



Multipurpose Marine Cadastre

*NOAA Coastal Services Center and
Bureau of Ocean Energy Management, Regulation and Enforcement*

URL: <http://www.marinecadastre.gov>

Purpose of application

The Multipurpose Marine Cadastre (MMC) mapping application is an integrated marine information system that provides legal, physical, ecological, and cultural information in a common geographic information system (GIS) framework. In particular, the MMC is beneficial to those involved in coastal and marine spatial planning efforts that involve finding the best location for renewable energy projects. Users pick the ocean geography of their choosing and quickly see the applicable jurisdictional boundaries, restricted areas, laws, critical habitat locations, and other important features. With the MMC, potential conflicts can be identified and avoided early in the planning process. The MMC is also a helpful tool in the permit review process. All organizations considering an offshore activity can benefit from this comprehensive, visual approach to data analysis.

Geographic extent

The MMC covers the shoreline and near-shore coastal environments of the United States, including Hawaii and the Pacific Islands, extending seaward to include State and Federal waters out to the U.S. Exclusive Economic Zone.

Target audience

This tool is used by federal regulatory agencies and others who are screening renewable energy sites and other offshore activities. The tool is also being used by people working on regional and state coastal and marine spatial planning efforts.

Data included (general categories)

Number of data sets: 77

Information on:

- Jurisdictional boundaries and limits such as the Territorial Sea and Marine Protected Areas,
- Federal agency districts, regions, and planning bodies
- Spatial depictions of various U.S. Federal regulations such as the Clean Water Act
- Navigation and marine infrastructure
- Marine habitat and biodiversity such as NOAA NMFS Habitat Areas of Particular Concern
- Geology and seafloor such as offshore surficial sediment types
- Human use information included active oil and gas and renewable energy lease blocks

Distinguishing features

View and access authoritative marine boundary data

- Users are able to view and access data from the Authoritative Source
- Data is continually updated to ensure the user has access to the most relevant and recent data

Marine Cadastre spatial database

- National-scale spatial database to support planning and decision-making in the marine environment
- Provides standardized, ready-to-use spatial data in a useable format
- Data currently includes –
 - Marine Jurisdictions
 - OCS Lease Blocks
 - Aids to Navigation
 - Select Pipelines
 - Anchorage Areas
 - Collisions Regulation Boundary (COLREGS)

Technology used (web GIS, server, database, content management system?)

- **WebGIS:** ArcServer 9.3.1 using Flex API
- **Database:** ArcServer9.3.1 and Microsoft SQL Server 2005
- **Server:** IIS Server with Apache Tomcat 5.5

Future directions (ongoing and future improvements?)

Planned improvements to the MMC include:

- upgrading to ArcGIS 10 and Flex API 2.2,
- expanding human use data and information,
- increasing the number of marine habitat and biodiversity data layers, and
- updating the existing data layers.