

OCS MAPPING INITIATIVE Energy Policy Act of 2005

Implementation Plan for the Multipurpose Marine Cadastre

**United States Department of the Interior
Minerals Management Service**



**Leasing Division
Mapping and Boundary Branch**

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**Implementation Plan
for the
Multipurpose Marine Cadastre**

Table of Contents:

Executive Summary	3
Introduction	3
Background	4
What Is A Multipurpose Marine Cadastre?	4
Competing Uses of Marine Resources	4
Objectives of a Multipurpose Marine Cadastre	5
Benefits of a Multipurpose Marine Cadastre	5
Implementing the Multipurpose Marine Cadastre.....	5
Roles and Responsibilities	5
Proactive Approach to Resolving Boundary Issues.....	6
Communications	6
Collaborative Partnerships	6
Requirements of a Comprehensive Multipurpose Marine Cadastre	7
Primary Cadastre Data Themes	7
Supporting Data Themes	8
Standards.....	8
What Will the Multipurpose Marine Cadastre Look Like?.....	9
Official Protraction Diagram Framework	10
Major and Minor UTM Grid System Subdivisions.....	10
State Submerged Lands	10
Legal Boundaries in the Marine Environment	11
OCS Grid Block	12
Equal Subdivisions of an OCS Grid Block	13
Summary	13
The Implementation Plan - Planned Actions	14
Timeline.....	18
References.....	19

Implementation Plan for the Multipurpose Marine Cadastre

EXECUTIVE SUMMARY

On August 8, 2005, President George Bush signed the Energy Policy Act of 2005 (P.L. 109-58). *Sec. 388 – Alternative Energy-Related Uses on the Outer Continental Shelf*, of the Act grants the Minerals Management Service (MMS) new authority to regulate energy uses on the Outer Continental Shelf (OCS). Moreover, it directs the Secretary of the Interior, in cooperation with the Secretary of Commerce, the Commandant of the Coast Guard, and the Secretary of Defense, to establish an OCS Mapping Initiative to assist in decision making related to alternative energy uses on the OCS. The goal of the initiative is the identification of OCS locations of Federally-permitted activities; obstructions to navigation; submerged cultural resources; undersea cables; offshore aquaculture projects; and any area designated for the purpose of safety, national security, environmental protection, or conservation and management of living marine resources.

The repository of this data will be the Multipurpose Marine Cadastre described herein. The Multipurpose Marine Cadastre is an integrated submerged lands information system consisting of legal, e.g., property ownership or cadastre, physical, and cultural information in a common reference framework. This information system includes, where available, biological and habit information necessary for Federal agencies to fulfill their legislative mandates.

In response to this directive, MMS has developed the following implementation plan entitled the “Implementation Plan for the Multipurpose Marine Cadastre.”

INTRODUCTION

The development of the Multipurpose Marine Cadastre is an ambitious, multiyear endeavor that requires joint planning, interaction, and commitment by Federal, State, local, territorial, and tribal entities working through public and private partnerships.

Many important focal points and collaborative partnerships have already been established or are in the process of being established. The Mapping Initiative as defined in the Energy Policy Act of 2005 (P.L. 109-58). *Sec. 388 – Alternative Energy-Related Uses on the Outer Continental Shelf* (the Multipurpose Marine Cadastre) should be formally presented to these various entities for review and endorsement. These include and are not limited to the following:

- Federal Geographic Data Committee Coordination Group – Formal contact is currently being established.
- Federal Geographic Data Committee (FGDC), its Subcommittees and Working Groups, particularly the Marine Boundary Working Group (MBWG) - Established
- The National Oceanographic Partnership Program (NOPP) – Formal contact is currently being established.
- The Interagency Committee on Ocean Science and Resource Management Integration (ICOSRMI) or the Subcommittee on Integrated Management of Ocean Resources (SIMOR) – Formal contact is currently being established.
- Joint Subcommittee on Ocean Science and Technology (JSOST), particularly the Interagency Working Group on Ocean and Coastal Mapping (IWGOCM) – Formal contact is currently being established.
- Develop Memorandum of Agreement (MOA) or Memorandum of Understanding (MOU) with appropriate organizations, e.g., National Oceanic and Atmospheric Administration’s National Marine Protected Areas Center, National Marine Fisheries Service, and the U.S. Coast Guard

and Army Corps of Engineers – Development of MOAs and MOUs is currently being discussed with appropriate Federal agencies.

The MMS proposes to continue working through and with these various partnerships and committees to develop a comprehensive Multipurpose Marine Cadastre. Actively participating in and working through these Committees, their Subcommittees, and Working Groups will provide MMS with access to both upper level management and technical levels of Agencies of Responsibility (AOR) and their respective data.

BACKGROUND

On August 19, 2002, the Office of Management and Budget (OMB) revised Circular No. A-16 “Coordination of Geographic Information and Related Spatial Data Activities.” In it, OMB assigned the responsibility for the National Spatial Data Theme, “Cadastral (Offshore),” to the United States Department of the Interior’s (DOI) MMS. The MMS assumed this responsibility in a Federal Register Notice dated December 2, 2002, Volume 67, No. 231, page 71588. In response to that policy mandate, MMS initiated an Implementation Plan for the Multipurpose Marine Cadastre.

On September 7, 2005, the MMS Mapping and Boundary Branch (MBB) participated in a formation meeting for IWGOCM, a Working Group formed under the guidance of the JSOST. Successful development of the OCS Mapping Initiative or Multipurpose Marine Cadastre is contingent on a heightened level of coordination and collaboration between all agencies with a mandated responsibility, hereinafter referred to as the Agency of Responsibility (AOR), for developing a specific data set or series of data sets in the marine environment.

