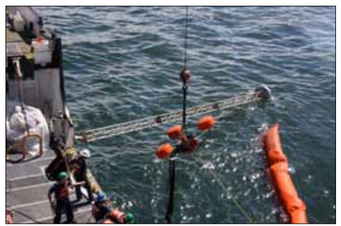
Because of the huge demand for oil spill response equipment in the Gulf, Jackson said, the response resources that remained in each captain of the port zone were primarily supporting vessel and facility response plan holder regulatory requirements. Reallocation of resources to the Gulf would potentially impact the Maritime Transportation System and the donor region's ability to comply with regulatory requirements and respond to additional pollution incidents.

To help combat this, the NSFCC created additional tools in the RRI to monitor resource capabilities across the country and help mitigate the impact of the unprecedented resource draw.

NSFCC members spent hundreds of hours conducting hands-on inspections of all the equipment listed in the RRI for all OSROs across the country to ensure the database was accurate.

In hindsight, Jackson believes the Deepwater Horizon disaster provided the much-needed impetus for further improving the RRI and increasing the awareness of its capabilities.

"The RRI is a planning and preparedness tool that is much more powerful than it has ever been," Jackson said.



The Coast Guard Cutter Aspen, homeported in San Francisco, deploys a skimmer in the Gulf of Mexico June 28, 2010. U.S. Coast Guard photo.

The Coast Guard Cutter Aspen recovers fast sweep boom after oil skimming operations in the Gulf of Mexico less than one mile from the shoreline, June 28, 2010. U.S. Coast Guard photo by Ensign Shea Winterberger.

# EQUIPMENT ACCOUNTABILITY

Nearly all of the Coast Guard owned oil spill response equipment was put into action in the Gulf, and tracking, maintaining and repairing this equipment during response operations presented a significant hurdle. The Coast Guard needed to decontaminate and reconstitute its equipment to ensure its readiness was returned to pre-Deepwater Horizon levels.

Normally, Coast Guard equipment is not used in oil spill responses because the responsible party contracts OSROs to provide and operate equipment. This was the case with BP, but the staggering demand for equipment soon required the Coast Guard to bring its own response resources to bear.

"In this spill we used more Coast Guard equipment than any other response we have been involved with," said Dale Hemenway, the equipment specialist at the NSFCC. "We needed every resource we could get."


A lancer barge sits outside the Prichard facility awaiting repair. U.S. Coast Guard photo by Petty Officer 2nd Class Wyatt Ingram.

To overcome this hurdle, NSFCC personnel worked hand-in-hand with the unified area command in New Orleans to open the Coast Guard Central Maintenance Facility in Prichard, Ala.

The Prichard facility came online shortly after the wellhead was capped and the need for skimming operations subsided, but the need to decontaminate and restore the equipment grew. At 500,000 square feet, it was large enough that Hemenway and other staff had room to sort the thousands of pounds of equipment for either disposal, or repair and reconstitution.

"If we ever have an event like this in the future, it will be necessary to have a warehouse like the one in Prichard," said Hemenway, who spent a total of six weeks there. "A lesson learned from this response is that we need to secure a facility immediately after a spill starts. It will help the Coast Guard maintain its readiness posture."

Hemenway said without the facility, the equipment would not have been repaired or refurbished.

"Decontaminating and reconstituting the equipment after a spill is just as important as having it well-maintained and pre-staged," he said.

Contaminated fast sweep boom is collected following skimming operations in the Gulf of Mexico Aug. 8, 2010. Fast sweep boom is used as part of the Spilled Oil Recovery Systems. U.S. Coast Guard photo.

Workers load Coast Guard Fly-Away-Boxes onto a flatbed trailer. Fly-Away-Boxes are used to quickly ship HAZMAT equipment around the country. U.S. Coast Guard file photo.



# RESTORATION

At the height of the response, nearly 48,000 people were deployed to collect, burn and disperse oil as well as protect sensitive shoreline and cleanup oil-impacted areas. Behind the scenes, NSF members also supported administrative functions, finance and logistics tracking, and public information activities.

"The NSF brought a cadre of trained oil spill responders to the table for the FOSC to employ throughout the Deepwater Horizon Response," said Capt. Meredith Austin, Coast Guard Incident Commander and the FOSC's representitive in Houma, La. "They filled key roles in the field and in the command centers, expertly guiding and mentoring those around them to make sure the job was done right."

Regardless of their roles, Chief Petty Officer Bridgette Brown of the Atlantic Strike Team, said she believes the melding of active duty, reserve and prior NSF members was historic for the NSF.

"There was not one time where you could tell the difference between any of them," she said. "All members understood the mission with an acute situational awareness that comes with experience, and followed-out each assignment headstrong."

Now that the emergency phase is over and the response is stabilized, NSF members remain among the many people working to restore the Gulf's communities, environment, and industries to their pre-spill conditions.

"This whole response has never been about the NSF or the Coast Guard or any other responder," said Hutley. "It's been about carrying out our responsibilities to the American public under the National Contingency Plan and making sure the people of Gulf know that we are committed to this response for the long haul."


Petty Officer 1st Class Matt Foster with the Atlantic Strike Team drives a utility vehicle along the coast while monitoring the safety and progress of cleanup efforts Aug. 31, 2010. U.S. Coast Guard photo by Petty Officer 2nd Class Annie Elis.

Hundreds of brown pelicans fill the sky over Mangrove Island Aug. 25, 2010. U.S. Coast Guard photo by Petty Officer 3rd Class Cory Mendenhall.

