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# AFJAGS Podcast:

## Episode 83

### A New Venue for Strategic Competition: The Arctic

**Host:** Major Laura Wheat

**Guest:** Major Keshat Lemberg

An interview with Major Keshat Lemberg about the multi-domain legal implications of the Arctic, as well as the current challenges and opportunities presented vis-à-vis Russia and China due to the changing environment, melting sea ice, and opening of shipping lanes.

[Intro music – The Air Force Song (Instrumental)].

#### Introduction

##### Major Laura Wheat:

Good morning, afternoon, and evening listeners. Welcome back to The Air Force Judge Advocate General's School Podcast. I'm Major Laura Wheat and I'm your host for this podcast. Now today's episode is with Major Keshat Lemberg about a hot topic right now, or should I say cold—the Arctic. She's going to talk about the multi-domain legal implications of the Arctic, as well as the current challenges and opportunities presented vis-à-vis Russia and China due to the changing environment, melting sea ice, and opening of shipping lanes.

Now, this was a previously recorded episode, and after it was recorded, Secretary of Defense Lloyd Austin published the [2024 Department of Defense Arctic Strategy](#). So we didn't get the opportunity to talk about it specifically, but there is a lot of overlap you'll hear in the discussion. Definitely recommend taking a look at that Strategy after listening to this episode.

But I do want to quote something in SECDEF's memorandum at the outset of the Strategy. He states:

Major geopolitical changes are driving the need for this new strategic approach to the Arctic, including Russia's full-scale invasion of Ukraine, the accession of Finland and Sweden to the

NATO Alliance, increasing collaboration between the People's Republic of China (PRC) and Russia, and the accelerating impacts of climate change. This increasingly accessible region is becoming a venue for strategic competition, and the United States must stand ready to meet the challenge alongside Allies and partners.

Alright, so before I hit play on the recording with Maj Lemberg, I want to tell you a little bit about her first. Now, she's had a change in assignments, but at the time of the recording, she was an attorney in the Air and International Law Division of the Operations and International Law Directorate at the Pentagon. That division is responsible for advising the air and space forces on status of forces and other international agreements, foreign criminal jurisdiction, law of war, weapons reviews, air operations, exercise plans and agreements, and similar matters involving international and air operations law. Now, as a judge advocate, of course, she's had a variety of other assignments. But I personally think one of the most interesting assignments of hers was her last assignment, where she was detailed to the National Aeronautics and Space Administration, AKA NASA, through the Strategic Legal Internship Program, where she was able to advise on international agreements in space.

Alright, without further ado, I'm going to hit play on this recording. Enjoy.

## **Interest in the Arctic**

Alright. So, Major Lemberg, I first want to start out asking you what got you interested in this topic today?

### **Maj Keshat Lemberg:**

So as you said, I was an intern with NASA through the Strategic Legal Internship Program, and while I was with NASA, I worked with their international Law and Space Law practice group. And in that capacity, I got to touch a lot of their missions and they have a lot of very interesting missions going on in the Arctic and, specifically, addressing climate change. So as far as the

melting sea ice, that became a hot topic of interest for me. And then when I PCA'd to JAOI at the Pentagon, I took on the role of also working with the Arctic Strategy Implementation Working Group.

### **Maj Wheat:**

Can you tell us a little bit more about what you do in that working group?

### **Maj Lemberg:**

Of course. So, my role on the working group is as an attorney, I provide legal advice, but the working group itself has been set up so it can address some of the strategic interests at the Department of the Air Force level for the different challenges and opportunities that we have in the region. They are working on a new publication that will be released soon to update the Department of the Air Force Arctic Strategy. That's still in the works, but there is a previous publication from 2021 and it discusses how the Arctic as a region is critical to our national security and homeland defense and how we should take a forward-looking approach to advance our strategic interests in that area.

## **Importance of the Arctic**

### **Maj Wheat:**

Okay, so we know why you got interested in this topic, but can you tell our listeners why is this so important?

