

5.1 ROUNDTABLE 3: NAVAL OPERATIONS IN THE AMERICAS MODERATOR'S SUMMARY

Mr. Dana Goward

As you all know, the U.S. Coast Guard conducts naval operations in America as well as throughout the Americas. What I would

The moderator is Mr. Dana Goward. Mr. Goward assumed his duties as Director, Office of Assessment, Integration and Risk Management in March 2008. His directorate has a varied portfolio that includes Arctic and oceans policy, coordination of antipiracy efforts, port security assessment, and business planning and analysis for each of the Coast Guard's 11 statutory missions. He also serves as the Department of Homeland Security (DHS) and Coast Guard Executive Agent for Maritime Domain Awareness (MDA) issues. Prior to his selection to the Senior Executive Service, Mr. Goward was Chief, Search and Rescue Policy; Chief, Office of MDA Systems and Architecture; and the Director of MDA Program Integration. Mr. Goward served as an active duty Coast Guard officer for 29 years. His military assignments included Deck Watch Officer and Fisheries Inspector; Chief Civil Penalty Magistrate for the Gulf Coast, Caribbean and Inland River System; Director of Human Resources for the Eighth Coast Guard District; and Chief of the Coast Guard's Office of Boat Forces. In the latter position he led the world's largest public safety and security boat operation with over 1700 vessels and 9000 people. He was awarded the Legion of Merit for leading the transformation of the U.S. Coast Guard's boat operations. A majority of his military career, however, was spent as a helicopter pilot serving in the Caribbean, Great Lakes, and on both coasts before being assigned as Commanding Officer of Coast Guard Air Station New Orleans. He is the recipient of the Air Medal and the Helicopter Association International's Igor Sikorsky Award for Humanitarian Service for the rescue of two fishermen during the height of a hurricane. He has also been recognized for his creation of the Coast Guard's Helicopter Rescue Swimmer program. Mr. Goward is a 1974 graduate of the U.S. Coast Guard Academy in New London, Connecticut, where he received a bachelor of science degree. He holds a master's degree from the Naval Post Graduate School and a certificate in Human Performance from the University of New Orleans.

like to talk to you about today, before I turn the podium over to our panel of experts, is just that: the effect of climate change on naval operations in America.

Before I start on that, however, I want to assure you that the Coast Guard is concerned about what climate change can do, and is doing—not just to our active duty naval forces, but also to our ability to support naval operations in the lower 48 states as well as at higher latitudes. We are also interested in how these changes will affect our shoreside forces and the people who live and work along the coast.

In our own small way, we are adapting to the new realities in terms of energy and climate change and we are doing our bit to further scientific research in areas in which climate change is most apparent.

Now, let me preview the main points of my talk—there are three things that I want to leave you with today. First, the United States is an Arctic nation. Most Americans live in the lower 48 and so we cannot see Russia from our homes. However, there are Americans who can, and there are folks who can see a lot of ice from their homes. Both groups are as much a part of the United States as are the rest of us.

Second, the Arctic is changing. Regardless of your scientific, political, or cultural philosophy, the change is quite evident. The Arctic is simply becoming more accessible. And as it becomes more accessible, more people are accessing it. As a result, the Arctic is actually becoming a more dangerous place than was the case previously. When it was frozen (I won't say it was a frozen wasteland because that would offend a lot of the scientists here), it was essentially inaccessible. But now that it is semifrozen and much more accessible, there is much more human activity and, as a result, it is much more dangerous and much more variable.

My third and final point is that the United States has the same sovereign rights and responsibilities in the Arctic as it does in the Gulf of Mexico. The big difference is that in the Gulf of Mexico we have a substantial federal, especially Coast Guard, footprint and we have a friendly neighbor with settled borders next door in

Mexico. In the Arctic, we have virtually no footprint, the Russians are next door, the Chinese are on the way, and our borders with Canada and Russia are not settled and there are a lot of things that are up for grabs. So that is the whole presentation in a nutshell.

