

TOF WHITE PAPER - SECTION re EXTENDED CONTINENTAL SHELF

Introduction

The 1982 United Nations Convention on the Law of the Sea (UNCLOS or the Convention), which went into effect in 1994, established a comprehensive legal framework for regulating ocean activities. As of Sept. 20, 2013, 165 countries and the European Union are Parties to the Convention.¹

UNCLOS established principles and mechanisms for addressing the rights and responsibilities of nations regarding a wide range of ocean issues. It defined ocean zones, authorized protection and management of marine resources, created a dispute resolution tribunal and preserved navigation rights. The treaty also provided a process for countries with a continental shelf that extends beyond 200 nautical miles to increase the area of their ocean zones.

Even though the United States is not a Party to UNCLOS², it generally accepts and applies its provisions as documentation of customary international law, which balances many countries' interests in maritime shipping with coastal State³ interests in protecting and managing their coastal waters. Through a series of presidential proclamations, the U.S. established its Territorial Sea, Contiguous Zone and Exclusive Economic Zone (EEZ).

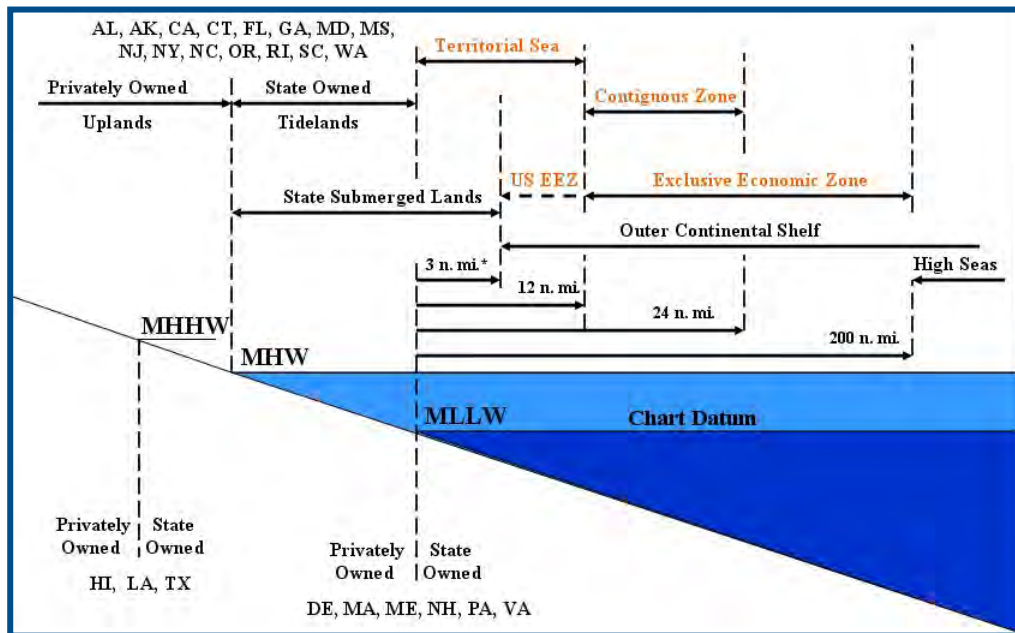


Figure 1. U.S. maritime zones highlighted in orange text. Credit: NOAA

¹ UN Website: http://www.un.org/depts/los/reference_files/chronological_lists_of_ratifications.htm

² A 1994 Agreement was drafted, with US input, to accommodate the concerns of the U.S. and other developed countries regarding UNCLOS Article XI, especially as it relates to seabed mining and mandatory technology transfers. The US signed the Agreement but the US Senate has not ratified it.

³ Throughout this Section, State refers to sovereign nations not individual states of the United States.

The United States' EEZ is the largest in the world at approximately 11,351,000 square kilometers (~ 4.4 million square miles) and its Extended Continental Shelf (ECS) could add an additional 1 million square kilometers (~386,100 square miles or about twice the size of California). The non-living resources in the ECS likely are worth billions of dollars.⁴

Ocean Zones - Rights and Limitations

Designated ocean zones are significant because different rights attach in each zone. Various Articles of UNCLOS distinguish between sovereignty and sovereign rights.