### **Maj Lemberg:**

So, the Arctic sea ice is melting at an alarming rate. Right now, the minimum extent, which is the amount of sea ice that covers the region, is declining at a rate of about 13% per decade, per statistics that are made available through the scientific community and NASA. Every year, we're losing a lot of sea ice. I think they've observed that it's roughly the size of West Virginia—the area of sea ice that we're losing each year. And as a result of this, it highlights the impact of climate change. These negative consequences are likely to accelerate based on what the scientific community is showing us. There's climate change induced warming, which causes the sea ice to melt, and when the sea ice melts, the darker colored

liquid absorbs the sunlight, and that warmer water then melts additional ice, which creates a cycle.

This is also significant when we talk about atmospheric warming. The sea ice serves as a blanket, so it separates the ocean from the atmosphere and it keeps light out and keeps it from warming the air above. So, when we have the sea ice melting, there's less of thick, multiyear ice blanket, and as a result, this ice that we have left is thin and it melts more quickly.

This also impacts wildlife. As the sea ice declines, there's animals in the region such as polar bears and seals that are losing their habitat, and there's also nutrient dense water that's being churned up toward the surface. And this negatively interferes with a regular melt free cycle and negatively impacts different underwater marine life, including algae and killer whales.

**Maj Wheat:**

So those all sound like they're very, you know, environmentally focused. But are there any other potential reasons why it's important, say, from a strategic point of view?

**Maj Lemberg:**

Definitely. So, with the sea ice melting, it presents certain challenges and opportunities for the DoD. And I believe the recent National Defense Strategy and DoD strategy highlights this and the role of the Arctic, and its importance. We have emphasized our interest in making sure that the Arctic is a secure and stable region and safeguarding American interests, as well as protecting the homeland, and addressing the different challenges that we face in that region.

It is a strategic area for national defense because it's in between Indo-Pacific and Europe and serves as a buffer. But as the sea ice is melting, we see great power competition on the rise. We do have various interests in the region as the Department of the Air Force when it comes to our missions, including early warning, missile warning defense, satellite command

and control, intelligence, surveillance, reconnaissance, and deterrence. And we do have various bases in the region as well throughout Alaska and Greenland.

It's important that we continue to build our alliances and partnerships in the region, as expressed in the National Defense Strategy and DoD strategy in order to maintain this international rules-based order, and that way we can leverage our strong defenses with different Arctic states. There is the [Ted Stevens Center](#) at JBER that is focusing on training and preparation for ops in the Arctic, and it also provides some legal training as well as extreme weather training.

**Maj Wheat:**

And if I may, for our non-military listeners, what is JBER?

**Maj Lemberg:**

JBER stands for Joint Base Elmendorf-Richardson, which is a joint base in Alaska. So other reasons that this area is important to us include the opportunity for deep sea mining. There are increasingly accessible natural resources that are available in the region due to the melting sea ice, including natural gas, as well as different minerals. And there are various peer competitors that are interested in these resources, as well.

In addition to these resources, the melting of sea ice also opens up different trade routes. So again, this is another area for competition, but it also provides opportunity for us to continue to cooperate with our allies and partners in the region.

## **Applicable Law for the Arctic**

**Maj Wheat:**

So that's all really interesting. So now with everything you've kind of highlighted, do we actually have any law that addresses this topic?

**Maj Lemberg:**

We do. We have quite a few different areas of the law that help us understand the different issues at play in the Arctic. So, the Arctic is viewed as an ocean. So,

because it is primarily viewed as an ocean, that defines the different lenses that we look at it for when it comes to our legal perspective. There is no internationally accepted formal legal definition for the Arctic. It's viewed as being north of the Arctic Circle, an area that is warmer than 50 degrees Fahrenheit as an average temperature in July. These are different views from the international community, but the United States has a very expansive definition under law. So, 15 US Code 4111, we define the Arctic as all United States and foreign territory north of the Arctic Circle, as well as all United States territory north and west of boundaries formed by certain rivers in the area and different contiguous areas, including the Arctic Ocean, the Beaufort Bering, and different seas in the region.

So, because it's primarily viewed as an ocean, we have different legal rules that apply in the area. Since it is an ocean, there's no general treaty per se, like with the Antarctic Treaty, which is subject to different rules. Here instead, we look at it as primarily an ocean, so maritime law applies.

