

**WRITTEN TESTIMONY OF
DR. WILLIAM CONNER
CHIEF, EMERGENCY RESPONSE DIVISION
NATIONAL OCEAN SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE**

**FIELD HEARING SAN FRANCISCO
NOVEMBER 2007 OIL SPILL CAUSES AND RESPONSE**

**BEFORE THE
TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES**

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My name is Dr. William Conner and I am the Chief of the Emergency Response Division, Office of Response and Restoration, National Oceanic and Atmospheric Administration (NOAA). Thank you for the opportunity to speak with you today about NOAA's role in the response to the M/V *Cosco Busan* oil spill. NOAA has several responsibilities in responding to an incident like the *Cosco Busan*. The agency's roles include:

- Providing scientific support to our federal partner, the United States Coast Guard (USCG);
- Representing the Department of Commerce on the National and Regional Response Teams;
- Working with federal and state trustees to determine whether to conduct a natural resource damage assessment; and
- Fulfilling responsibilities to protect resources when a National Marine Sanctuary is affected.

Scientific Support

NOAA's role in an incident response is to provide scientific support and expertise. Through the NOAA Scientific Support Coordinator (SSC), a full NOAA Scientific Support Team experienced in incident response science support is available to the Federal On-Scene Coordinator. The NOAA SSC is one of the special technical advisors within the Incident Command System, as specified in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP, 40 CFR § 300.145). Though often seated with the Environmental Unit of a Unified Command (UC) to support and liaison with the overall response effort, the NOAA SSC has a primary responsibility to serve the Federal On-Scene Coordinator directly as a member of their staff.

The NOAA SSC is the key player in the NOAA effort to provide scientific support to an oil spill response. Ten SSCs are located around the country to respond on a 24/7 basis to all kinds of emergencies involving the release of oil or hazardous materials into the oceans or atmosphere. The SSC is supported from Seattle by the “Home Team,” a diverse group of scientists who are experienced in dealing with spill response.

On November 7, 2007, at approximately 10:00 a.m. (all times Pacific Standard Time), USCG Sector San Francisco informed the NOAA SSC of the *Cosco Busan* incident involving an estimated release of 10 barrels (about 420 gallons) of IFO 380, a heavy fuel oil. At the time of notification, the California SSC was participating in a Regional Response Team meeting in Las Vegas, making plans for responding to incidents like this one. The SSC notified NOAA Seattle and requested immediate fate and transport predictions and a weather forecast. He also confirmed that the NOAA National Marine Sanctuary Program had been notified and then made arrangements to return to San Francisco to support the spill response.

Shortly after 12:00 p.m. PST NOAA provided to the Incident Command Post the first prediction for the trajectory of the spilled oil. This first trajectory was a text description of where the spilled oil would probably move over the next few tidal cycles based on the local tidal height observations and forecasts from the NOAA Physical Oceanographic Real Time System (PORTS[®]), and wind predictions from NOAA’s National Weather Service. The NOAA report also described the physical properties of the oil, including density (to evaluate tendency for sinking), the potential for evaporation to reduce the volume in the water, and whether the oil might form a water/oil mousse, which would affect cleanup approaches. At approximately 7:00 p.m. additional information concerning the amount and distribution of oil resulted in NOAA providing an updated trajectory prediction that warned of additional shoreline oiling on Angel Island, Alcatraz Island, Treasure Island, and Yerba Buena Island that could occur by midnight. Trajectory predictions are useful in making decisions about where to place boom to contain the spill, and where to send beach survey teams to evaluate levels of oiling.

While this was going on, the NOAA SSC arrived at the Incident Command Post, and three additional NOAA staff from Seattle were staged for deployment to San Francisco early on November 8: one for overflight support, one for shoreline cleanup assessment, and one to focus on information management. These individuals would help execute the Incident Action Plan that the UC had approved for November 8, Day 2 of the spill.

