



Advisory Council on Underwater Archaeology

17 April 2023

RE: Protection of Marine Archaeological Resources

As Chair of the **Advisory Council on Underwater Archaeology (ACUA)**, I am commenting on behalf of our members and the members of the **American Anthropological Association (AAA)**, the **Coalition for American Heritage (CAH)**, and the **Society for American Archaeology (SAA)**.

The ACUA is comprised of scholars, cultural resource management professionals, historians, archaeologists, and students affiliated with the Society for Historical Archaeology. The ACUA has been at the forefront of underwater archaeology for nearly 60 years and works to educate governments, sports divers, and the general public about underwater archaeology and the preservation of maritime resources. Underwater cultural heritage, maritime cultural landscapes, and historic structures provide tangible links to our collective past.

Founded in 1902, the American Anthropological Association is the world's largest scholarly and professional organization of anthropologists. The Association is dedicated to advancing human understanding and applying this understanding to the world's most pressing problems.

The Coalition for American Heritage is made up of more than 350,000 heritage professionals, scholars, small businesses, non-profit groups, and history-lovers from across the country who work together to support and promote our nation's commitment to historic preservation.

The SAA is an international organization that, since its founding in 1934, has been dedicated to research about and interpretation and protection of the archaeological heritage of the Americas. With more than 6,000 members, the SAA represents professional and avocational archaeologists, archaeology students in colleges and universities, and archaeologists working at tribal agencies, museums, government agencies, and the private sector. The SAA has members throughout the United States, as well as in many nations around the world.

The ACUA, AAA, CAH, and SAA would first like to thank the Bureau of Ocean Energy Management (BOEM) in continuing to support our nation's underwater cultural heritage and their request for public input. The regulations provide additional clarity on use and importance of underwater archaeology in the management of oil, gas, and other energy development on the outer continental shelf in furtherance of existing law, policy and practice or professional archaeological standards. The elimination of the "reason to believe" in §550.194(a) precedent reduces ambiguity regarding the requirement of survey and constitutes a reasonable and good faith effort to identify archaeological resources under Advisory Council on Historic Preservation regulations. This is an overwhelmingly positive move forward.

Our organizations support the spirit of the proposed rule change with the idea that some technical matters could be revised before the rules are codified, a list of which is included below. Additionally,

we recommend express reference to the Secretary of Interior's Guidelines, the National Historic Preservation Act, the Archaeological Resources Protection Act, and the Antiquities Act under the authorities section.

The technical parameters outlined in the proposed rule change contain some inconsistencies and ambiguities that we recommend need clarification prior to adoption of the rule. These include:

-- §550.194(c)(1) – The navigation system requirement specifies logging the survey vessel and sensors which is welcomed, but this proposed rule does not comment on the requirement for acoustic tracking (e.g., USBL) of towed sensors or AUVs in deep water (200 m [656 ft]), which would be required for consistency with both survey best practices (e.g., IHO standards) and BOEM's Shallow Hazards NTL 2022-G01 Part III.A. A recommendation is made to include acoustic tracking of towed sensors and AUVs in deep water to ensure the identification and consistency across standards.

-- §550.194(c)(2) – Under current NTL 2005-G07, magnetometer data are required to be collected in water depths up to 200 m (656 ft). The wording of the new rule implies that BOEM will no longer require magnetometer survey for archaeology in water depths over 100 m (328 ft). Magnetometer data have been effectively collected in these greater water depths under NTL 2005-G07, and are currently required for Shallow Hazards under NTL 2022-G01 Part III.C.1. A recommendation to include magnetometer data acquisition in water depths up to 200 m (656 ft) would ensure identification and protection of underwater cultural heritage in deeper waters and consistency across standards.

-- §550.194(c)(3) – BOEM requests comment on whether modifications to this provision should be considered in situations where the proposed activity has the potential to disturb pre-contact archaeological material. While there are areas in the GOM where Recent (ie., post-glacial maximum) sediments are excessively thick (e.g., Main Pass Area, South Timbalier Area, mudflow gullies), the sub-bottom data are necessary to confirm local stratigraphy, and may also be correlated with the sonar and magnetometer data for near-surface feature interpretation. Where areas have less Recent sediment accretion (e.g., West Cameron Area, Galveston Area), the sub-bottom data are the first opportunity to examine the sub-seafloor stratigraphy for the presence of buried and preserved landscapes that may have supported human occupations during subaerial exposure. The 30-m line spacing proposed as part of this overall rule provides a good opportunity to model the landscape and, where preservation is identified, is a necessary first step in the “reasonable and good faith effort” under the parameters outlined in this section. The requirement for sub-bottom data in water depths of 140 m or less is consistent with global sea-level curves that suggest the most likely areas for subaerial landscapes on the OCS that may have been exploited or occupied by early human occupations in North America. The proposed rule does not, however, include any requirement for acquisition of bathymetry data which is necessary to calculate the total depth below sea level of interpreted horizons. This total depth below sea level is needed to identify the timing of subaerial exposure and marine inundation of the feature, based on depth within the context of a regionally-accurate sea level curve. A recommendation to include acquisition of bathymetry data would ensure the most effective identification and protection of pre-contact submerged underwater cultural heritage.

-- §550.194(c)(4) – The proposed rule requires that the sonar system must be able to “resolve small, discrete targets 0.5 meters (1.6 ft) in length at maximum range,” but does not specify if this is in reference to the along-track detection or across-track resolution. These are significantly different but will have a fundamental impact on the line spacing and sonar frequency required to achieve the stated target detection while maintaining the specified sensor altitude to range necessary for 200% seafloor coverage. Clarification within the rule change is recommended. For reference to this clarification,

many existing sensors or AUV sensor payloads used within the current archaeological private sector would not be in compliance for archaeological survey and would require the purchase of new sensors and survey equipment. Given current supply chain issues and high demand for rental units among providers, this could create a shortage of appropriate sonar units available for use in BOEM-compliant archaeological survey work. Additionally, the requirement for sonar survey in “all water depths” suggests that all activities will require archaeological surveys however, specific wording in other sections obscures this requirement. A recommendation on clarification of language is suggested so that archaeological private sector and industry providers will be able to comply with rule requirements.

ACUA, AAA, CAH, and SAA greatly appreciate the ability to review and comment on the proposed rule changes and fully supports changes to better identify and protect our shared underwater cultural heritage. We hope that our recommendations will assist BOEM in creating a set of rules that fully supports BOEM’s efforts to further manage our nation’s bottomlands and underwater cultural heritage.

Sincerely,
Jennifer McKinnon, PhD
Chair
ACUA