

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009
Notes by Lisa Campion

May 20th, 2009

Welcome Remarks

Mead Treadwell, U.S. Arctic Research Commission

May 21st, 2009

Panel I: Overview

Satya Nandan, Distinguished Senior Fellow of COLP

Conference Negotiation on Ice-Covered Area Articles

John Norton Moore, Director of COLP at the University of Virginia Law School

- One difference of the Arctic – Article 234
 - Section 8: Ice-Covered Areas, Article 234
 - Background
 - 1969 *Manhattan Voyage* created political discussion on sovereignty along with environmental concerns. Canada responded by extending their territorial sea and enacting a pollution prevention zone.
 - Canada's – EEZ should include the ability to control vessel source pollution that goes through your EEZ. This was denied by the Convention.
 - Instead of these standards what is needed is high standards that are issued by an organization such as International Maritime Organization (IMO). This would be easier than including ship construction within the Convention.
 - Understanding of the release of the seabed committee – zone lock (Thailand has to go through another country's EEZ to access their EEZ).
 - Article 234 – Environmental Chapter ONLY
 - Protection of navigation (“due regard to navigational freedom”)
 - Article 236
 - Doesn't apply to vessels with sovereignty
 - Make it clear that this is an overlay over 234
 - Article 297
 - Protection of navigational rights within Article 234 is subject to compulsory dispute resolution.
 - 1985 Voyage of Coast Guard *Polar Sea* created a negative press reaction of the sovereignty issue. Canada reacted with baseline systems and claimed that they were historic waters.
 - 1988 Informal agreement dealing with icebreakers.
 - Legal Analysis of the Claims
 - Canada has not claimed they had the right to create these baselines under Article 7, Article 8, or Article 35.
 - Canada has not claimed they had an archipelago.
 - It doesn't meet the archipelago chapter as stated.

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Within Convention, but it is only limited to mid-ocean island states.
- Even if met this, it wouldn't meet the 1:1 standard.
- Under Article 53, it could not have made an Article 234 claim.
- Canada's claim is a historic internal waters claim. The Convention doesn't provide the criteria but it has to be accepted by the international community and have lasted for a period of time.
 - There may also be an claim on the overlay of the straits.
- Issue Resolutions
 - Article 206 – Special Needs
 - IMO sets these standards and works the issues out that arise under this Article.
 - Mechanisms need to be worked out to provide for the protection and safety.

Cooperation or Conflict in the Arctic?

Dr. Rob Huebert, Associate Director of Center for Military and Strategic Studies at the University of Calgary

- Problem
 - Changing nature of arctic geopolitical security
 - Evolving relationships between the circumpolar states – Canada, US, Norway, Denmark, Iceland, Russia, Finland, Sweden, along with Japan, China and South Korea
- What type of international regime is developing?
 - Cooperation
 - Existing political good will
 - Good cooperation between operators
 - Acceptance of science-based understanding of the region
 - Existence of UNCLOS and Arctic Council
 - Two decades of non-conflict
 - Conflict
 - Weak international institutions
 - Undetermined borders
 - Potential huge resource base
 - Involvement of major powers – Russia and US
 - States look after their own interests and not those of other states.
 - New technologies
 - Korean ASIPOD expulsion unit will restructure how oil is transported in Arctic areas.
 - Who will create an icebreaker that can transport natural gas in the arctic environment?
- Transforming of the Arctic
 - Massive Transformation
 - Climate change
 - Resource development

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Last region of undiscovered resources – 13% undiscovered oil and 30% of gas of the world.
- When will we have the economic accessibility?
 - Geopolitical transformation/globalization
 - Transformation is leading to increased activity
 - Perceptions and reality are driving the process
 - Arctic security forces are now being prepared
- Geopolitical Environment
 - Treat:
 - Environmental
 - Military
 - Economic
 - Two Points
 - Arctic as a geopolitical transit point
 - Arctic as a new source of resources
- Arctic Security
 - Non-linear progression of factors
 - Complexity of the North
 - Long-term impacts of current policy are not clear
 - EU Policy Statement/US Arctic Policy
 - Current naval construction
- www.dur.ac.uk/ibru/resources/arctic
- Conclusions
 - Geopolitical concerns reduced after the Cold War
 - New concerns, challenges, opportunities are arising as Arctic is perceived/becoming more accessible
 - Issue will be predominately maritime/aerospace
 - Can the arctic be a point of cooperation and confidence building? Or will the Arctic increasingly become a point of competition or conflict?

National Maritime Claims in the Arctic

Brian J. Van Pay, Office of Ocean and Polar Affairs, Extended Continental Shelf and Geographer Expert of the U.S. Department of State

- Definition of the Arctic
 - There are many different definitions that serves its own purpose.
 - Arctic Ocean – IHO in 1953 definition
- 430 international maritime boundaries – with very few being agreed upon.
 - Established through a need to define these boundaries.
- Maritime Zones
 - Territorial Sea
 - 12 nm
 - EEZ
 - 12-200 nm
 - Sovereign rights over living and non-living resources
 - Each of the 5 states bordering the Arctic have established EEZ

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- If states meet the criteria under Article 76, the state can define a continental shelf beyond 200 nm.
 - If they meet the criteria, the states only have sovereign rights over the non-living resources of the shelf.
- Continental Shelf
 - When a state has defined their continental shelf, this is reported to the Commission on the Limits of the Continental Shelf (CLCS).
 - The Commission may not examine a submission if there is a dispute.
- ECS (Extended Continental Shelf)
 - Not within Convention
 - Russia was the first to make a submission – 4 total with 2 in the Arctic
 - Any recommendations may not prejudice future maritime boundary negotiations between Russia and Denmark.
 - Norway
 - Submission in 2006
 - Norway has yet to officially adhere to the recommendations of the CLCS
 - Canada
 - Cooperative effort
 - Submission is due 2013
 - Denmark
 - ECS for 5 areas
 - U.S.
- Sector Lines
 - Line of longitude that starts from the terminus of land boundary and intersects with the North Pole.
 - Treaties use coordinates as a line of allocation to divide land.
 - Application is varied and not consistent, especially for marine areas.
- Norway and Russia EEZ Dispute
 - Grey Zone
 - 1978 fisheries zone agreement that includes the Loop Hole and part of their EEZ's
 - Loop Hole
 - Supportive recommendations for both Russia's and Norway's submissions
- Norway Svalbard and Spitsbergen Treaty – does Norway have rights over the EEZ that encounters the islands since the treaty was negotiated in 1920?
- Longest maritime boundary is between US and Russia
 - Agreed in June 1990
 - Two ECS areas in the Bering Sea
- US v. Canada dispute over the Beaufort Sea
- Straight Baselines
 - Cannot exceed 24nm
- Deep Seabed

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Consists of the seabed and ocean floor and subsoil thereof beyond the limits of natural jurisdiction.

