Draft

Comments on Current Legal Developments Concerning the U.S. Continental Shelf in the Arctic Ocean

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Panel on Continental Shelf

1. UNCLOS Continental Shelf Regime

The United Nations Convention on the Law of the Sea (UNCLOS) contains 10 articles in Part VI providing coastal States with sovereign rights to explore and exploit the natural resources of their legal Continental Shelf. Article 76 extends the coastal State Continental Shelf regime out to 200nm in all cases and beyond 200 nm in those cases where a coastal State's Continental Shelf (often a physical continental margin) extends beyond 200 nm. The Convention deems the legal Continental Shelf to exist within 200 nm even where there is no scientific basis for a physical continental shelf that far seaward. In these cases, the Continental Shelf legal regime co-exists with the 200 nm Exclusive Economic Zone regime, unless otherwise agreed. Because the two regimes are distinct, States have the option to agree to different boundaries for each regime and this has been done in a few instances. The outer limit of the Continental Shelf beyond 200 nm is determined by a complicated textual formula in Article 76 that is a mixture of perceived fact and law with considerable latitude for subjective judgment. This issue and the role of the Continental Shelf Commission in setting limits is being discussed in detail by others in this Symposium and my comments are deliberately directed at other matters.

The genesis of the legal concept of Continental Shelf is generally attributed to the Truman Proclamation unilaterally made by the United States at the end of World War II. Without specifying an outer limit, it was declared in the Proclamation that the adjacent offshore resources that "admitted of exploitation" came under the jurisdiction and control of the United States. Under UN auspices, the International Law Commission (ILC) shortly thereafter was seized with the task of preparing draft articles to facilitate the progressive codification of international law. In 1958, using ILC drafts, the First Conference on the Law of Sea produced a Convention on the Continental Shelf whose principles and much of its verbatim text were subsequently embodied in UNCLOS. Before the Third Conference convened however, the International Court of Justice (ICJ) declared in the 1969 North Sea Continental Shelf Cases that the Continental Shelf was the "natural prolongation" of the land territory into and under the sea. This fundamental principle articulated by the ICJ was enshrined in UNCLOS which provides that the coastal State rights are

inherent, existing ipso facto and ab initio, with no action required by the coastal State to retain its right to the natural resources of its Continental Shelf. The text of Article 76(3) explicitly provides that the outer limit of the continental margin deemed part of a coastal State's Continental Shelf must be a submerged prolongation of the coastal State's land mass. This principle must be borne in mind in attempting to apply the remainder of the rules formulated in Article 76. In colloquial terms the dog may wag the tail naturally but the tail may not wag the dog.

Article 77 establishes that the rights of the coastal State are exclusive and reiterates the fundamental principle that they "do not depend upon occupation, effective or notional, or on any express proclamation." This article also affirms the customary law rule that Shelf resources include sedentary species such as oysters and king crab. Of particular importance for the melting of ice in the Arctic Ocean is the rule in Article 78 that Continental Shelf rights do not affect the legal status of the superjacent waters and air space. Again, this issue will be more fully discussed by others at this symposium. The focus of Article 79 is on submarine cables and pipelines affirming the customary law rules endorsing their status as a high sea freedom. Since virtually all of the worlds internet-e.g. banking- connections are through submarine cables, it is noteworthy that this subject has not received much attention from scholars. Pipelines are, of course, one thing and cables quite another but both now face increasing coastal State jurisdictional claims in the name of environmental protection or national security. Articles 80 and 81 in UNCLOS touch upon coastal State control over artificial installations and drilling respectively. Article 82 is unique to UNCLOS in that it deals with payments and contributions to the International Seabed Authority for exploitation of resources beyond 200nm. The Seabed Authority has nothing to do with oil or gas in the International Seabed Area but it is mandated to deal with revenues, presumably for oil and gas exploitation beyond 200nm. Since such exploitation has not yet occurred, but the technology to do so is at hand, we are at the stage to begin to interpret this issue in a meaningful way. The difficult issue of delimitation of the Continental Shelf between States with opposite or adjacent coasts is introduced in Article 83. Few issues are more difficult that drawing lines that impose limits on the authority of sovereign States. Suffice to comment here that the first effort and priority pursuant to UNCLOS is to reach agreement that achieves an "equitable solution". Another issue in UNCLOS that is relatively unexamined by scholars is the principle in Article 83 that prescribes "provisional arrangements of a practical nature" pending agreement on final delimitation. Should this apply to unagreed outer Continental Shelf limits? If so, one wonders what application of this principle would do in the Arctic Ocean. Article 84 is a housekeeping rule that mandates that outer Continental Shelf limits be shown on charts or lists of geographical coordinates deposited with the United Nations. Finally, Article 85 preserves the long standing right of the coastal State to exploit Shelf resources by means of tunneling from shore.

