

Lecture 23: Law of the Sea

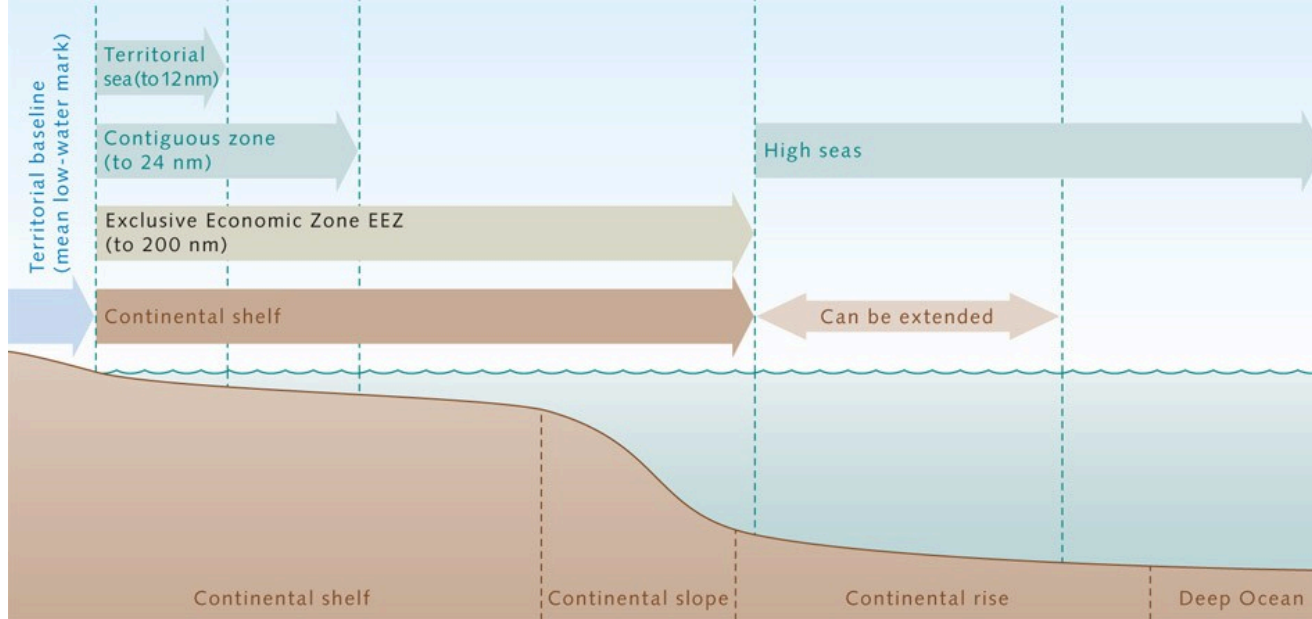
Lecture 23: The Law of the Sea



From the UN website, <http://www.un.org/depts/los/index.htm>.

