Demystifying the Maritime Zones and Other Marine Boundaries on NOAA Nautical Charts

Ole Varmer
Suzanne Bass
Meredith Westington
NOAA

Coastal Zone 2005
Charts - Maritime Zones and International Law

Ole Varmer, Attorney
Office of General Counsel for International Law
International Law

- Customary International Law
- Practice of Nations
- Accepted as Law
- Treaties & Conventions
Origins of the Law of the Sea

- Hugo Grotius Father of international law
- Mare Liberum (The Freedom of the Seas) the sea belongs to all and could not be made the property of any State
- Mare Closeum (Closed Sea) John Seldon Right of nation to control a narrow strip of sea along its coast
Territorial Sea: “Cannon-Shot Rule”

- Extent to which a Coastal State exerted control over the adjacent seas was the reach of its cannon = 3 miles

- 3 nautical miles or 1 marine league

- Geographic or nm is 6080.2 ft one minute of latitude at equator
Early US Maritime Zones

- Thomas Jefferson Diplomatic note to France and Britain 1793 first claim to 3 mile territorial sea beyond that – high seas

- Congress passed legislation in 1799 to allow the boarding of foreign flag vessels within 12 nm from the coast.

- This zone was known as “customs waters” and was later called the “Contiguous Zone.”
Submerged Lands and the Outer Continental Shelf

- Proprietary rights of coastal state over submerged lands and other resources well established by 1930s

- 1945 Truman Proclamation asserts control and jurisdiction over natural resources of the sea bed & subsoil

- 1953 Submerged Lands Act & Outer Continental Shelf Lands Act
1958 Conventions

- Territorial sea and the contiguous zone
- Continental shelf
- High seas
- Fishing and Conservation of the Living Resource of the High Seas
1982 UN Convention on the Law of the Sea

- International legal framework for protection, management and use of the seas, including the EEZ

- Codifies the customary international law of the sea

- The US strictly adheres to the customary international law of the sea reflected in UNCLOS
US Maritime Zones

- Proclamations of EEZ, Territorial Sea, & Contiguous Zone

- US rights and interests in zones are balanced with rights of foreign flag state
Balancing of Rights and Interests under UNCLOS

- Coastal nation regulation of resources and activities in territorial sea & EEZ
- Innocent passage in territorial sea - transit passage in straits
- Flag state’s right of over flight, navigation, and laying cables and pipeline in EEZ/continental shelf
Subject to ancient customs where nations should provide safe harbor to ships in danger or distress (*force majeure*), the U.S. may restrict entry or travel through its internal waters.

Restrictions on entry or discharges by Cruise ships.
US Exclusive Economic Zone
200 nautical miles from baseline

- 1983 Proclamation
- Sovereign rights over EEZ resources
- Limit is 200 nm from the Baseline
- Respect rights of navigation & over flight consistent with international law
US 12 nm Territorial Sea

- 1988 Proclamation of 12 nautical mile territorial sea
Innocent Passage

- Must be continuous and expeditious, although that may include stopping and anchoring under certain circumstances.

- May prohibit anchoring or even entry into portions, provided vessels may still pass through remainder.
US 24 nm Contiguous Zone

- Proclamation 1999
- Zone from 12-24 nm for enforcement of Customs, Fiscal & Sanitary Laws
- Assert control over Underwater Cultural Heritage out to 24 nm
Baseline for Maritime Zones

- Zones depicted on US Official Charts
- Normal baseline = Low Water Line on Official, Large-Scale Charts
- Ambulatory Baseline & Zones
- International rules on baseline, bay closing lines, low tide elevations (UNCLOS = 1958 Convention)
Evolution of the Territorial Sea

Early NOAA Charts Depict:
- Territorial Sea at 3 nm

Post-1988 NOAA Charts Depict:
- Territorial Sea at 12 nm
- Old territorial sea 3 nm is retained—called “Three Nautical Mile Line”
States Have Title to Lands Under “Navigable Waters”

- **Martin v. Waddell**: 13 colonies succeeded to Crown’s rights to submerged lands

- **Pollard v. Hagan**: Subsequently admitted states have same rights to submerged lands, under “equal footing” doctrine.
But Which “Navigable Waters”??
“Conceding that the state has been authorized to exercise local police power functions in the part of the marginal belt within its declared boundaries, these do not detract from the Federal Government's paramount rights in and power over this area.”
The Submerged Lands Act, 1953
Granted to States Under the SLA:

- Lands beneath navigable waters within the boundaries of the states, and the natural resources within such lands and waters (natural resources including oil/gas and all other minerals, as well as fish, clams, kelp, and other marine life but not including water power);

- The right to manage such lands and resources.
Not Granted Under the SLA:

- Federal installations/parcels (with accompanying resources) held by the federal government or later acquired from a state;
- Submerged lands held by the U.S. for a native American tribe;
- Structures of the United States necessary for navigational servitude
- In addition, the Act specifically retained for the United States the use and control of granted lands and waters for purposes of navigation, flood control, or production of power.
Seaward Boundary of state: “[a] line three geographical [nautical] miles distant from its coast line...”

