

# **Managing Archaeological Resources on the Outer Continental Shelf: A Model for Submerged Lands Management**

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**Before the Submerged Lands Management Conference,  
Biloxi, Miss., September 20, 1991**

Paper to be presented at the 1991, Submerged Lands Management Conference, Biloxi, Mississippi

September 30, 1991

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A Model for Submerged Lands Managers.

by

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The MMS was created in 1982 as a bureau within the Department of the Interior. Specifically, the MMS is charged with the orderly development of America's offshore energy and mineral resources while properly safeguarding the environment and ensuring the effective collection of revenues generated from mineral leases offshore and on Federal and Indian lands throughout the country (Greene and Anuskiewicz, 1990:1). As a part of the MMS's review and compliance program the agency is responsible for assessing and regulating oil, gas and mineral exploration and development activities on the Outer Continental Shelf (OCS) and the impact of these activities on submerged archaeological resources.

This paper will discuss the submerged archaeological resource management model developed by the MMS to help fulfill its review and compliance responsibilities. It is also the intent of this paper to provide submerged land managers with some practical guidance on how to manage submerged archaeological resources effectively through the development of a management model.

This paper will discuss four specific attributes of the management model. They include:

1. how to determine and develop the appropriate level of compliance responsibilities by staff and management;
2. how to assess and determine the proper archaeological baseline data needed to manage submerged archaeological resources;
3. how to assess and develop the archaeological resource management compliance network between local, state, and federal agencies;
4. how to develop and use an archaeological workshop to introduce and promote a submerged archaeological resource management program.

**Developing and Determining the Appropriate Level of Archaeological Compliance Responsibilities by the Staff and Management**

The first part of the discussion of this attribute will focus on providing some helpful hints for the hiring of a qualified

professional archaeologist. The second part will center around a discussion of developing and determining the appropriate level of compliance required by an organization's staff and management.

How does an organization go about selecting a competent archaeologist? There are several successful approaches. One approach is to inquire at a local college or university. Faculty and staff may be of assistance either directly, through contract or consulting, or by providing useful information of other working professionals in the area who may be interested in working for your organization.

Another approach would be to contact the State Archaeologist through your state's Historic Preservation Office. The State Archaeologist should be able to provide a list of competent professional archaeologists, both in academia and independent archaeological consulting firms, working in your area. This avenue of approach is a very useful method for discovering working professional archaeologists in the area and their specific fields of expertise and interests.

On a national level, an inquiry to the Society of Professional Archaeologists (SOPA) may be useful. SOPA is a professional society with a large membership. SOPA members are generally engaged in contract archaeology, academic research, or are members of Federal, State, or local agencies. An archaeologist who applies, and is accepted, to this national organization must conform to a strict code of ethics and standards of research performance. The applicant must have excellent academic training as well as field experience. These professionals are also an excellent resource for evaluating or hiring a competent professional archaeologist. Also, if the society can not provide an evaluation or recommendation of a particular archaeologist, they should be able to indicate another professional archaeologist in your geographic region to help evaluate your particular candidate.

Now let us look at the how your organization will evaluate the proper level of archaeological resource compliance responsibilities with reference to a hypothetical project involving seafloor disturbance. Once your professional archaeologist is on staff, they must first be given time evaluate your present archaeological resource management program in detail. This individual is your "expert" in this field. After a short period of organizational orientation and training, your archaeologist should be able to evaluate the legal responsibilities involved in the proposed seafloor impacting project. One of the first tasks should be to provide an organizational flow chart outlining the structure of your compliance process. This chart should be specific enough to identify all levels of staff and management involved in the review; the appropriate chain-of-command requiring specific in-house sign-offs necessary to process the appropriate compliance paperwork, and the level of complexity of the proposed activities under review. This chart should also include a listing of all specific state and federal legislative and statutory laws which apply in the compliance process.

Your archaeologist will need the full cooperation of all levels of management to be successful. Communications skills as well as political savvy will be necessary to garner the necessary support

at all levels of the organization. The political nature of this particular model attribute will be discussed in detail later in this presentation.

To reiterate, it is important to hire a competent and experienced professional archaeologist that can quickly learn the network structure within the organization. It is also important for the archaeologist to evaluate the level of legal responsibilities necessary for compliance with pertinent laws and regulations. Taking these steps would prevent unnecessary delays to the hypothetical seafloor disturbing project.