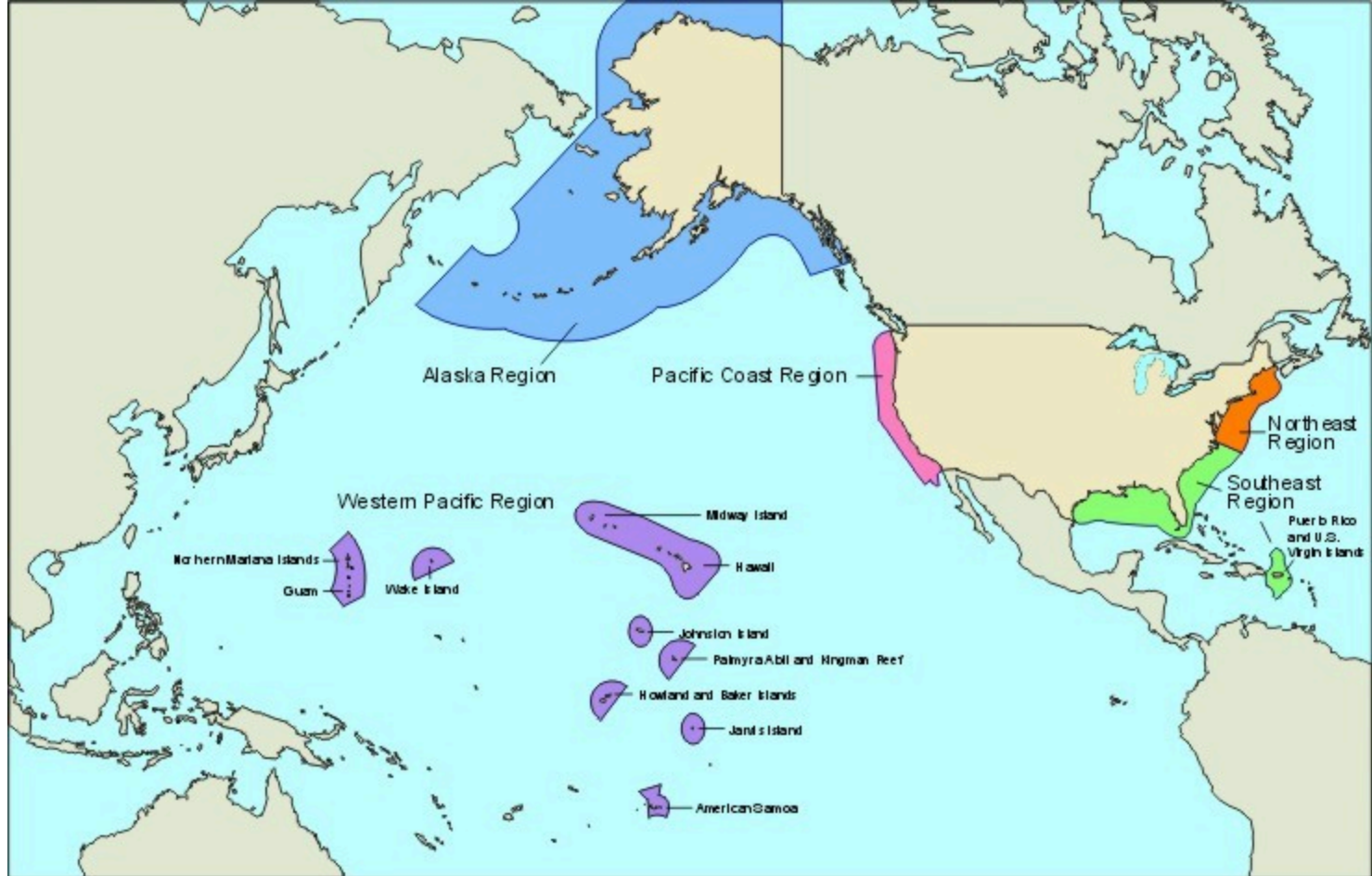
We have so far spent a lot of time understanding some of the ways that the ocean works, the history of human interaction with the marine environment, and the awesome role that the ocean plays on our little planet. With that in mind, and considering that we are increasingly exploring the ocean and using it as a source of important resources, how do we insure that we make good decisions about how we interact with the oceans in a fair way? In a broad way, this seems like a reasonable question, but the challenge comes when we start to think about how we do this. The ocean covers the vast majority of our planet, and much of it is well beyond the jurisdiction of individual countries. So how do we get distinct countries to agree on rules for the rights and use of the ocean? And better yet, how do we enforce these rules? For a large part of history, this wasn't a pressing problem because the ocean was so vast in comparison to our ability to access it – we couldn't get to the deepest or furthest flung parts of the ocean and our fishing and mining technologies were limited, thus kept harvest rates in check. Today, the story looks very different and the entire ocean is much more accessible, and we have super-efficient technology for resource extraction. These capacities mean that we have an urgent responsibility for strong and well-planned regulation that ensures we share these spaces in a fair and sustainable manner.

