

EVALUATING THE IMPACT OF THE LAW OF THE SEA TREATY
ON FUTURE OFFSHORE DRILLING

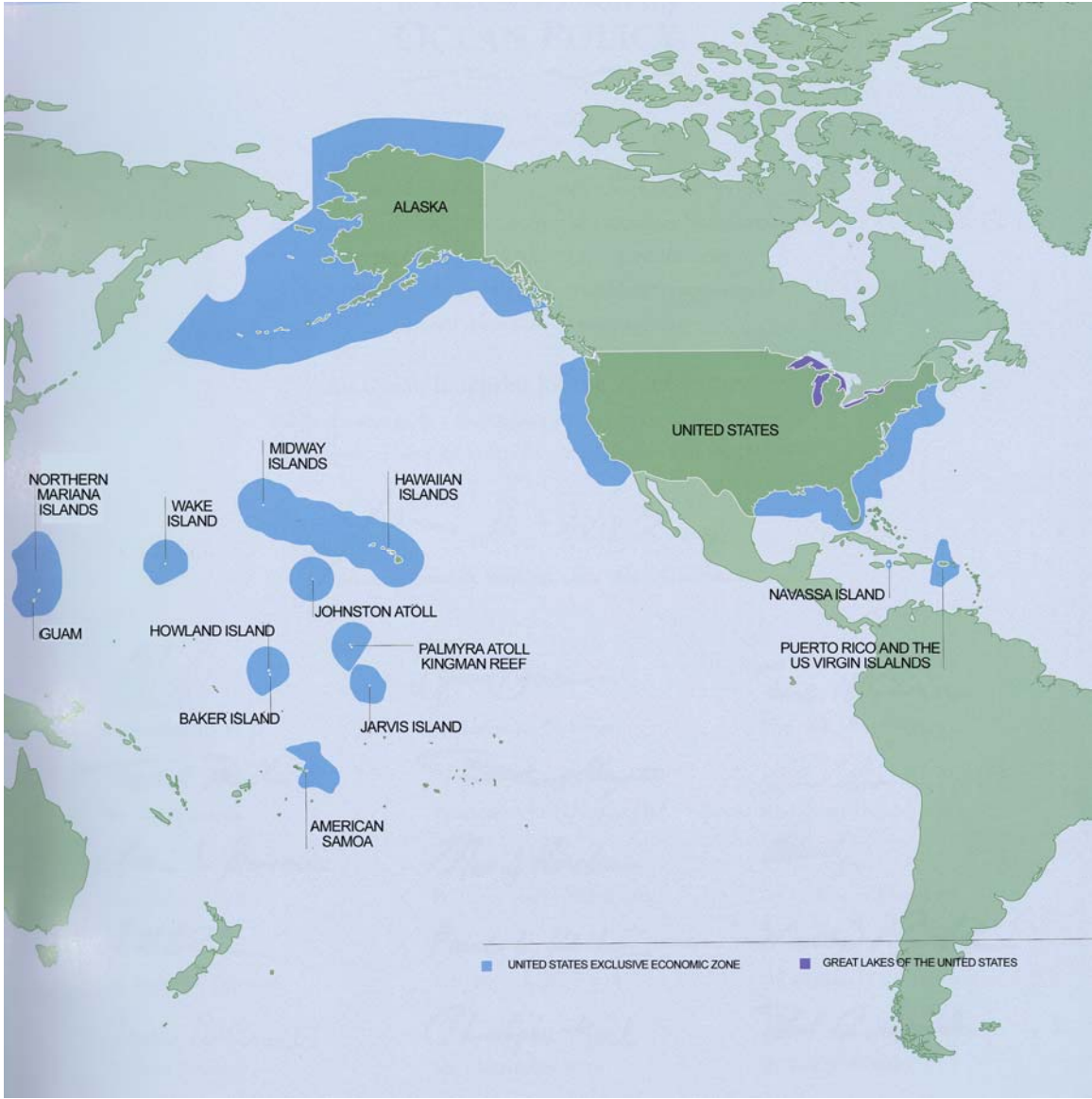
Presentation
By

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Introduction

It is indeed a pleasure to be here today with colleagues from the offshore oil and gas industry. This important conference has speakers and attendees from the producing sector, the service industry and our U.S. regulatory bodies, the Minerals Management Service and the Department of Energy. Our broad theme is “Break the Boundaries and Explore New Frontiers through Innovative Developments in Offshore Exploration.” The program features case studies presented by experts from large and small companies who are leading a true revolution in our capability to explore in deeper and deeper water and to deeper and deeper subsea depths in shallow and deep water. It is an honor for me to be among you talented people who are leading the economic and technological charge to find new oil and natural gas resources to supply our growing world economy.

As we forge ahead to break these technological and economic boundaries, we also have political and geographic boundaries to break. Those of us active in the United States are well aware of the political boundaries that prevent exploration virtually everywhere along our coasts except the Central and Western Gulf of Mexico and offshore Alaska. But these are not the boundaries I came here to discuss today. Rather I am here to discuss the opportunity our industry has to break boundaries provided by “Exclusive Economic Zones” off the coasts of all our nations and take exploration beyond the traditional 200-mile limit. The means by which this can and will be accomplished is the 1982 United Nations Convention on the Law of the Sea.

The importance of international energy policy hardly needs discussion. Oil is the number one commodity in world trade and is essentially linked to economic development and economic growth around the world. Enhancing stable supply is of great importance to every nation on earth. Indeed, perhaps nothing is more important economically to global economic development than stable supplies of oil and energy for the world. We have seen what has happened in the oil shocks in the 1970s, first the doubling of oil prices in 1973-74 followed with a doubling of oil prices again in 1978-79. Once again we saw a huge spike in oil prices associated with the Gulf War in 1990 and, to a lesser extent, we are witnessing an oil spike associated with the events in the Middle East in these last