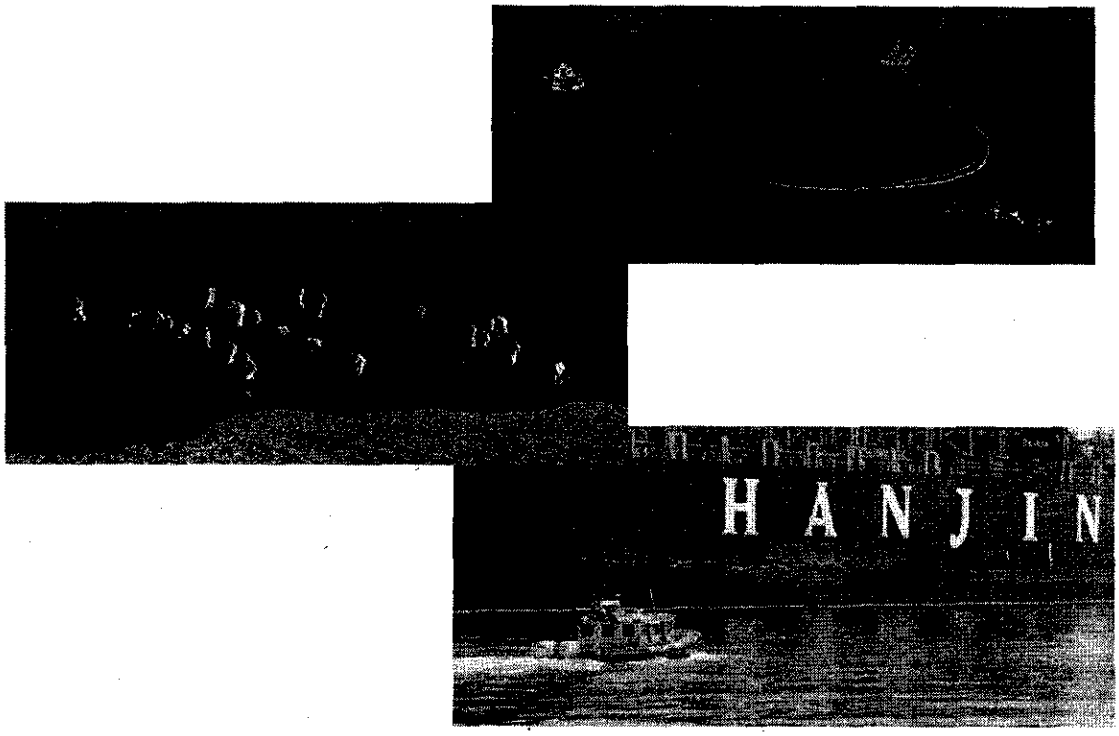
Incident Specific Preparedness Review (ISPR)
M/V *Cosco Busan* Oil Spill in San Francisco Bay

REPORT ON INITIAL RESPONSE PHASE
11 January 2008



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I. EXECUTIVE SUMMARY

This report will address all aspects, at all levels, of the response to the Cosco Busan oil spill, and provide an analysis of preparedness planning requirements and the actual response. Many events went as planned. Some exceeded expectations. Some actions taken were not consistent with response plans, and gaps or recommended improvements in the response plans and operations were identified. To address the public concerns, some operations not recommended by the Area Contingency Plan (Convergent Volunteers for oil spill cleanup) were conducted on an ad hoc basis. Finally, like all emergency responses of this magnitude, there were activities that should have occurred, and did not. There were delays in the gathering and transmission of information critical to responders. Weather and unusual tidal current conditions further complicated this process. There were errors in information provided to the media in the early hours of the response. These errors created the impression that initial response efforts were minimal, while the record shows otherwise.

The ISPR Team observed and felt that it was important to include a statement in the Executive Summary, that the overall reduction in large oil spills nationally has resulted in fewer responders, at all levels of government, having large response operations experience. While this issue is addressed specifically within the document, the document itself should be read in the context of the Team's observation.