Before I go on, I wanted to let you know that some of what I will discuss will duplicate information included in other presentations. You should take from this fact not that your federal government is boring you with repetition, but that there is some agreement as to which topics and issues are the most important and most relevant.

So the Arctic is changing and it is changing faster than most people have predicted. This is leading to increased activity. As some of you know, last year several German cargo vessels navigated the Northern Sea route unaided by icebreakers. Was it a pioneering and unusual event? The answer to that question is yes. Was it a forerunner of a lot more activity of the same kind that will save people lots of money and lots of time in shipping? The answer to that question is probably yes as well.

We have a saying in the Coast Guard that when the sailboats show up, you can guarantee that pretty much everyone is going to show up. For the last several years, we have had sailboats showing up in the Arctic. In fact, this is about year three of the Arctic becoming essentially an adventurer's playground with yachts, cabin cruisers, folks seeking excitement and death in unusual ways throughout the summer season. Fortunately, they have yet to find death in unusual ways, but we know that will happen eventually; it is only a matter of time.

Of course, you all know oil and gas have been found in the Arctic. Although the oil and gas companies have been stymied by environmental concerns and court orders, those restrictions are now being lifted and we are beginning to see, especially in the U.S. portion of the Arctic, some serious movement toward exploration.

What is less well known is the fact that there are all kinds of minerals available in the U.S. Arctic. The world's largest tin mine, the Red Dog mine, operates in Alaska above the Arctic Circle. They have to barge the ore out to the bulk carriers because the approach is so shallow. The miners accumulate ore over the course

of the winter and then ship it out in summer—a period that seems to be getting longer and longer.

I think you all know about the various claims that are unsettled. These claims are not necessarily just about the borders and whose country stops where; they also apply to the undersea portion of the Arctic—especially the so-called Extended Outer Continental Shelf. You've got to love the Russians. Starting with Sputnik, they have been able to get us galvanized on all kinds of things we should have been paying attention to but had not been. Last year they dropped the Russian flag on the bottom of the sea up by the North Pole and said that they claim a large portion of the Extended Outer Continental Shelf as Russian territory. This summer they say that they are going to drop some paratroops on the ice at the North Pole. That should awaken those complacent Westerners. They have also resumed their bomber flights to test the Distant Early Warning (DEW) Line; those flights had been in hiatus since the fall of the Berlin Wall. We now even have checkpoints in the Bering Sea.

There are a number of operational challenges that affect our ability to conduct naval operations in the Arctic (Figure 1). One of the biggest of these is distance. You do not necessarily think of that when you think of the Arctic. But if you look at Dutch Harbor in the lower left-hand corner, that is the last refueling point for going northbound. Unless you have a high-endurance icebreaker that is outfitted with lots of fuel, by the time you get your normal high-endurance Coast Guard cutter up to Barrow, Alaska, you are only going to have about 4 or 5 days' worth of fuel left before it's time to turn around and head back to Dutch Harbor.

Let's look next at the issue of governance. We in the Coast Guard have developed a mental model that helps us understand our requirements in the maritime domain. We look at three things. First, you need a rule set or what we call a "regime." You need to know the rules, how everybody should operate, the kinds of things that you want to enforce, best practices, and so forth.

The second thing that you really need is awareness. You need to understand both the environment and what people are doing out there. You need to know if they are they obeying the rules,