three years. The doubling of the oil price in the two oil shocks of the 1970s had a particularly devastating effect on the global economy. If you look at India and the second oil shock of 1978-79, India had a greater outflow of wealth in that one year of the second oil shock than it did in the entire period of colonialism. And many of the developing countries of the world went into severe debt that still lingers. According to the Chairman of the Resources Committee in the U.S. House of Representatives, the United States is now spending over \$500 billion annually on oil imports. The question of international energy policy is of enormous importance, and we should remember this as we labor to break the boundaries and explore new frontiers through innovative developments in offshore exploration.

The offshore oil and natural gas industry is a multibillion-dollar industry. A recent economic survey of global ocean markets done in the United Kingdom¹ brings home

¹ John Westwood, Barney Parsons and Will Rowley, Douglas Westwood Associates, Canterbury, United Kingdom, **Oceanography**, vol. 14, no. 3/2001.

clearly the economic significance of offshore oil and natural gas production. Offshore oil and natural gas is now the world's biggest marine industry where oil production alone can have a value of more than \$300 billion per annum. This compares to global shipping revenues of \$234 billion and expenditures of all the world's navies amounting to \$225 billion. Submarine cables, which provide the "worldwide" part of the worldwide web and enable the very existence of the internet, is the next largest marine business with \$86 billion in revenues; and incidentally, that important industry is on record as supporting United States accession to the LOS Convention. In addition to activities in areas under United States jurisdiction such as Alaska and the Gulf of Mexico, our nation has substantial interests in offshore oil and natural gas development activities globally, given our significant reliance upon imported oil. U.S. oil and natural gas production companies, as well as oilfield drilling, equipment and service companies, are important players in the competition to locate and develop offshore natural gas and oil resources. The pace of technological advancement, which drove the need to define the outer limits of the continental margin, has not abated. Advances in technology and increased efficiencies are taking us to greater and greater water depths and rekindling interest in areas that once were considered out of reach or uneconomic.