Finally, it is equally important to state what the report will not encompass. This report will not address the causal factors leading up to the allision of the *Cosco Busan* with the San Francisco-Oakland Bay Bridge, and will not encompass the activities of any other investigation conducted by State or Federal agencies.

BRIEF TIMELINE OF EVENTS

On November 6, 2007, the M/V *Cosco Busan* was at berth 56, Port of Oakland located on the Oakland Estuary, completing cargo operations and making ready for sea. At 0620 on the morning of Wednesday, November 7th, the San Francisco Bar pilot, Captain John Cota, boards the *Cosco Busan*, and discusses the details of the ship's departure with the ship's master and bridge crew. Visibility in the Estuary is limited, and what was later described as "dense fog."

At 0645, the Pilot has initial communications with the master of the assist tug, *Revolution*, and by 0648, *Revolution* is made fast to the ship's port quarter.

At approximately 0745, the Pilot makes a preliminary check-in and provides a Sailing Plan with San Francisco Vessel Traffic Service on VHF FM Channel 14, which is required even in good visibility. He states that his intentions are to pass under the Delta-Echo span of the San Francisco-Oakland Bay Bridge. The Delta-Echo span has a horizontal clearance of 2,210 feet.

At 0748, the last line is taken in, and *Cosco Busan* is underway. Using a combination of the tug assist from *Revolution* and the ship's bow thruster, *Cosco Busan* is brought to mid-channel of the Oakland Estuary. Visibility has improved to approximately 1/4 mile.

At 0800, tug *Revolution* shifts to the ship's centerline stern chock. *Cosco Busan* passes the dredge *Njord*, and proceeds into the Bay proper. *Cosco Busan* is underway using diesel fuel due to air emission requirements for ships engaged in coastal navigation in the State of California.

At 0820, the Third Mate takes an initial position fix and notes that the *Cosco Busan* is 200 yards left of the intended track line, but fails to notify the Master or the Pilot.

At 0825 *Cosco Busan* is at Bar Channel Light 1 as it begins a turn to port. According to track lines recorded from transmissions from her AIS, *Cosco Busan* executed a turn away from the Delta-Echo span, proceeding on a course of 239, at 10.7 knots.

A short communication from SF VTS tells Captain Cota that he is running parallel to the bridge, running a course of 235, and asks his intentions. At 0829, Pilot states that it is still his intent to transit under the Delta-Echo span, and notifies VTS that his heading is 280. About this time, the forward lookouts on the bow report via radio that the bridge is "very close." The speed is now approximately 11 knots.

At 0830, the ship allides with the Delta Tower pier, causing damage to the pier's fendering and the port side of the ship, forward of amidships. The allision results in the breach of three port wing tanks, tanks 2, 3,

and 4. (Port tank 2 is a ballast tank. Port tanks 3 and 4 are used for fuel.) Captain Cota reports to VTS that the ship "touched" the bridge, and that he is heading to Anchorage 7.

At 0837, Captain Peter McIsaac, President of the San Francisco Bar Pilots, calls the Captain of the Port (COTP) regarding the allision and relays reports that fuel is leaking from the vessel. Calculations performed by the Salvage and Engineering Response Team would later show that the discharge was a sudden event involving seconds or minutes, and that the volume of discharge occurred between the point of impact and Anchorage 7.

At 0850, *Cosco Busan* is safely anchored at Anchorage 7, and at 0858, tug *Revolution* is released.

At about this time, a relief pilot is brought aboard *Cosco Busan* via port Pilot Boat. Anecdotal information indicates that Pilot boat crew reports to VTS they see oil pouring out of hull. At 0855, Captain Cota leaves *Cosco Busan*.