Sovereignty in this context may be defined as a country's exclusive right to govern and control a designated geographic territory, free from external control by all other entities, including a foreign sovereign state. "As regards the law of the sea, the sovereignty of a State implies its exclusive legal authority over all of its internal waters and territorial sea, but also over its nationals, and thus its vessels in international waters not subject to the authority of other States (links omitted)."⁵

Sovereign rights, by contrast, are limited to control of specific activities in a designated area. Under UNCLOS, coastal nations are granted sovereign rights in certain zones beyond their Territorial Seas. Specifically, they have exclusive control over the natural resources on their continental shelves and in the waters of their EEZs (assuming they have complied with UNCLOS procedures in designating their EEZs).

Coastal nations are not required to take any action to establish their Territorial Sea (0-12 nautical miles from shore).⁶ In the Territorial Sea, the coastal nation has sovereignty - sole entitlement to conduct and control activities and manage resources in this ocean zone.⁷ Sovereignty extends to the airspace above and to the seabed and subsoil below the Territorial Sea.⁸

Under UNCLOS, a coastal Nation has the right to establish a Contiguous Zone (0-24 nm from shore⁹) where it may exercise the control necessary to prevent and punish violations of various laws in these waters, including customs, fiscal, immigration and sanitary matters.¹⁰

⁴ "The National Effort to Establish the Full Extent of the Continental Shelf of the United States", Strategic Plan of the US Extended Continental Shelf Project, pdf p.7, and "Defining the Limits of the US Continental Shelf", US Dept. of State, www.state.gov/e/oes/continentalshelf

⁵ http://iucn.org/about/union/secretariat/offices/iucnmed/iucn_med_programme/marine_programme/governance/glossary/?11363

⁶ President Reagan extended the US Territorial Sea from 3 to 12 miles via Presidential Proclamation 5928 (12/27/88), which is distinct from the 3-mile territorial waters (also known as "state waters") managed by US coastal states pursuant to the Submerged Lands Act of 1953, 43 USC 1301 et seq. For historical reasons, the state waters of Texas and along Florida's Gulf Coast and Puerto Rico extend for 9 nm.

⁷ This right is subject to all ships enjoying the innocent right of passage through any country's Territorial Sea, Contiguous Zone or Exclusive Economic Zone.

⁸ See <http://www.nauticalcharts.noaa.gov/csdl/mbound.htm>

⁹ UNCLOS sets forth specific baselines for measuring maritime boundaries.

¹⁰ By Presidential Proclamation No. 7210, the U.S. proclaimed a 12-24 nm Contiguous Zone on Aug. 2, 1999.

An Exclusive Economic Zone (0-200 nm from shore or out to a maritime boundary with another country) must be formally declared and established by a relatively straightforward procedure set forth in the Convention.¹¹ A coastal Nation has sovereign rights over the natural resources in the waters above the seabed, the sea bottom and the underlying soil.¹² It also may exploit and explore the water, current and winds for energy production, and includes jurisdiction for marine scientific research, protection of the marine environment and establishment of artificial structures.



Figure 2. US EEZs in red - NOAA Office of Coast Survey

In adhering to UNCLOS, the U.S. does not exercise sovereignty in the contiguous zone or the EEZ, however, it does have exclusive sovereign rights and jurisdiction for designated activities. These rights permit the U.S. to control exploration and exploitation of the natural resources of the seabed, subsoil, water column, and air space in the EEZ.