Panel II: Scientific Background

Barbara Moore, NOAA and U.S. Department of State

Mapping and Exploration in a Changing Sea Ice Environment

Larry Meyer, Center for Coastal and Ocean Mapping, NOAA-UNH Joint Hydrographic Center

- www.telegraph.co.uk – Map of Bathymetry
- Article 76
 - Requires mapping to determine whether there is an ECS.
- Multibeam Echo Sounder
 - Icebreakers equipped:
 - USCGC Healy
 - CCGC Amundsen
 - I/B Oden
 - Climate change has allowed us to map.
- Intergovernmental Panel on Climate Change (IPCC)
 - GHGs have been shown to increase at an exponential level.
 - Maximum Ice Extent has been declining at 2.8% per decade.
 - Less than 10% of the ice is greater than 2 years old. This data depicts the thickness of the ice.
- 4 Expeditions to Map the possible US ECS boundaries
 - Chukchi Cap and Barrow Margin
 - 1st Expedition found that prior maps were not as reliable as they had hoped.
 - Last Expedition realized that the ECS boundary was probably farther than first expected.
- Conclusions
 - Mapping is getting easier, but there are several factors that always need to be considered.

Marine Protected Areas

Suzanne LaLonde, Faculty of Law at the University of Montreal

- Objectives of MPAs
 - Reduction of overfishing
 - Provides for protection of a source of the stock.
 - Reduces the dramatic changes in life history that is being seen in overexploited stocks.
 - Eliminates or limiting changes of damaging fishing practices or human practices.
 - MPAs should be high in biodiversity and have a diverse habitat. There is usually high productivity within these areas.
 - Management
 - Maintenance of characteristic habitats
 - Essential to creating networks – Convention on Sustainable Development

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Networks of MPAs are the best tools for protecting ecological life support systems (ecological-based management).
- Most critical factors changing the arctic are global and no state can alter these effects by acting alone, but must collaborate with other states.
- Management Objectives
 - ICNs definition incorporates all 6 categories of protected areas that provided different levels of protection depending on the management objectives.
 - These objectives apply to different levels of government and range in type depending on what the government wants to achieve.
- Integrated Management Plan
 - Ensure that management actions reduce or modify the impacts as defined within the management objectives.
- Circumpolar designation of MPAs is bound to be complex especially if nations are having trouble designating them within their own waters.
 - Jurisdictional issues
 - Mobility issues – pollution is mobile along with living things within the ocean
 - Needs a systematic approach to linking MPAs with corridors
 - Adjacent areas will need to take into account the MPAs management objectives
 - Need to have a jointly agreed upon network with a formal agreement defining flexible standards for how to designate and manage MPAs.

Changes in the Arctic Environment

- Stephen Macko, Department of Environmental Science at the University of Virginia
- The Arctic Ecosystem is expected to go to a ice-covered to an seasonally ice-free system. This will alter the ecosystem greatly.
 - Arctic receives very little attention as to the effects of climate change, such as sea level rise.
 - Methane is also a contributor to climate change. Sources of methane are found within the Arctic.
 - Methane has 10-20 times the effect of carbon dioxide, but does not reside in the atmosphere as long.
 - The sea level rise is expected at 11m. So the conservative approach is no longer an accurate model.
 - Collateral Impacts
 - Release of methane from either gas hydrates on the seabed or stored in the costal permafrost
 - Changes in ecosystem
 - Changes to the ocean chemistry (pH)
 - Arctic Peats and Permafrost
 - Decreasing levels results in loss of coastal zone.
 - Rising temperatures means the permafrost will shirk.
 - Polar regions are very productive compared to other areas of the ocean.
 - Ice promotes the growth of low trophic level organisms (i.e. diatoms and algae).

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- All food webs depend on these organisms that rely on the ice to grow.
- LOWVEC – Antarctic system may be able to help us identify what will and is happening to the Arctic environment.
- Changes in the flow of the Arctic are also changing the Arctic.
- There is no estimate as to how many organisms are within the Arctic.
- The pH of the ocean is rising to become more acidic (>0.1pH). This means that organisms will start to decompose due to the high levels of acidity.
 - The ocean is not neutral, but it has been shown to becoming more acidic.
 - Organisms that use calcium carbonate will dissolve.

Discussion

- Is the U.S. strait a passage?
 - There are no significant public statements stating that the Northwest Passage is a strait. EU made it clear that the waters of the Northwest Passage are not internal waters, but are not designated as international waters as a strait, but the last option is that it is territorial waters of Canada.
- What is going on with Russia mapping?
 - There have been Russian crew reports, but there has been no connectivity. It seems that the Russians are looking at the deep ocean where the US is just starting to research this area of the Arctic.
- MPAs can allow freedom of navigation through them.
- Article 234 and Article 236 have different language within them.

Panel III: Arctic Marine Transport

RADM Arthur E. Brooks, USCG Commander for the 17th Coast Guard District
Outcomes of the Arctic Council's Arctic Marine Shipping Assessment (AMSA)

Dr. Lawson W. Brigham, Professor at the University of Alaska, Fairbanks

- Current Arctic Marine Use
 - Showed maps of all the uses and their overlap within the Arctic.
- Arctic Marine Shipping Assessment 2009 Report
 - Approved April 29th, 2009
 - Recommendations
 - Enhancing Marine Safety
 - Protecting Arctic People and the Environment
 - Building the Arctic Marine Infrastructure
 - Highlights
 - Cooperatively support IMO efforts to strengthen, harmonize and regularly update international standards for vessels operating in the Arctic.
 - Improvements to Arctic marine infrastructure to enhance safety and environment protection.
 - Develop circumpolar environmental response capabilities.
- This is a baseline assessment, but a key document that is based on science. Most discussion is a policy document and provides a strategic guide for how the world can respond to operating in the Arctic.