At approximately 0950, the relief pilot contacts VTS voicing a concern of limited under-keel clearance at Anchorage 7, and requests a shift to Anchorage 9. At 0954, COTP authorizes the move, and at 1022, anchor is aweigh, and *Cosco Busan* departs Anchorage 7 en route Anchorage 9 under her own power. The amount of oil leaking from the ruptured fuel tank during this transit is thought to be insignificant or de minimis because the remaining oil in the fuel tank had further chilled due to the breach, and the remaining oil had probably already achieved a static level consistent with the lowest point of breach of the tank. At this time, anecdotal descriptions describe the amount as a "seep". Records indicate that neither Port Tank 3 nor 4 was being heated at this time.

At 1028, the California Office of Spill Prevention and Response notifies the Governor's Office and the State Warning Center that a ship had allided with the San Francisco-Oakland Bay Bridge, and that approximately 10 bbls of oil had spilled. Through the Warning Center, the California Office of Emergency Services notifies several other State and local agencies of the event.

At approximately 1040, *Cosco Busan* transits the Alpha-Bravo span of the Bay Bridge, and completes anchoring in Anchorage 9 at 1105.

At 1054 the Coast Guard Pollution Investigation team, that first boarded the *Cosco Busan,* reports by cell phone to the Sector Commander that the ship's Chief Engineer calculated a loss of 0.4 metric tons from the ship's fuel tank array.

An employee of the State of California, Office of Spill Prevention and Response was asked to perform spill quantification calculations aboard the ship. He arrives at YBI at 0945, but it would not be until 1205 that he is able to obtain transportation to *Cosco Busan*. He completes his calculations onboard *Cosco Busan* at 1430, but it would be 1500 before he has transportation back to YBI. Sometime during the Unified Command objectives meeting that started at approximately 1600, he states that the actual amount spilled was 58,020 gallons and that the product spilled was Heavy Fuel Oil (specifically HFO 380). The UC reports this to the State Office of Emergency Services at 2000, and a press release is issued at 2100.

While this is not a particularly large spill, the event received extensive media coverage, attention from the public and their elected officials. The San Francisco Bay region has experienced several significant spills in recent decades. In 1971, 1,121,400 gallons of oil were spilled after the tank vessels *Arizona Standard* and *Oregon Standard* collided in fog under the Golden Gate Bridge. In 1984, the tanker *Puerto Rican* exploded and spilled approximately 1 – 1.5 million gallons of oil 12 nautical miles outside the Golden Gate. The Shell Martinez facility discharged 432,000 gallons of oil into Suisun Bay wetlands in 1988. In 1996, the SS *Cape Mohican* spilled 81,900 gallons at San Francisco Pier 70; all but 8,400 gallons were contained at the site. The latest figures indicate that 53,569 gallons spilled from the *Cosco Busan*.

This report will focus on the State and Federal oil spill prevention and response laws, and the San Francisco Area Contingency Plan (ACP). The ACP addresses spill response operations for the San Francisco Bay and adjacent coastal areas. It is used in conjunction with the Regional Contingency Plan which provides general guidance of a regional nature. The National Contingency Plan provides overarching guidance to incident response, and as used herein to describe responsibilities for response operations, the role of the Responsible Party, and the response organization. The ISPR Team felt that readers who are unfamiliar with the Incident Command System/National Incident Management System response organization should be

exposed to national directives that provide this information. For that reason, pertinent sections of the National Contingency plan are incorporated as part of this Report.

The Incident Specific Preparedness Review (ISPR) for the response to the Cosco Busan oil spill, was convened pursuant to a Charter issued by the Chief of Staff, U.S. Coast Guard on 14 November 2007. The ISPR process is outlined in Section 4C of the Coast Guard Marine Safety Manual (COMDTINST M16000.14) which establishes requisite reporting criteria. The Charter provides direction for ISPR Team membership, scope of the review, and reporting deadlines. The Review Team is comprised of State and local government representatives; representatives of environmental organizations, a shipping industry representative, and a representative of a non-governmental organization considered to be a major stakeholder in oil spill preparedness and response. Active duty Coast Guard personnel were limited to providing support, allowing the Team to conduct an independent and objective Review. The Chair retired in 2005 as the Administrator for the State of California Office of Spill Prevention and Response, and retired in 2002 from the Coast Guard Reserve. He was employed for this purpose as a civilian federal employee. Biographies of all team members are included with this report. All Team members and support staff were required to execute a confidentiality agreement. All Team deliberations were confidential and not available to Coast Guard prior to the completion of this Report.