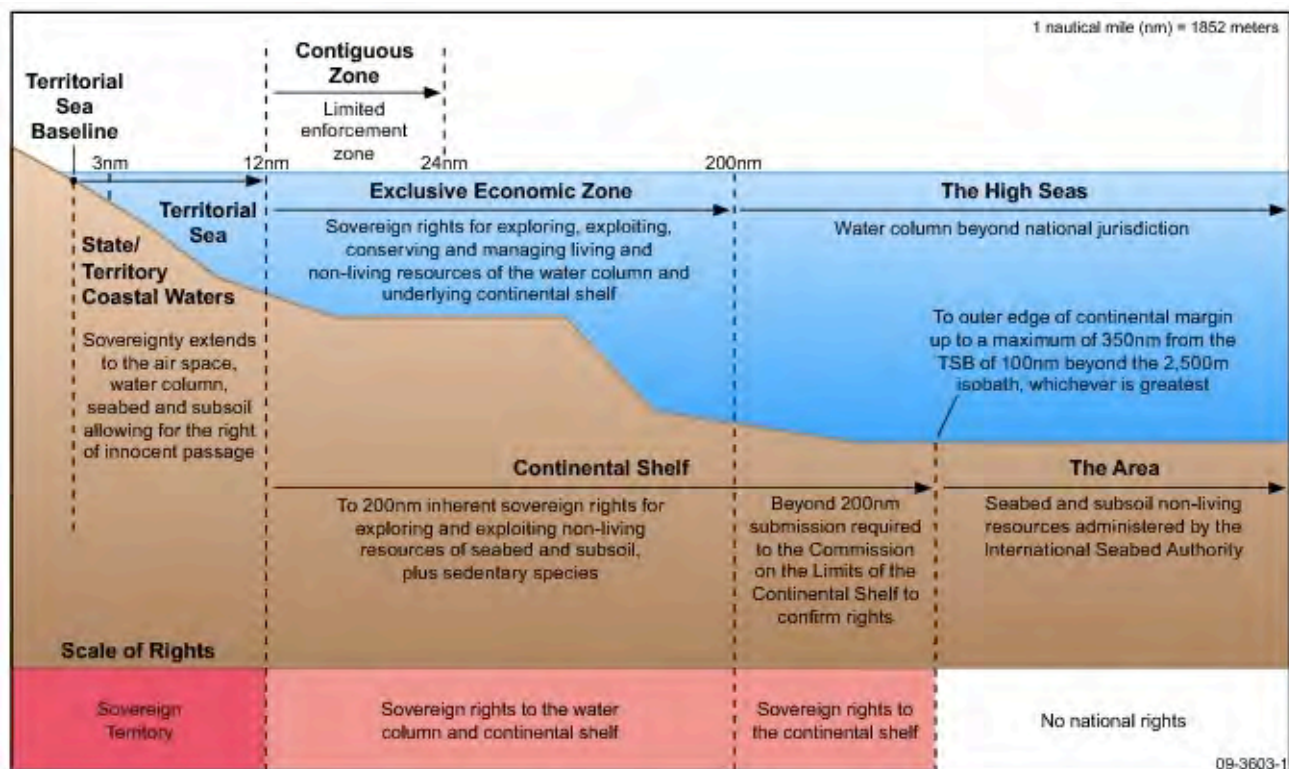


Figure 3. International maritime zones. Credit: NOAA

A coastal Nation is not required to take any action to establish its exclusive sovereign rights over its Continental Shelf (defined as the seabed and subsoil up to 200 nm from shore).¹³

¹¹ Although the US is not a party to UNCLOS, President Reagan claimed the US EEZ via Presidential Proclamation 5030 (March 10, 1983).

¹² Separate treaties address marine life that cross ocean zone boundaries. See e.g., The UN Agreement for the Implementation of the Provisions of the UNCLOS of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, adopted in 1995 and entered in force in 2001. The U.S. ratified this treaty in 1996.

¹³ UNCLOS, Art. 76. This is the UNCLOS legal definition, not the geological definition. The continental shelf under UNCLOS encompasses the continental margin, which includes the continental shelf, the slope and the rise. The US measures its baseline from the mean lower low water (MLLW) line along its coasts.

These rights include exploration and exploitation of minerals and other non-living resources as well as marine life that live on the seabed (e.g. clams, lobsters) and scientific research on the shelf. Within certain parameters, all States are entitled to lay submarine cables and pipelines on the continental shelf.¹⁴

All ocean waters that are not included in the zones described above, or in a nation's archipelagic waters, are known as the High Seas. All States have the same rights in the High Seas so long as the rights of other nations are taken into account.