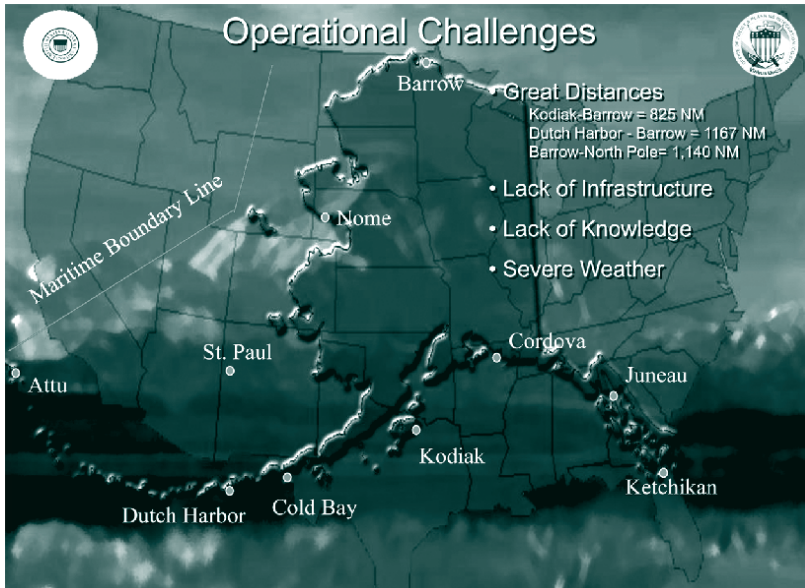


Figure 1. Operational Challenges for Naval Operations in the Arctic

if they are in trouble, and whether things are going according to the rule set—those expectations that you have established for that particular area or domain.

Finally, you have to have operational capability based on your awareness of whether the rule sets are being followed. You need to be able to go out and interact with the real world and enforce those rules and bring people's performance and behavior more in conformance with the way they ought to be behaving.

I have structured the next few figures in terms of the regimes we have established for the Arctic, what we have in terms of awareness—not much—and what we have in terms of operational capability—even less. In terms of rule sets, we have a really good one: the United Nations Convention on the Law of the Sea (Figure 2). Although it is fairly comprehensive, the United States has yet to ratify it.

We have, however, said that we will abide by it in terms of making our claim for our portion of the Outer Continental Shelf,



Figure 2. Convention of the Law of the Sea [1]

in terms of bringing Canada to the table in any kind of binding arbitration and agreement process to determine whether the Northwest Passage is internal waters or an international strait, as we believe. Of course, you can guess who believes it is internal waters. Currently, we have no seat at the table. We are completely out in left field along with the Iranians and the North Koreans, who also have refused to sign on. You might say that we are part of the axis of nonconcurrence for the Law of the Sea—a good club to be in, really in our best interest.

Otherwise, we do have good rule regimes there. In fact, the Arctic Council, the group of the eight Arctic nations that meets periodically to talk about Arctic issues and ways to keep it a relatively pristine place, how to care for one of the world's last unexplored wildernesses, has established that an Antarctic treaty-like device is not needed because the Arctic is all water and we already have a Law of the Sea. So we are all set.

In the United States, I will not say we are all set, but we have recently had our Arctic policy refreshed by the release of National Security Presidential Directive 66/Homeland Security Presidential

Directive 25 (NSPD-66/HSPD-25), which identifies the following policy objectives [2]:

- Promote security needs
- Protect Arctic environment
- Conserve biological resources
- Ensure sustainable development
- Strengthen Arctic nation cooperation
- Involve Arctic indigenous communities
- Enhance scientific research

It goes on at some great length to talk about different ways we should treat the region. As a result, we have at least reasonable concurrence on what the regime should be and how folks should behave. We are continuing to develop appropriate multinational search and rescue agreements as well as others.

How about awareness? Well, it is a big area; satellites tend to be asleep when they go over and we do not have a whole lot of any other kind of infrastructure to tell us what is going on. The U.S. Coast Guard has recently started to focus on this area; the Department of Defense (DoD) has as well. We have participated in a number of conferences and meetings with folks throughout the sensing community trying to address this. One of the things we are doing is conducting periodic C-130 flights up through the Arctic to improve our awareness of what is going on and also to provide some kind of presence patrol in the area. See Figure 3.

One of the challenges we face is that at -43°F , jet fuel turns to jelly. As a helicopter pilot, I can tell you that it is not a good thing in any kind of an aircraft because jelly does not flow through the fuel lines to reach the engines. We are also conducting summer deployments from southern Alaska to northern Alaska as part of our Arctic Crossroads Operation. We are doing this to provide presence in the region, improve our awareness, and learn how to operate there.