On November 8, 2007, at approximately 12:00 p.m., NOAA provided to the UC a map showing the most likely areas for oiling in the Bay area. Then, at approximately 12:45 p.m., the first NOAA overflight was conducted, and an overflight map reporting oil observations, accompanied by photos, was provided to the UC. Overflights are essential in determining not only where the oil is, but also to identify areas where oil may converge and evaluate whether it may be effectively recovered by a skimmer. Overflight results are also used to fine tune trajectory models used for the next prediction cycle.

On Day 2, NOAA also provided the first graphical trajectory forecast. This forecast incorporated real time current observations and analysis from High Frequency Radar data generated by the Central and Northern California Ocean Observing System (CenCOOS) as well as real time tides, meteorological observations, and tidal current predictions from NOAA’s National Water Level Observation Network and National Current Observation Program.

NOAA also assisted with assessment of shoreline oiling in several areas. Shoreline assessment information is used to determine priorities in planning shoreline cleanup activities for the subsequent day. In addition, on Day 2, NOAA prepared an assessment of fishery issues in consultation with the Pacific Coast Federation of Fishermen's Associations, provided updated weather information, and coordinated sampling and analysis of material that was initially suspected to be oil collected from the Farallon Islands.

During the first week of the response, NOAA’s Office of Response and Restoration sustained 3 to 5 response specialists on-scene to support the Incident Command in evaluating environmental issues and planning response activities for the next operational period. In addition, the agency stood up a Home Team to support the response from Seattle comprised of 4 scientific experts working 10 hours a day, seven days a week. During the first week, the following basic scientific support products were provided to the UC:

Overflight Reports/Maps/Photos	14
Trajectory Forecasts	12
Tidal Forecasts/Assessments	14
Weather Updates	17
Special Assessments and Response Protocols	5

NOAA will continue to assist as needed until shoreline cleanup is completed and the response is demobilized. The USCG has requested NOAA participate in the Incident Specific Preparedness Review for the *Cosco Busan* response, and we will be bringing in an experienced SSC from another region to participate in this review.

National Marine Sanctuaries Mobilization

NOAA’s National Marine Sanctuary Program (NMSP) is responsible for protecting sanctuary resources including ecological, historical, and cultural resources. The San Francisco area is home to three of the nation's thirteen national marine sanctuaries (Monterey Bay, Gulf of the Farallones, and Cordell Bank). All three sites are critical habitat for a number of important marine and coastal species including: blue and humpback whales, local and migratory seabirds such as Cassin’s Auklets, Common Murres, Albatross, and Shearwaters.

Since the first week of the spill the NMSP has maintained 3 to 4 personnel in the Incident Command Center, and about 30 staff and volunteers each day supporting response and resource assessment. The role of NMSP in a response is to provide information on the critical resources that need protection to mitigate impacts. NMSP personnel provide this information to the SSC, who leads NOAA's response efforts and supports the Environmental Unit of the UC. Having established coordination procedures and a direct line of communication with the SSC is a vital component of NOAA's response efforts. It allows for quick and effective identification of preventative measures the Environmental Unit can take to minimize to the extent possible environmental impacts in protected areas.

NOAA NMSP staff and Beach Watch volunteers are currently participating in wildlife surveys both north and south of the Golden Gate in an effort to assess the spill's impacts on the area's marine and bird life as well as rescue any oiled animals if necessary. Beach Watch volunteers were mobilized to conduct surveys at first light on Day 2 of the spill. Beach Watch is a long-term volunteer monitoring program that is designed to create a long-term data set of the bird and mammal resources and to help in the early detection of natural or human-caused disturbances such as oil spills. The evidence gathered by Beach Watch volunteers helps document the damage to wildlife and habitat from oil spills. The NMSP West Coast Region Maritime Heritage Coordinator provided data on historical/cultural resources to National Park Service personnel, and coordinated efforts to identify and protect these non-renewable resources.