Historical Background

The year 2004 marked the 10th anniversary of the entry into force of the Convention on the Law of the Sea. The Convention now has 145 parties to it from a possible 195 nations. It is universally applied by both parties and non-parties. When the UN first began the process to develop a treaty, ocean law was in chaos. Today there is widespread uniformity of State practice. For instance, we have 140 states with territorial seas of up to 12 nautical miles and 117 states have declared a 200-mile exclusive economic zone. Here in North America Canada has acceded to the Convention, while the United States has not. I will get into this more momentarily.

From its beginning in 1970 when the Seabed Committee set out to prepare for the Third United Nations Conference on the Law of the Sea, the process of negotiating the Law of the Sea Convention was painstaking. By 1982 consensus was achieved on every major substantive issue. But Part XI, the Deep Sea Mining part of the Convention, remained controversial. The legal vacuum with respect to minerals resources in the deep seabed provided a rich ground for legal, political and ideological differences. But, after a cooling off period, reasonable, practical and realistic solutions were found in an Implementation Agreement signed by all States that participated in the negotiations, including the United States, in 1994.

Petroleum Industry Involvement

Recognizing the importance of the LOS Convention to the energy sector, the National Petroleum Council, an advisory body to the United States Secretary of Energy, in 1973 published an assessment of industry needs in an effort to influence the negotiations. Entitled "Law of the Sea: Particular Aspects Affecting the Petroleum Industry," it contained conclusions and recommendations in five key areas including

freedom of navigation, stable investment conditions, protection of the marine environment, accommodation of multiple uses, and dispute settlement. The views reflected in this study had a substantial impact on the negotiations, and most of its recommendations found their way into the Convention in one form or another.

Among the provisions that were influenced by the study are the following:

- ◆ confirmation of coastal state control of the continental shelf and its resources to a distance of 200 nautical miles and beyond to the outer edge of the continental margin, defined on the basis of geological criteria;
- ◆ establishment of a Continental Shelf Commission to advise states in delimiting their continental shelves in order to promote certainty and uniformity;
- ◆ specific provisions on the settlement of disputes related to the delimitation of continental shelves among states with opposite or adjacent coasts;
- ◆ revenue sharing applicable to development of resources beyond 200 nautical miles based on a modest royalty beginning in the sixth year of production;
- ◆ recognition of the role of the International Maritime Organization in setting international safety and select environmental standards;
- ◆ allocation of enforcement responsibility for safety and environmental standards among states of registry, port states, and coastal states;
- ◆ requirements for the prompt release of detained vessels and crews upon the posting of bond; and
- ◆ A comprehensive system of dispute settlement allowing a choice among the International Court of Justice, a specialized Law of the Sea Tribunal, and arbitration.

Having been satisfied with changes made to the Convention, the U.S. oil and natural gas industry's major trade associations, including the American Petroleum Institute, the National Ocean Industries Association and the International Association of Drilling Contractors, support ratification of the Convention by the United States Senate. Also, the Outer Continental Shelf Policy Committee, an advisory body to the United States Secretary of the Interior on matters relating to our offshore oil and natural gas leasing program, in 2001 adopted resolutions supporting the United States acceding to the Convention.

Offshore Oil and Natural Gas Resources

The Convention is important to our efforts to develop domestic offshore oil and natural gas resources. The Convention secures each coastal nation's exclusive rights to the living and non-living resources of the 200-mile exclusive economic zone (EEZ). In the case of the United States this brings an additional 4.1 million square miles of ocean under U.S. jurisdiction. This is an area larger than the U.S. land area. The Convention also broadens the definition of the continental shelf in a way that favors the U.S. as one

of the few nations with broad continental margins, particularly in the North Atlantic, Gulf of Mexico, the Bering Sea and the Arctic Ocean.

Considering the remarkable advances in offshore exploration technology that have taken us farther and farther offshore into deeper and deeper water, the assessment of the National Petroleum Council in 1973 seems remarkably prescient in retrospect; and that assessment rings more true today than ever.

With what may be the largest and most productive continental shelf in the world, the U.S. obtains about 28 percent of its natural gas and almost as much of its oil production from the outer continental shelf (OCS); this share of U.S. production is increasing thanks to new world class oil discoveries in the deep waters of the Gulf of Mexico.