Controversy has come to the fore about whether UNCLOS principles and rules are adequate for the Arctic Ocean. In truth, this remains to be seen. The nations bordering the Arctic have trouble enough with each other and certainly have little incentive to seek views from 190 other States at the United Nations. With the recent popularity of the issue of the global warming concept it is easy to point to the global dangers of ice melting and increased human activity in the Arctic

Ocean. With current media interest it is a small step indeed to urge negotiating a "new" regime tailored to the unique dangers to environment in the Arctic. Those familiar with UNCLOS often argue that UNCLOS rules are comprehensive and already are being successfully applied to all the world's oceans. The ocean policy of the five countries bordering the Arctic Ocean and their near neighbors predictably will be to step up their efforts to apply existing principles and rules to the Arctic Ocean, particularly those found in UNCLOS. Again, we shall learn much today about this debate from other panelists. My expectation, however, is that there will be broad agreement that the International Maritime Organization can and should play a pivotal role in developing additional rules for the Arctic Ocean.

Attached to this presentation is a graphic depiction showing the potential extension of the US Continental Shelf under Article 76 in the Arctic Ocean. A fellow panelist, Larry Mayer from the University of New Hampshire, was involving in compiling this map for NOAA. We are relying on Larry to persuade former Senator Judd Gregg to become an advocate for accession to the Convention assuming he is confirmed as the new US Secretary of Commerce. Tongue in cheek we note the expansive red colored zone off the two dozen miles or so of New Hampshire coastline.

2. New US Arctic Policy

On January 9, less than one month ago, President Bush issued a Presidential Directive on the subject of Arctic Region Policy which not only established policy but also directed related implementation. It remains to be seen what this initiative will amount to. The head of the US Coast Guard captured the feelings of many of us by offering a left handed endorsement to the effect of "what took so damn long." The six points identified in the policy directive are to:

1. Meet national security and homeland security needs relevant to the Arctic region;
2. Protect the Arctic Environment and conserve its biological resources;
3. Ensure that natural resource management and economic development in the region are environmentally sustainable;
4. Strengthen institutions for cooperation among the eight Arctic nations (the United States, Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, and Sweden);
5. Involve the Arctic's indigenous communities in decisions that affect them; and
6. Enhance scientific monitoring and research into local, regional, and global environmental issues.

Lots of questions remain to be answered as to what the foregoing policy means and how it will be implemented. Certainly there will be a scramble by scientists and government agencies for additional funding to protect the environment and to conserve its biological resources in the Arctic as the policy refers to environmental sustainability. Does this imply application of the precautionary principle? This is a relatively new legal concept which is codified in the Fish Stocks Agreement which is said to implement UNCLOS. Yet there is no mention of the precautionary principle in UNCLOS and there was no negotiation about this principle at the Third Conference. Common ground may be found on this issue between those who favor this new principle and those who favor the application of UNCLOS who can point out in addition how flexible and adaptive the 1982 Convention is.

Less directly relevant to this symposium but equally remarkable to UNCLOS experts was the action that President Bush took one month ago to designate three new areas in the Pacific as Marine National Monuments. The areas set aside as marine protected areas (mostly around Pacific islands) are the largest in the world, about 195,000 square miles. The accompanying press release indicates that the places in question will be conserved in a way that fully respects our nation's national security needs by ensuring freedom of navigation for all vessels in accordance with international law. How will history judge President Bush's record for protection of the marine environment? My guess is that this question was very much in his mind as he declared these two far reaching marine policies in last days of his presidency. Again, we shall see how carefully other nations mimic the US action and what practical impacts this new policy will have on a global basis. My prediction is that most other States will not maintain the careful balance between protection and preservation of the marine environment and freedom of navigation that was fought out in US Departments and Agencies.

The US strategy throughout the Bush Administration was that climate change must be addressed as part of a larger agenda that includes providing energy security and stimulating economic growth. We are about to learn what strategy the Obama Administration will follow in action, not in words. If the new President moves in the right direction, let us hope that he is faster off the mark than President Bush. Early signs are that offshore development will be discouraged in the Obama era but perhaps more scientific research will be encouraged. Whatever policy is taken will have profound implications for the US posture in the Arctic region, including the Arctic Ocean.

3. Hydrocarbon Resource Potential in Arctic Basin

In July, 2008 the US Geological Survey predicted that the Arctic basin may contain as much as a fifth of the world's undiscovered oil and natural gas reserves. Most of the yet to be found

resources are on shore or within agreed 200 nm EEZ's. This may be a disappointment for those of us who adhere to the theory that the oil or gas deposit is almost always in the middle of the disputed areas. Russia, of course, is by far the biggest potential energy resource gainer in the Arctic basin with about ten times the potential of the United States, a distant second. Some estimate that the Arctic contains 13% of the world's undiscovered oil and 30% of its undiscovered gas. These resources are mostly located in three high potential fields: South Kara Sea (Russia), East Barents Sea (Russia/Norway) and Arctic Alaska (read Beaufort Sea) (US/Canada). Estimates of the total mean volume in the Arctic Alaska Petroleum Province are more than 50 bbl of oil and natural gas liquids and 227 trillion ft3 of gas. The conclusion for laymen and experts alike is that the Arctic region is the largest unexplored prospective area for petroleum left on earth. Since all evidence is that the demand for petroleum will markedly increase in our lifetime, it is predictable that pressures will increase to find out what energy resources can be found in the Arctic basins. Whatever policies are pursued by the other bordering States, the Russians will want to exploit their advantage, which is considerable.