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- www.pame.is – AMSA Report

IMO/MARPOL

Aldo Chircop, Professor of Law at Dalhousie University, Halifax

- Multi-tiered, Strategic Approach
- AMSA provides direction
 - Strengthening domestic and international maritime standards through the IMO
 - Broad range of issues
- Use IMO tools in a coordinated manner
 - Identifying safe routes
 - Routing measures
 - Refuge locations
 - Zero discharge standards
 - Rules and standards
 - Inspections
 - PSSAs (particularly sensitive sea area) – marine areas that need special protection
 - Consultation
- IMO favors less restrictive standards.
- Opportunity to learn from maritime regulatory history to move towards an integrated approach to engage the larger maritime community in the process.
- IMO – International Maritime Organization
- MARPOL – International Convention for the Pollution Prevention from Ships

Navigation Issues

J. Ashley Roach, U.S. Department of State

- Two Efforts
 - Support the mandatory parts of the AMSA
 - Augment IMO ship safety and pollution prevention with mandatory requirements.
- Recommendations
 - Review of older ships to determine whether it is appropriate to include “grandfathering” in the arctic regions due to the safety concerns.
 - Expand the ship emergency and pollution prevention plan – equipment, plans, and procedures for operating within the Arctic.
 - Search and Rescue Services (SAR) – consider the remoteness of the area. It should be tasked that ships serve as SARs for each other due to the limited SAR resources within the Arctic.
 - Improve communication within the Arctic region since there is no single communication for all ships within the region or a satellite for this area.
 - Training guidance for personnel operating within the region – model course along with standards for training.
 - Local ice mapping
- www.imo.org

Panel IV: Northwest Passage, Northern Sea Route, and Trans-polar Route

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA

MAY 20-22ND, 2009

Rüdiger Wolfrum, Director of Max Planck Institute for Comparative Public Law and International Law at the University of Heidelberg

- Article 4 of the Antarctic Treaty – sovereignty provision

Major Issues

Ted L. McDorman, Faculty of Law at the University of Victoria, British Columbia

- *Saltwater Neighbors : International Law Relations between US and Canada*
- Look into book that came out 20 years ago by **David ?**
- Past Suggestions
 - Canada: The waters of the Northwest Passage are the historic internal waters therefore foreign vessels are not allowed within it.
 - U.S.: There exists a right of passage within the Northwest Passage.
 - It is unlikely for the governments to switch their positions in the near future on the Northwest Passage.
 - Northwest Passage (NWP)
 - Canada – Not without permission
 - U.S. – Not with permission
- Why does the government have these positions?
 - The U.S. has asserted the NWP as an international strait to protect the freedom of navigation within the Arctic.
 - There has been no direct challenge to Canada's position of the Northwest Passage. For 40 years, this has been an academic interest, but not a political/governmental interest. However, this may change within the near future.
 - In 1988, U.S. and Canada entered into an agreement. There was an intense desire to get something resolved within the NWP.
 - A few days ago, the Canadian Senate Committee recommendation was to uphold the statement that the NWP is the historic internal waters and to secure this claim.
 - The U.S. has a traditional view that the NWP is an international waterway, and the U.S. wants to resolve this issue with Canada.
- How do we move forward?
 - Several different models, but each involves a capitulation (surrender) of their positions in order to solve the problem.
 - Since we do not have a formal agreement, each side gets what they want.

National Security Issues

Commander James Kraska, U.S. Naval War College

- National Security Presidential Directive Article 66
- Geostrategic Context
 - Competing Perspective
 - International community
 - Coastal states
 - Security Interests
 - Sovereignty
 - Safety
 - Security

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Air and sea mobility
- Resource development
- Strategic Deterrence
- Missile Defense
 - Arctic is an ideal area for missile defense systems.
 - Important for the U.S. and Canada due to intercontinental ballistic missiles.
- Maritime Domain
 - UNCLOS is the principal regulation over the Arctic.
- Northern Edge
 - Fusion between UNCLOS and U.S. Arctic Policy.
 - The principal feature of the Arctic is the Arctic Ocean.
 - Freedom of access is necessary for crisis response along with contingencies that are wholly unrelated to the Arctic.
 - If you can travel through the Arctic, you can reduce your travel time for crisis response.
- Logistics
 - Harsh climate, extreme cold creates hardships for travel
 - Tolerance for the ships, personnel and weapons is reduced.
 - High seas create even more difficulties for operating surface ships.
 - Rhyme ice – icing up, ice that collects on hard surfaces that needs to be broken up by the personnel to make sure that the vessel buoyancy is not affected.
- Arctic Warfare – World War II
 - Operation Silver Fox – trying to deprive Russia of the Port of Murmansk.
 - There has been some military action within the Arctic already.
- Russian flights within the Arctic
 - They are exercising their rights over international air space. Other countries do this over other countries.
 - Russia is the largest Arctic nation so they are just trying to determine what is going on in Russia.
- Multilateralism is the way to go. For the U.S. policy, we can play a constructive role with Canada and the NWP along with Norway and Russia with the waters of Svalbard. Russia is probably in the strongest position legally and diplomatically.

Northern Sea Route: Legal Issues and Current Transportation Practice

- Alexander S. Skaridov, Admiral Makarov State Marine Academy from the Russian Federation
- 2009 – Law of the Northern Sea Route
 - Showed Map of NSR along with Russian straight boundaries and EEZ
 - NSR Management
 - History which agency actually managed the NSR within Russia.
 - NSR Current Problems
 - Human factor
 - Safety of navigation (rescue support)
 - SafetyNET and NAVTEX
 - Hydrographical survey and port infrastructure development

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Year-round navigation
- Icebreaker support
- Cost effectiveness
- Legal support
- Infrastructure Development
 - In 2009, only 30 of the 70 total ports are available. In 1998, 50 of the 70 were available for foreign navigation.
 - Vessels should ask permission by local authorities due to safety procedures and early departure procedures.
- Ice Conditions in the Kara Sea
 - St. Petersburg Arctic and Antarctic Research Institute (AARI) determines that ice conditions will increase by 30%, but this is young ice.
- Icebreaker Trafficability
 - The ice trafficability of the icebreakers needs to be 3.0 to be effective in the NSR so Russia is building a new vessel with this capability.
- NSR and Russian Arctic Strategy
 - Highest priority is the formation of modern transport infrastructure
 - NSR should remain a national maritime transport system
 - New icebreakers for the new level of the ice trafficability
 - Developing of the NSR infrastructure is the investment in the potential energy resources.

Discussion

- Compare 3 routes and the potential for the opening of the routes.
 - AMSA – The Arctic Council made no determination on the question. The focus was on safety standards of the transport.
 - The economic analysis has not been completed to determine the plausibility of each of these. The shortest distance is across the trans-polar route. It is undetermined which sector of the maritime industry would actually use this route. There is potential since it is the shortest route along with very young ice that should be ice-free seasonally.
- Combined command in an increasing multi-lateral Arctic – Do we need to have a combined force along with a treaty organization to oversee the treaty such as NATO? If in fact this is the way to go, when should this organization be created?
 - The U.S. has a forum to communicate with Russia, Japan, South Korea, China and Canada where many different things are discussed about how we can cooperate especially environmentally.
 - Examples: U.S. is bordering Chinese vessels and vice versa along with Japan and Russia making flights overhead to make sure everyone is complying with the fisheries policies.
 - We do have common operating principals.
- Ted McDorman
 - Article 211.6 doesn't apply – is it your view that Article 234 doesn't apply to the Canadian archipelago?