# Strike Team Qualifications

## Response Member

Entry-level strike team position, attained by member within six months. Primary responsibility is to assist the Response Technician.

Qualifications and Training:

- 160-hour National Fire Protection Association (NFPA) HAZMAT technician course
- 80-hour Basic Strike Team equipment and response training
- NOAA Shoreline Cleanup Assessment Training
- Familiar with strike team equipment
- 100-level and 200-level ICS training

## Response Technician

Second-level strike team position, attained within 18 months. Serve as technical experts and fill leadership positions in response organizations.

Qualifications and Training:

- Qualified Response Member
- 80-hour NFPA HAZMAT specialist training
- 40-hour Weapons of Mass Destruction training
- 40-hour oil spill response training
- EPA water/soil/air sampling course
- 300-level ICS training
- Expert with all strike team equipment and operations

## Response Supervisor

Highest enlisted-level strike team position, may be attained within 30 months. Primary responsibilites are to supervise strike team operations and lead responses.

Qualifications and Training:

- Qualified Response Technician
- 24-hour NFPA HAZMAT Incident Commander course
- EPA Health and Safety for Decision Makers course
- FEMA Professionals in Emergency Management course

## Response Officer

Highest strike team position, attained within 18 months and only available to strike team officers.

Qualifications and Training:

- Requires extensive field experience
- Response Officers are NFPA HAZMAT incident command qualified and capable of managing all aspects of an incident response



# Frequently Asked Questions

**How do I request Strike Team assistance?**
Contact the nearest Strike Team or the National Response Center for direct deployment of needed assets for National Contingency Plan (NCP) incidents. The teams maintain an aggressive response posture to provide maximum special team support to Federal On Scene Coordinators. Ask for the Operations Officer or the Officer of the Day. For non-environmental response incidents, a request for forces needs to be filed with the Deployable Operations Group (DOG).

**If I am uncertain as to whether an incident requires support from the Strike Team, what should I do?**
Call. The commanding officer, operations officer or command duty officer will discuss the incident and specifically recommend what equipment or personnel resources they can provide to support the response.

**Where can I obtain an equipment listing for various Oil Spill Response Organizations (OSRO) in a specific AOR?**
The Response Resource Inventory (RRI) is a database that is maintained at the NSFCC and contains equipment inventory for classified OSROs. The database contains locations as well as equipment amounts and capabilities. Information derived from the RRI can be retrieved from the NSF website. For specific OSRO inventory information, contact the Response Support Division at 252-331-6000 ext 3036 or the website at:
https://cgrri.uscg.mil

**How do I request the Public Information Assist Team?**
Public information professionals who are skilled in the Incident Command System (ICS), Joint Information Center (JIC), risk communication and crisis media relations, can be requested for NCP incidents directly through the NSFCC or through the National Response Center at 800-424-8802. For Non-NCP incidents, a request for forces needs to be filed with the Deployable Operations Group (DOG).

**Who pays for a Strike Team to respond?**
In most cases, the on-scene coordinator has the $1 billion Oil Spill Liability Trust Fund (OSLTF) or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) fund to pay for associated costs resulting from oil spills or substantial threats of oil or hazardous material spills to navigable waterways of the United States. If the incident does not meet either of those funding specifications, the requesting agency would fund the Strike Teams' response through the Stafford Act or other means.

**Can the Strike Team respond to projects in the remediation phase?**
Strike Teams respond to projects or incidents at all phases. Contact the nearest team for additional information.

**Can foreign governments request Strike Team assistance during major incident?**
Strike Teams deploy internationally to assist foreign governments in a variety of incidents. The requesting government contacts the U.S. State Department for Strike Team support.

# Photo Credits

On the Cover: Petty Officer 1st Class Stephan Brown, with the Atlantic Strike Team, supervises an in-situ burn in the Gulf Of Mexico during the Deepwater Horizon response Monday, May 17, 2010. (U.S. Coast Guard illustration)

On the Back: Oil burns off the water's surface during a routine in-situ burn in the Gulf of Mexico for the Deepwater Horizon response Thursday, May 20, 2010. (U.S. Coast Guard photo)

Pg. 5 - Lt. Brownie Kuk, USCG photo, USCG photo, Lt. Brownie Kuk
Pg. 6 - USCG photo, PA3 Brandon Blackwell, PA2 Etta Smith, USCG photo, PA2 Etta Smith, PA1 Luke Pinneo, MC2 Johnathen Davis, USCG photo, PA2 Etta Smith
Pg. 8 - U.S. Coast Guard photo, U.S. Coast Guard photo, PA2 Patrick Kelley
Pg. 10 - PA1 Luke Pinneo, USCG photo, USCG photo, USCG photo, USCG photo, PA1 Luke Pinneo, USCG photo, USCG photo
Pg. 12 - PAC Paul Roszkowski, PA3 Adam Baylor, PA3 Stephen Lehmann, provided by EPA, PAC Paul Roszkowski, PA1 Nathan Henise, PA2 Jaclyn Young, PA3 Adam Baylor, PA3 Robert Brazzell
Pg. 14 - USCG photo, Lt. Raymond Jackson, Carol Gilbert, Lt. Raymond Jackson, Lt. Raymond Jackson, Lt. Raymond Jackson, MST2 Wyatt Ingram, Marlene Meads, Lt. Lauren Fullam
Pg. 16-17 - USCG photo

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