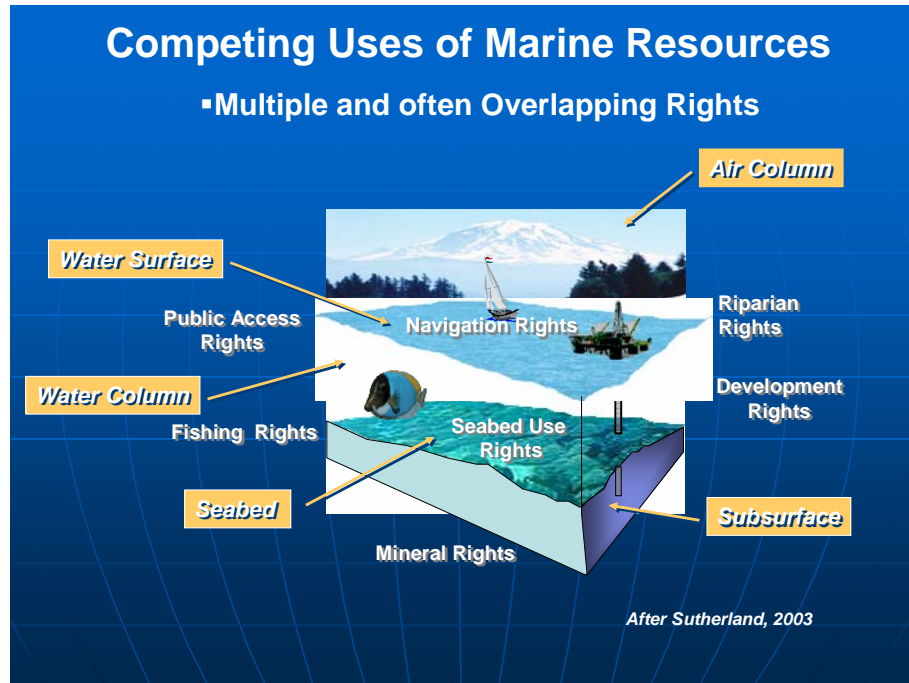
The Multipurpose Marine Cadastre will provide the mechanism necessary to define, recognize, and map specific areas and identify their use and/or restricted use in the marine environment.

WHAT IS A MULTIPURPOSE MARINE CADASTRE?

For the purposes of this Implementation Plan the definition for the Multipurpose Marine Cadastre is as follows:

- A system to enable the boundaries of marine rights and interests, to be recorded, spatially managed, and physically defined in relationship to the boundaries of other neighboring or underlying rights and interests. (OSG Technical Report 9, Office of the Surveyor-General - New Zealand, 1999)

The following graphic illustrates the complexities and interactions between *rights, restrictions, and responsibilities* existing in all five (5) layers of the marine environment, *Air Column, Water Surface, Water Column, Seabed, and Subsurface*.



The Federal Geographic Data Committee's Marine Boundary Working Group has accepted the task of coordinating the implementation of various aspects of the marine cadastre in its 2006 and beyond Work Plan.

Objectives of a Multipurpose Marine Cadastre

- To provide a Federal natural resource management perspective and to expand it as interest and versatility of the marine cadastre becomes more apparent with other stakeholders, i.e., coastal State governments, private industry, and the academic community.
- To provide a comprehensive spatial data infrastructure whereby rights, restrictions and responsibilities in the marine environment can be assessed, administered, and managed. Managers will have access to the best available information in order to meet their management, enforcement, and research missions or objectives.

Benefits of a Multipurpose Marine Cadastre

Implementation of the Multipurpose Marine Cadastre will provide managers and technical staffs with the mechanism to define, describe, analyze, and account for every acre/hectare of Federal Offshore Submerged Lands of the United States and its Territories and Possessions. Various aspects of the Multipurpose Marine Cadastre will be developed as a function of the authority pursuant to the Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. §§ 1344 and the Territorial Submerged Lands Act (TSLA) 48 U.S.C. §§ 1545, 1705-08.

The Multipurpose Marine Cadastre is intended to identify overlapping and conflicting rights, interests, and responsibilities in the marine environment. It will allow MMS managers and technical staffs, as well as other Federal agencies; coastal States; local, territorial, and tribal governments; private industry; and the academic community, to directly access information and resources necessary to promote and conduct good ocean governance.

IMPLEMENTING THE MULTIPURPOSE MARINE CADASTRE

Roles and Responsibilities

The MMS Leasing Division's MBB has been assigned the lead to coordinate the development and implementation of the Multipurpose Marine Cadastre. The MBB will coordinate with all AOR's to identify and acquire official data associated with the themes identified on pages seven and eight of this document. That is, National Marine Sanctuaries data will come from the National Oceanic and Atmospheric Administration (NOAA) National Marine Protected Areas Center, National Wildlife Refuge data will come from United States Fish and Wildlife Service (USFWS), etc. In addition, all official MMS marine cadastral products, e.g., Leasing Maps (LM's), Official Protraction Diagram (OPD's), Supplemental Official OCS Block Diagrams (SOBD's), and Planning Area coverages, with associated legal descriptions, will be available on MMS's official website at www.mms.gov/ld/maps.htm. All data within the Multipurpose Marine Cadastre will conform to existing data standards and contain supporting metadata. AORs will ensure that their data are accurate and up-to-date.

One of the more challenging obstacles in managing the U.S. marine environment will be the collaboration between stakeholders and the ability to provide seamless data in a manner that best reflects the various roles and responsibilities assigned to numerous Federal departments and their subdivisions. Roles and responsibilities have been mandated over time by a multitude of enabling legislation, Executive Orders, Presidential Proclamations, etc. Generally, those roles and responsibilities are well defined within the context of enabling legislation(s) and/or subsequent legal interpretations and/or actions of some legal body, thus providing departments and agencies with the direction and authority necessary to conduct business. However, there are numerous areas in which these responsibilities overlap and even conflict. For example, within the DOI there are agencies responsible for the protection of the environment, natural resources, and wildlife such as the National Park Service (NPS) and the USFWS. In contrast, there are other agencies tasked with the responsibility for development of natural resources, as well as protection of the environment, such as the Bureau of Land Management (BLM) and MMS. Individual agencies have a fundamental responsibility to look beyond their immediate roles and responsibilities and determine how their particular mandates, actions, and data impact others. Full implementation of the Multipurpose Marine Cadastre requires that each agency and their subdivisions fully comply with the OMB Circular A-16 and accept their delegated role and responsibility. The key to the ultimate success of this effort is the designation by AORs of appropriate individuals within each organization expressly authorized and responsible to actively engage in the process and work cooperatively with other organizations towards this common goal.

Proactive Approach to Resolving Boundary Issues

Boundary issues cannot continue to be left to the last possible minute to be resolved either technically, politically, or socially. Dr. Susan Nichols of the University of New Brunswick sums up the problem quite well; "LAW: the law will define the boundary *when and ONLY IF* an issue arises - -." Implementing the Multipurpose Marine Cadastre requires that all stakeholders involved take responsibility and accountability for their specific authority(s). If these various entities cannot or will not develop the necessary levels of communications and collaborative partnerships to proactively define and/or resolve boundary issues, then a *comprehensive* Multipurpose Marine Cadastre will be difficult to bring to reality.