Exploration Moving Farther from Shore into Deeper Waters

Offshore petroleum production is a major technological triumph. We now have world record complex development projects located in 7,500 feet of water in the Gulf of Mexico which were thought unimaginable a generation ago. Even more eye-opening, a number of exploration wells have been drilled in the past four years in over 8,000 feet of water and a world record well has been drilled in over 10,000 feet of water. New technologies are taking oil explorers out more than 200 miles offshore for the first time, thus creating a more pressing need for certainty and stability in delineation of the outer shelf boundary. Before the LOS Convention there were no clear, objective means of determining the outer limit of the shelf, leaving a good deal of uncertainty and creating significant potential for conflict. Under the Convention, the continental shelf extends seaward to the outer edge of the continental margin or to the 200-mile limit of the EEZ, whichever is greater, to a maximum of 350 miles. The U.S. understands that such features as the Chukchi Plateau and its component elevations, situated to the north of Alaska, are not subject to the 350-mile limitation. U.S. companies are interested in setting international precedents by being the first to operate in areas beyond 200 miles and to continue demonstrating environmentally sound drilling development and production technologies.

Today our industry associations and their member companies are devoting much time and money lobbying for increased access to public lands within the U.S. Exclusive Economic Zone. The Law of the Sea Treaty will provide access opportunities to explore vast acreage beyond 200 miles off the coast of any nation that can delineate its shelf in a manner that meets the requirements of Article 76 of the Convention.

Revenue Sharing

Is there a cost involved in exploring this far frontier? The Convention provides a reasonable compromise between the vast majority of nations whose continental margins are less than 200 miles and those few, including the U.S., whose continental shelf extends beyond 200 miles, with a modest obligation to share revenues from successful minerals development seaward of 200 miles. Payment begins in year six of production at the rate of one percent and is structured to increase at the rate of one percent per year to a

maximum of seven percent. Our understanding is that this royalty should not result in any additional cost to industry. Considering the significant resource potential of the broad U.S. continental shelf, as well as U.S. companies' participation in exploration on the continental shelves of other countries, on balance the package contained in the Convention, including the modest revenue sharing provision, clearly serves U.S. interests.

Importance of Delineating the Continental Shelf

The Convention established the Continental Shelf Commission, a body of experts through which nations may establish universally binding outer limits for their continental shelves under Article 76. The objective criteria for delineating the outer limit of the continental shelf, plus the presence of the Continental Shelf Commission, should avoid potential conflicts and provide a means to ensure the security of tenure crucial to capital-intensive deepwater oil and natural gas development projects.

It is in the best interest of the U.S. to register its claims extending the outer limits of our continental margin beyond 200 miles where appropriate— in so doing the U.S. could expand its areas for mineral exploration and development by more than 291,383 square miles. We need to get on with the mapping work and other analyses and measurements required to substantiate our claims, however. Some of the best technology for accomplishing this resides in the United States. Establishing the continental margin beyond 200 miles is particularly important in the Arctic, where there are a number of countries vying for the same resource area. In fact, Russia has already submitted claims with respect to the outer limit of its continental shelf in the Arctic. Russia reports 32 large oil/gas discoveries in the Arctic. The Arctic Ocean is almost completely surrounded by the land masses of five coastal States: Canada, Greenland (Denmark), Norway, Russia and the United States. Each of these States appears to be in a position to develop an extended outer limit of its juridical continental shelf on the basis of “natural prolongation of its land territory” projecting northward into the Arctic Ocean. In other parts of the world, Brazil and Australia also have claims pending to extend their continental shelves, and Argentina is conducting delineation surveys. It seems unconscionable that the U.S. Senate has yet to act to allow the United States to file its claims in this important region.

