



National Park Service and Autodesk Carry Out First Comprehensive Digital Survey to Preserve the USS Arizona and Memorial

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Collaboration marks the first time LiDAR, Sonar, underwater laser scanning, and photographs are brought together to create an intelligent 3D model

HONOLULU--(BUSINESS WIRE)--May 26, 2014-- In honor of U.S. military veterans, the National Park Service (NPS) and Autodesk, Inc. (NASDAQ:ADSK) hosted a press conference today to unveil preliminary results from the first comprehensive survey of the USS *Arizona* and Memorial in 30 years and its resulting 3D models.



Don Stratton, a survivor of the bombing at Pearl Harbor, holds a 3D print of a cooking pot that rests on the deck of the USS *Arizona* (Photo: Business Wire)

Consistent with Autodesk's vision to help people imagine, design and create a better world, the survey takes full advantage of the latest technology for the purposes of both historic preservation and public education. Scheduled to be completed later

this year, the survey will provide the public with a more detailed view and understanding of this historic site while contributing to the ship's ongoing preservation.

At today's Memorial Day press conference, a 3D printout of the USS *Arizona* showcased details never seen before on paper. In addition, highly detailed 3D models of a cooking pot and Coke bottle that have sat on the ship's galley for the past 72 years were also created and displayed. Each model featured intricate details including color and the barnacles now present on the cooking pot. Autodesk and NPS hope to create a 3D model of the USS *Arizona* in its entirety by the end of this year.

"This technological approach helps make the USS *Arizona*'s legacy come alive that just wasn't possible before," said National Park Service Superintendent Paul DePrey. "The USS *Arizona* is one of America's most revered historical sites. As its steward, the National Park Service has a mission to share the story of December 7 with current and future generations. Creating 3D models allows people to see and touch these highly detailed and accurate replicas, something that will play an important role in our educational outreach program."

Also present at the press conference was 92-year-old USS *Arizona* survivor Don Stratton, one of only nine remaining USS *Arizona* survivors still alive, and one of only a few hundred to make it off the ship. Stratton was only 19 years old when Pearl Harbor was attacked. He along with six other crew members went hand over hand on a heaving line across the burning deck to safety on the USS *Vestal* that was moored alongside the USS *Arizona* that fateful morning. Stratton suffered burns over 70 percent of his body.

When presented with the 3D print of the cooking pot for the first time, Stratton said, "That is amazing. I don't know anybody in the galley that survived that day. At the time of the explosion, it was self-preservation. After that, it was extremely hard to return. Now, when I go back and remember, it's a little easier. I think it [3D artifacts] will make an impression on a lot of people, I really do."

Stratton's son Randy Stratton, who was also present, said, "You can't duplicate these artifacts. They represent the beginning of the war, the end of the war and the fact that there is still life there [on the USS *Arizona*]."

Don Stratton concluded, "I hope they remember all the shipmates that are still aboard the *Arizona*. And I hope they remember all the people that gave their lives for this great country."

Approximately 900 remains of the 1,777 officers, sailors and Marines killed still remain inside the USS *Arizona*; therefore any work done on the ship must be done with extreme care and sensitivity. With this in mind, the NPS is leading the effort to create a highly accurate, 3D digital representation, while minimizing any disturbance to the ship. NPS is employing Autodesk's reality computing technology, underwater photogrammetry, subsea LiDAR, high-resolution SONAR, and above water laser scanning to conduct investigation and analysis without disturbing the ship.

"The USS *Arizona* Memorial is such an important yet fragile piece of history," said Brian Mathews, vice president, Autodesk. "Reality Computing is an emerging concept that bridges the physical and digital worlds, and Autodesk sees great potential in supporting the National Park Service and preservationists around the world with reality computing technology to capture, analyze and communicate these stories of our past for future generations."

Other organizations involved in the survey include: HDR, Sam Hirota, Inc., Oceanic Imaging Consultants, Inc., 3DatDepth, Shark Marine Technologies, Inc., United States Coast Guard, and the US Navy Mobile Diving Salvage Unit One.

About World War II Valor in the Pacific National Monument

One of nearly 400 units in the National Park Service, World War II Valor in the Pacific National Monument preserves and interprets the stories of the Pacific War, including the events at Pearl Harbor, the internment of Japanese Americans, the battles in the Aleutians, and the occupation of Japan. This year, over 1.7 million individuals will visit the Pearl Harbor Visitor Center, making it the most popular visitor destination in Hawaii. Learn more at www.nps.gov/valr.

About Autodesk

Autodesk helps people imagine, design and create a better world. Everyone—from design professionals, engineers and architects to digital artists, students and hobbyists—uses Autodesk software to unlock their creativity and solve important challenges. For more information visit autodesk.com or

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