Figure 3. Arctic Awareness Patrols

So far, we have found that small boats do not work very well, small helicopters do not work very well, and anything that does not have de-icing on it does not work very well. We have also learned that the local folks know a whole lot of stuff that we really need to know. These activities have also provided unparalleled opportunities for us to learn about them, for them to learn about us, and for us to assess the damage that the climate change is doing to the Alaskan coastline.

When examining naval operations in the Arctic, it is important to keep in mind that the polar-class icebreaker is the only method of ensuring unrestricted surface maneuverability in ice-covered waters. The United States currently has three such vessels (Figure 4). One of them is in mothballs and one is a medium-class icebreaker—the Coast Guard cutter *Healey*—as much a science ship as it is an icebreaker. The third is the *Polar Sea*, a true heavy polar-class icebreaker.

In terms of our sovereign rights and responsibilities as an Arctic nation, a number of important considerations come into play. Certainly just being able to get up there and move around is one of them. If you compare our fleet of three icebreakers with

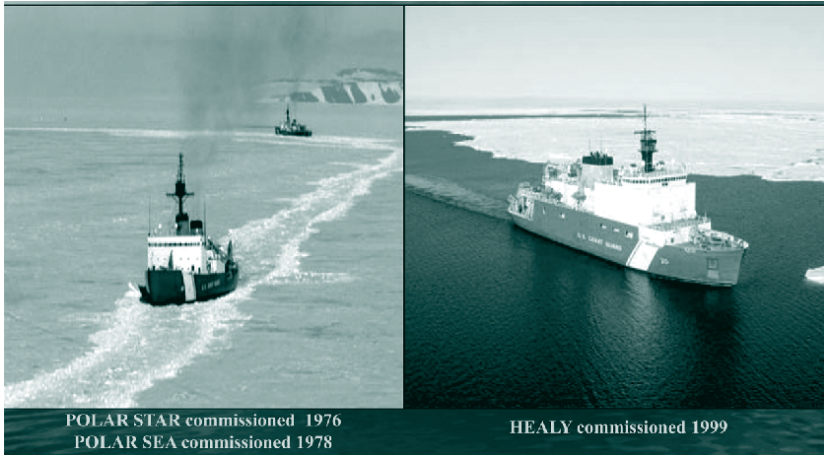


Figure 4. U.S. Polar Icebreakers

the numbers of similar ships operated by other Arctic nations (Figure 5), you can see that, from a pure Mahanian naval strategy perspective, we should all be really worried. Not only does Russia have a huge fleet of icebreakers, it has an enormous coastline bordering the Arctic.

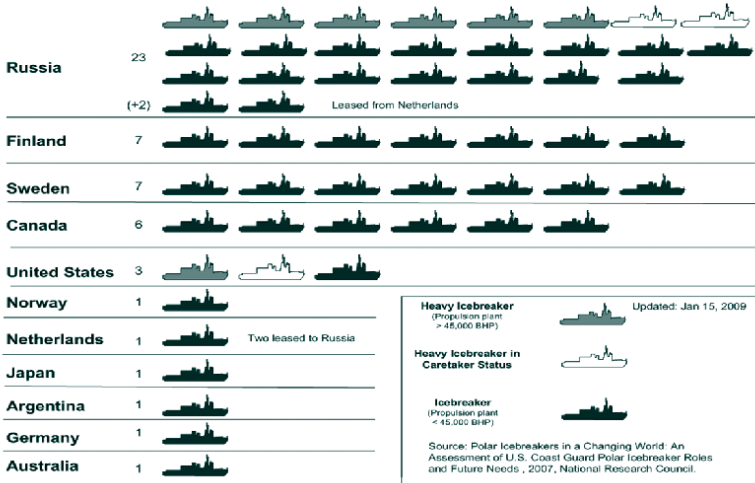


Figure 5. Comparison of Icebreaker Capacity of Various Nations

Another factor underlying the importance of the Arctic to Russia is the vast store of natural resources that will eventually become accessible. As indicated in Figure 6, these include substantial amounts of oil and natural gas. As the Arctic continues to thaw and as we encounter our Arctic neighbors more frequently, we are going to be at a substantial disadvantage. Although we do have superiority in the air and under the sea, I do not think that leaping directly to submarine warfare or air strikes is a good way to have the continuum of engagement that you need in order for international relations to go as smoothly as you would like. Obviously, we are looking at international interest to continue to conduct research. We certainly want to protect the environment.