#### **Assessing and Determining the Appropriate Archaeological Baseline Data Needed to Manage Submerged Archaeological Resources**

It is essential to complete the assessment of the appropriate level of archaeological compliance before determining archaeological data needs. Once this is done, the archaeologist should research the amount and quality of any local and regional archaeological data and references your organization has available for review. This information is needed because many of the compliance recommendations and decisions during the review process are predicated on this data.

It is extremely important for an organization to keep current on the available archaeological research data for two basic reasons. Better science results in better project planning and a more thorough decision making processes. The second reason for up-to-date databases is to prevent projects from being held up by compliance inadequacies resulting from poor science.

A recent example of the value of updating databases illustrates the point. The original Minerals Management Service (MMS) shipwreck database for the Gulf of Mexico was created as a result of the initial baseline study done for the National Park Service and the Bureau of Land Management in 1977 (CEI, 1977). Limited funding resulted in the use of secondary sources for the compilation of the database. A review of the shipwreck model conducted in 1984 indicated that the model of shipwreck high probability areas in the Gulf was in need of revision. In addition, a decision was made to review methodological requirements in conducting remote-sensing surveys. The review indicated the need for an update of the baseline 1977 study. This update of the baseline study was funded in 1986. Following 3 years of primary archival research and extensive field methodological testing a final report was completed in 1989. The results of the report (Garrison et al., 1989) were as follows:

There are about 29,500 (3 mile by 3 mile square) blocks designated in the Gulf of Mexico. The original high probability area for the occurrence of historic period shipwrecks (1977) model, contained 3,410 blocks which required an archaeological survey to search for historic period shipwrecks. The new 1989 MMS historic period shipwreck study (Garrison et al. 1989a) refined the high probability areas for historic shipwrecks based on primary archival data. The resulting number of lease blocks requiring an archaeological survey, under the new model, was 2,263 blocks. This was an initial reduction of 34 percent. The study also determined

that the 150-meter remote-sensing survey linespacing was not adequate to identify, with a sufficient degree of confidence, between modern ferromagnetic debris and an historic period shipwreck (Anuskiewicz and Greene 1990a and 1990b) (Greene and Anuskiewicz 1991). A tighter, 50-meter survey linespacing was recommended within those redefined blocks considered to have a high probability for the occurrence of historic period shipwrecks (Anuskiewicz 1984, 1985, 1986, and 1989), (Anuskiewicz and Greene 1989, 1990a and 1990b), (Clausen and Arnold 1975), (Garrison et al 1989b), and (Saltus 1982).

In-house research indicated that positioning data quality from magnetometer surveys in blocks deeper than 60 m was not reliable. This resulted in the differentiation of methodological procedures in 556 blocks. Based on the in-house research and the scientific study, a policy decision was made not to require the tighter survey linespacing within these blocks. This reduced the total number of lease blocks, gulfwide, which required the new remote-sensing methodology to 1,707 blocks.

Prior policy decisions also had to be taken into consideration in determining the actual effect of the redefinition of the shipwreck model and the new remote-sensing methodology on the oil and gas industry in the Gulf of Mexico. There were 416 blocks located within deferral areas associated with the western Coast of Florida and the 26 degree parallel which had little to no chance of being leased in the foreseeable future. This left 1,291 lease blocks, gulfwide, with a high probability for historic period shipwrecks and a likelihood of being leased.

A final policy decision was made not to require re-survey of those blocks which were currently under lease and which had already been surveyed under existing requirements. Analysis of lease blocks, gulfwide, revealed 719 of the 1,291 blocks were currently under lease. The vast majority of these blocks have likely had remote-sensing archaeological surveys performed.

The final number of lease blocks that would be immediately affected by the redefinition of the historic shipwreck high probability areas was 572 blocks. This analysis provided MMS managers with the ability to assess the potential impact of changing methodological procedures on the Gulf of Mexico oil and gas industry. The final result of the update in baseline data for historic shipwrecks in the Gulf of Mexico was greater protection of the archaeological resource (due to redefinition of the high probability areas and tighter survey linespacing) at little to no extra cost to the oil and gas industry in the Gulf of Mexico.

#### **Assessing and Developing an Archaeological Resource Management Compliance Network Between Local, State, and Federal Agencies.**

Networking between compliance and review agencies is a common and useful practice when accomplished within a legal and ethical framework. The greatest utility of networking is exemplified when a 15-minute telephone call can take the place of written correspondence which could take up to several weeks from initiation to reply. During the formulation of a long-term review and compliance process, such as a Memorandum of Agreement (MOA),

program to understand the legal foundation that your archaeology program is based upon and what role each particular agency and interest group is expected to contribute to your program. A workshop is the most effective way of imparting this information. Members of your in-house compliance network should also be invited to participate as should any other interested federal, state, and local agencies as well as, working professional marine archaeologists. Invitations to the workshop should be sent at least 45 days in advance. This allows for individuals and businesses to plan their attendance and resolve schedule conflicts.

