

NAVY INDUSTRIAL HYGIENE ASSISTS IN EX-AMERICA EXERCISE

The *USS America* (CV-66) was a U. S. Navy aircraft carrier of the non-nuclear *Kitty Hawk* Class and the third Navy ship to bear that name. She was a floating city, longer than ten football fields and displacing more than 83,500 tons, with a ship's company of 2,900 Sailors and Marines and an air wing of 2,480 additional officers and enlisted men.

Upon her 1996 decommissioning, the name *USS America* was stricken from the Navy List, and the retired ship was renamed the *Ex-America*. The *Ex-America* remained at the Naval Inactive Ships Facility in Philadelphia, PA until 2005 when she was selected to participate in a SINKEX (sinking exercise) to assist in the design of future aircraft carriers, followed by her sinking at sea.



USS AMERICA (CV-66) under way.

The on site test event support staff included two Bureau of Medicine industrial hygienists, from National Naval Medical Center and from Naval Health Care New England. Industrial hygiene is the science dedicated to the prevention of occupational illnesses and injuries through evaluation of the risks associated with occupational exposures to chemical and physical hazards, including ship demolition exercises.



USS Trenton (LPD-14)

The two industrial hygienists joined the test team to verify that the *Ex-America* hulk was free from health hazardous levels of airborne contaminants and was safe for re-boarding after each test event. They collected air samples and analyzed them in the Medical Department's improvised industrial hygiene laboratory onboard the nearby USS TRENTON. The analyses were conducted to establish the types and concentrations of suspected air pollutants in order to assess the risk of exposures to such contaminants when test

teams re-boarded the *Ex-America*. The industrial hygiene monitoring data identified contaminants that were released during the explosions. The staff

reported the findings to the Mission Director, along with recommendations for protecting team members from overexposures to the pollutants.



Air samples from the *Ex-America* were examined for traces of asbestos.

The *Ex-America* SINKEX differed from most Navy industrial hygiene projects in that the industrial hygienists took all their monitoring, analytical, and support equipment into the test area. At sea, there would be no opportunity to go ashore to replace lost, damaged, or malfunctioning equipment, so all components were meticulously tested, calibrated, and pampered to ensure they would function properly throughout the exercise. One of the hygienists commented, "Weather was also a major factor. We had to deal with high winds and large waves. So, scheduling our monitoring time was a significant challenge."

Sailors and Marines who had served aboard the *USS America* got to say farewell in a ceremony at the ship two months before the carrier departed for her final voyage. Many viewed their ship's demise as the loss of a family member and offered to save the *ex-America*

and convert her into a museum. Vice Chief of Naval Operations, Admiral John B. Nathman, explained in a letter to them, "*America* will make one final and vital contribution to our national defense, this time as a live-fire test and evaluation platform. *America's* legacy will serve as a footprint in the design of future carriers - ships that will protect the sons, daughters, grandchildren, and great-grandchildren of *America* veterans."



The *Ex-America*, scuttled at end of the SINKEX, rests on Atlantic floor, more than 6,000 feet beneath the surface.

The Navy Bureau of Medicine's industrial hygiene contributions to identifying health hazardous air contaminants were essential in protecting the *Ex-America* test personnel. In addition, the test will help in designing a carrier that will protect Sailors and Marines in the future when they go to sea in the Navy's new class of aircraft carriers.

Point of Contact: PEO Carriers, PMS 378, Future Aircraft Carrier Program Office