Research provides insights on World War II naval battle site

June 12 2018

The remains of World War II naval battle sites can be found under water, but most have not yet been subject to archaeological investigation. A new International Journal of Nautical Archaeology study provides precise geographic information for the preservation, long-term research, and future use of a historically important World War II battle site on the seafloor off the coast of Okinawa, Japan.

The study focuses on the USS Emmons, a 106m US Navy Gleaves-class destroyer minesweeper that sank in 40m of water off Okinawa Island after kamikaze attack in 1945. A record of the site was made using an innovative method incorporating precise control points obtained from high-resolution multibeam echosounding bathymetry to generate 3-D models using structure-from-motion photogrammetry. The 3-D models produced can be used for sharing information about this underwater cultural heritage and for future monitoring of the archaeological remains.

"This article is not only presenting an innovative methodology for precise 3-D mapping of the seafloor. We hope it also serves as a bridge to peace for both Japan and the U.S. and provides materials for future education," said lead author Prof. Hironobu Kan, of Kyushu University, in Japan.

More information: Hironobu Kan et al, Assessment and Significance of a World War II battle site: recording the USS Emmons using a High-Resolution DEM combining Multibeam Bathymetry and SfM

Photogrammetry, *International Journal of Nautical Archaeology* (2018). DOI: 10.1111/1095-9270.12301