Resolution of Boundary Disputes

As regards maritime boundaries, there presently exist about 200 undemarcated claims in the world with 30 to 40 actively in dispute. There are 24 island disputes. The end of the Cold War and global expansion of free market economies have created new incentives to resolve these disputes, particularly with regard to offshore oil and natural gas exploration. During the last few years hundreds of licenses, leases or other contracts for exploration rights have been granted in a variety of nations outside the U.S. These countries are eager to determine whether or not hydrocarbons are present in their continental shelves, and disputes over maritime boundaries are obstacles to states and business organizations which prefer certainty in such matters. We have had two such cases here in North America where bilateral efforts have been made to resolve the

maritime boundaries between the U.S. and Mexico in the Gulf of Mexico and between the U.S. and Canada in the Beaufort Sea. Both of these initiatives have been driven by promising new petroleum discoveries in the regions. The boundary line with Mexico was resolved in 2000 after a multi-year period of bilateral negotiations. Negotiations with Canada, however, seem to be languishing.

Another area where bilateral boundary discussions are in process is the Barents Sea where Russia and Norway are trying to address a number of serious issues. For a long period of time there has been a moratorium on delimitation for the development of mineral resources in the central part of the Barents, which the Russians believe could be as rich in hydrocarbons as the Caspian.

While such bilateral resolution is always an option, the Convention provides stability and recognized international authority, standards and procedures for use in areas of potential boundary dispute, as well as a forum for dealing with such disputes and other issues.

The settlement we made with Mexico now makes it possible for leases in the Gulf of Mexico issued by the Department of the Interior's Minerals Management Service (MMS) to be subject to the Article 82 "Revenue Sharing Provision" calling for the payment of royalties on production from oil and natural gas leases beyond the EEZ. According to MMS, seven leases have been awarded to companies in the far offshore Gulf of Mexico which include stipulations that any discoveries made on those leases could be subject to the royalty provisions of Article 82 of the Convention. MMS also reports that one successful well has been drilled about 2.5 miles inside the U.S. EEZ. Details on how the revenue sharing scheme will work remain unclear, and without ratification the U.S. Government's ability to influence decisions on implementation of this provision is limited or non-existent. This creates uncertainty for U.S. industry.

How is the Data Required for Delineation Collected?

Bathymetry

Article 76 of the Convention poses one of the most significant challenges in the fields of geodesy, geology, geophysics and hydrography during the next decade. These challenges stem from the collection, compilation and processing of vast amounts of marine data to be presented to the Commission on the Limits of the continental Shelf as evidence in support of claims to national jurisdiction extended beyond 200 miles. The work to be done will also involve gravity and magnetics calculations as well as measurements of sediment thickness.

Advances in the technology that allows us to delineate the continental shelf have paralleled technology that has allowed oil and gas explorers to gain a clearer picture of subsea geological structures at greater depths. Over the past 25 years, multi-beam sonars have been developed, revolutionizing our ability to image and map the seafloor. A multi-beam sonar produces a broad swath of beams that make many (often hundreds) of simultaneous measurements of depth across a wide area of the seafloor. As opposed to the relatively inaccurate, sparse measurements provided by lead lines, or the two-dimensional profiles provided by single-beam sonar, the multi-beam sonar produces a

complete and accurate three-dimensional picture of the seafloor morphology. While multi-beam sonar data is not required in order to make a claim under UNCLOS Article 76, it has been demonstrated that the use of multi-beam sonar data in combination with modern, interactive three-dimensional visualization techniques can remove much of the ambiguity associated with determining the foot of the slope as well as allow a claim to be optimized (by defining detailed structure in the bathymetry that allows a claim to be drawn from promontory to promontory). It is thus with either a single-beam echo sounder or, preferably, a multi-beam echo sounder that two of the key elements of a claim (the foot of the slope and the 2,500 mt bathymetric contour) are established. The task ahead is huge, and the United States can no longer afford to fiddle.

Gas Hydrates

Ratification of the Law of the Sea Convention also has an important bearing on a longer-term potential energy source that has been the subject of much research and investigation at the U.S. Department of Energy for several years: gas hydrates.

Gas hydrates are ice-like crystalline structures of water that form “cages” that trap low molecular weight gas molecules, especially methane, and have recently attracted international attention from government and scientific communities. World hydrate deposits are estimated to total more than twice the world reserves of all oil, natural gas and coal deposits combined.

