

DEMYSTIFYING THE MARITIME ZONES AND OTHER MARINE BOUNDARIES ON NOAA'S NAUTICAL CHARTS

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INTRODUCTION [*Ole or Meredith Westington, NOAA/NOS/Office of Coast Survey*]

The United States, pursuant to international treaties and customary law, has established maritime zones in which various activities are controlled or restricted. These limits of these zones, among a host of other information, have for years been depicted on NOAA's paper nautical charts. NOAA is responsible for depicting on its nautical charts the limits of the 12 nautical mile Territorial Sea, 24 nautical mile Contiguous Zone, and 200 nautical mile Exclusive Economic Zone (EEZ). While valuable, the charts can only begin to give notice to the public of the complexity of the laws that rely on these marine boundaries. At times the charts have even added to public confusion. There is only so much a piece of paper can represent – but what is the NOAA chart *trying* to represent? And will technology help NOAA do a better job in the future?

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HISTORY OF THE MARITIME ZONES UNDER INTERNATIONAL LAW: FROM THE CANNON SHOT RULE TO UNCLOS

The birth of a nation's authority to control its coastal waters has been traced back to the sixteenth century. In the seventeenth century, the father of international law, Grotius, recognized the existence of a nation's jurisdiction over the coastal waters that could be effectively controlled from the land. The extent to which a nation could control its coastal waters was largely based on the reach of its cannons on the shore. Thus, the 3 nautical mile (nm) limit of the territorial sea resulted from what is often referred to as the "cannon shot" rule. In the U.S., the creation of a territorial sea and contiguous zone date back to as early as the late 1700s in response to issues of national security and law enforcement at coastal areas, including a 1793 diplomatic note sent from Thomas Jefferson and legislation passed by Congress 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." By 1930 the proprietary rights of the coastal state over the resources of the territorial sea was well established, provided it did not interfere with a vessel's right of innocent passage. In 1945, President Truman issued a proclamation asserting rights to explore and exploit the oil and gas resources of the continental shelf outside of the 3 nm territorial sea. In 1953, the U.S. Congress enacted legislation over the federal and state control of the continental shelf. In 1958, international conventions were concluded in Geneva on the territorial sea, contiguous zone and continental shelf. The concept of a fishery conservation zone was born in another Truman Proclamation but Congress did not enact laws regarding a 200 nm fishery conservation zone until 1976. This evolved into a zone whereby a coastal nation had exclusive control over all economic exploration and exploitation of the natural

resources off its coast. By 1982, the custom of asserting a 12 nm territorial sea, 24 nm contiguous zone, and 200 nm EEZ was codified in the United Nations Convention on the Law of the Sea (UNCLOS).

U.S. CONTROL IN MARITIME ZONES VS RIGHTS OF FOREIGN STATES

The U.S. proclaimed a 12 nm territorial sea in 1988, a 24 nm contiguous zone in 1999, and a 200 nm EEZ in 1983, consistent with customary international law as codified in UNCLOS. This customary law is a balanced compromise between a flag state's interest in maritime shipping and a coastal state's interest in protecting and managing its coastal waters. The U.S. sovereignty over its terrestrial lands extends to its internal waters and territorial sea, including the airspace above and the seabed below. 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. The U.S. may also prohibit the entry into portions of the territorial sea, provided there is still an area that allows for vessels to exercise their right of innocent passage through the territorial sea. "Passage" through the territorial sea must be continuous and expeditious, although that may include stopping and anchoring under certain circumstances. While warships are generally immune from laws and regulations, the U.S. has the right to require foreign warships comply with U.S. laws. If they don't, the U.S. may order the foreign warship to leave its territorial sea.

The contiguous zone is a buffer to the territorial sea, and within it, the U.S. may exercise the control necessary to prevent infringement of its customs, fiscal, immigration or sanitary laws and regulation of territorial sea. In addition, the U.S. may regulate the removal of cultural heritage, including foreign flagged vessels and nationals in its contiguous zone. It overlaps the EEZ which extends from the territorial sea out to 200 nm. The U.S. does not exercise sovereignty in the contiguous zone or the EEZ. It does have sovereign exclusive rights for exploration of natural resources in these zones.