The ocean floor (seabed) and subsoil beyond all designated national boundaries (the EEZ or the Extended Continental Shelf) is known as The (Deep Seabed) Area. No nation has sovereign rights in the mineral resources in The Area and activities must be carried out for the benefit of mankind.¹⁵

Extended Continental Shelf

When a continental shelf physically extends beyond the EEZ's outer boundary, and the coastal State has established its Extended Continental Shelf, UNCLOS permits a coastal Nation to extend its inherent sovereign rights to explore and exploit its natural resources on or under the ocean floor beyond the 200 nm EEZ limit. However, if the coastal State exploits the non-living resources of its ECS, it must make payments to the International Seabed Authority, which will distribute those payments equitably to the Parties to UNCLOS.¹⁶

ECS rights do not extend to the air and water above the ECS and activities on the ECS must not interfere with other States' rights such as freedom of navigation.¹⁷

The coastal State must take action to establish that its continental shelf extends farther seaward than its EEZ. Article 76 of UNCLOS provides several mix-and-match measurement options that allow coastal States with extended continental shelves to maximize their claims. While the choice of measurements is flexible, the measurements are complex and expensive to ascertain.¹⁸

ECS Data Collection

The outer limit of an ECS is based on either a sediment thickness formula or a bathymetric (water depth) formula as depicted in Fig. 4 below. Obtaining these measurements requires seismic data to determine sediment thickness and echo sound (bathymetric) data to obtain a 3-D map of the ocean floor. After the State chooses and applies one of these two formulas, it

¹⁴ UNCLOS, Art. 77-81

¹⁵ For an overview of maritime zones and boundaries, see e.g., www.gc.noaa.gov/gcil_maritime.html#eez.

¹⁶ UNCLOS, Art. 1 (2) & Art. 82; see also, ECS Fact Sheet, U.S. State Dept., 3/9/09,

www.state.gov/e/eos/rls/fs/2009/120185.htm.

¹⁷ UNCLOS, Art. 78

¹⁸ For a thorough overview of Article 76 and its implementing body, the Commission on the Limits of the Continental Shelf, see A. Cavnar, "Accountability and the Commission on the Limits of the Continental Shelf; Deciding Who Owns the Ocean Floor", IILJ Emerging Scholars Paper 15, NYU Law School, 2009.

then may use one of two distances, as depicted in Fig. 4 below, to mark the legal boundary of its ECS.¹⁹

The State must support the basis of its claim to an ECS with comprehensive data that complies with the requirements of Article 76 of the Convention and certain Scientific and Technical Guidelines created by the UN Commission on the Limits of the Continental Shelf (CLCS).²⁰

The guidelines include a complex set of geodetic (earth measurements), geological, geophysical and hydrographic methodologies to establish the outer limits of the continental shelf for those coastal States with continental shelves that extend beyond 200 nm. Criteria include determinations such as sediment thickness, foot of slope, and types of sea floor highs.²¹