Most definitions of the Arctic, by the way, include the Aleutian Islands that lie along the southern edge of the Bering Sea. The Bering Sea is ice covered 40–50% at some times of the year and you need the same kind of operational capabilities to exercise your sovereignty and protect your rights in that area as you do farther north. What is now a very pristine environment with increased shipping and increased hydrocarbon exploration and increased human activity of all kinds could become very unpristine very quickly if we are not careful.

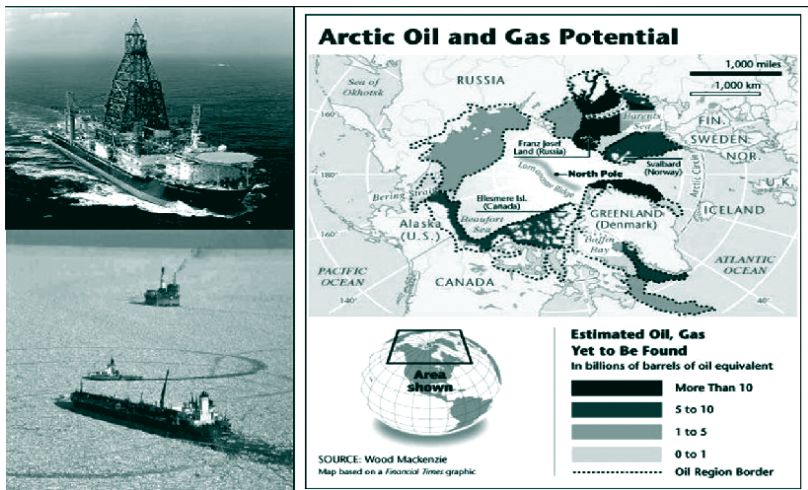


Figure 6. Arctic Oil and Natural Gas Potential

As the ocean warms along the Alaskan coast, seemingly strange things can happen. We recently had the mayor of Barrow, Alaska, in for lunch and he told us that all of a sudden they have a crab fishery in Barrow, all of a sudden they are starting to see salmon. Some of the people in Barrow had never seen a salmon before. So, we fully expect that the fisheries will continue to move north into the Arctic Ocean. The government is currently reassessing its moratorium on fishing in U.S. waters. As soon as it becomes commercially viable, folks are going to want to exploit that.

The pictures collected in Figure 7 are not from the Arctic, but rather from the Antarctic. I think it is fairly easy to extrapolate the fact that if we have X number of cruise ships visiting the Antarctic, every once in a while, you have a couple of these things happen. Cruise ships are now visiting the Arctic. Several years ago we had 3000 German tourists arrive unannounced in downtown Nome looking for T-shirts. You can imagine the locals' amazement at seeing these folks with their big cameras, their shorts, and their beer steins.

As the level of activity builds in the Arctic, we are going to see these kinds of things. This is a concern to the Coast Guard because we have responsibilities to respond to or prevent such incidents. We need to be able to protect the people who are visiting Alaska,



Figure 7. Images from the Antarctic

and we need to be able to protect the people who already live in Alaska. One of the tenets of the Presidential Directive and the U.S. policy for the Arctic is to protect and preserve the local culture and peoples there. Of course, we have national security concerns as well.

If you take home nothing else from my presentation, take home the fact that the United States is an Arctic nation and we have real concerns about our ability to exercise our sovereign rights and our sovereign responsibilities there given our current lack of capability.

REFERENCES

1. United Nations, *United Nations Convention on the Law of the Sea*, Geneva, Switzerland, 10 Dec 1982, http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm.
2. The White House, National Security Presidential Directive 66/Homeland Security Presidential Directive 25 (NSPD-66/HSPD-25), *Arctic Region Policy*, 9 Jan 2009, <http://www.fas.org/irp/offdocs/nspd/nspd-66.htm>.