Methane hydrates have been located in vast quantities around the world in continental slope deposits and permafrost. They are believed to exist beyond the EEZ. If the hydrates could be economically recovered, they represent an enormous potential energy resource. In the U.S. offshore, hydrates have been identified in Alaska, all along the West Coast, in the Gulf of Mexico, and in some areas along the East Coast. The technology does not now exist to extract methane hydrates on a commercial scale. Joint industry/government groups of scientists have been at work in the Gulf of Mexico examining the hydrate potential in several deepwater canyons. This work is intended to help companies find and analyze hydrates seismically and to complete an area-wide profile of hydrate deposits.

In the Methane Hydrate Research and Development Act of 2000 Congress mandated the National Research Council to undertake a review of the Methane Hydrate Research and Development Program at the Department of Energy to provide advice to ensure that significant contributions are made towards understanding methane hydrates as a source of energy and as a potential contributor to climate change. That review is now underway. The U.S. Navy has also done work on gas hydrates, as has the U.S. scientific community, including universities such as Louisiana State University and Texas A&M. Significant research is also being conducted by scientific institutions in Japan. The United States needs to have a seat at the table of the Continental Shelf Commission in order to influence development of any international rules or guidelines that could affect gas hydrate resources beyond our EEZ.

Rising World Oil Demand

World oil demand in 2004 was 84.7 million barrels per day. Up to 1985 oil demand in North America was twice as large as Asia. As developing countries improve their economic conditions and transportation infrastructure we could soon see Asian oil demand surpass North American demand. By 2025 world demand is expected to reach nearly 119 million barrels per day. Steady growth in the demand for petroleum throughout the world means increases in crude oil and product shipments in all directions throughout the globe. The Convention can provide protection of navigational rights and freedoms in all these areas through which tankers will be transporting larger volumes of oil and natural gas.

Need for U.S. Involvement in LOS Governance

From an energy perspective, potential future pressures are building in terms of both marine boundary and continental shelf delineations and in marine transportation. The LOS Convention offers the U.S. the chance to exercise needed leadership in addressing these pressures and protecting the many vital U.S. ocean interests. Notwithstanding the United States' view of customary international law, the U.S. petroleum industry is concerned that failure by the United States to become a party to the Convention could adversely affect U.S. companies' operations offshore other countries. In November 1998, the U.S. lost its provisional right of participation in the International Seabed Authority by not being a party to the Convention. At present there is no U.S. participation, even as an observer, in the Continental Shelf Commission—the body that decides claims of OCS areas beyond 200 miles— during its important developmental phase. The U.S. lost an opportunity to elect a U.S. commissioner in 2002, and we will not have another opportunity to elect a Commissioner until 2007.

The United States should also be in a position to exercise leadership and influence on how the International Seabed Authority will implement its role in being the conduit for revenue sharing from broad margin States such as the U.S., yet the U.S. cannot secure membership on key subsidiary bodies of the Seabed Authority until it accedes to the Convention. Clearly United States views would undoubtedly carry much greater weight as a party to the Convention than they do as an outsider. With 145 countries and the European Union having ratified the Convention, the Convention will be implemented with or without our participation and will be sure to affect our interests.

It is for these reasons that the U.S. oil and natural gas industry supports Senate ratification of the Convention at the earliest date possible.

Where does the U.S. Stand Currently?

Though the United States played an important role in negotiating the Convention, nearly a decade after its entry into force the United States has not yet become a party to it. The Convention has been the subject of a good deal of discussion in the United States

during the past year, but it remains uncertain when, and if, the United States will accede to it.

Within our system of government, treaties are negotiated by the president and then must receive approval by the Senate before the United States may accede to them. Since the conclusion of the 1994 agreement revising aspects of the Convention's deep seabed mining regime, the Convention has enjoyed consistent support from presidents of the United States. President Clinton submitted the Convention to the Senate and strongly urged its ratification. Similarly, President George W. Bush's administration has expressed its support for the Convention. In addition, the U.S. Commission on Ocean Policy, a Commission appointed by President Bush to review U.S. policies with respect to the oceans has recommended that the United States accede to the Convention.