The first plenary session was held from November 27th to November 30th, subjecting Team members to area familiarization and training necessary to conduct their review. The ISPR Team retraced the path of *Cosco Busan*, witnessed the area impacted by the oil spill and damage to the ship. The Team visited the Incident Command Post on Treasure Island where they received a briefing on the Unified Command function and organization. The Team also attended a special session of the San Francisco Harbor Safety Committee, which was called to review the Cosco Busan incident. Because many of the Team members were not familiar with the ICS/NIMS response organization, each Team member was provided with ICS training, completing the ICS 402 training program.

Prior to adjourning the first session, the Team identified preparedness focus issues and response focus issues to be addressed in this first report. These issues were used in the development of a Work Plan which provided a basis for various research and narrative reporting assignments.

In the following week, select members obtained multiple event logs which allowed for the development of a comprehensive timeline of critical events for the first day of response operations. The timeline provides a snapshot of events affecting notification, and response, and is included as a part of this first Report. The creation of an event timeline is critical to the evaluation of the response when compared to pre-existing response planning objectives. As with any record of events compiled from multiple reporting entities, not all times and descriptions of events are in complete agreement.

Due to exigent circumstances, an interview with Mr. Roy Mathur was conducted by staff, and then provided the Team with his personal notes, which became part the record. Mr. Mathur is employed by the California Office of Spill Prevention and Response. He was the individual who boarded the *Cosco Busan* after the Coast Guard Pollution Investigation team, met with the Chief Engineer, and performed a comprehensive quantification of the amount of fuel spilled. It was Mr. Mathur who reported the figure of 58,000 gallons used by the Unified Command, and reported to the media.

The second plenary session was devoted to joint interviews with individuals who played key roles in notification and response. These included:

- Federal On Scene Coordinator, Captain William Uberti
- State On Scene Coordinator, Lieutenant Rob Roberts
- Incident Commander for the Spill Management Team under contract with the Responsible Party, Mr. Barry McFarland.

These three individuals comprised the decision-making authority of the Unified Command. Captain Uberti was replaced by Captain Paul Gugg as the Federal On Scene Coordinator on November 14th.

A representative of the primary OSRO, Marine Spill Response Corporation, was interviewed extensively about spill notification, response timing, resources, and shortfalls. The Team interviewed the Coast Guard

Command Duty Officer of Coast Guard Sector San Francisco who was on duty at the time of the allision and the junior officer responsible for oil spill response, and her supervisor who was out of state during the response. The Team also conducted a video teleconference with the NOAA Emergency Response Division trajectory specialists (Seattle) who provided computer-assisted trajectory information to the Unified Command during the first week of response operations. To assess the amount and type of oil spill response resources in the San Francisco Bay area, the team interviewed the Chief of the Marine Safety Division, and the Drill and Exercise Coordinator for the California Office of Spill Prevention and Response. These interviews provided the Team with information about the State's OSRO certification program, and specifics as to the rating status and the resources of the two OSROs responding to the Cosco Busan oil spill.

Lastly, the Team interviewed representatives from the California Department of Fish and Game who maintain the State's environmentally sensitive site database. They provided sensitive site information and booming strategies to the Unified Command during spill response operations.

The Team members were assigned several subject areas for research, resulting in over a 100 contacts, collectively. Persons or agencies contacted are provided with each focus issue. All documents reviewed or made available to the Team are available through the ISPR Recorder, who will serve as the Custodian of Records.