After nearly five decades of encountering boundary issues of virtually every type, DOI and MMS can emphatically state that the vast majority of boundary related issues cannot be resolved overnight. Experience indicates that resolving a boundary issue can take, depending on its complexities, economics, and politics, up to 18 years, e.g., No. 84, Original, U.S. v. Alaska. Having a proactive and collaborative approach to boundaries has proven to be the most efficient and effective method to resolving marine boundary issues. The MMS has accomplished this

through a process of developing appropriate collaborative partnerships, evaluating issues surrounding a particular geographic area, gathering relevant information, if available, and determining what the issues are and then scientifically and mathematically defining alternatives and areal measurements associated with them.

Communications

Developing comprehensive relationships and open communications with other Federal departments, coastal States, territorial, and tribal entities, as well as private industry, the academic community, and additional stakeholders is a critical step in the implementation process. If a *comprehensive* Multipurpose Marine Cadastre is going to be implemented in the most efficient and practical manner, it will require open communications amongst all stakeholders.

Collaborative Partnerships

In these times of limited funding and mandates to limit duplication of effort, e.g., the OMB Circular A-16, development of collaborative partnerships is one of the more critical elements necessary for the successful implementation and maintenance of the Multipurpose Marine Cadastre. As stated previously, in the U.S. there are a number of Federal agencies assigned with the authority and/or responsibility for the development and maintenance of a specific marine boundary and/or limit, for resource development and management, navigation charting, protection, enforcement, etc. To a limited extent, stakeholder desire to engage in collaborative partnerships will ultimately determine the success or failure of this effort.

REQUIREMENTS OF A *COMPREHENSIVE* MULTIPURPOSE MARINE CADASTRE

The Multipurpose Marine Cadastre must provide a comprehensive spatial data infrastructure whereby rights, restrictions, and responsibilities can be assessed, administered, and managed. The cadastre must truly be comprehensive and contain the data necessary to evaluate and determine how these rights, restrictions, and responsibilities interact with one another in the marine environment.

When considering the legal framework for the Multipurpose Marine Cadastre, four questions must be taken into account. First, what types of rights exist in a marine context? Second, what laws define those rights? Third, what is the hierarchy of precedence among those rights? And fourth, how do these various rights interact with one another?

Potentially every appropriate law, boundary, restriction, Army Corps of Engineers permit, or obstruction e.g., pipeline, undersea cable, artificial reef, etc., located in the marine environment could interact with and potentially impact the decisions managers make in fulfilling their mission responsibilities. A *comprehensive* Multipurpose Marine Cadastre must be dynamic and include, but not limited to, the following data themes.

Primary Cadastre Data Themes

1. Universal Transverse Mercator (UTM) Grid System (which in most cases defines MMS's OCS grid system - Cadastre)
2. National Baseline (as developed by the NOAA National Ocean Service (NOS) and MMS and approved by the Interdepartmental Baseline Committee)
3. Coastline (as defined by MMS for Submerged Lands Act purposes)
4. Submerged Lands Act boundaries
 - a. Federal/State boundary (MMS)
 - b. Limit of "8(g) Zone" - Revenue sharing line (MMS)
 - c. Administrative Boundaries - For SLA Purposes (MMS)
5. Territorial Submerged Land Act Boundaries for the Territories and U.S. Possessions
6. Official Protraction Diagram & Leasing Map (MMS)

7. Maritime boundaries and Zones
 - a. Boundaries with adjacent countries (Department of State)
 - b. Three Nautical Mile Line & Natural Resources Boundary (nine nautical miles) (NOAA-NOS)
 - c. Territorial Sea (12 Nautical Miles) (NOAA-NOS)
 - d. Contiguous Zone (24 Nautical Miles) (NOAA-NOS)
 - e. Exclusive Economic Zone (200 Nautical Miles) (NOAA-NOS)
 - f. UNCLOS – Article 76 Claims (NOTE: The extended outer continental shelf beyond 200 nautical miles will be a line developed and agreed to through an interagency collaborative effort.) (Appropriate Federal Agencies)
8. Marine Managed Areas (MMA's) (Pose a unique issue due to the current way they are defined. Data will come from a variety of Federal & State agencies)
 - a. MMA's are currently defined as follows:
 - Area: The site must have legally defined, fixed geographical boundaries and may be of any size.
 - Marine: The site must be an area of ocean or coastal waters or of the Great Lakes or their connecting waters or an area of land under such waters. This area may include intertidal areas, bays or estuaries.
 - Reserved: The site must be established by and subject to Federal, State, commonwealth, territorial, local or tribal law or regulation.
 - Lasting: The site must provide year-after-year protection for the same period of time each year for at least two years in succession. It must be established with the expectation of, history of or potential for permanence. It must also have a specific mechanism of renewal at the expiration of the protection.
 - Protection: The site must have laws or regulations that are designed to provide the site with increased protection of part, or all of, the natural and cultural resources within the site for the purposes of maintaining or enhancing the long-term conservation of these resources, beyond any that may apply outside the site.
9. Marine Protected Areas (MPA's) (Will come from a variety of Federal & State agencies)
 - a. National Marine Sanctuaries (NOAA-NMSP/MPAC)
 - b. National Parks (NPS)
 - c. Wildlife Refuges (FWS)
 - d. Ecological Reserves (Will come from a variety of Federal & State agencies)
 - e. National Monuments (DOI & DOC)
 - f. National Seashores, Etc.

Supporting Data Themes

1. Sand Borrow Areas
2. Pipelines
3. Undersea Cables
4. Artificial Reef Sites
5. Shipping Fairways, Anchorage Areas & Traffic Separation Schemes
6. Bathymetry
7. Military Restricted Areas including military dump sites
8. Platform Locations & Platform Structures (Type)
9. Alternative Energy Sites, e.g., wind, wave, tide, and solar
10. Archeological Sites
11. Aquaculture Sites
12. Oil & Gas Leases
13. Alternative Energy Leases
14. Liquid Natural Gas Facilities
15. Essential Fish Habitat (EFH)
16. Fishery Regulatory Closures
17. Protected Species Information/Critical Habitat

18. Dynamic Area Management Zones
19. No Discharge Zones
20. National Estuaries Program
21. Geohazards – faulting, slumping, sliding, & etc.
22. Other Data Themes as appropriate

Standards

A number of initiatives to develop data standards associated with the marine environment have been undertaken and are either ongoing and/or in various stages of completion. When and if appropriate, these standards will be incorporated into the design and development of the Multipurpose Marine Cadastre process:

1. National Shoreline Data Standard¹ – This standard is intended to serve the community of users who are involved with geospatial data activities that intersect the U.S. shoreline. The purpose is to clarify (standardize) the complexities of shoreline data by developing a bibliography, a glossary, and a metadata standard, which will be an extension or profile of the FGDC metadata standard.
2. Content Standard for Digital Geospatial Metadata² – The objectives of the standard are to provide a common set of terminologies and definitions for the documentation of digital geospatial data. The standard establishes the names of data elements and compound elements (groups of data elements) to be used for these purposes, the definitions of these compound elements and data elements, and information about the values that are to be provided for the data elements.
3. Cadastral Data Content Standard for the National Spatial Data Infrastructure Version 1.3 – Third Revision³ – The objective of the Cadastral Data Content Standard is to provide a standard for the definition and structure for cadastral data that will facilitate data sharing at all levels of government and the private sector and will protect and enhance the investments in cadastral data at all levels of government and the private sector.
4. Coastal and Marine Habitat Classification Standard – This standard provides a means to organize and classify habitat and environmental information in the coastal and marine realm. This classification system would be useful for organizing seabed data.
5. Standard for the Subdivision of an OCS Block - The MMS is currently in the process of developing an internal standard for the subdivision by aliquot parts of outer Continental Shelf grid blocks seaward of the Submerged Lands Act boundary.

Cadastral data are defined as the geographic extent of the past, current, and future rights and interests in real property including the spatial information necessary to describe the geographic extent. Rights and interests are the benefits or enjoyment in real property that can be conveyed, transferred, or otherwise allocated to another for economic remuneration. Rights and interests are recorded in land records documents. The spatial information necessary to describe rights and interests include surveys and legal description frameworks such as those used within the Public Land Survey System (PLSS), as well as parcel-by-parcel surveys and descriptions.

¹ The National Shoreline Data Standard is available for viewing at www.csc.noaa.gov/shoreline/.

² The Metadata Content Standard is available for viewing at www.fgdc.gov/Metadata/ContStan.html.

³ The Cadastral Data Content Standard is available for viewing at www.nationalcad.org/data/documents/CADSTAND.v.1.3.pdf

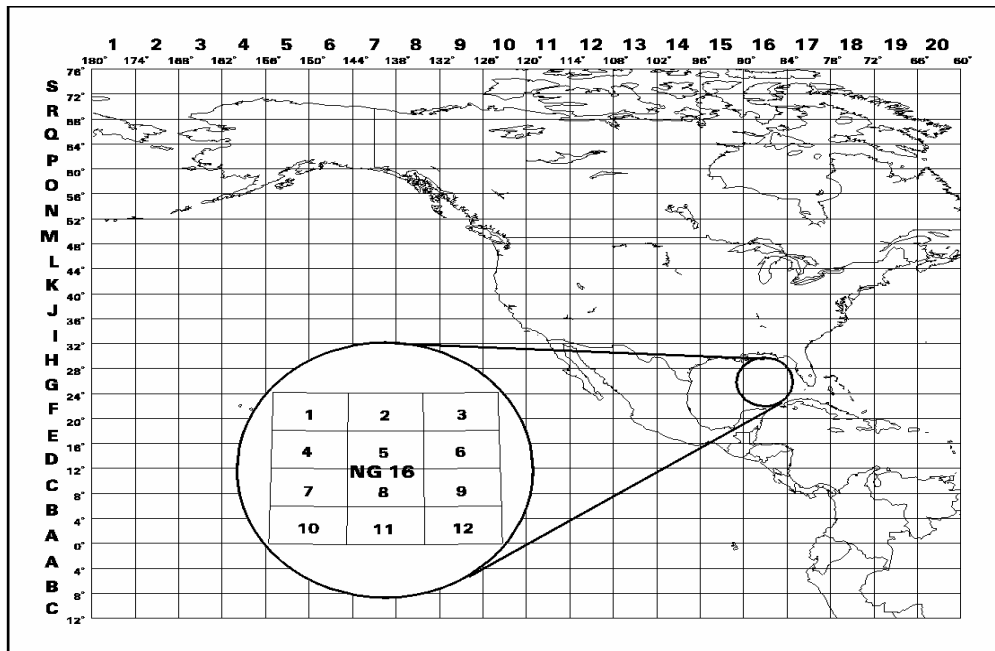
WHAT WILL THE MULTIPURPOSE MARINE CADASTRE LOOK LIKE?

“The importance of the marine environment to human existence makes it imperative that information models represent the multidimensional nature of reality as closely as possible in order to facilitate good governance.” Ng’ang’a, et al. [2001].

The orderly development of lands has historically been dependent upon a system of surveys, supplemented with some sort of grid system by which lands could be located, identified, and legally described. Offshore submerged lands should not be an exception to that practice. In areas that have been subject to oil and gas and mineral development, the Federal Government and coastal State governments have adopted various forms of rectangular grid systems on which offshore lands can be subdivided into readily identifiable and locatable units. These grid systems also provide a base for mapping and a coordinate system for computing offshore boundaries and areal measurements.

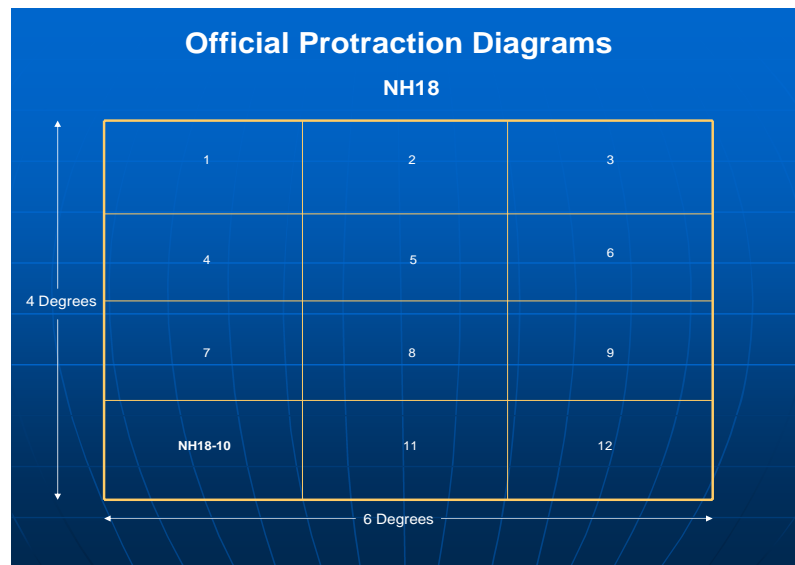
The development of consistency within the subject marine cadastre will be a formidable task due to an extensive history of offshore leasing initiated as far back as the 1920’s in California, Louisiana, and Texas. The Metric based Universal Transverse Mercator (UTM) Grid System based on the North American Datum of 1983 (NAD 83) is the marine cadastre for the United States Outer Continental Shelf. This worldwide system works onshore or offshore with equal accuracy, and has a broad zone width. The Gulf of Mexico is the exception to the NAD 83 UTM grid. The Gulf of Mexico contains both North American Datum of 1927 (NAD 27), Leasing Maps based on the State Plane Coordinate System of adjacent coastal State(s) and Official Protraction Diagrams derived on an English-based (foot) Universal Transverse Mercator (UTM) Grid System.