Natural Resource Restoration

Because of its significant role as a trustee for marine resources, NOAA is mandated by the *Oil Pollution Act (OPA)* to restore ocean and coastal resources that are harmed by an oil spill like the *Cosco Busan*. Restoration is accomplished through the Natural Resource Damage Assessment process — by assessing injury, developing a restoration plan that is subject to public review, and presenting a claim for restoration costs to the responsible party. If the responsible party does not pay the claim, the trustees may litigate or file a claim for restoration costs with the Oil Spill Liability Trust Fund. Natural resource trustees typically work together as a coordinated group, often with representatives of the responsible party in a cooperative process.

After learning of the *Cosco Busan* spill, the NOAA SSC notified the NOAA damage assessment and restoration program of the incident around 11:00 a.m. on November 7. At that point, the reported spill size was small, but the natural resource trustees started to organize by phone in case the spill developed into a larger incident. Later that same day, the natural resource trustees learned of the increase in spill size and started to evaluate the potential for a natural resource damage assessment in earnest.

At this point, the State of California, National Park Service, Fish and Wildlife Service, NMSP, and NOAA Damage Assessment, Restoration and Remediation Program are working with representatives of the responsible party to evaluate the need for restoration

planning. Technical work groups have been established to evaluate injury and restoration potential in a number of areas including:

- Fish/invertebrates
- Marine mammals
- Sandy beach
- Rocky intertidal
- Salt marsh/mudflats
- Artificial habitats
- Water column
- Eelgrass
- Recreational use
- Historical/cultural uses

The trustees have set up a Natural Resource Damage Assessment command post at the Gulf of the Farallones National Marine Sanctuary Office, and NOAA is on-scene working hard to promote trustee coordination during the early phases of the assessment, as well as coordination with the spill response operations. The responsible party has agreed to fund the injury assessment, and the trustees are also preparing a request for initiation funding that will be submitted to the National Pollution Fund Center for a disbursement to cover pre-assessment costs if needed. If the trustees decide to proceed with restoration planning, they will quantify injury and develop a restoration plan aimed at restoring injured resources and compensating the public for lost use while the natural resources are being restored. Once the restoration plan passes public review, under the provisions of *OPA* the responsible party is required to pay for implementation of the planned restoration activities.

The Value of Readiness and Observations

The *Cosco Busan* spill is a stark reminder that accidents still occur in coastal waters, even though the overall number of spills has declined since the passage of *OPA*. Spills are a byproduct of using oil to fuel our marine transportation system and meet our energy needs. Although the best remedy is to prevent oil spills, once oil is released into the marine environment, the best that we can do is to mitigate and restore any harmful effects.

NOAA pledges to continue to support the cleanup of oil from the *Cosco Busan* and to follow through on developing and implementing a natural resource restoration plan if this is determined to be appropriate.

To mitigate environmental effects of future spills, however, responders must have all the capabilities that will be needed, plus sufficient capacity to address the challenge. Response training and exercises are essential to maintaining capabilities. NOAA was aided in its response to this spill by a major field exercise called NOAA Safe Seas 2006, which we conducted with USCG, State of California, and Department of the Interior in

the San Francisco Bay area about a year ago. The Safe Seas 2006 exercise allowed us to train hundreds of regional staff and Beach Watch volunteers in various aspects of oil spill response and to test the response protocols that would be used for a real spill. Continuous training, improvement of our capabilities, maintenance of our capacity, and investments in high priority, response-related research and development efforts ensure that the Nation's response to an incident like this one is effective.

As has been noted, during these events NOAA is counted on to provide detailed information and reliable projections related to an oil spill's location and trajectory. The agency's ability to observe the ocean environment and obtain timely information on tides, currents, and related oceanic conditions is directly related to the accuracy of the information and forecasts that are provided to incident responders. Our readiness is therefore in no small way affected by the presence and reliability of ocean observing assets, which are critically important for the collection and integration of this data.

Conclusion

NOAA serves a key role in providing scientific support in emergency response incidents. NOAA's suite of scientific products and services and the expertise of our personnel are critical in mitigating harm, providing information for allocation of response assets, restoring adverse effects on natural resources, and informing overall response decision-making. Thank you for allowing me to testify on NOAA's response efforts.