All of these zones have a common point of reference from which they are measured: the baseline. The rules for determining the baseline under UNCLOS are substantively the same as those under the 1958 Convention. The baseline is comprised of the low water line on NOAA charts, the closing lines for bays and low-tide elevation points. The U.S. uses a normal baseline, as opposed to a straight baseline because of its interests in preserving the freedom of navigation. One of the most important facts for those relying on NOAA's charts for the limits of these zones is that the baseline and all of the zones are ambulatory. They are subject to change because of the accretion and erosion of the shore. This ambulatory nature is also an important in considering the federal-state boundary which is frequently mistaken to be the same as the Three Nautical Mile Line, previously the territorial sea, depicted on NOAA nautical charts.

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HISTORY OF THE FEDERAL-STATE BOUNDARY

The long-held assumption that the individual states entered the Union with the right to control the offshore belt of territorial sea (generally thought to be 3 nm) was successfully challenged by the United States government in *U.S. v. California* (1947). As the question of ownership of offshore resources (e.g., fisheries, oil and gas) became of key monetary interest, the federal government asserted its preeminence in this area. In the *U.S. v. California* decision, the Supreme Court cited the need for the national government to control its territorial sea belt as “a function of national external sovereignty.”

U.S. v. California prompted Congress to pass the Submerged Lands Act (SLA) in 1953, granting coastal states a 3 nm (in most cases) maritime belt. While this legislation no doubt reflected strong pressure brought to bear by certain coastal states wishing to exploit undersea resources, the Congress clearly intended the U.S. as a whole to benefit from subsea bounty: Shortly after enacting the SLA, Congress passed the Outer Continental Shelf Lands Act (OCSLA), creating a process whereby the federal government administers mineral resources of the continental shelf beyond state waters.

SEAWARD LIMIT OF STATES: IMPACTS

After passage of the SLA, years of lawsuits ensued in an attempt to define the exact nature of the grant made by the legislation, as well as the exact location of the states' boundaries. Pursuant to Supreme Court cases, the rules used in determining the coastline and seaward boundary of states under the SLA are generally the same as those used in determining the baseline and territorial sea under the 1958 Convention on the Territorial Sea and the Contiguous Zone. The Convention states: "the normal baseline for measuring the breadth of the territorial sea is the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.”

Therefore, although the authorities differ for determining the "baseline" used to determine international maritime zones and the "coastline" under the SLA, the same rules for measuring generally apply. In many cases, the old 3 nm territorial sea boundary is likely to also be the seaward boundary of state waters under the SLA – two distinct, ambulatory lines that happen to be in the same place. There are, however, exceptions.

OLD TERRITORIAL SEA VERSUS SEAWARD LIMIT UNDER SLA

NOAA, as the officially recognized charting agency in the U.S., depicts the boundaries of the maritime zones. It does not depict the actual baseline, but with the guidance of the interagency Baseline Committee, which will be discussed later, NOAA depicts the zones measured from the baseline according to the standards of the 1958 Convention. But vestiges of the Cannon Shot Rule linger. The 3 nm territorial sea boundary continues to appear on NOAA charts as the Three Nautical Mile Line because certain federal laws, such as the Clean Water Act, rely upon it. Here the maritime customary law,

international conventions and U.S. law meet to create confusion on the water. The Three Nautical Mile Line is *assumed* by many to be the boundary between federal waters and the states' waters under the SLA. Often the assumption is correct, since the same rules for establishing the coastline and the baseline apply. But "often" is not "always." The SLA boundary (which is not on NOAA charts) can vary from the Three Nautical Mile Line in several circumstances. One easy example is man-made "improvements" or structures. For the purpose of delimiting the territorial sea, a country's baseline can be extended by certain harborworks or structures (jetties, for example), or by beach re-nourishment projects. The Supreme Court has ruled that such structures would in fact extend the states' waters under the SLA, but noted that the federal government has control over whether such projects in fact go forward. The federal government has followed through and obtains waivers from States whenever such projects take place, so that the state will not claim an extension of its SLA boundary. In this way, the charted Three Nautical Mile Line will vary from the uncharted SLA line. States may also request that their SLA boundaries be fixed by the courts. This process has led to the permanent fixing of the SLA boundaries of certain states, such as Louisiana. A fixed boundary will therefore inevitably vary from the ambulatory 3 nm territorial sea. In addition, some states were allowed by the SLA to prove, owing to their particular history, that they entered the union with a greater than 3 nm offshore belt. This process has succeeded only in the case of Texas, Puerto Rico and the Gulf coast of Florida, who were granted a 9 nm state boundary. Thus are created anomalies in which the charted Three Nautical Mile Line on the NOAA charts cannot be assumed to represent the SLA boundary of the states.