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Article 234 probably doesn't matter in the whole scheme of things. Article 221.6a doesn't provide a process and probably doesn't seem consistent with the current Canadian position.
- Historical internal waters require international acceptance and a long-standing claim – there is a burden on Canada to show that this has been widely accepted by the international community or else this claim will not be accepted. Is any country available to make a historic internal waters claim regardless of whether this is accepted by the international community?
 - This was the Canadian assertion just as Dr. Moore provided the U.S. assertion. I have not evaluated whether this would be sustainable. I just provided that these are assertions that might need to be worked on further.
- What about the Trans-Alaska pipeline system and the tankers that transport this oil? It seems that the Oil Pollution Act exceeded the IMO standards. Does this require the U.S. to reject the IMO standards on this issue? Why does ASMA not discuss tax?
 - There was not sufficient support for having a mandatory system and this is consistent with how IMO does things within the Polar Code. The IMO uses voluntary provisions, determines if they work, then decide whether to make these provisions mandatory.
 - The time frame that Congress enacted the Oil Pollution Act was faster than when the IMO adopted its standards. When the IMO standards were created from amendments to MARPOL, the U.S. decided to go with our standards because they are slightly different from the international standards, but the practical matter is that there is compliance nationally and internationally.
 - Within AMSA, the U.S. defined the arctic as the Aleutian and north.
- What is stopping a combined effort in going to IMO and creating a regime that strengthens arctic shipping so the arctic states have more protection?
 - There are various things that are occurring already. Once it is completed, then the object is to take them and make them mandatory.
 - What isn't happening is that we should be thinking about the routing and reporting systems of ships transiting the entrances and creating mechanisms that applies to all the Arctic.
- Would a PSSA be appropriate in the Bering Strait?
 - The AMSA addresses this specifically for the Bering Strait by working with the IMO for routing issues. They haven't looked at applying a PSSA for that area. Although this issue is addressed within the study.

May 22nd, 2009

Panel V: New Challenges: Arctic Marine Environment and Biodiversity

David D. Caron, Co-Director of the Law of the Sea Institute, School of Law at the University of California, Berkley

Biodiversity

Jennifer Jeffers (Presented by David D. Caron), School of Law and College of Natural Resources at the University of California, Berkley

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Biodiversity – provides goods and services to sustain human life, food and health needs of growing populations, scientific value, ethical and aesthetic values
- Current State of Arctic Biodiversity
 - Arctic Climate Impact Assessment (ACIA)
 - Most comprehensive independently reviewed evaluation of Arctic climate change effects, 2005.
 - International Polar Year
 - Scientific program focused on the Arctic and the Antarctic, March 2007 to March 2009.
 - 2010 Arctic Biodiversity Assessment (ABA)
 - Circumpolar Biodiversity Monitoring Program (CBMP)
- Climate Change Effects on Arctic Ecosystems and Species
 - Seabirds
 - Marine Mammals
 - Fish Stocks
- Human Threats to Biodiversity
 - Fishing
 - Reduction in extent and duration of ice
 - Increase fishing activity, extend harvesting time, place further pressure on depleted or threatened fish stocks
 - Shipping
 - Oil and Gas Extraction
 - Extension of Continental Shelf Claims
- Legal Frameworks for Biodiversity Protection
 - General Arctic Legal Framework
 - No individual treaty regime specifically governs the Arctic
 - Primary governance regimes are those of Arctic sovereign states, UNCLOS, International Seabed Regime
 - One Exception: Agreement on the Conservation of Polar Bears
 - The Arctic Council
 - Oversees inter-Arctic governmental cooperation
- UNCLOS
 - Article 194(5): Measures to Prevent, Reduce and Control Pollution of the Marine Environment
 - Article 196(1)
- CBD
 - Single most important international convention for protecting the world's biodiversity
 - Biodiversity has still not been helated.
- Possible Paths Forward
 - Problems:
 - Even with all legal instruments in place, major gaps and shortcomings exist.
 - New threats have also emerged, which are not regulated at all in current biodiversity regime

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Very little coordination of marine biodiversity.
- Solutions:
 - Strengthen Existing Legal Frameworks
 - Arctic Treaty for Protection of Marine Biodiversity
 - Establishment of Marine Protected Areas (MPAs)
 - Other Ideas?
 - Creation of National Parks in Arctic to preserve areas of highest marine biodiversity
 - Seasonal or permanent closures of areas to fishing, exploration, and resource exploitation
 - Creation of Arctic-wide Regional Fisheries Management Organization to manage fish stocks
- Conclusions
 - Legal regime must be comprehensive and ecosystem-based
 - Climate change and biodiversity loss in the Arctic does not occur in isolation but has global repercussions
 - Confronting biodiversity loss in the Arctic allows us to better understand, and prepare for, the protection and conservation of biodiversity on a global scale.

Has International Law Failed the Polar Bears?

Nigel Bankes, Chair of Natural Resources, Faculty of Law at the University of Calgary (ndbankes@ucalgary.ca)

- The U.S. Fish & Wildlife Service (USFWS) listed the polar bears as threatened throughout its range under the Endangered Species Act (ESA).
- International community listed the polar bear as vulnerable.
- Unsustainable harvest of the polar bear within Alaska and Svalbard. These harvests were by “arctic safaris.” This concern has been addressed by the Agreement.
- Agreement on the Conservation of Polar Bears
 - Article I
 - The taking of polar bears shall be prohibited except as provided in Article III.
 - For the purpose of the Agreement, the term “taking: includes hunting, killing and capturing.
 - Article III
 - Taking permitted
 - d) By local people using traditional methods in the exercise of their traditional rights and in accordance with the laws of that Party, or
 - e) Wherever polar bears have or might have been subject to taking by traditional means by its nationals.
- International Union for the Conservation of Nature and Natural Resources (IUCN) provided advice on the Agreement as well as working with scientists.
- USFWS – conservation and trophy hunting requires congruent goals on a domestic and international level
 - Trophy hunt should be legal where it occurs and the import/export should be legal.
 - This would have to go through CITES (polar bear listed on Appendix 2).