An intriguing new potential energy source found in the Arctic Ocean is methane hydrates. These deposits are formed in high-pressure, low temperature subsea floor reservoirs on the outer continental shelf and Arctic permafrost as methane gas bonds with water to form high-powered lattice-shaped solids. Conceivably, methane hydrates could replace petroleum in the distant future as the world's primary energy source. While the full potential energy from methane deposits is still being discovered, it is estimated that hydrates have an energy density of approximately 180 times conventional free gas deposits on a global basis. Methane hydrates have been estimated to contain a volume of methane worldwide amounting to 700,000 trillion cubic feet (Tcf), with 200,000 Tcf within the US EEZ. Compared with an estimated 13,000 Tcf conventional gas resources existing worldwide, the potential volume of methane gas hydrates significantly exceeds the amount of other natural gases known in the world. But there is no rush to development. Methane hydrates are located almost entirely in remote Arctic or deep water locations where access is difficult and very costly. In the Arctic permafrost, methane hydrates form at depths of 130-2,000 meters. On the outer continental shelf, methane hydrates form at depths of 100-1,000 meters below the seafloor. Retrieval is exceedingly difficult because methane hydrates are quite fragile and quickly disassociate when removed from the temperature or pressure at which they form. The volatility of the structures makes extraction both tedious and hazardous. Commercial development is not coming any time soon. Still, the potential is so mind boggling that Japan, China and others with huge demands and limited supplies of petroleum are actively investigating the feasibility of using methane hydrates within our lifetimes.

4. Pogo Identifies the Enemy in the United States

The Outer Continental Shelf Lands Act provides a four-stage process for oil and gas development, with National Environmental Policy Act (NEPA) review at each stage. The four stages are: (1) preparation of a lease-sale schedule; (2) lease sales; (3) exploration of the lease-

sale area; and (4) development and production. The process is intended to allow MMS to adjust its actions to ensure that energy production is conducted in an environmentally sound way.

The 9th Circuit Court of Appeals on November 20, 2008 filed its Opinion in the Alaska Wilderness League et al v. Kempthorn et al case. The Court decided that MMS did not properly consider disturbance to migrating whales, disruptions to the traditional hunting lifestyles of Inupiat Eskimos and other potential environmental harms from Shell Oil's program to drill at Sivulliq, 16 miles offshore in the Beaufort Sea. The Opinion came in the third stage of the NEPA process after Shell had spent $2.5 billion during the previous three years on OSC leases and operations in Alaska. This was a precedent-setting Opinion about how and when exploration of Alaska's offshore is to be permitted. The Decision is probably going to be appealed but the delays in time and money left idle certainly have a "chilling" effect on Shell and other future efforts to reach the estimated 26.6 billion barrels of undiscovered recoverable crude oil and 132 Tcf of undiscovered recoverable natural gas in Alaska's OCS. Still, the process rolls on as the stakes are too high to quit.

On December 19, 2008, for instance, the US Minerals Management Service (MMS) announced the availability of a Draft Environmental Impact Statement (DEIS) concerning proposed Federal leasing of areas in the Beaufort Sea and Chukchi Sea Outer Continental Shelf (OCS) that may contain economically recoverable oil and natural gas resources. These lease sales would provide qualified bidders the opportunity to bid on certain blocks to gain conditional rights to explore, develop, and produce oil and natural gas. We shall see what the response is to this action.

5. Conclusion

The United States is not a Party to UNCLOS, yet in many ways conforms to the Convention with actions "more holy than the Pope". The United States has no risk of losing its Continental Shelf rights but it must accede to UNCLOS to have the outer limit to such rights beyond 200 NM confirmed by the CLCS. This confirmation is essential before financial institutions will bank investments in the areas beyond the 200 NM EEZ. The potential rewards and environmental risks are great but so are the huge investments required to develop offshore resources in the hostile Arctic Ocean environment. There can no longer be doubt about the fact that the Arctic Ocean has become a focus for policy makers in the United States, Canada, Denmark (Greenland), Norway and Russia as well as in Iceland, Sweden and Finland. The long term hydrocarbon potential in the Arctic is large but certainly not even close to being definitively known. But it is clear even at this stage that Russia is by far the biggest player on the scene. The United States continues to debate within itself and with the political agenda announced by its new President it is unlikely that petroleum development in the Arctic basin will be encouraged. Due to the global warming agenda, however, increased scientific research is probable. What is

also likely in the short term is that the Obama Administration will support US accession to the UNCLOS in deeds rather than just in words as we saw in the Bush Administration. All in all, the next few years for the Arctic Ocean and law of the sea will be interesting indeed.