The project was organized and coordinated through the Incident Specific Preparedness Review San Francisco 2007 Homeport Community. The review process was developed on the Coast Guard R&D Pollution Response System, and the Coast Guard Contingency Planning System (CPS), Coast Guard After Action Program (CGAAP). The Team adopted CGAAP as the appropriate methodology for the Report, because this format provides for a concise look at specific issues, and easily facilitates an accurate comparison of response operations and planning objectives. The CGAAPS methodology is explained in detail in COMDTINST 3010.19B.

Finally, the reader is cautioned not to use this Report beyond the objectives set forth in the Marine Safety Manual. Specifically, the ISPR is not to find fault or assign blame. ISPR findings are to be used to document a thorough assessment of the Coast Guard preparedness processes, from an enterprise perspective. Necessary remedial actions should be taken within that context.

This Report is the first of two. The second Report will cover primarily events occurring after the initial two weeks of response operations. Because there are issues that are less time-sensitive, or need additional research, or occur throughout the entire response, some focus issues captured by the Team, for this first Report will be included as part of the final report due in May of 2008.

THE NUMBERS

Total amount spilled	53,569 gallons (1275 bbls)
Total amount recovered first day	7,140 gallons (decanted) or 13.3%
Total amount recovered on water first two weeks	19,466 gallons (decanted), 36.3%
Total amount recovered on land first two weeks	Approximately 4,500 gallons, 8.4%
Total amount evaporated	4,060 gallons or 7.6%
Total personnel employed	168 on day one to 1,399 on day 7 (See Assets Used.)
Number of vessels assigned	25 on day one to 41 on day 7 (See Assets Used.)
Total boom deployed first six hours	8,500 feet
Total boom deployed first day	11,040
Total boom deployed end of day two	18,000 feet
Maximum boom deployed (day 3, does not include city/county/private)	38,200 feet

Total birds captured	1,039
Total birds cleaned	681
Total birds released in first two weeks	73
Total birds died in facility	317
Total birds dead on arrival	1,365
Number of contracted aircraft	1
Number of total aircraft	3
Description of oil discharged	Heavy Fuel Oil 380

On Water Recovery Requirements (EDRC*) Vs. Actual By Time

Bbls of oil spilled	1275
Federal on water recovery requirements for non-tank vessels to be on scene within six hours:	1,250 bbls EDRC (USCG Navigation Vessel Inspection Circular 01-05)
State on-water recovery requirements (14 CCR 827.02 (h) (2) (B) (1) (i)) for Cosco Busan to be on scene within six hours:	5,874 bbls
On water recovery capability required for tankers in High Volume Port (San Francisco) to be on scene within six hours:	23,437 bbls EDRC

Actual EDRC bbls (Cosco Busan incident) of on water recovery capability by hour, first six hours:

Time	Oil Spill Response Vessel (OSRV)	On-Water Recovery Capability (bbls)
0930	NRC Marco skimmer	3,125
0950	MSRC Spill Chaser	5,000
1000	NRC Marco 5 with tug	24,000
1000	NRC JBF skimmer	3,428
1125	Clean Bay II	3,288
1140	Spill Spoiler II	12,300
1445	Sentinel	6,150

Total on-water recovery capability on scene first six hours:	57,292 bbls EDRC
Total on-water recovery on scene first day:	75,043 bbls EDRC
Total boom on scene available first six hours:	15,825 feet
Total recovered oil storage capability on scene first six hours:	3,532 bbls

* EDRC is Effective Daily Recovery Rate which is the amount of oil (shown in barrels) that can be recovered by the response vessel. This includes a de-rating factor of 20%. EDRC is found in 33 CFR 154, Appendix C; and 33 CFR 155 Appendix B.