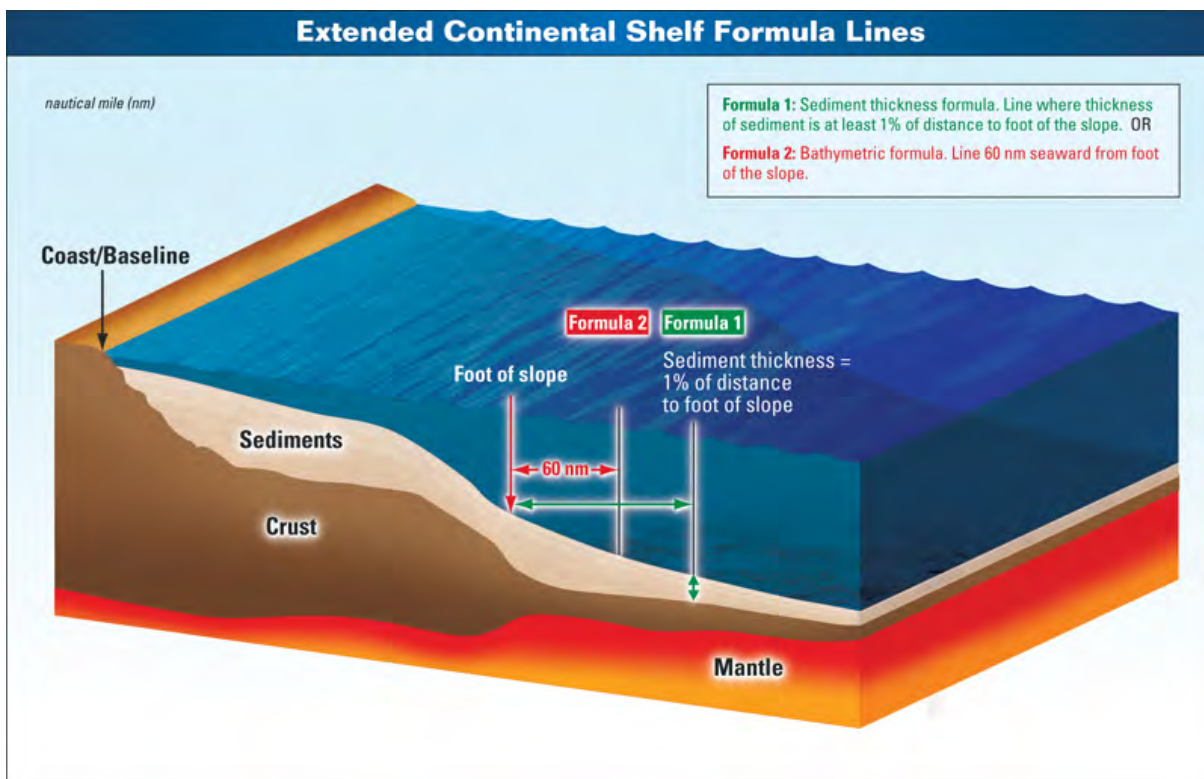


Figure 4. Credit: continentalshelf.gov

¹⁹ The sedimentary formula is: any point where the sedimentary rock's thickness is less than 1% of the distance between that point and the foot of the continental slope. The bathymetric formula is: any point 60 nm from the foot of the continental slope. The distances are 350 nautical miles (~403 miles) from the shore or 100 nm from the 2500-meter isobath (~115 miles from the ~1.5 mile water depth). See Article 76 for details and exceptions to these limits.

²⁰ For a detailed description of the US procedure for developing an ECS submission, see walrus.wr.usgs.gov/research/projects/lawofsea.html

