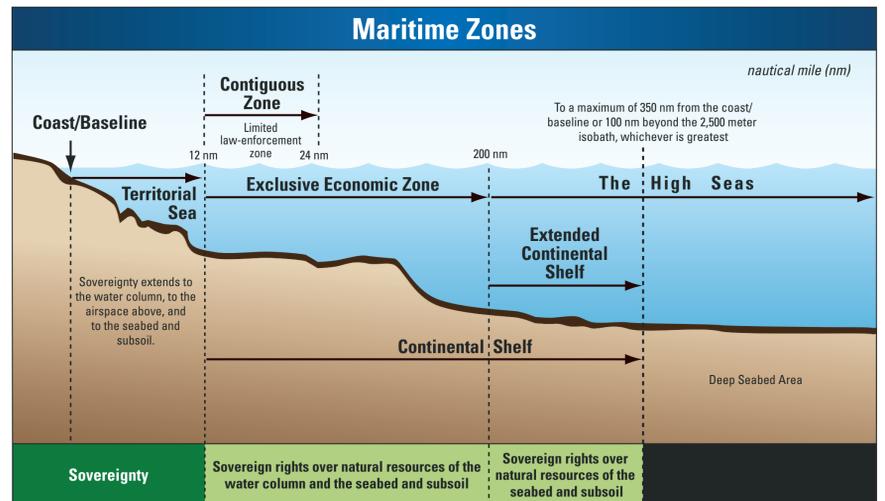


U.S. Extended Continental Shelf Project

Establishing the Full Extent of the Continental Shelf of the United States

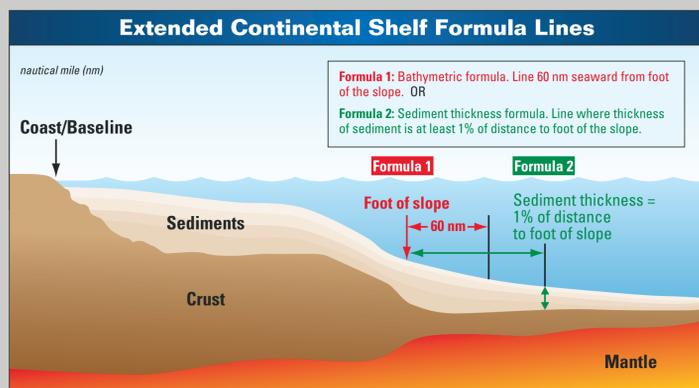
Areas beyond 200 nautical miles (nm) of U.S. coastlines have been the focus of high-resolution bathymetric mapping and seismic-reflection profiling over the past several years, in ongoing explorations to help define the limits of the U.S. continental shelf.

Under customary international law, as reflected in the Law of the Sea Convention, every coastal country automatically has a continental shelf out to 200 nm from its coastline (or to a maritime boundary with another country). In some cases, a country can have a continental shelf beyond 200 nm, which has come to be called “extended continental shelf” (ECS). In this maritime zone, the country may exercise sovereign rights over the natural resources on the seabed, such as deep-water corals or mineral crusts and nodules, and beneath the seabed, such as oil and gas. (The legal definition of “continental shelf” is different from the traditional geologic definition.)

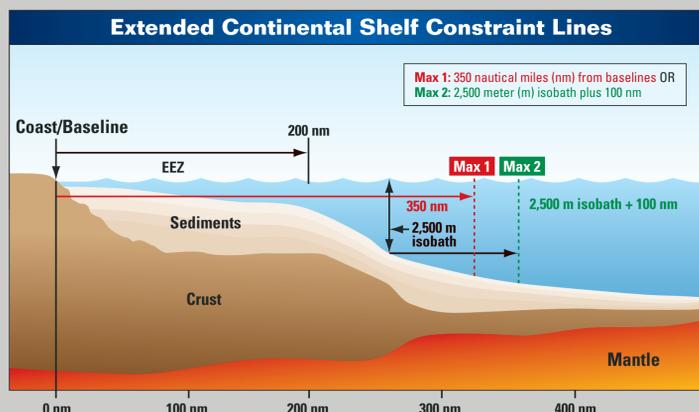


Determining the Outer Limits of the Continental Shelf

A country may use any combination of formula and constraint lines to maximize its continental shelf.

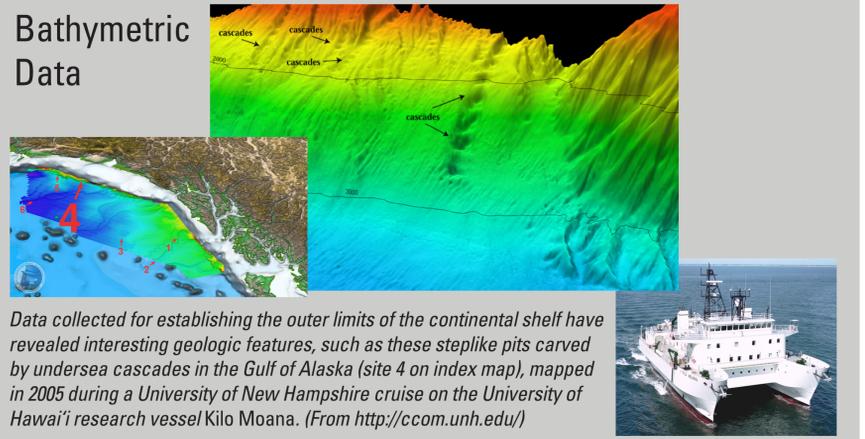


Article 76 of the Law of the Sea Convention provides two formulas that a country can use to determine the outer edge of its continental margin.