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- “no detriment” finding is required
- Marine Mammal Protection Act (MMPA) – polar bear is a covered species
 - Prohibited the import of marine mammals.
 - In 1991, the MMPA is amended at the request of the U.S. hunters to allow the import of bears harvested from “approved” Canadian populations of polar bears.
- Agreement on the Conservation of Polar Bears
 - Preamble
 - The Governments of Canada, Denmark, Norway, the Union of Soviet Socialist Republics and the United States of America, Recognizing the special responsibilities and special interests of the States of the Arctic Region in relation to the protection of the fauna and flora of the Arctic Region;
 - Article II
 - Each Contracting Party shall take appropriate action to protect the ecosystems of which polar bears are a part, with special attention to habitat components such as denning and feeding sites and migration patterns.
- Climate Change Convention
 - The objective of this Convention is to achieve...stabilization of greenhouse concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt...
- Tromso Meeting March 2009
 - “The parties agreed that impacts of climate change and the continued and increasing loss and fragmentation of sea ice – the key for both polar bears and their main prey species – constitutes the most important threat to polar bear conservation.”
 - This was a meeting hosted by the USFWS of the “Range States” of the Agreement.
 - Outcome of the Meeting
 - “Climate change has a negative impact on polar bears and their habitat and is the most important long term threat facing polar bears. Action to mitigate this threat is beyond the scope of the Polar Bear Agreement. Climate change affects every nation the earth and reaches well beyond the five parties to the Agreement so the parties look to other fora and national and international mechanisms to take appropriate action to address climate change.”
- Conclusions
 - Comprehensive national and international management plans
 - Continued meetings
 - Commitment of the parties to bring this issue into other forums that deal with this issue.
 - Agreement recognizes that Greenland is also a party.

New Roles for the U.S. Coast Guard “The Emerging Arctic: A New Maritime Frontier”

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

Commander James D. McMahon, USCG

- Summer Sea Ice Retreat Affects on the USCG of Alaska
 - Coastal Erosion
 - Loss of protection from fall storms (Kivalina and Shismaref)
 - The USCG has a responsibility to respond to oil spills, but we do not have this capability currently if one of the tanks erodes into the ocean.
 - We do not have the resources to rescue inhabitants that are stranded due to storms that are evading their towns.
 - Economic/Energy Security
 - At least \$1 Trillion
 - Hydrocarbons (Oil & Gas)
 - Estimated 10 Billion Barrels
 - 750,000 sq km sediment > 1 km
 - Seasonal Ore Operations
 - Red Dog Operations in Catalina – 10-11 nm offshore
 - Transported by barge
 - USCG is responsible for inspecting these barges and making sure everything is working properly, but we don't have the resources to do this.
 - Environmental Security
 - Risk of large number of commercial vessels traveling within the Arctic.
 - There are very few tugs to help boats that are traveling within the Arctic.
 - Currently, we have 400 ships traveling this area and are expecting more.
 - Species Movement North
 - Stocks are moving North
 - No commercial fishing in Arctic
 - North Pacific Fishery Management Council (NPFMC) decision
 - Large closed area enforcement challenges
 - 180 Russian vessels with 70 American vessels are fishing along the Bering Strait boundary.
 - Two countries have sovereign rights over this biomass and we need to work together to preserve this.
- Arctic Changes Drive USCG Mission Expansion North
 - All USCG mission in Southern Alaska must be expanded to Northern Alaska.
 - Protecting sovereignty within Arctic
 - Safeguarding Arctic Resources – pollution prevention response
 - Facilitating safe navigation and destinational traffic – waterways management, IMO Arctic shipping standards, Arctic domain standards, SAR
 - How do we support expanding year-round scientific research within the Arctic?
- Arctic Ops – Summer 2008

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Arctic domain awareness
 - Maritime domain awareness (knowing what is going on within the waters) + considering the human, social, cultural, economic factors
- Cutter operations
- Tailored force package deployment
- Community engagement
- SAR exercise
- Lessons Learned
 - Lack of effective communication
 - Small boats/short range helos ineffective
 - Require icebreakers or ice hardened vessels
- Challenges in the U.S. Arctic
 - Distances
 - Weather
 - Lack of infrastructure
 - Lack of knowledge
- Arctic Conundrum
 - Development
 - People
 - Environment

Commentary on How to Preserve the Arctic Resources

Jordan Diamond, Environmental Law Institute at Washington D.C.

- There are further economic opportunities
- There isn't a specific regime dealing with biodiversity within the Arctic that extends beyond the U.S. jurisdiction or the jurisdiction of other countries.
- Can we strengthen existing legal frameworks or do we need an additional legal framework to address biodiversity?
- Difficulty of managing Arctic resources
 - Consider implementing a comprehensive ecosystem-based management (EBM) plan to address the threats that are emerging and those that are already present.
 - No changes within the Arctic are a positive for the Arctic biodiversity.
 - Avoid management fragmentation
 - Avoid conflict of users
 - EBM primary elements:
 - Regional ocean governance - it seems that there needs to be a regional, joint oversight entity
 - Substantial scientific data – marine spatial planning
 - Identify and research gaps
 - Ensure that traditional ecosystem knowledge is addressed and depended on within the EBM
 - Precautionary Approach
 - Adaptive Management
- Conclusion: Legal Framework needs to be amended to allow for EBM.

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

Panel VI: Arctic Living Resources

David VanderZwaag, Marine and Environmental Law Institute, Dalhousie University, Halifax

Arctic Living Resources and U.S. Policy

David A. Balton, Deputy Assistant Secretary for Oceans and Fisheries, U.S. Department of State

- EEZ and High Seas Areas in the Arctic
 - Central Arctic Ocean
 - Loop Hole
 - Banana Hole
 - Bering Sea Donut Hole
- The Convention authorizes each coastal state to enforce its fishing laws to vessels within its waters. If the vessel is within high seas, it is subject to the flag state regulations.
- The IMO along with the U.N., U.N. Food and Agriculture Organization along with the regional level are involved in managing fisheries resources within the ocean.
- North East Atlantic Fisheries Commission (NEAFC)
 - Iceland, Norway, Russia, EU and Denmark
 - Adopt measures for a variety of fisheries within the high seas areas.
 - Boundaries extend to the Arctic or where fishing has occurred thus far.
 - <http://www.neafc.org/>
- There are no commercial fisheries North of the Bering Strait therefore there are no international mechanisms to manage the fisheries North of this area. There are no fisheries at all within the high seas portion of the Central Arctic Ocean.
- However, this is changing!
- The Arctic Climate Impact Assessment (ACIA) provides an analysis of the changes in the Arctic.
- The U.S. North Pacific Fishery Management Council has created a U.S. Arctic Fishery Management Plan that will become effective in 2010 if it is approved.
 - Recognizes warming trends along with the long term effects of these trends
 - Prohibits expansion of fishing into the EEZ until more is known about the ecology of this area.
- Senate Joint Resolution 17 (2008)
 - Future regimes should be consistent with previous arrangements and the U.S. should halt fishing with the Arctic high seas.
- New Directive on U.S. Arctic Policy
 - National Security Presidential Directive Article 66
 - The general principals of international law apply in the Arctic and to support the protection of vulnerable ecosystems to the effects of fishing.
 - Conserve, protect, and sustainably manage species.
- Next Steps
 - The U.S. has been raising this issue with other Arctic nations.
 - Goals