²¹ http://www.un.org/depts/los/clcs_new/documents/clcsopen.htm

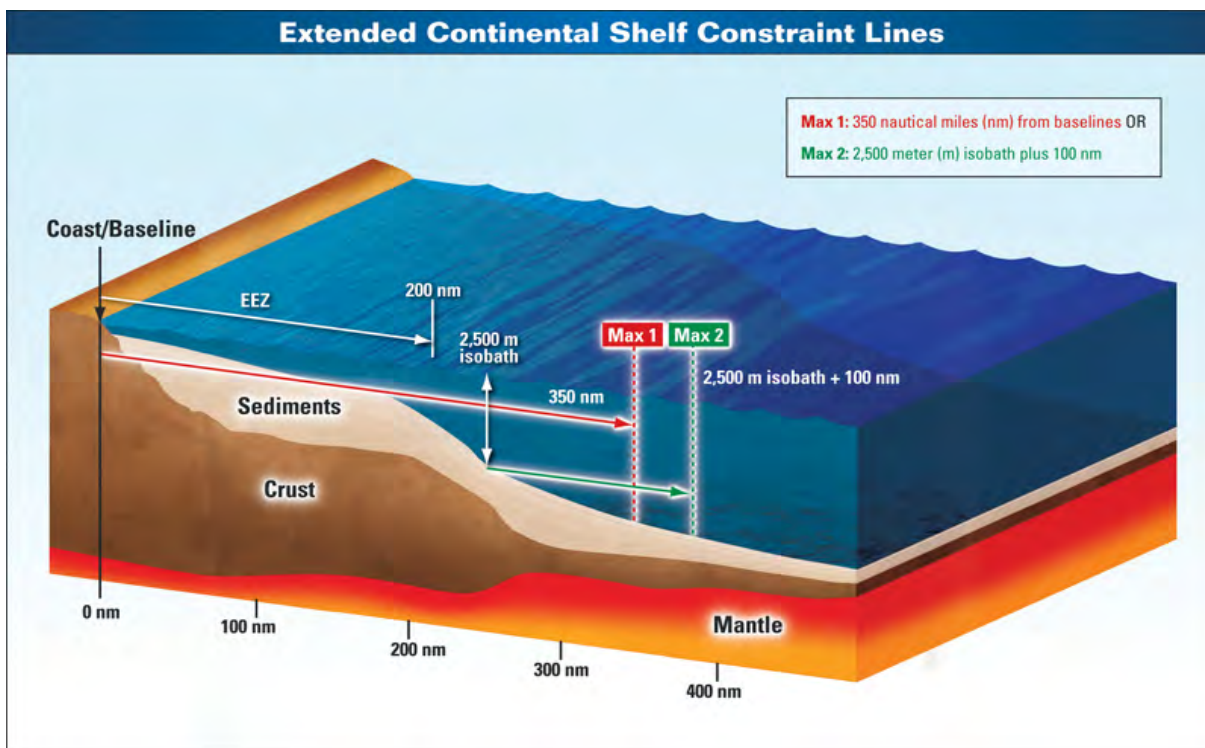


Figure 5. Credit: [continentalshelf.gov \(http://www.noaanews.noaa.gov/stories2009/images/arctic3.jpg\)](http://www.noaanews.noaa.gov/stories2009/images/arctic3.jpg)

ECS Submissions

After the coastal State completes its extensive scientific testing and measurements, it must submit its findings to the UN Commission on the Limits of the Continental Shelf (CLCS) for review. Due to its mandate as an expert scientific and technical body, the CLCS generally meets in private.²² The commission makes recommendations that a State may accept or reject. If the State accepts the recommendations, the outer limits of the State's continental shelf are final and binding.²³

The Commission's recommendations and actions "shall not prejudice matters relating to the delimitation of boundaries between States with opposite or adjacent coasts".²⁴

The timeline for submitting the particulars of a coastal nation's proposed outer limits to its continental shelf is 10 years after that nation ratifies UNCLOS.²⁵

As of Sept. 4, 2013, 67 submissions seeking recognition of an Extended Continental Shelf had been placed with the UN Commission on the Limits of the Continental Shelf. A few UNCLOS parties have made more than one submission, several parties have made joint

²² See Cavnar (fn. 18) for a critique of the CLCS' secretive review process.

²³ UNCLOS Art.76: "The limits of the shelf established by a coastal State on the basis of these recommendations shall be final and binding."

²⁴ http://www.un.org/depts/los/clcs_new/commission_purpose.htm

²⁵ UNCLOS, Annex II, Art. 4; Due to the resources, capacity and expertise required to obtain and analyze large amounts of complex bathymetric, seismic and geophysical data, the 10-year time period was adjusted for parties that ratified UNCLOS before the Science and Technical guidelines were issued in 1999. Additional accommodations have been made regarding submissions. See e.g., SPLOS/72 and SPLOS/183.

submissions, and the CLCS has made 18 recommendations.²⁶ At least four countries (Ireland, Mexico, the Philippines and Australia) have “deposited information and data” on the outer limits of their continental shelves beyond 200 nm “with reference to the recommendations of the commission”.²⁷ Thus, except for a few unresolved areas, these submissions are now final and binding.

United States

Although the U.S. has not ratified UNCLOS, multiple federal agencies have participated in a multi-year U.S. Extended Continental Shelf Project. The project’s mission is “to establish the full extent of the continental shelf of the United States, consistent with international law”.²⁸ Possible areas in which the US may be able to claim an ECS are highlighted in Fig. 6.