FEDERAL-STATE BOUNDARY ISSUES FOR FISHERIES JURISDICTION

A real-world example in which the difference in the charted Three Nautical Mile Line, previously the territorial sea, and the SLA line is causing mariner confusion and enforcement headaches is Chandeleur Sound, Louisiana. In this relatively long sound, the state of Louisiana, by Supreme Court decree, has been granted the entire sound for SLA purposes. Although not on the NOAA chart, the SLA boundary would be represented by drawing a closing line across its top end. The Three Nautical Mile Line appears 3 nm from the shoreline within the Sound as usual because of its implications for federal law. The chart of Chandeleur Sound is a good example of a drastic difference between the old territorial sea and the SLA line. Those befuddled by the situation include fishermen, state and federal resource managers and enforcement personnel. Periodically, NOAA and the U.S. Coast Guard (USCG) are asked to help defend fisherman who mistakenly relied on NOAA charting of the 3 nm line.

FEDERAL-STATE BOUNDARY ISSUES & ENERGY DEVELOPMENT

More confusion, this time in the citing of a renewable energy project: A company applied for a Corps of Engineers permit to affix tall wind turbines to the floor of Nantucket Sound. The company assumed that its proposed project was located completely in federal waters. The company had consulted the NOAA nautical chart of the Sound, which depicted the Three Nautical Mile Line and assumed that it was the SLA boundary for state waters. In this example, the state of Massachusetts and Minerals Management Service (MMS) had not reached agreement on the position of the SLA line. While

working together to update survey information and agree on a line, NOAA and MMS were in an uncomfortably high-profile position, relating to a project involving issues of environment, alternative fuels, navigation, NIMBY and others.

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SOLUTION: USE OF DIGITAL BOUNDARIES, ZONES AND BASELINES

With the advent of Geographic Information Systems (GIS) and Electronic Navigational Charts (ENCs), NOAA is leading a few efforts to improve public awareness of the maritime zones and other marine boundaries. With the ability to turn on and off layers of information, NOAA ENCs will be able to show multiple types of boundaries including the SLA federal-state boundary without the current cartographic restrictions of “chart clutter.” In addition, ENCs will depict more precisely delineated boundaries for use in enforcement, navigation, and resource management.

DIGITAL MARITIME ZONES: ENCs AND THE INTERNET

Utilizing GIS software tools, NOAA’s Office of Coast Survey (OCS) is providing its cartographers and the public with the latest vector representations of the maritime zones, including new developments like the extension of the contiguous zone in 1999. The limits of the maritime zones and the baseline from which they are drawn are created through a multi-agency effort of which NOAA plays a large role. The U.S. Baseline Committee is chaired by the Department of State (DOS) and includes members from the Department of Justice, MMS, USCG, and Environmental Protection Agency. The Committee will review the most recent existing charts with respect to the usability of charted low water feature symbology as set forth in UNCLOS. The resulting limits are posted on the Internet in shapefile format along with Federal Geographic Data Committee (FGDC)-compliant metadata. Since March 2003, NOAA has posted the Three Nautical Mile Line, Territorial Sea, and Contiguous Zone for the Hawaiian Islands, Puerto Rico & U.S. Virgin Islands, the Atlantic Coast, and the Gulf Coast. These maritime zones are available at <http://nauticalcharts.noaa.gov/csdl/mbound.htm>. The EEZ files, which have been on the Internet for several years, will be updated as the project continues. Currently, updated EEZ files for the Hawaiian Islands and Puerto Rico & U.S. Virgin Islands are available. The EEZ is available for download at <http://nauticalcharts.noaa.gov/csdl/EEZ.htm>.

DIGITAL MMAs: ELECTRONIC CHART INITIATIVE

Over the last year, OCS has launched a demonstration project in the Florida Keys National Marine Sanctuary (FKNMS) to convert Marine Managed Areas (MMAs) and other marine information to a format that is compatible with shipboard Electronic Chart Display and Information Systems (ECDIS). The project involves multiple stakeholders, including FKNMS and its Sanctuary Advisory Council. The goal is to promote resource conservation awareness to the mariner and to contribute to international nautical chart symbology for coral reefs and MMAs.

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