OSRO State recertification dates (most recent)

MSRC: August 2007

NRCES: March 2007

FOCUS ISSUES

PREPAREDNESS

I. Area Contingency Planning
   a. Available Resources
   b. Command Post and Logistics
   c. Low Visibility Weather
   d. Other Local Plans
   e. San Francisco Committee Representation/Involvement
   f. Priority Protection Area Identification

II. Exercises and Drills
   a. Federal (NPREP) Exercises
   b. California Office of Spill Prevention and Response (OSPR)
   c. Local Government

III. Ship Specific Plans (Non-tank Vessel Response Plan and Vessel Response Plan)

IV. California Oil Spill Response Organization (OSRO) Certification Program
   a. Pre-positioned Equipment (San Francisco Bay Area)
   b. Best Achievable Protection/Technology
   c. Dedicated Response Personnel

V. Training
   a. Oil Spill Response Organization (OSRO)
   b. Spill Management Team (SMT)
   c. Other Responders (CG Pollution Investigator, FOSCR, and Command Duty Officer)
   d. Responder Training: Local

VI. Volunteers
   a. Pre-Training
   b. Wildlife Care

VII. Bird Rescue

RESPONSE

I. Initial Notification
   a. OSPR and State Agency
   b. Responsible Party
   c. United States Coast Guard
   d. State Office of Emergency Services and Local Government
   e. Oil Spill Response Organizations (OSROs)

II. Media

III. Volunteers
   a. Incident Specific Training
   b. Wildlife Care Responder Training

IV. Bird Rescue

V. Initial Actions
   a. Oil Spill Response Organizations (OSRO)
   b. Sector San Francisco/COTP

c. Sector Command Center Information Coordination and VTS as a Resource
d. California State
e. Responsible Party (RP)

VI. Quantification
VII. Remote Sensing
VIII. Unified Command
a. On-Water Recovery
b. Shoreline Cleanup Assessment Teams (SCATs)
c. Booming Strategies
d. Trajectory Models

IX. Weather as a factor for Response
X. Resource Management
a. Available Assets not Used
b. Assets Used

XI. Communications between Field and UC
XII. Beach and Fishery Closure and Re-Opening
XIII. Relocating the Incident Command Post
XIV. Unified Command Liaison Officer
XV. Non Government Organizations (NGO)

LESSONS LEARNED/RECOMMENDATIONS

The methodology selected by the ISPR Team requires a statement as to the issue observed, discussion of that observation, lessons learned as a result of the review, and recommendations. The Team identified 38 lessons learned and provided 49 recommendations involving Preparedness, and cited 72 lessons learned and 79 recommendations involving Response. The ISPR Team elected to present lessons learned and the recommendations of ten Areas of Concern in the Executive Summary. The selection of these ten Areas was accomplished by voting, which occurred on the final day of the Team's deliberations. The selection of the Areas to be presented here does not diminish the importance of other Areas of Concern. To obtain a complete narrative of the Area selected (which provides the Observation and Discussion sections), readers are referred to the main report.

Priority Protection Area Identification

Lessons Learned

The Area Contingency Plan (ACP) was not specific enough as to protection priorities for the first 24-48 hours. There were too many "sensitive areas" for responders to protect along with on-water recovery operations.

It is not clear that the ACP made use of the National Oceanographic and Atmospheric Administration (NOAA) Trajectory Analyst Planner (TAP) model.

The ACP could do a better job of coordinating sensitive area protection strategies with response assets in SFB and the time and manpower necessary to accomplish those strategies.

The Office of Spill Protection and Response (OSPR) program of systematically testing protection strategies within San Francisco Bay (as many as eight per year) is quite excellent and should be copied elsewhere in the nation. However, there is no obvious system that tells if a particular strategy has been attempted and, if so, whether it was successful.

Recommendations

Re-examine the use of the NOAA TAP model as a planning tool.

Develop a series of standing 232 forms for the first 24 hours of the response based on risk, proximity to equipment and manpower and protection strategies.

Continue the necessary work of testing strategies in the field with Oil Spill Response Organizations (OSROs), but reflect the success of those tests or whether an area has been tested at all.

Volunteers: Convergent Non-Wildlife Responder Training

Lessons Learned

A lack of planning for a convergent volunteer program, and a general lack of attention to convergent volunteers, resulted in long and frustrating delays that impacted the response overall specifically management was pulled off other duties to address this issue, and the professional response organizations were directed to change strategies.