The United Nations Convention on the Law of the Sea (UNCLOS) was implemented in 1982 as a means to allow for governance of the ocean. One of the first big question and one that remains today is of ownership; who owns the sea? At the heart of this question is the degree of freedom in the ocean. Are open ocean places truly free and international, or can ownership be assigned? The convention is based on four previous more focused conventions on the Law of the Sea. It codified a number of maritime norms that had already been in practice, into law. One of those was the 'three-mile limit'. Since the mid-17th century, many countries had accepted that a nation had rights to the tract of the ocean along that nation's border, and extending out three nautical miles into the ocean. Interestingly, this is the approximate maximum distance that a cannon shot could reach. Below is a schematic of the various ocean zones as defined by the Law of the Sea.



First, the baseline is the mean low water mark. This is the lowest place the tide level drops to on average over the year (you have already learned about the zones of the intertidal waters from previous lectures). Any territory on the landward side of the baseline is considered internal waters and a nation has complete control and sovereignty over those zones – the country's laws apply and the country can restrict access of other countries to these places. Territorial waters are the areas extending from the baseline to 12 nautical miles. In this zone, a nation's laws apply but vessels from other nations cannot be restricted from 'innocent passage' through those waters. In some cases, for safety or other reasons, it is necessary for nations to delimit 'shipping lanes' or other traffic rules within their territorial waters to allow navigation by all vessels to operate in a coordinated and safe manner. In the contiguous zone, which extends to 24 nautical miles from the baseline, the coastal nation has control of this zone and can confirm compliance with regulations ("infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea"), but there is less standardization of conflict resolution in this zone which can lead to problems when there is disagreement.

And finally, a nation's exclusive rights to resources (fishing and mining) extend from the coast to 200 nautical miles – a zone called the exclusive economic zone (EEZ). The map below shows the EEZ for the United States. The US manages federal fishing within each of those zones under different regional councils (the colors correspond to those federal councils).



Map from NOAA fisheries - <http://www.afsc.noaa.gov/generalinfo/eez.htm>.

Climate change is evident in the ocean and these changes are highlighting the shortcomings of the Law of the Sea. One of the most prominent examples of this is the rapid loss of sea ice in the Arctic that we learned about last lecture. With open water in the Arctic, shipping lanes will open and more importantly, the valuable seabed resources there, such as abundant oil and gas reserves, will become available for exploitation. Eight countries have coastlines bordering the Arctic. These countries, Canada, Denmark, Norway, Russia, Sweden, Iceland and Finland and the United States, all have an interest in claiming rights to those resources. The Law of the Sea dictates that Canada, Norway, Russia, the US, and Denmark, via its control of Greenland - have economic rights in the EEZ, 200-miles from their coastlines. In 2007, Russia made a high profile trip to the north pole in a submersible. The sub, manned by political leaders not marine scientists, planted a Russian flag in a symbolic gesture indicting their belief that the exclusive rights to this territory should belong to Russia. The loophole in the Law of the Sea that they are arguing for is that the EEZ can be extended beyond 200 miles in cases where the continental shelf extends from a country's coastline beyond 200 miles.

Carving up the Arctic

--- Maritime borders
(200 nautical miles
from the coast)



This is not an unusual claim and has been made by many other countries in other parts of the ocean. Russia is claiming that the shelf along their coast does extend beyond 200 miles and should therefore allow them extended rights. Russia is not alone. Canada and Denmark are conducting their own scientific missions to map and argue for their own respective extensions. The problem is that until relatively recently, the Arctic sea ice hasn't allowed oceanographers to map the bottom in enough detail to provide the answers. Ultimately the decision will be made by the UN Commission on the Limits of the Continental Shelf (CLCS) after they consider the bathymetry and appropriate legislation. This is no minor decision; preliminary studies estimate that the size of Canada's extended continental shelf could be as large as 1.75 million square kilometers. Questions about sovereignty in the Arctic will be further complicated by desires around preservation and protection of benthic ecosystems, climate change mitigation and the rights of Arctic indigenous peoples, the Inuit and Sami.