OFFICIAL PROTRACTION DIAGRAM FRAMEWORK (Based on the UTM Grid System)



Note: The numbering system used by the MMS for the Offshore (Marine) Cadastre is based on the United Nations “International Map of the World.”

MAJOR AND MINOR UTM GRID SYSTEM SUBDIVISIONS



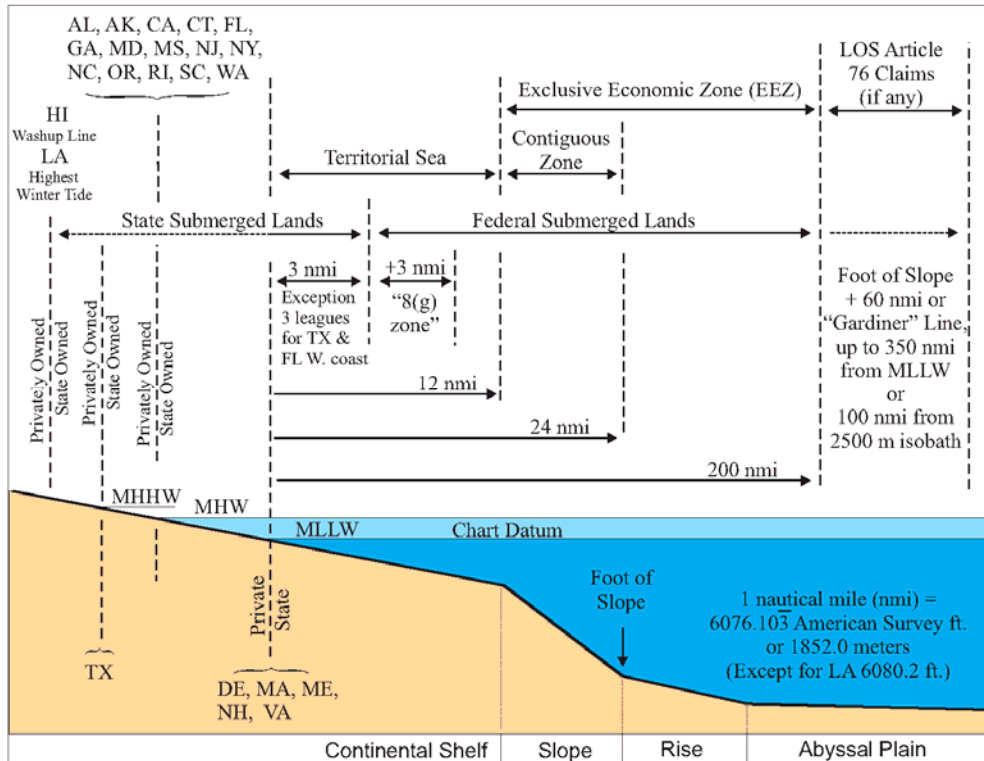
State Submerged Lands

The Multipurpose Marine Cadastre currently addresses Federal submerged lands only. The second objective of the Multipurpose Marine Cadastre is the extension of the marine cadastre into State submerged lands. In the U.S., every coastal State has ownership over a given portion of offshore submerged lands seaward to the Submerged Lands Act (SLA) boundary. The SLA boundary is generally three nautical miles seaward of the mean lower low water (MLLW) line, with the exception of Texas and the Gulf coast of Florida, which have ownership out to three marine leagues (nine nautical miles).

The PLSS is the cadastre used to define most Federal and private onshore lands. The PLSS, where it exists, generally stops at the high water line. This leaves a gap of three to nine nautical miles of State managed submerged lands between the Multipurpose Marine Cadastre and the PLSS⁴. This causes a bit of a dilemma in that the Federal Government cannot dictate how the marine cadastre will be defined or used within State-submerged lands. The problem is further complicated by the fact that offshore leasing has been occurring in some coastal States for "more than 70 years". In the majority of these cases, the States, out of necessity, have developed and extended their own "cadastres" in a number of different ways. Some by extending their State Plane Coordinate System seaward, others by extending the PLSS seaward, and still others by drawing straight lines between the coastline and the SLA boundary, cutting it up like a pie. In addition, different States have different laws as to what tidal datum's are used for determining State ownership over tidelands.

⁴ The PLSS does not exist along portions of the east coast of the United States from Maine through Georgia, Texas and Hawaii.

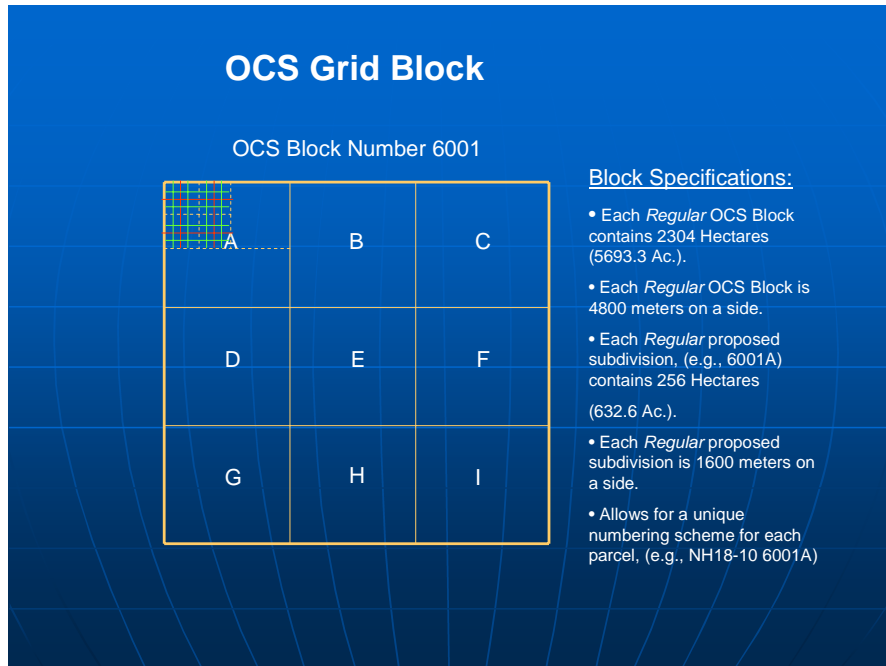
Legal Boundaries in the Marine Environment