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Acknowledge that relatively little is known about how the Arctic ecosystems are changing and the future of them.
- Working with stakeholders
- Pursue further research
- Bring to attention the U.S. Arctic Fisheries Management Plan to other Arctic nations and to consider taking comparable steps with fisheries management within their jurisdictions.
- Prepare for fisheries or stocks that are shared between nations.
- Should a multi-lateral regime be instituted before any Central Arctic Ocean fishing occurs?

Issues in Arctic Fisheries Governance: Some Canadian Perspectives

Lori Ridgeway, Director General, International Policy and Integration, Department of Fisheries and Oceans, Canada

- Key Pragmatic Suggestions
 - Close gaps in current integrated science knowledge for management
 - Gap analysis needed re fisheries management regimes
 - Commit/recommit to basic management principles for the region
- Canada is a Pan-Arctic coastal state – 188 km of coastline with limited knowledge of the ecosystems.
- Canadian Arctic Fisheries
 - Small, limited short fishing season
 - East Arctic
 - Some commercial fisheries in the eastern Arctic in Davis and Hudson Straits and Baffin Bay
 - Subsistence fisheries
 - Governed by Northwest Atlantic Fisheries Organization (NAFO)
- Western Canadian Arctic
 - West – Oceans management approach
 - Beaufort Sea Large Ocean Management Area (LOMA) as a planning framework
- Canadian Arctic Governance
 - UNCLOS/UNFSA/CCRF Foundations to Canada management of resources within EEZ in the Arctic
 - UNFSA – United Nations Fish Stock Agreement
 - CCRF – Code of Conduct for Responsible Fisheries
 - Co-managed through agreements between federal, territorial/provincial governments and under agreements negotiated with Aboriginal groups.
- Fisheries renewal adding policy frameworks of significance to Arctic
 - Policy to Manage the Impacts of Fishing on Sensitive Benthic Areas
 - Adds additional and specific layer of precaution for Arctic
 - Applies to all Canadian fishing activities both within and outside Canada's 20 nm EEZ
- Where does it fit with broader Arctic governance issues?
 - EAF (Ecosystem Approach to Fisheries) is part of EBM (Ecosystem Based Management)

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Reduced/eliminated overfishing
- Bycatch management
- Vulnerable marine ecosystems (VMEs)/benthic policies
- Time/area closures
- Cooperation in Arctic
 - Arctic Council provides important cooperation to many foundational activities.
 - Large marine ecosystems (LME) identification and baseline assessments and indicators, scientific and risk assessments, non-legally binding guidelines

Commentary from a Native Alaskan

Earl Kingik, Hunter/Whaler from Point Hope, AK

- Provided a perspective from the Indigenous people which supported the findings that have been identified through the various presentations.

Panel VII: Continental Shelf Limits and Jurisdiction

Tomas H. Heidar, Legal Adviser, Ministry of Foreign Affairs of Iceland, Director of the Law of the Sea Institute of Iceland

U.S. Continental Shelf Policy

Margaret F. Hayes, Director of the Office of Ocean and Polar Affairs, U.S. Department of State

- ECS Task Force Meetings
- Workshops
- Project Plan, June 2009
 - Where does the US. Have ECS?
 - What work is left to be done?
 - How much will it cost?
- What has been done so far?
 - Bathymetric Data Collection – more than 1 million square kilometers from 11 cruises

Danish Interests in Arctic Continental Shelf

Thomas Winkler, Under-Secretary for Legal Affairs, Ministry of Foreign Affairs, Denmark

- Key Definitions
 - The Kingdom of Denmark: Denmark, Greenland, and the Faroese Islands
 - Pre-1953 Constitution: Greenland was a colony
 - Post-1953 Constitution: equal partner in the Kingdom
 - June 21st, 2009: New law on Self Rule: Greenlandic ownership of resources, including in the Continental Shelf.
 - Greenland is not a member of the European Union.
- Danish/Greenlandic interests
 - Danish interests in the Arctic = Greenlandic interests in the Arctic + Danish interests
 - Resources
 - Environmental Protection Protecting the indigenous people and their way of life.

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- SAR
- Security policy
- Challenges and Answers
 - Arctic States – 8 or 5
 - Arctic Council
 - Non-Arctic States
 - EU
 - IMO
 - Strategy
 - With Greenland, with the 8 and the 5.
 - In the Arctic Council – a positive development but more needed
 - Not necessarily all the way with the EU
- Denmark/Greenland and the Continental Shelf
 - December 16, 2014
 - Areas:
 - North and South of the Faroese
 - North, North East and South of Greenland
 - Data-collection: Ministry of Science and Technology, GEUS – Continental Shelf Project with Canada and Russia
 - Negotiation: MFA and Greenland
 - Submission
 - CLCS discussions
 - First Submission
 - Area North of the Faroese Islands – the Banana Hole
 - Partial Submission to the CLCS on April 28th, 2009
 - Overlapping claims of the “Agreed Minutes: between Norway, Iceland and Denmark/Faroese

Russian Policy on Arctic Continental Shelf

Alexander S. Skaridov, Admiral Makarov State Marine Academy from the Russian Federation

- Main Provisions of the Russian Arctic Strategy
 - Arctic should become the main strategic resource base for the Russian economy.
 - Arctic disputes for the resources could become the critical point for the World military balance.
 - Cooperation is the only way to further exploitation of the resources.
- Data Sources
 - Soviet – Russian Navy collecting data on the seabed from the early 1950s.
 - Numerous polar expeditions
 - 2005 – Mendeleev
 - 2007 – Materials according to the geological task of the Minister of Natural Resources (LR)
 - 2008-2009 – Drilling on the Lomonosov Ridge to provide for additional scientific evidence for Russian aspirations.
 - 2010 – New Submission for the ECS?

