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Stemming the Tide: The U.S. Response to Tsunami Generated Marine Debris

Witnesses:

David Kennedy

Assistant Administrator, National Ocean Service, National Oceanic and Atmospheric Association

Cari Thomas

Director of Response Policy, United States Coast Guard

Subcommittee Members Present:

Mark Begich (D-AK), Chair

Olympia Snowe (R-ME), Ranking Member

Full Committee Members Present:

Maria Cantwell (D-WA)

On May 17, 2012, the Senate Committee on Commerce, Science, and Transportation Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard held a hearing to discuss the monitoring, collaboration, and prevention efforts needed to avert debris originating from the Tohoku earthquake and subsequent tsunami from reaching the West Coast. The National Oceanic and Atmospheric Administration (NOAA) Marine Debris Program (MDP) and the United States Coast Guard have been collaborating with communities, universities, local authorities, and other federal agencies to address this issue.

Chairman Mark Begich (D-AK) opened the hearing with an overview of the Tohoku tsunami that occurred on March 11, 2011. The tsunami swept 5 million tons of debris out to sea, 1.5 million tons of which has been driven by ocean currents toward the West Coast of North America. Begich summarized the reports of debris, which have washed up along the coast of Alaska and Washington. After classifying the problem as “a slow motion environmental disaster”, he told the witnesses he looks forward to hearing what national plans have been made to stop the progression of the debris and to clean it up.

Ranking Member Olympia Snowe (R-ME) commended the efforts Japan put in place to control debris flow, but noted that tsunami debris is still posing safety and navigational hazards on the West Coast. She emphasized “devastation exhibits we can always do better to prepare.” Snowe continued by citing the Trash Free Seas Act of 2011 proposal (S. 1119) by Senator Daniel Inouye (D-HI) to reauthorize the NOAA Marine Debris Program. The Marine Debris Program would be cut in the president’s fiscal year (FY) 2013 budget request.

Senator Maria Cantwell (D-WA) highlighted the importance of debris control efforts to her constituency by telling the witnesses that \$10.8 billion are generated yearly from the Washington coastal economy. Speaking for the Senate and her state, she declared that “we all want to know what the plan is, but we are not getting the answers that we need.” Cantwell said she wants to ensure all surveillance data is available to scientists and emergency management planners and eliminate the attitude that the tsunami data is top secret. Cantwell told the committee, “Information should be made available to everyone so we can plan.”

During his testimony, David Kennedy told the committee that MDP is leading efforts to assess and reduce the impact of the debris. He summarized the steps MDP has taken including community-based removal programs, interagency collaboration, ocean circulation modeling, analysis of high-resolution imagery, and implementation of workshops to develop a rapid response protocol. Kennedy assured the committee it is highly unlikely that any of the debris is radioactive. In conclusion of his testimony, he stressed that “comprehensively responding to this debris will take substantial resources....it is critical that we have complete engagement at every level.”

Rear Admiral Cari Thomas stated the duties of her division in the Coast Guard for developing instant management policies for hazardous chemical clean up. Thomas underlined the importance of collaboration, informing the committee that the "Coast Guard and NOAA actively work and plan together." She summarized the Coast Guard's deployment of missiles on April 5, 2012 to destroy the uncontrolled Japanese fishing vessel, which threatened navigation of U.S. transportation vessels.

During the question and answer period, Begich asked Kennedy what he thought the role of NOAA would be in the clean up and whether or not they had the appropriate funds. Kennedy responded saying NOAA does not have the funds or the authority to mount the clean up.

Snowe followed by asking what proportion of the 1.5 million tons of debris could reach West Coast shores. Kennedy said there is essentially no research done on how much of the debris will remain floating on the ocean surface. The volume is dependent on the type of debris. He said high windage items will reach the shores, but uncertainties remain on heavier items such as construction debris. Snowe expressed concern from this comment and questioned why MDP experienced a proposed budget cut from \$6.3 million to \$3.9 million.

Cantwell's primary concerns were related to data access. When she asked if NOAA had access to all necessary satellite imagery and records, Kennedy responded that there are ongoing discussions with the military to try and get to the level where NOAA would have access to every U.S. satellite imagery database, including those used for national security purposes. He reassured the subcommittee that NOAA's monitoring is not being "done in a vacuum." They are collaborating with academic communities, including University of Washington and University of Hawaii.

Chairman Begich articulated similar concerns about interagency communication between scientists and the Department of Homeland Security. Kennedy agreed, stating that NOAA is doing the best they can but are stepping into an unfamiliar arena. Begich asked about high windage items such as plastics and Styrofoam, the residence time of these items in the ocean, and whether or not they could be classified as hazardous materials. Kennedy told the committee this is a major concern because plastic could be entrained in ocean circulation patterns and "will be around for a long time." Thomas said these types of items are not considered hazardous and do not fall under the authority of the Coast Guard.

Thomas mentioned the Oil Spill Act of 1990 (P.L. 101-380) when Snowe asked about the involvement of coastal communities and the Environmental Protection Agency (EPA) in the debris clean-up and monitoring efforts. According to Thomas, the law requires strategies that include local involvement and education processes to help communities understand what to expect in the case of an oil spill or other hazardous material event, and how to address any associated problems. Snowe asked the panel about the time required for the planning process and how the West Coast states recognized the problem. Kennedy said NOAA is unsure about the length of time necessary for debris control efforts, but the willingness of all parties is required if progress is to be made. In terms of state recognition he said it varies a little, with Alaska, Washington, and Hawaii exhibiting the greatest concerns about incoming debris.

Chairman Begich closed the discussion with a statement on the necessity to highlight the needs for MDP. He continued by targeting NOAA with his statement "Maybe NOAA needs to rethink how they are approaching debris."

Majority statements, witness testimony, and a web cast of the hearing can be found on the Senate Commerce, Science, and Transportation web site.
