Interagency Team Conducts Aerial and Ground Survey of Tsunami Damage in Papahānaumokuākea Marine National Monument

(Honolulu, HI) A six-person Papahānaumokuākea Marine National Monument team, made up of representatives from the U.S. Fish and Wildlife Service (FWS), Hawai'i Department of Land and Natural Resources (DLNR), NOAA's National Marine Fisheries Service (NMFS) and Office of National Marine Sanctuaries (ONMS), and the U.S. Coast Guard, have completed an aerial survey of tsunami damage in the Northwestern Hawaiian Islands. During the two-day assessment, the team also surveyed natural resource damage on the ground at the Midway Atoll National Wildlife Refuge, including Sand and Eastern Islands.

The Monument, covering ten major islands and low-lying atolls of the Northwestern Hawaiian Islands, as well as seamounts and countless coral reefs, was the first U.S. land mass struck by the earthquake-caused tsunami that originated off the coast of Japan on March 10, 2011. Surges of up to five feet high washed ashore on many of the tiny atolls, which are mere feet above sea level. Damage to terrestrial natural resources on other islands and atolls besides Midway will not be fully known until researchers or field camp workers are able to conduct on-site assessments. Damage to coral reefs and underwater habitats won't be confirmed until participants in research cruises begin surveys later this year.

Ray Born, Monument FWS Permit Manager, led the assessment team and said, “Our superior working relationship with the U.S. Coast Guard allowed a C-130 from Air Station Barbers Point to provide us the platform to over-fly all the major islands and atolls and look for evidence of shoreline damage, impacts to field camps, manmade structures and to wildlife habitat.” Photographs and video taken on the mission will be compared with previous aerial photos and maps to try and provide base-line comparisons to enhance analysis of the scope and extent of damage. That will lead to enhancing existing restoration and recovery plans for refuge lands within Papahānaumokuākea Marine National Monument.

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It is already known that tens of thousands of chicks and adult birds at Midway Atoll were swept out to sea or drowned on land when tsunami waves struck. Researchers with the FWS estimate 110,000 Laysan and Black Footed Albatross chicks were killed on the three islands of Midway Atoll: Sand, Eastern and Spit. Similar, heavy losses may have occurred at other islands and atolls in the Monument. FWS biologist Beth Flint was particularly interested in the initial bird loss reports from Midway and other atolls. At Midway she said eyewitness reports, comparison of population data sets, and her own observations confirm that tens of thousands of birds were casualties of the tsunami. Flint explained, “This tsunami provided a preview of what could happen when global climate change causes the sea level to rise. As the low-lying atolls of the Northwestern Hawaiian Islands become inundated, there will be an attendant reduction in available habitat for the 14 million tropical seabirds that have always used these land features for breeding and nesting.”

Papahānaumokuākea is the world’s largest tropical seabird rookery.

The team saw hundreds of birds, endangered Hawaiian monk seals and green turtles basking or resting on the beaches of Papahānaumokuākea’s islands and atolls. At Laysan Island, where NOAA’s National Marine Fisheries Service maintains a field research station and where seven workers were evacuated shortly after the tsunami, the fly over demonstrated that much of the terrestrial wildlife survived the event. The same situation was evident at Kure Atoll, the location of a State Wildlife Sanctuary and another field camp.

Papahānaumokuākea is home to nearly 7,000 marine and land species and is one of the richest and healthiest ocean environments remaining on the planet. NOAA Deputy Superintendent for the Monument, David Swatland explained, “The Monument’s co-managing agencies worked together to conduct a coordinated response before and during the tsunami, ensuring the safety of all the people in the Northwestern Hawaiian Islands; a similar ongoing coordinated effort will be needed to assess the damage and develop plans for the restoration and recovery of one of earth’s natural and cultural crown jewels.”

Papahānaumokuākea is cooperatively managed to ensure ecological integrity and achieve strong, long-term protection and perpetuation of Northwestern Hawaiian Island ecosystems, Native Hawaiian culture, and heritage resources for current and future generations. Three co-trustees - the Department of Commerce, Department of the Interior, and State of Hawai‘i - joined by the Office of Hawaiian Affairs, protect this special place. Papahānaumokuākea Marine National Monument was inscribed as the first mixed (natural and cultural) UNESCO World Heritage Site in the United States in July 2010. For more information, please visit www.papahanaumokuakea.gov