The principal obstacle to U.S. accession to the Convention has been difficulty securing approval of the Convention by the U.S. Senate. This difficulty is not the result of widespread opposition to the Convention in the Senate. To the contrary, if the Senate had been able to vote on the Convention at any point over the past decade, there is little doubt that it would have received well over the 67 favorable votes necessary to approve it. Rather, since 1994, the Convention has been the victim of efforts by a very small number of Senators who have sought to keep the Convention from coming to a vote.

Between 1994 and 2002, the Convention languished on the docket of the Senate's Foreign Relations Committee, which has responsibility for reviewing treaties submitted to the Senate by the president and making recommendations on them to the full Senate. During this period, the Chairman of the Committee failed even to hold hearings to consider the Convention, in spite of personal pleas by Secretaries of State and Defense, senior military officials and industry groups, all of which supported U.S. accession to the Convention.

It was only in 2003 when the Senate Foreign Relations Committee came under a new chairman, Senator Richard Lugar, that the Convention finally received a Committee hearing. The Committee held two hearings on the Convention in October 2003 at which it heard testimony from representatives of the U.S. government, including the U.S. Navy; U.S. industries with interests in the oceans, including the oil and gas, commercial shipping, and fishing industries; representatives from non-governmental organizations interested in the protection of the environment; and experts in oceans law and policy.

These hearings revealed widespread support for the Convention among constituencies in the United States with interests in the oceans and their uses.

Following these hearings, the Foreign Relations Committee held a formal vote on the Convention in February 2004, and voted 19-0 to recommend that the full Senate approve U.S. accession to the Convention.

Since the Committee's action on the Convention, a small but vocal group of critics have raised various objections to the Convention. These critics do not represent constituencies with interests in the uses of the oceans; rather, their concerns about the Convention appear to be more philosophical in nature. Most of these critics are opponents not only of the Law of the Sea Convention, but of virtually all multilateral treaties. They apparently believe that even in areas where international cooperation is necessary and

where rules can be agreed that reflect U.S. interests, entering into treaties weakens the United States by constraining its freedom of action. Bad publicity about the U.N. relating to the Security Council's action on the war in Iraq and the oil for food program has not helped. Despite such misgivings our industry can only give good grades to UN agencies we have worked with such as the International Maritime Organization (IMO) and the International Seabed Authority itself.

So where does all of this leave the Convention? The next step for the Convention is for the Senate's Majority Leader, Senator Bill Frist, to schedule time for the full Senate to debate and vote on the Convention. He declined to do so during 2004. There are a number of possible explanations for this: he may share the concerns of the Convention's critics; he may be seeking to avoid a public debate on an issue which there is some disagreement within his party; or he may feel the Senate has more important matters to devote its time and attention to than the U.S. accession to the Convention.

Further delay in U.S. accession to the Convention, of course, bears risks and costs for the United States. The Convention became open for amendment for the first time in November 2004. This means that our ability to participate in consideration of any such amendments will be limited. The work of the Commission on the Limits of the Continental Shelf is proceeding; and as a non-party to the Convention, the United States is not eligible to submit a claim for the delineation of its broad outer continental shelf, which could hamper efforts to develop the resources of the shelf. More generally, by staying outside the Convention, the United States risks calling into doubt its commitment to the balance of interests codified in the Convention for uses of the oceans. In the long run, this could serve to undermine the order and stability on the oceans fostered by the Convention, to the detriment of U.S. interests and of all users of the oceans.

Conclusion

All of this leads me to the conclusion that when we consider what boundaries we face in advancing the frontiers of oil and gas exploration, technological boundaries may be the easiest to break. Economic boundaries probably rank second while political boundaries may be the most difficult to overcome. The efforts of the past year have placed the United States closer to joining the Convention than at any point in the past decade, and supporters of the Convention can take heart from the progress that has been made. More work remains to be done, however, before U.S. accession to the Convention can become a reality. You can be certain that the petroleum industry will continue its efforts in support of the Convention aggressively.