**Maj Wheat:**

Okay. And I need to ask you, because you said that it's considered an ocean, whereas Antarctic is not. Can you just tell our listeners why that is?

**Maj Lemberg:**

Sure, so the Arctic region consists of the Arctic Ocean, adjacent seas, and then parts of eight nations, including Canada, Denmark, which includes Greenland, Finland, Iceland, Norway, Russia, Sweden and the United States. In comparison, Antarctica is a continent with water instead of ocean with land, and it falls under the Antarctic Treaty, as well as customary international law.

**Maj Wheat:**

Okay, and then so can you tell us more about maritime law and explain to our non-lawyers, what is that?

**Maj Lemberg:**

So the Arctic falls under maritime law, and when we think about maritime law, we specifically think of the Law of the Sea, which is also referred to as the United Nations Convention of the Law of the Sea, or UNCLOS. The Arctic region is subject to UNCLOS and includes all the coastal state and maritime zones, plus the high seas, continental shelves under jurisdictions of the States, deep sea beds under jurisdiction of the deep-sea authorities for purposes of minerals.

**Maj Wheat:**

So what types of rules are within UNCLOS?

**Maj Lemberg:**

So, when we think about maritime law, we really break it down into different jurisdictions that apply to the coastal states. States enjoy a 12 nautical mile territorial sea, and then they have a 24 nautical mile contiguous zone. There's also an exclusive economic zone of 200 nautical miles from the baseline where states have the right to regulate the use of natural resources and also establish environmental protection.

Arctic coastal states have mostly resolved maritime boundary disputes through bilateral negotiations. However, we have some ongoing discussions with certain states, including United States and Canada, when it comes to specific areas such as the Northwest Passage.

**Maj Wheat:**

Okay, so we have maritime law. Is there any other basis for legal authority out there?

**Maj Lemberg:**

We do. We have international law. We have air and space law. We also have cyber law. There's all these various, different multi-domain legal implications that we look at when we look at the Arctic.

**Maj Wheat:**

Okay. So, let's talk through some of those, I guess, starting with international law. Can you take us there?

**Maj Lemberg:**

So international law is significant in this area, especially when we look at the Arctic Council. So, like I said earlier, when we're looking at different issues in the Arctic, a lot of these issues are resolved through bilateral and multilateral agreements, and that's how we essentially resolve disputes with our various Arctic states. So, the Arctic Council is an intergovernmental organization and it's formed in order to help streamline some of these issues.

It was formed back in 1996 through the Ottawa Declaration, and it includes Canada, Denmark, Finland, Iceland, Norway, Sweden, United States. What's interesting is that Russia is an eighth member of the Arctic Council, but in 2022, the Arctic Council condemned Russia for what they perceived to be as unprovoked invasion of Ukraine and took a strategic pause. However, recently Norway became the chairship for the Arctic Council and will remain in that role now from 2023 onward, replacing Russia.

**Maj Wheat:**

So, was Russia the chairship previously?

**Maj Lemberg:**

Yes.

**Maj Wheat:**

Oh, interesting. Okay. And so is it just these countries or is anyone else part of the council?

**Maj Lemberg:**

There are permanent participants, as well, that are part of the Arctic Council that includes six indigenous people's organizations. There's also observers, including Germany, India, and China, with other foreign states and governmental organizations and non-governmental organizations.

**Maj Wheat:**

So, what is the purpose of the Arctic Council?

**Maj Lemberg:**

So, the Arctic Council—its basic purpose is to keep the Arctic peaceful and stable, and it does this in various ways. It contributes to reducing environmental risks and preventing pollution, but also an encouraging partnership and peaceful resolution of issues. So, when we talk about Arctic strategic interests, we talk about territorial interests, but also, we talk about resources.

So, the Arctic Council, as an intergovernmental organization, helps move some of those issues out between the different states. Under maritime law, each state has certain rights to claim certain territorial privileges over its different zones, when we look at their exclusive economic zone and their territorial waters. And so some of these territorial claims in the region are contradictory, which results in disputes between these states. However, the Arctic Council strives to work together to come to peaceful resolutions for these different issues, and as a result of that, there has been various international agreements that have been entered into that cover an array of areas.