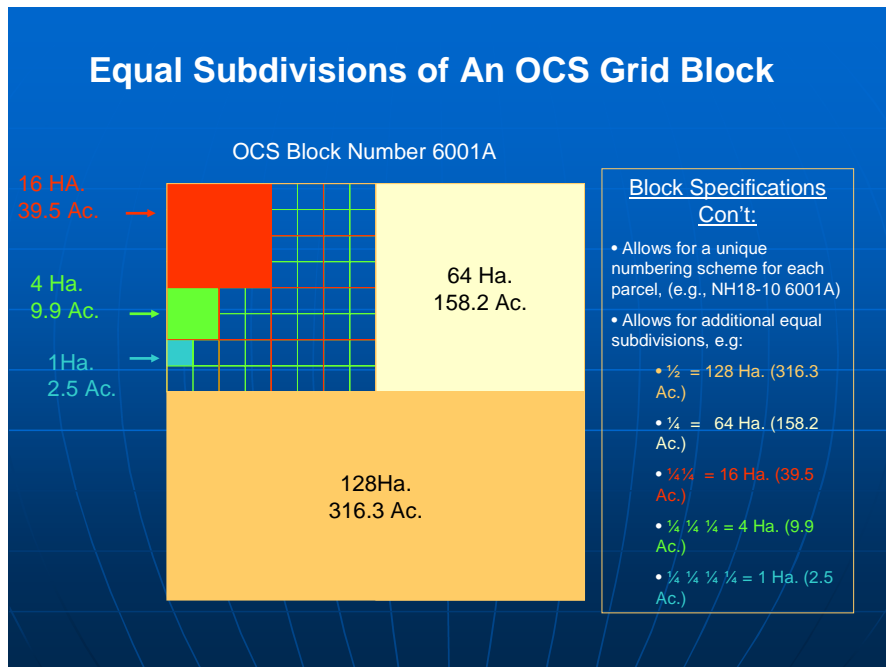
Therefore, the potential for developing consistency into an extension of the marine cadastre within all coastal State submerged lands would be highly improbable. However, for those States that do not currently have an offshore cadastre a possible solution exists.

Over the last five years, the MMS has worked extensively with BLM and the States of Oregon, Washington, and Florida to develop projects designed to extend the Multipurpose Marine Cadastre into State submerged lands. Early in the conceptual stages of the initial project, we needed to decide which cadastre was going to be extended, the PLSS seaward or the Multipurpose Marine Cadastre landward. The final decision was ultimately made by BLM and the coastal States in that they were not comfortable extending the PLSS into the marine environment. The consensus was then to extend the marine cadastre landward to intersect with the proper tidal datum for the affected State as defined either by National Ocean Service (NOS) nautical charts or by a State tidal survey and/or mapping effort. The aforementioned Multipurpose Marine Cadastre extension Projects have been completed and are in various stages of implementation by the affected coastal States.

A regular OCS Block is 4800 meters square containing 2304 Hectares (5693.3 Acres). The MMS proposed, and the project States adopted, that the standard block be divided into nine equal subdivisions (blocks), each being 1600 meters square and containing 256 hectares (632.6 acres). This would closely approximate the size of a section (640 acres) in the land-based PLSS, thus allowing for the continued subdivisions by aliquot part, if desired. This process will allow for and provide a unique numbering scheme for each individual parcel.



Subdivision of an OCS Grid Block *landward* of the Submerged Lands Act boundary.



The extension of the Multipurpose Marine Cadastre in the State of Florida was contingent on the completion and outcome of a Study “An Assessment of the Impact of Rights and Leases on the Business Case of State and Local Governments - Developing a Business Case for a Marine Cadastre.” The subject study was successfully completed in the fall of 2005.

SUMMARY

In the conceptualization of the Multipurpose Marine Cadastre, MMS recognized several key elements: First, the marine cadastre must be dynamic, that is, it must expand, evolve, and adapt to an ever changing world in order to maintain the types of detailed spatial information necessary to provide for good ocean governance. This flexibility will determine how well the marine cadastre adapts to evolving and expanding changes in political and legal exigencies; reference datums; the addition of new data categories and the introduction of new technologies along with the skills and knowledge associated with those technologies. Secondly, the marine cadastre must be multi-dimensional and address rights, interests, and restrictions in the air column, the water surface, the water column, the seabed, and the subsurface. Thirdly, the marine cadastre must be balanced in its view of the marine environment. It must provide for the increasing need to develop offshore resources while simultaneously addressing the protection of sensitive and critical areas in accordance with the various mandates and missions of the Federal agencies.

As referenced earlier, authorities and responsibilities for various boundaries and related aspects of the marine environment are distributed widely among numerous Federal departments and/or agencies and their subdivisions. There needs to be a concerted effort to recognize and coordinate issues related to overlapping authorities and responsibilities for managing various aspects of the marine environment. Every effort must be made to ensure that the marine cadastre contains official information acquired from appropriate AORs.

The successful development, implementation, and maintenance of the Multipurpose Marine Cadastre is contingent on our ability and willingness to proactively approach and resolve issues, to develop effective meaningful partnerships, to share information, and maintain open communications.