After defining the target audience, appropriate visuals and graphics should be developed. The type, size, and number of these visual aids should reflect the expected size of the anticipated audience of the workshop. Preparation of handouts will provide the audience with material that they may refer to in the future. Care should be taken that the handouts be informational and not contain extraneous or superfluous material. You may want to send out specific workshop related material to your perspective workshop attendees for review prior to the scheduled workshop.

The structure of the workshop should be carefully considered. Recent experience with an archaeological workshop held at the MMS Gulf of Mexico Region suggested a two-part workshop with a short break between the two segments. The first segment of the workshop consisted of an introduction (explaining the reason for the workshop) and a presentation of the significant proposed changes in the MMS submerged archaeological resources program. This was followed by opening the floor to questions from the audience.

A workshop to introduce and promote your submerged archaeological resources management program provides invaluable contact between those interacting federal, state, and local agencies, and archaeological professionals that may be affected by the proposed changes or revisions to your program. Questions raised by the audience may point out difficulties or inconsistencies in your program which your organization may not have previously recognized. Careful preparation of the workshop presentation followed by consideration of audience questions results in a powerful public relations tool which will allow your submerged archaeological resources management program to be more efficient and effective in protecting and managing submerged archaeological resources.

In closing let us quickly review once again the four specific attributes that the MMS uses to help successfully meet their compliance responsibilities in managing submerged archaeological resources on the OCS. First this paper discussed how to determine and develop an appropriate level of compliance responsibilities by staff and management. Next was how to assess and determine the proper level of baseline data necessary to manage submerged archaeological resources. Third was attribute discussed indicated how to develop an archaeological working network between local, state, and federal agencies. Finally this paper discussed the importance of using an archaeological workshop to introduce and promote a submerged archaeological resource management program.

The staff and management in the archaeological resource management program have been successful in fulfilling their review

networking can save a significant amount of time. This would provide time benefits for the agencies involved (in terms of person-hours) and serve to shorten the time of final implementation of the MOA.

The initial step in developing a compliance network between local, state, and Federal agencies is for the archaeologist to consult with their immediate supervisor prior to any such development. Once permission is granted the archaeologist will have to assess his peers in the other reviewing agencies to determine their position, and their agency's position, on developing a compliance network. It must be determined whether the staff reviewer and his/her agency are willing to give and receive comments by phone or, informally, by mail. This process will have to be repeated with all reviewers and their respective agencies. Experience has shown that additional issues or problems that come under review become easier to resolve when there is agreement with the initial reviewing agencies.

Once the compliance network has been created the archaeologist within the agencies must work to ensure the smooth operation of the network. Reviews should be completed in a timely and efficient manner. Requests for reviews should have reasonable deadlines. The importance of courtesy and ethical behavior cannot be over-emphasized. The networking staff level archaeologist should remember that different agencies at the Federal, state, and local levels may have differing interests and philosophical approaches towards resolving problems. A properly developed compliance network, however, will enhance the working efficiency of all the agencies within the network structure.

It should be emphasized that developing a compliance network does not take the place of official channels of communications. The ultimate goal of the network is to enhance the efficiency of the various agencies in reaching consensus on a particular compliance issue. When used in a legal and ethical framework, a compliance network is an effective tool to enhance efficiency and produce results.

#### **Development and Use of an Archaeological Workshop to Introduce and Promote a Submerged Archaeological Resource Management Program**

Proper management of submerged archaeological resources should begin with determination of the appropriate level of compliance responsibilities by staff and management. The next step is the assessment and acquisition of proper archaeological baseline data to define the resource base. This is followed by the assessment and development of an archaeological resource management compliance network between local, state, and Federal agencies. Once these steps have been completed, your organization is ready to develop and use an archaeological resource workshop to introduce and promote your submerged archaeological resource management program.

The first step in developing an archaeological resource workshop is to analyze your perspective audience. An important question to ask is, "Who will be affected by the submerged archaeological resource management program?" It is very important for those agencies and interest groups that may be affected by your

and compliance responsibilities by developing and refining their archaeological resource management model by trial and error since 1974. This model is presented to the members of this conference in the hope that it will provide some practical guidance for submerged land managers in their quest to manage submerged archaeological resources more effectively.



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