Establishing a training program for volunteers during an incident is challenging and impacts the ability for the Unified Command (UC) to adequately assess available resources and conduct normal operations.

Recommendations

Use the Oil Wildlife Care Network (OWCN) volunteer program and other available models for developing an organized volunteer program in San Francisco Bay Area.

Planners should develop a uniform approach to the use of convergent volunteers for oil spill response, consistent with local needs, to reflect the use of these volunteers in response operations.

The National response Team (NRT) should develop generic guidance for ACP committees to develop convergent volunteer sections in local ACPs.

Integrate trained, experienced organizations into the ACP and drills to assist with volunteer coordination and to be an outlet for volunteer interest. One good example is the Gulf of the Farallones National Marine Sanctuary Beach Watch Volunteer Program, which was involved in Safe Seas drill in 2006.

Initial Notification: USCG

Lessons Learned

The Coast Guard personnel engaged in the initial notification and response performed their duties as directed. The questionable decisions made in the initial actions taken seem to be a result of a lack of experienced pollution investigators on scene the first hours after the incident and also at Sector Command Center (SCC) that morning. The Commander of the Incident Management Division (IMD) at Yerba Buena island (YBI) was on travel status the date of the incident, with his duties assumed by more junior officers. It seems from the evidence provided that they took decisive action as needed. A more experienced field officer on the PI team may have resulted in a more accurate initial quantity report. Statements made by Lt. Roberts and Mr. Mathur of OSPR underscore the importance of having experienced personnel available to develop essential data on hazardous material type and quantity.

The ability of Vessel Traffic Service (VTS) in ports such as San Francisco to provide eyes and ears on the water 24/7 is an asset that should be used in a response to the greatest extent possible. The report of the *Encinal* of oil and debris at anchorage 8 may have been of benefit to the UC and OSROs in assessing the scope of the spill and directing recovery operations. Also, better communication between SCC and VTS would provide additional benefits.

Recommendations

Further evaluation should be done to determine whether formal notification or alerting Pacific Strike Team (PST), NOAA SCC and other special teams is necessary.

The USCG should ensure that at least one experienced Pollution Investigator (PI) be on duty or on recall status to the IMD. It is difficult to expect a junior officer with little or no direct experience with commercial ship operations to understand the complexities of oil spill scaling under such circumstances, especially when also confronted with language difficulties.

The USCG should adopt protocols using all available resources within a particular command (VTS) to receive both initial notifications and continual updates as to the position of oil sightings.

Initial Notification: State OES & Local Government

Lessons Learned

Although there is a non-passive warning system, the existing systems should have been engaged to alert local governments and agencies in affected operational areas.

In discussion with one of the OSRO contractors, National Response Corporation Environmental Services (NRCES), the Team learned of a system they have developed through simple internet web-based tools available to anyone that actively monitors various emergency resource systems for postings relevant to their business (see Notification – OSRO). Such systems may be of value to emergency response offices at the county and city level.

Recommendations

A comprehensive review of the notification protocols between the California Office of Emergency Services (OES), the Regional OES areas and County OES departments should be completed, both in terms of protocols within the ACP as well as other local plans.

The County of Marin recommends an annual unannounced oil spill notification communications exercise in concert with the required unannounced oil spill drills for oil spill response contractors.

Media

Lessons Learned

Media training is critical to all who speak for the Coast Guard or agencies or organizations represented in the UC, at any level.

The media want access to principal players, not merely the Public Affairs Officer (PAO).

There will be demands for information from the media prior to the establishment of a Joint Information Center (JIC) within the Unified Command, in the first critical hours of response. Historically, accurate information in the first few hours of spill response is scarce, no exception in *Cosco Busan* event. Errors occur in reporting, and the media often uses information selectively. There should be a written plan for surge operations to support commands needing immediate public information assistance.

