

**STUDY TITLE:** Inventory and Analysis of Archaeological Site Occurrence on the Atlantic Outer Continental Shelf.

**REPORT TITLE:** Prehistoric Site Potential and Historic Shipwrecks on the Atlantic Outer Continental Shelf.

**CONTRACT NUMBER(S):** M09PD00024.

**SPONSORING OCS REGION:** Gulf of Mexico.

**APPLICABLE PLANNING AREA(S):** Atlantic Region.

**FISCAL YEAR(S) OF PROJECT FUNDING:** 2009, 2010, 2011, 2012.

**COMPLETION DATE OF REPORT:** March 2012.

**COST(S):** FY 2009: \$84,407; FY 2010: \$168,814; FY 2011: \$42,204; FY 2012: \$42,204 CUMULATIVE PROJECT COST: \$337,629.

**PROJECT MANAGER:** B. Thomas.

**AFFILIATION:** TRC Environmental Corp.

**ADDRESS:** 4155 Shackleford Road, Suite 225, Norcross, Georgia 30093.

**PRINCIPAL INVESTIGATORS\*:** E. Garrison, J. Hale, J. Holland, A. Kelley, J. Kelley, D. Lowery, D. Merwin, D. Robinson, C. Schaefer, B. Thomas, L. Thomas, G. Watts.

**KEY WORDS:** Atlantic Outer Continental Shelf; archaeology; archaeological site; shipwreck; site occurrence; prehistoric site; settlement patterns; marine transgression.

**BACKGROUND:** The Bureau of Ocean Energy Management (BOEM), an agency of the U.S. Department of the Interior, is charged with the responsibility of considering the effects of its actions on significant cultural resources on the Outer Continental Shelf (OCS) of the United States, from State Waters to the limit of the Exclusive Economic Zone. This program arose out of a variety of legislation enacted to ensure proper management and protection of the nation's cultural heritage. The most pertinent of these laws are the National Historic Preservation Act (NHPA) of 1966 (as amended), the National Environmental Policy Act (NEPA) of 1969, and the Outer Continental Shelf Lands Act (OCSLA) of 1953 (as amended). It has been over 25 years since any type of archaeological study has been completed on the Atlantic OCS for BOEM. A study completed in 1979 evaluated potential submerged archaeological resources from Cape Hatteras, NC, northward; and a 1981 study addressed potential submerged archaeological resources from Cape Hatteras, NC, southward. Since that time, there have been a number of significant archaeological discoveries off the Atlantic coastline, including both historic shipwrecks and submerged prehistoric sites. As a result, there is a critical need to develop a database of known and reported submerged cultural resources along the Atlantic OCS and to identify areas where inundated prehistoric sites might be located.

**OBJECTIVES:** (1) To evaluate current theories on prehistoric settlement patterns, paleoshoreline positions, relative sea level rise, and regional geology in order to identify potential areas on the Atlantic OCS where submerged prehistoric sites might be located, and (2) to provide historic context for and construct a database of historic shipwrecks within the Atlantic OCS region.

**DESCRIPTION:** The first part of the study evaluates current theories on prehistoric settlement patterns, paleoshoreline positions, relative sea level rise, and regional geology in order to identify potential areas on the Atlantic OCS where submerged prehistoric sites might be located. The model for submerged prehistoric sites draws on late Pleistocene/early Holocene site and settlement pattern information from terrestrial areas to establish “terrestrial analogs” for coastal areas submerged during the Holocene transgression. It also considers what the coast line looked like at particular points in the past and how sea level rose in a given area, along with potential site integrity in view of the nature of various types of landforms, how they might have changed during transgression, and taphonomy during and after inundation. The second component of the study consists of documentary and database research to identify confirmed, reported, and potential historical archaeological resources, centered on sunken vessels within the boundaries of the Atlantic OCS. The sources for this database included both primary and secondary sources from a large number of repositories, institutions, and agencies with an interest in maritime history. Available information about each wreck was assembled into a Microsoft Access database.

**SIGNIFICANT CONCLUSIONS:** The study has constructed a methodology for identifying those portions of the Atlantic OCS that have the potential for prehistoric sites. The methodology was developed by employing local relative sea level rise models, tying these models to the study area’s bathymetry to identify those locations that were subaerially exposed, and executing a combined program of geophysical survey and geotechnical sampling to identify archaeologically sensitive landforms and paleosols.

**STUDY RESULTS:** Through the contributions of various scholars doing research on underwater sites, the study revised a model for identifying areas of the Atlantic OCS where there is potential for preserved prehistoric sites. It also assembled a database of known and likely historic shipwrecks along the Atlantic OCS, and provided a written historic context for these wrecks. The database contains approximately 11,000 entries and incorporates extant databases, literature on shipwrecks, state and federal data on shipwrecks, and archival research at a number of institutions along the east coast.

**STUDY PRODUCT(S):** TRC Environmental Corporation. 2011. Inventory and Analysis of Archaeological Site Occurrence on the Atlantic Outer Continental Shelf. U.S. Dept. of the Interior, Bureau of Ocean Energy, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study BOEM 0212-008. 349 pp.