Coast Line of state: “[t]he line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters” and mouths of inland water bodies.
“Old” Territorial Sea Versus Seaward Limit of States
How Boundaries Can Vary

3nm Line with jetty

3nm Line without jetty
The 9-Mile Boundary

Texas and Gulf Coast of Florida: 9 nm Natural Resources Boundary
“Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification, as represented on future charts. The lines shown on the most recent chart edition take precedence.”
Boundary Variation: Effects
Digital Maritime Zones and Baseline

Project Status and a Preliminary Look at their depiction in the Electronic Navigational Charts

Meredith Westington, Chief Geographer
National Ocean Service’s Office of Coast Survey
Silver Spring, MD
Normal Baseline

Figure 27.—The envelope line is the locus of the center of a circle rolled along the coastline with circumference always in contact with it.

Contributing Baseline Points

Low-water line along the coast as marked on large-scale, officially recognized charts.
U.S. Baseline Committee

- Created: August 7, 1970

- Purpose: To provide an interagency forum to discuss and make recommendations on all questions relating to the official delimitation of the U.S. Coastline

- Chaired by the Department of State with representatives from
  - Department of Commerce (NOAA)
  - Department of Justice
  - Department of Interior (MMS, FWS)
  - Department of Homeland Security (USCG)
  - Department of Navy
  - Department of Defense (NGA)
  - Federal Communications Commission
Evaluating the Baseline

- **Low-tide elevations** - naturally formed features must be dry at the lowest charted datum (Article 13)

- **Permanent harborworks** - features must form an integral part of the harbor system (no artificial islands → Article 11)

- **Bay closing lines** - well-marked indentations of the land that meet several tests can be closed with a straight line (normal baseline only → Article 10)
To retrieve the contributing baseline points and limit line (ex. Gardner Pinnacles, NWHI)
Updates to Paper/Raster Nautical Charts

THEN - Territorial Sea and Contiguous Zone are both projected 12 nautical miles from baseline

NOW - Territorial Sea at 12 nautical miles and Contiguous Zone at 24 nautical miles from baseline
EEZ is Available Now!

http://nauticalcharts.noaa.gov/csdl/eez.htm
Available in shp and dbf formats

Created from CARIS software and provided in shapefile format

NEW Maritime Limits Website!
http://nauticalcharts.noaa.gov/csdl/mbound.htm

Maritime boundaries for the United States are determined from the official U.S. baseline, recognized as the low-water line along the coast as marked on the official U.S. nautical charts in accordance with the articles of the Law of the Sea. The Office of Coast Survey is responsible for determining and depicting the Three Nautical Mile Line, Territorial Sea, Contiguous Zone, and Exclusive Economic Zone on NOAA’s nautical charts.

Download Digital Maritime Limits

The following links contain zipped shapefiles of the Three Nautical Mile Line, Territorial Sea (12 naut. mi.), and Contiguous Zone (24 naut. mi.) as represented on NOAA’s nautical charts. For more information about each dataset, metadata is also provided. If you do not have software to view these shapefiles, ESRI has a free viewer to download at http://www.esri.com/software/arcgis/download.html. This site will be updated frequently with new digital boundary information.

Note: To download the current EEZ data, please go to http://nauticalcharts.noaa.gov/csdl/eez.htm.
The area covered by an NOAA ENC is referred to as a "cell." At present, each NOAA ENC cell corresponds to the largest scale paper chart in a given area. As the NOAA ENC begins to contain more detail and the file sizes get larger, it may become necessary to split the cells into smaller areas.

ENC equivalent to chart 11353

ENC equivalent to chart 11363 (Louisiana)

Created in dKart’s dkLook (free chart viewer)
ENCs: Free Internet Download

http://nauticalcharts.noaa.gov/mcd/enc/download.htm

Two Methods of downloading ENCs for Navigation
NOTE X

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.
Territorial Sea in ENCs: Depiction of Inner Limit at West Coast of Florida

ENC Symbology for COLREGS demarcation line - magenta dashed line

ENC Symbology for “Territorial Sea Area” - black dashed line
For More Information

- ENC downloads--
  http://nauticalcharts.noaa.gov/mcd/enc/download.htm

- Exclusive Economic Zone--
  http://nauticalcharts.noaa.gov/csdl/eez.htm

- Maritime Limits--
  http://nauticalcharts.noaa.gov/csdl/mbound.htm

PROTECTING CORALS, SAVING SHIPS

- Lee Alexander, University of New Hampshire, Center for Coastal and Ocean Mapping, Joint Hydrographic Center; Kathryn L. Ries, NOAA Office of Coast Survey
- Wednesday, 11:00 a.m. to 12:30 p.m., Galerie 5 – 2nd floor
- TRACK: CORAL REEF MANAGEMENT