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

Complications in Delimiting Outer Continental Shelf

Ron McNab, Marine Geophysicist, Geological Survey of Canada

- Complications
 - Scientific
 - Data acquisition
 - Data interpretation
 - Morphological breaks in natural prolongations
 - Alpha-Mendeleev Ridge
 - Lomonosov Ridge
 - International Bathymetric Chart of the Arctic Ocean (IBCAO)
 - Standard portrayal of the seabed relief in the Arctic.
 - Voyage to the foot of the slope
 - Conflicting views and findings
 - Countries are looking for ownership of gas hydrates. We still are unsure of how to extract and use this energy.
 - Procedural
 - Ratifications
 - Unsynchronized time frames of Article 76 Programs in the Arctic
 - 99 total of all potential submissions of the CLCS
 - The CLCS thought they would only get 65 submissions
 - Submission deadlines
 - Delayed Completions: Implications
 - For States Parties to the U.N. Convention on Law of the Sea (SPLOS) and Division for Ocean Affairs and Law of the Sea (DOALOS)
 - ★ Financing Commissioners' emoluments and expenses
 - ★ Providing DOALOS with staff and technical resources
 - ★ Dealing with Commissioners' other obligations
 - For submitting States
 - ★ Deferring shelf-related decisions
 - Bilateral resolutions
 - Resource exploitation
 - ★ Maintaining legal and technical teams on standby basis
 - ★ Coping with new developments that could alter outer limits
 - CLCS Timeline
 - Administrative
 - Boundary negotiations
 - Partitioning the OCS: Two Prior Observations
 - An enclave of combined continental shelves
 - Which theory do we use for where to draw the lines?

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Deferred policies and decisions
 - Ilulissat Declaration
- International
 - Interests of other states
 - European Parliament Resolution – October 9th, 2008
 - European Commission Report – November 20th, 2008
 - Proposing EU Arctic Policy
 - Marine scientific research
 - Governed by Part XIII of UNCLOS
 - Why is it important?
 - Arctic Ocean is still largely unknown
 - ★ Unique conditions
 - ★ Setting is harsh yet vulnerable
 - Issues transcend international boundaries
 - ★ Multinational cooperation is key to their resolution
 - ★ Collective action for the common good
- Conclusions
 - Complications are multi-faceted and will prevail over different time frames
 - Scientific complications are short-term and generally tractable
 - Procedural complication will prevail over the intermediate term
 - Administrative and international complications may be the most enduring

Panel VIII: Arctic Offshore Oil and Gas

Paul L. Kelly, Esquire, Senior Vice President, Rowan Companies, Inc., U.S.
Commission on Ocean Policy

Russia's Polar Oil and Gas Activities

Anthony Zolotukhin, Deputy Rector on International Affairs, Russian State Gubkin
University of Oil and Gas

- International Character of the oil and gas supply
 - More than 75% of oil and 40% of gas cross international borders
 - Russia: more than 70% of oil production and 30% of gas production are delivered to the world market
 - European Market: 26% of crude and almost 40% of oil and its products are supplied from Russia
- Russia's oil and gas reserves are larger than all other countries!
- Russia's GDP is dependent on 20% of the petroleum industry while providing the highest return on investment.
- Russia's oil production has a stable and sustainable growth path through 2030.
- Two developments during the next 5 years:
 - No solutions to the investment challenges: oil production falls down to 450 million ton by 2013
 - With solutions: oil production growth up to 511 million ton by 2013
- There is very little profit within the oil industry due to taxes.
- 93% of field development projects unprofitable due to high taxes and tariffs.

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Requirements for sustainable development:
 - Profit taxation
 - Development of petrochemistry
 - Gas chemistry development
- Rational use of associated gas – state policy in increasing energy efficiency.
 - Limited access to gas transport system.
 - Undeveloped infrastructure for utilization for associate gas.
- Annual economic loss due to associated gas flaring amounts to \$750 million.
- New Regions and Challenges in Project Development
 - Severe climate conditions
 - Presence of ice
 - High cost
 - Long distance export of oil and gas – additional heavy cost
 - Lack of technology, competence and experience in offshore field development
 - Deficit of qualified personnel
 - Environmental risks, not yet fully understood
 - Emergency response time
- Shtokman Development
 - Challenges
 - Long distance to shore – construction of multipurpose pipeline which doesn't have analogs
 - Harsh climatic conditions (limited access to the field – 4 months a year)
 - Very complex sea floor in combination with a high sea depth – very challenging technical solutions
 - High cost, need for external financing
 - No analogs in the world's practice – need for nonconventional technology solutions and their integration.
 - Opportunities
 - Huge gas reserves secure stable and long-term contracts
 - Possibility to diversify gas deliveries to Europe and to USA depending on market conditions
 - High gas quality minimizes expenditures on gas processing
 - Low temperatures favorable for minimizing energy consumption for gas liquefaction
 - Gas from Shtokman to Germany increases project's economic efficiency
 - Relatively short distances to market (US East coast, Canada, Mexico, secure competitiveness)
- Norwegian exploration wells and coverage is 25 times greater than Russia's efforts.
- Russia Arctic Offshore – Reserve Replacement Ratio (RRR)
 - Why is it important?
 - Annual production
 - Reserve base

Private Oil and Gas Development in the Arctic Ocean

Peter Slaiby, Alaska General Manager, Shell Exploration and Production Company

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Energy demand will double by 2050.
- Shell operated in Alaska for 50 years until 1998.
- Extensive experience and operations in Cook Inlet.
- Government lease sales since 2005
 - 160 Beaufort Leases - \$84M
 - 275 Chukchi Leases - \$2.1 Billion
 - Hundreds of millions with Alaskan and offshore service providers
- Alaska Offshore: World Class Potential
 - 25 Billion barrels of Oil – 120 TCF Natural Gas
 - Successor to North Slope Production
 - US imports 60% of oil and 20% natural gas
- Alaska OCS – Benefits to Alaska and the Nation
 - 35,00 jobs over project life
 - Extend the life for the Trans-Alaska Pipeline
 - Gas reserves for gas line to lower 48 states
 - Domestic energy security
- Shell is “Shovel Ready”
 - Seismic program highly successful
 - Prepared to do exploration drilling since 2007
 - Infrastructure to support the program in place
 - Drilling blocked by regulatory and litigation challenges
- Stakeholder Solutions
 - Finding common ground with the people of Alaska
 - Hundreds of meetings with stakeholders
 - Incorporating feedback
 - Revised program
- Legal Challenges
 - D.C. Circuit Court vacates 5-year leasing plan
 - 2007-2009 Plan of Exploration petitioned to be withdrawn from 9th Circuit Court
- Regulatory Challenges
 - Layers of Federal, State, and Local
- Why Should we be allowed to drill?
 - Baseline Science - \$500 million and growing
 - Oil Spill Response
 - World-Class Contingency Plan
 - Experience
 - Shell Pioneered Alaska Offshore
 - Stakeholder Concerns
 - 2010 Beaufort Plan of Exploration Filed
 - 1 Rig
 - Half of the wells as previously planned
 - 1 year duration
- Summary
 - Alaska offshore resources are significant