THE IMPLEMENTATION PLAN TIMETABLE

PLANNED ACTIONS

As stated on page 3 of this document, the MMS proposes to continue working through and with various existing and developing partnerships to meet the objectives set out in the Energy Policy Act of 2005 (P.L. 109-58) *Sec. 388. Alternate Energy-Related Uses On The Outer Continental Shelf - (b) Coordinated OCS Mapping Initiative.*

I. Development of the Implementation Plan

- A. Develop Draft Implementation Plan – September 2005 (Completed)
- B. Distribute Draft Implementation Plan to MMS Headquarters and Regional Offices, and appropriate Federal and State partners for review and comment – October 2005 (Completed)
- C. Incorporate first round DRAFT comments into the Implementation Plan – December 2005 (Completed)
- D. Incorporate the Multipurpose Marine Cadastre into the E-Government redesign process - TBD
- E. Distribute Second round DRAFT Multipurpose Marine Cadastre Implementation Plan for comment – February 2006
 - a. Publish in Federal Register – If appropriate - TBD
 - b. Make Final Plan available via the MMS website at www.mms.gov/ld/maps.htm - April 2006
 - c. Hard copy as appropriate – April 2006

II. Continue to develop and expand partnerships and communication with other Federal and State agencies, committees, subcommittees, and working groups.

- A. Continue collaborations with and through the Federal Geographic Data Committee (FGDC)
 - a. FGDC Subcommittees and Working Groups:
 - i. Cadastral Subcommittee
 - ii. Marine and Coastal Spatial Data Subcommittee
 - iii. Marine and Coastal Spatial Data Subcommittee's Marine Boundary Working Group
- B. Continue participation in the Department of State Interdepartmental Baseline Committee
- C. Participate and serve as a co-chair on the Interagency Working Group on Ocean and Coastal Mapping (IWGOCM)
- D. Develop new and continue existing Memorandum of Understanding (MOUs) as appropriate
 - a. MOU with NOAA National Ocean Service for the research and development of a National Baseline
- E. Explore linking the Multipurpose Marine Cadastre to other existing and/or developing information systems, e.g., Integrated Ocean Observing System (IOOS).
- F. Participate in Submerged Lands and Marine conferences and workshops as appropriate
 - a. Prepared and presented a Technical Paper "Development of A Territorial Submerged Lands Act Boundary In The United States Virgin Islands" at the 24th Annual International Submerged Lands Management Conference (ISLMC) in St. John, U.S. Virgin Islands – October 2005 (Completed)
 - b. Presented an overview of the DRAFT Implementation Plan at the "Mapping Human Activity in the Marine Environment" Workshop sponsored by NOAA's National Marine Protected Areas Center in Monterey, California in November/December 2005
- F. Continue dialogue with other countries in the process of developing a Marine Cadastre
 - a. Canada
 - b. Australia
 - c. New Zealand
- G. Publication of all MMS Official Protraction Diagrams and Leasing Maps
- H. Completion of all Submerged Lands Act boundaries and Administrative Boundaries
- I. Define and prioritize areas on the OCS for inclusion
- J. Define and prioritize additional data themes for inclusion
- K. Compute and determine intersections and areas for all MPAs
- L. Completion of OCS Connect

III. Populate and maintain the Multipurpose Marine Cadastre:

- A. Population and maintenance of the Multipurpose Marine Cadastre will be a dynamic process requiring continual updates by the agencies of responsibility due to constantly changing and developing boundaries and data themes.
- B. The FGDC and in particular the Marine Boundary Working Group (MBWG) will be utilized to facilitate the Coordinated OCS (Digital) Mapping Initiative defined in the *Energy Policy Act of 2005 (P.L. 109-58)*, as defined under Sec. 388. The MBWG will move forward with an existing Work Task, through its membership, to identify and coordinate the development of appropriate data themes, identify agency contact(s) with AORs, prioritize boundaries and areas requiring immediate action, and ensuring that all data complies with current and/or developing standards.
- C. The intent of the MBWG Work Task is two fold. First, to have the AORs have their existing data compliant with existing standards and metadata requirements by January 2007, as it pertains to the data themes described in this plan or data themes to be identified in the future. Second, beginning immediately, all new data developed by an AOR will be in compliance with existing and/or developing standards and data integration tools."

- D. Appropriate data will reside in and be delivered through the proposed FGDC Geospatial One-Stop portal which has been designed as an on-line inventory system containing the most current information available for any given data theme by the AOR.
- E. Prepare inventory of existing data themes – March 2006
- F. Prepare metadata – (Ongoing)
- G. Make the Marine Cadastre available via website or web portal – (To be tasked at the April MBWG meeting in St. Petersburg, FL)
- H. Continue/complete ongoing efforts with coastal States to extend the Marine Cadastre into State Submerged Lands:
 - a. Oregon – (Completed 2003)
 - b. Washington – (Completed 2004)
 - c. Florida – (Completed February 2006)

The following listing consists of the Agency of Responsibility (AOR) and agency Point of Contact (POC) for the associated data set(s):

Department of the Interior:

1. Minerals Management Service – Chief, Mapping and Boundary Branch
 - a. Submerged Lands Act Coast line (MBB)
 - b. Submerged Lands Act Boundary (MBB)
 - c. Limit of “8(g) Zone” (MBB)
 - d. Territorial Submerged Lands Act Boundaries for Territories and Possessions (MBB)
 - e. Official Protraction Diagrams and Leasing Maps (MBB)
 - f. Supplemental Official OCS Block Diagrams (MBB)
 - g. Coastal Lateral Boundaries (Administrative Boundaries) for submerged lands purposes (MBB)
 - h. Planning Area Limits (Regional Offices)
 1. Legal Descriptions (MBB)
 2. Maps (MBB)
 3. Graphics (MBB)
 - i. Sand Borrow Sites (Leasing Division)
 - j. Pipelines (Regional Offices)
 - k. Platforms (Regional Offices)
 - l. Leases (Regional Offices)
 - m. Wells (Regional Offices)
 - n. Units (Regional Offices)
 - o. Renewable Energy (Leasing Division)
 - p. Assisting with development of the National Baseline (MBB)
2. Bureau of Land Management – Jason Racette
 - a. Public Land Survey System (PLSS)
 - b. National Monument Boundaries (Marine)
3. U.S. Fish and Wildlife Service – Doug Vandegraft and Steve Kopach
 - a. Wildlife Refuges
4. United States Geological Survey – John Haines/Milo Robinson
 - a. Coordination, liaison, outreach and technical development
 - b. Develop an on-line continuously up-dated inventory through the Geospatial One-Stop portal
 - c. Expand the FGDC Cooperative Agreements program
 - d. Develop and implement standards and data integration tools
5. National Park Service – Roger Johnson
 - a. National Park Boundaries (Marine)
 - b. National Monument Boundaries (Marine)
 - c. National Seashores

Department of Commerce:

6. National Ocean Service – Meredith Westington
 - a. National Baseline
 - b. Three Nautical Mile Limit & Natural Resources Boundary
 - c. Territorial Sea (12 Nautical Miles)
 - d. Contiguous Zone (24 Nautical Miles)
 - e. Exclusive Economic Zone (200 Nautical Miles)
 - f. Article 76 Limits (NOTE: The extended outer continental shelf beyond 200 nautical miles will be a line developed and agreed to through an interagency collaborative effort.) (Appropriate Federal Agencies)
7. Coastal Service Center – Cindy Fowler and David Stein
 - a. MBWG Web Portal
8. National Marine Fisheries Service – Andy LoShiavo
 - a. Essential Fish Habitat
 - b. Fishery Regulatory Closures
 - c. Protected Species Information/Critical Habitat
 - d. Dynamic Area Management Zones
9. National Marine Sanctuaries – Mitchell Tartt
 - a. Marine Sanctuaries
10. Marine Protected Areas Center – Kelly C. Palacios
 - a. Marine Protected Areas Inventory

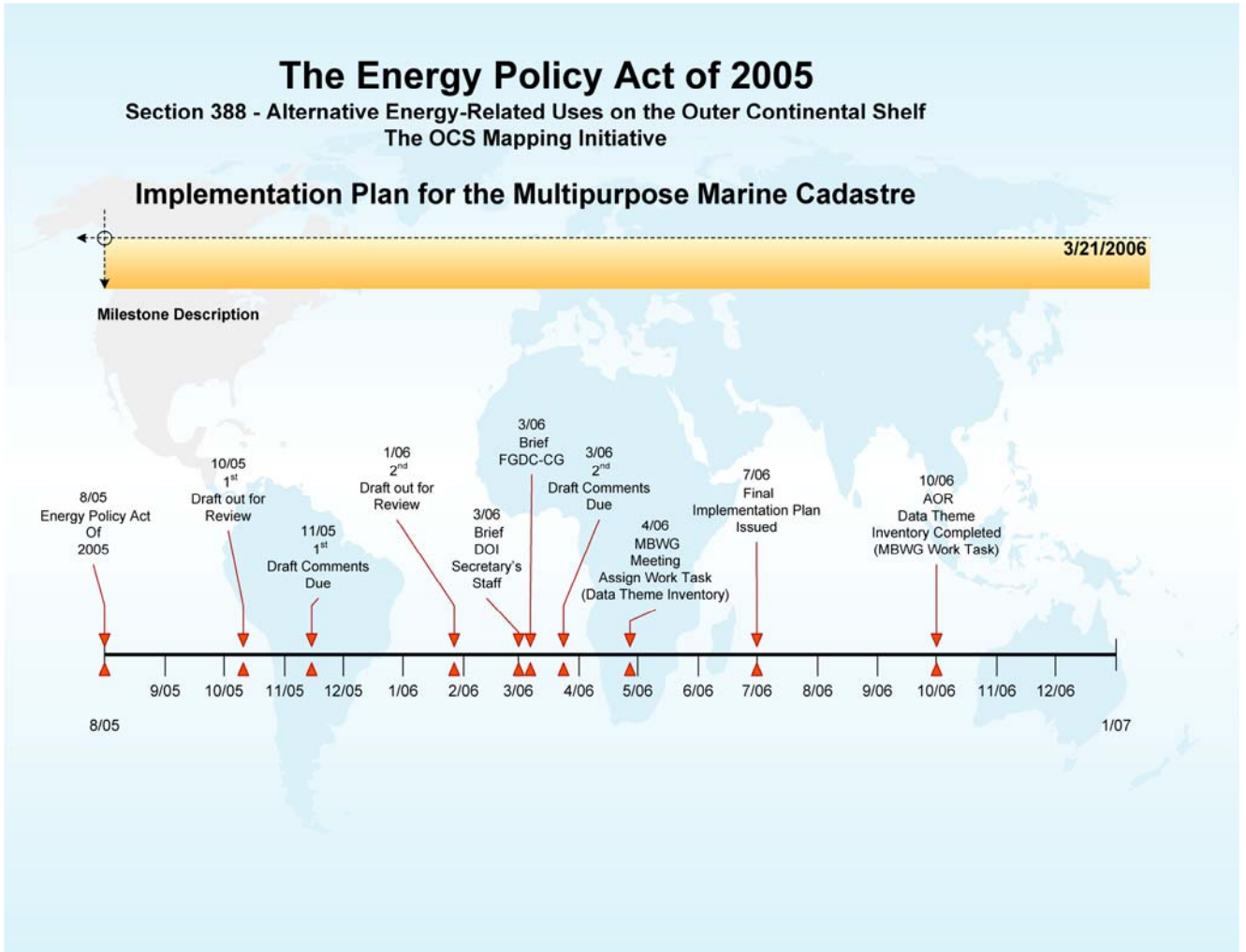
Department of Defense:

11. Navy - Wayne Estabrooks
 - a. Military Restricted Areas including military dump sites
 - b. Undersea Cables (Federal Government)
12. Air Force (TBD)
 - a. Military Restricted Areas
13. Army Corps of Engineers (TBD)
 - a. Artificial Reefs
 - b. Beach Re-nourishment Projects
 - c. Other Pertinent Permitting Processes
14. National Geospatial Intelligence Agency – Trent Palmer

Other Participating Agencies:

15. Federal Communications Commission – Donald Campbell
 - a. Undersea Cables (Non-Federal Government)
16. Environmental Protection Agency – Craig Alvord
 - a. No Discharge Zones
 - b. National Estuaries
 - c. Ocean dumping Sites
17. Department of State – Ash Roach and Ray Milefsky
 - a. International Boundaries and Treaties
18. Department of Homeland Security – Dave Ridley
 - a. U.S. Coast Guard – Dave Kantor
 - ii. Shipping Fairways
 - iii. Anchorage Areas
 - iv. Traffic Separation Schemes
 - v. Liquid Natural Gas (LNG) Sites
19. U.S. Census Bureau – Joe Marinucci
20. Department of Energy
 - a. National Renewable Energy Laboratory – Marc Schwartz & Steve R. Haymes

TIMELINE FOR IMPLEMENTATION



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- Ng'ang'a, S., Nichols, S., Sutherland, M. and Cockburn, S. [2001]. Toward A Multidimensional Marine Cadastre In Support Of Good Ocean Governance – New Spatial Information Management Tools and Their Role in Natural Resource Management, International Conference on Spatial Information for Sustainable Development, Nairobi, Kenya, 2-5 October 2001
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