Recommendations

The Coast Guard can and should expect senior response personnel to interact with the media, aided by personnel fully trained in media relations. Attendant to this expectation is the requirement that such personnel have adequate training. The Coast Guard should establish minimum requirements for public affairs training for its senior personnel, consistent with assigned duties, and all personnel expected to interact with the media.

The Coast Guard should consider at least one full time billet at each Sector in a major media market. Consistent with the Deployable Operations Group concept, the Public Information Assist Team (PIAT) should be "leaning forward", and resident PAOs at local commands should have a thorough working knowledge of PIAT resources, and availability.

Where the amount of the spill is still under investigation, or simply unknown, the Coast Guard should adopt a policy of stating that the information will become available as soon as the preliminary investigation is completed, or the scale of the spill or potential spill is known with some certainty.

The Coast Guard should consider the cross training of personnel, providing a short TDY period at different commands to allow PAOs a better understanding of public affairs resources in their District.

OSPR response personnel need access to trained media relations personnel with knowledge of oil spill operations in the very early hours of the response.

An Incident Command Post (ICP) should be pre-designated to provide for JIC and all UC functions.

Consider the preparation of generic information packets for the media.

The federal On Scene Coordinator and the Unified Command should consider having press representatives handle the press conferences when response actions are still dynamic.

Volunteers: Incident Specific Training

Lessons Learned

Once training sessions were decided on, assistance from the cities (Berkeley, San Francisco) in obtaining training locations, signing in and certifying trainees, and taking them out expeditiously (often immediately) to work location was extremely valuable, and the four-hour training sessions went smoothly.

Early and accurate communication is essential to build immediate, essential trust with the public and affected local government about the extent of the oil spill and the cleanup plans. Clear and substantiated information provided expeditiously is necessary to ensure public trust.

The provision in the ACP prohibiting the use of convergent volunteers in oil spill recovery operations resulted in the general lack of attention to convergent volunteers initially and diverted the attention away from other response activities

Recommendations

Update ACP Section 9730.2 (and other state and federal safety policies/regulations accordingly) to provide a process and protocols for convergent volunteers to assist with some beach cleanup (e.g., who's responsible for volunteer coordination, how the volunteers can and cannot be used, liability, training venues, etc.). Volunteer management should be staffed at UC in accordance with the ACP and address the issue of convergent volunteers.

Integrate trained, experienced organizations into the ACP planning process and oil spill drills to assist with volunteer coordination and to be an outlet for volunteer interest. See After Action Report of Gulf of the Farallones National Marine Sanctuary Beach Watch Volunteer Program, which was involved in Safe Seas drill in 2006.

Develop a mechanism to allow the public to use current communication technologies to provide input to the UC to make oil and oiled wildlife observations.

Consider updating the ACP to include activities such as the use of volunteers for reporting the status of areas already addressed by oil spill responders.

Also need to get Liaisons out in the field to build relationships and trust with local communities.

Develop consistent policies across all local jurisdictions to provide consistent health and safety messages (i.e., as opposed to Marin and Berkeley/San Francisco taking different positions on volunteer safety).

Initial Response Actions: Sector San Francisco / COTP

Lessons Learned

The initial pollution investigation team did not accurately scale the volume of fuel oil lost from the tanks of the *Cosco Busan*. When spill volume can not be estimated visually, efforts must be concentrated on calculating total volume lost so appropriate response actions can be planned.

The communications between Vessel Traffic Service (VTS), Sector Command Center and the Captain of the Port/Federal On Scene Coordinator were effective early. VTS communications with Sector to pass oil sighting reports the second day were rerouted to National Response Center (NRC).

In accordance with the National Contingency plan (NCP), first responders did address, as a priority, public health and safety issues in advance of concerns for pollution or economic damage. Because of the concern of structural damage to the bridge, the early calls to California Department of Transportation (CALTRANS) were critical and appropriate. The importance of qualified watch standers can not be overstated.