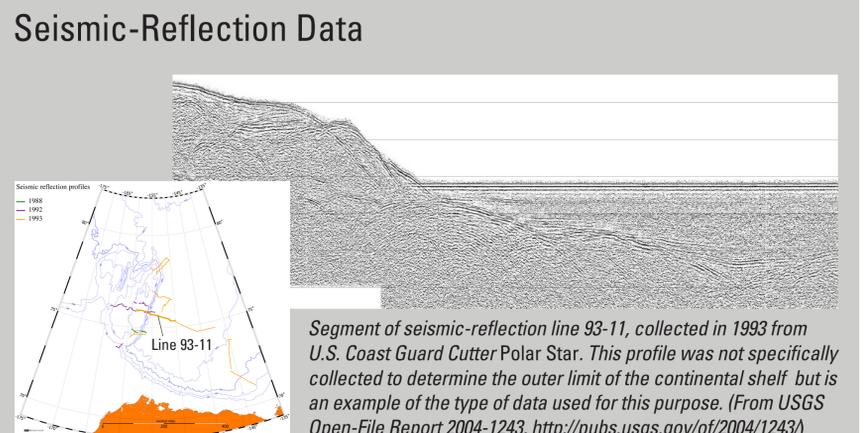
Article 76 also provides two constraint lines that the two formula lines cannot exceed.

Bathymetric Data



Data collected for establishing the outer limits of the continental shelf have revealed interesting geologic features, such as these steplike pits carved by undersea cascades in the Gulf of Alaska (site 4 on index map), mapped in 2005 during a University of New Hampshire cruise on the University of Hawai'i research vessel Kilo Moana. (From <http://ccom.unh.edu/>)

Seismic-Reflection Data



Data collected to establish the outer limits of the U.S. extended continental shelf are providing fascinating scientific discoveries, such as the existence of previously unknown seamounts in the Arctic Ocean. In addition, “piggyback” projects, such as a 2010 Arctic ocean-acidification study, are yielding baseline data to help us understand climate change in the Arctic. The United States will gain insights related to such areas as climate variability, marine ecosystems, undiscovered or unconventional energy and mineral resources, and hazards resulting from extreme events, such as earthquakes and

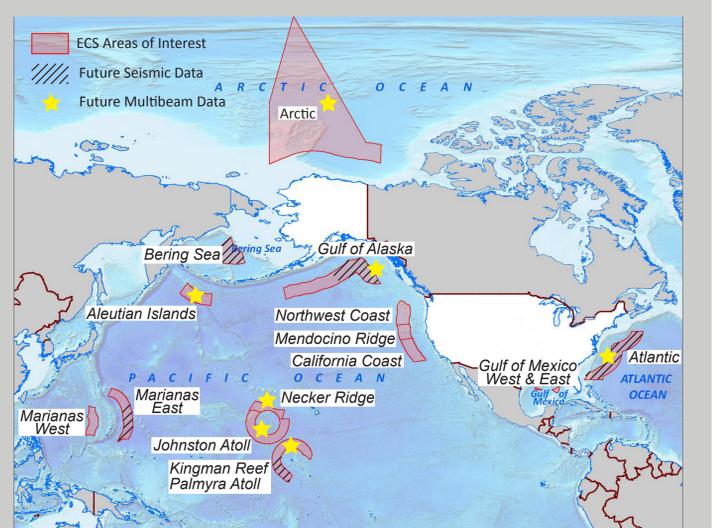
Joint U.S.-Canada Cruise in the Arctic Ocean



U.S. Coast Guard Cutter Healy (right) and the Canadian Coast Guard Ship Louis S. St-Laurent work together in the Arctic Ocean to conduct bathymetric mapping (Healy) and seismic-reflection profiling (Louis) to help each country determine the limits of its extended continental shelf.

tsunamis. These data will also provide a better scientific understanding of the processes that form our continental margins. Finally, exploration of little known areas, such as the ice-covered Arctic, will advance our operational capabilities and open new windows on remote environments.

Areas of Interest



ECS areas of interest and data-acquisition plans, 2011-2015. Fifteen areas of interest for the U.S. ECS Project are highlighted in red. Symbols identify the general areas for expected post-2010 data acquisition for multibeam bathymetry (yellow stars) and seismic reflection/refraction data (hatched). (Modified from <http://continentalshelf.gov/gallery.html>)

For more information: <http://continentalshelf.gov/>

Partners: The U.S. Extended Continental Shelf Task Force is chaired by the Department of State with co-vice chairs from the National Oceanic and Atmospheric Administration and the Department of the Interior. Ten additional agencies participate in the Task Force: the U.S. Geological Survey; the Executive Office of the President; the Joint Chiefs of Staff; the U.S. Navy; the U.S. Coast Guard; the Department of Energy; the National Science Foundation; the Environmental Protection Agency; the Bureau of Ocean Energy Management, Regulation and Enforcement; and the Arctic Research Commission.