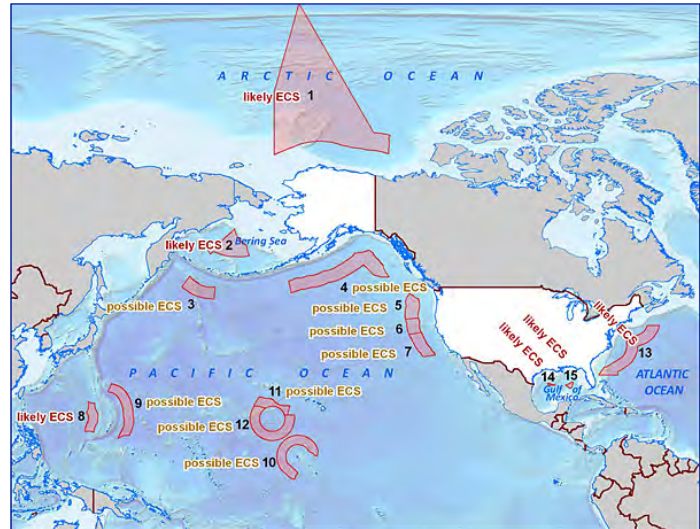


Figure 6. Credit: continentalshef.gov

According to NOAA, the shaded areas on the map indicate where the US may collect and analyze data. This map “does not represent the official U.S. Government position on where it has extended continental shelf [and] is without prejudice to boundary depictions and future negotiations.”²⁹

Portugal

Portugal submitted its ECS documentation on May 11, 2009 and made its presentation to the Commission on April 13, 2010. Portugal divided its submission into three regions: Eastern (Portuguese mainland and Madeira archipelago), Western (Azores archipelago) and Galicia Bank (northwestern part of the Iberian peninsula).³⁰

Portugal and Spain agreed that they would make separate but coordinated submissions for the Galicia Bank Region as an Area of Common Interest (ACI) and used common efforts for data acquisition and data sharing.³¹ Following its typical practice, the CLCS decided to establish a subcommission at a future date to conduct an independent exam of Portugal’s submission and make draft recommendations to the full commission.³²

²⁶ See www.un.org/depts/los/clcs_new/commission_submissions.htm, T Schoolmeester & E Butler, Eds., “Continental Shelf The Last Maritime Zone, UNEP/GRID-Arendel, 2009

²⁷ “Advanced and unedited reporting material on oceans and law of the sea” (through Aug. 31, 2013), Report prepared for 68th Session, Agenda item 76(a), Oceans and Law of the Sea, 2013.

²⁸ See <http://continentalshef.gov>.

²⁹ Ocean Explorer, NOAA, ECS Project 2009, Aug. 7-16, 2009

http://oceanexplorer.noaa.gov/explorations/09ecs/media/ecs_mapimage.html

³⁰ Continental Shelf Submission of Portugal, Pursuant to Art. 76, Para. 8 of UNCLOS, Executive Summary, p.4 and Figs. 1-4, 2009 (http://www.un.org/depts/los/clcs_new/submissions_files/submission_prt_44_2009.htm)

³¹ See fn. 28.

³² UNCLOS, CLCS 25th Session, CLCS/66, pp. 10-11, 4.30.10 (accessible at http://www.un.org/depts/los/clcs_new/commission_submissions.htm)

Portugal asserted that they agreed with Spain to establish a common interest area in parts of both of their submissions and to work out issues regarding their own boundaries at a future time. However, Spain submitted diplomatic notes stating its position that the Ilhas Selvagens are rocks, which give rise to a Territorial Sea but not an EEZ. Portugal responded that the Ilhas Selvagens were not included in its ECS submission. In response to a 2013 assertion by Spain that it does not consent to any delimitation of EEZs between Madeira and the Canary Islands, Portugal noted that Spain did not object, in a 2009 note, to Portugal's ECS request.³³

³³ UNCLOS, Notes verbale from Spain to the UN, 5.28.09, 6.10.09 and 7.5.13; Note verbale from Kingdom of Morocco to the UN 5.16.09 (objecting to any act to unilaterally establish a continental shelf); Note verbale from Portugal to the UN, 9.6.13.