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Federal lease sales have been held
- Shell “shovel ready” since 2007 but de facto moratoria blocks drilling

U.S. Geological Research in the Arctic Ocean

Brenda S. Pierce, Program Coordinator, Energy Resources Program, U.S. Geological Survey (bpierce@usgs.gov)

- Objectives of Circum-Arctic Resource Appraisal (CARA)
 - Estimates of yet-to-find petroleum
 - Probabilistic, geologically based analysis
 - Probabilistic – provides a range with a low and high probability
 - One methodology, consistently applied
 - Conventional oil and gas only
 - Regardless of sea ice or oceanic depths
- Provinces and Assessment Units
 - 33 Provinces defined
 - 69 Assessment Units evaluated
 - 48 quantitative assessments
- The CARA assessed geological risk, but not economic or technical risk.
 - Probability of at least one accumulation > 50 MMBOE.
- Background
 - Current world consumption is about 30 BBO/year (January 2008)
 - Reserves near all-time high ~1,238 BBO
 - If Canadian oil stands are included ~1,390 BBO
 - Up from ~891 BBO (January 1996)
- CARA mean oil estimate is about 90 BBO: 13% of undiscovered; 4% of world supply.
- Fewer than 500 exploration wells off Alaska’s shore.
- CARA mean estimate gas was 1,670 TCF which is about 30% of world undiscovered.
- Initial Findings
 - Arctic as a whole is gas-prone.
 - South Kara Sea & Barents Sea are outstanding for gas – most is Russian territory.
 - Offshore Alaska is outstanding for oil.
 - SE Barents Sea, Offshore Mackenzie, E & W Greenland, and Yenisey-K have oil potential.
 - Arctic oil will change the Arctic nation but not the global oil balance.
 - Most resources are on continental shelves and not in the deep Canada or Eurasia.
 - Most oil and gas is not in the UNCLOS area.

Discussion:

- Peter Slaiby: Oil transportation and oil exploration are different matters and cannot be compared for the oil spill response time.
- If the Commission says A and the State says B, then it is not final and binding. What if the State says something very close to A? It seems that there would be a gray area that needs to be defined further.
- Transparency and recognition of these boundaries once they are finalized.

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

Panel IX: Spitsbergen (Svalbard)

Myron H. Nordquist, Associate Director, Center for Oceans Law and Policy,
University of Virginia School of Law

Competing Claims in Svalbard Offshore Areas

Robin Churchill, University of Dundee School of Law

- Treaty of the Archipelago of Spitsbergen, 1920
 - 40 parties including 8 Arctic states
- Maritime zones of Svalbard
- Do the rights in Articles 2 and 3 of the 1920 Treaty or does the Treaty generally apply on the continental shelf of Svalbard or in the FPZ (or eventually EEZ)?
- Viewpoints on this Question
 - Treaty rights in Articles 2 and 3 do not apply to maritime zones beyond the territorial sea (Norway, in the past supported by Canada and Finland).
 - Treaty is unambiguous and should be given its ordinary, literal meaning, but **VCLT** Article 31 also refers to context, object, and purpose.
 - Restrictions on sovereignty are not presumed, but widely seen as an out-dated approach to treaty interpretation.
 - Treaty rights do apply beyond the territorial sea (Russia, Iceland, Spain and the UK).
 - Treaty should be given an evolutionary interpretation, but this approach to interpretation is not universally accepted. Compare Aegean Sea, Shrimp/Turtle cases with Grisbadarna, Guinea Bissau/Senegal and Abu Dhabi cases.
 - Rights apply by analogy. Rights over FPZ and continental shelf derive from Norway's sovereignty over Svalbard, therefore restriction on sovereignty should also extend to FPZ and continental shelf, but weakness of arguments by analogy.
 - Anomalous if Articles 2 and 3 do not apply. Parties' rights in territorial sea would then be greater than in FPZ and on continental shelf, but anomalous consequences do not necessarily invalidate a literal reading of the treaty.
 - Norway is not entitled to exercise jurisdiction over non-Norwegian vessels in Svalbard's FPZ (Iceland, Spain and Russia).
 - There seems little to support this view.
 - Under Article 2, Norway has jurisdiction to adopt fishery conservation measures for the territorial sea equally applicable to all Treaty party nationals. If right to fish under Article 2 extends to FPZ, so must Norway's jurisdiction.
 - Norway's exercise of jurisdiction in the territorial seas has been uncontested by other parties.
 - Svalbard is not entitled to any maritime zones beyond the territorial seas (USSR/Russia at times in past).
 - Every island (except an uninhabitable rock) is entitled to a full set of maritime zones (Article 121, UNCLOS)

33RD COLP CONFERENCE
CHANGES IN THE ARCTIC ENVIRONMENT AND THE LAW OF THE SEA
MAY 20-22ND, 2009

- Nothing in the 1920 Treaty to suggest Norway is not entitled to establish maritime zones in respect of Svalbard
- All parties have accepted (apart from occasionally USSR/Russia) Svalbard's entitlement to maritime zones.
 - Publicly reserved their position (France, Germany and U.S.).
- Conclusion
 - Svalbard is entitled to generate the full set of maritime zones and Norway has jurisdiction.

The Maritime Zones around Svalbard: Present Status and Future Prospects

Geir Ulfstein, Department of Public and International Law at the University of Oslo, Norway

- Svalbard
 - Local communities
 - Longyearbyen
 - Barentsburg
 - Activities
 - Coal mining
 - Scientific research
 - University studies
 - Tourism
 - Environmental Protection
 - Local government
- Svalbard Treaty
 - Norwegian sovereignty
 - The Mining Code
 - Non-discrimination
 - Taxation
 - Restrictions on military use
- Maritime Zones
- Fishing
 - Non-discrimination
 - Total allowable catches (TACs)
 - Non-treaty parties will not have access to the fishing resources, but they can become parties to the Treaty.
 - Quotas for treaty parties
 - Other conservation measures
 - Enforcement
- Petroleum Activities
 - There is a potential for discoveries.
- Shipping
- Solutions
 - Norway accepts the application of the Svalbard Treaty
 - The other treaty parties accept that the Svalbard Treaty does not apply
 - A new Svalbard Conference
 - International dispute settlement
 - A negotiated informal interpretation