**Maj Wheat:**

So, what types of international agreements are you talking about?

**Maj Lemberg:**

Agreements on oil pollution, marine protection, emergency response, search and rescue, and also innocent passage of note, which was a convention between the United States and the USSR in the 1980s. There are other notable treaties that specifically applied to the region, including the International Convention for the Safety of Life at Sea, which is also referred to as SOLAS. By some, this is deemed to be the most important of all international treaties for the safety of merchant ships, and it was actually entered into after the Titanic, and it was created to provide minimum standards for construction and equipment and operation of ships to ensure safety.



Under this convention, different contracting states can actually inspect the ships of other contracting states if there is clear grounds for believing that the ship and the equipment do not substantially comply with the requirements of the convention. This is known as port state control.

**Maj Wheat:**

Oh, interesting. Okay. And so what else?

**Maj Lemberg:**

There's also this Svalbard Treaty, which is significant because it sheds insight into the different geopolitical implications in the Arctic. It was adopted over 100 years ago, but it's important still today. And the reason is, is because it shows all the different nuances that are involved in the area. It granted Norway full and absolute sovereignty over the Svalbard archipelago.

So, although it granted Norway full and absolute sovereignty, it had certain limitations. And so, it provided for equal hunting and fishing in territorial waters, equal access to islands in territorial waters and equal access to resources such as mining for all the states that were involved. As a result of this, Russia has often cited to the Svalbard Treaty in support of its claims that Norway should not be able to use its own military assets in the region to secure its security, even though it's not stationing those assets on the islands in violation of the treaty.

**Maj Wheat:**

Can you break that down a little bit more like what specifically was the issue?

**Maj Lemberg:**

So basically, the Svalbard Treaty was entered into to protect this archipelago that used to be for whalers—like it was it was only used for like whaling and then it was later used for tourism, but it was this really significant island strait. And everyone agreed that like it was really, you know, it was really close to Norway, it was really close to Russia, and that everyone should be able to

benefit off of all of these assets that are there, like the hunting and the fishing and everything, but Russia and Norway disagreed as to who it should really belong to.

So, this treaty was entered into and pretty much everyone signed it saying, okay, it belongs to Norway, however, it's only—it's only subject to Norwegian law. So, if you're going to be operating there, you have to be subject to Norwegian law, but you can still be a state there and have—you know, you can be a Russian, you can be a foreign entity associated with one of these other states and have equal hunting and fishing rights in those waters and have equal access to the islands and have equal access to the resources there.

**Maj Wheat:**

Okay, so that makes a lot more sense now. Thank you for explaining. Anything else as far as treaties or international law goes before we need to move on to a different domain?

**Maj Lemberg:**

Yes, as always, underneath the UN Charter, Article 51 applies for our right to self-defense for any sort of armed attack. So if we did perceive that we were facing an armed attack, we would have the right of self-defense. So that applies, you know, personally to us as well as a collective self-defense.

**Maj Wheat:**

Okay. And then let's move on to air law now. Can you talk about some of the law at play there.

**Maj Lemberg:**

Air laws in the Arctic? Because there are certain important treaties, such as the Chicago Convention of 1944 that apply to the Arctic, and also the Arctic states. So when we look at our main sources of air law, we look at predominantly the Chicago Convention, which basically states that when you have certain aircraft passing into national airspace, you have to determine whether it's civil or state. And state includes police and military. Civil aircraft includes everything else.

And so, it has different principles in this Convention that are also part of customary international law, which means things that we've always been doing. But we allow for overflight for civil aircraft, provided that they abide by all the other rules that we have in place. However, for state aircraft or military aircraft or police aircraft, they can't just enter into another state's airspace without previously having received specific authorization. We usually do that through the State Department, where we have to coordinate and receive that authorization from that foreign state.

**Maj Wheat:**

And so is that international or is a United States thing?

**Maj Lemberg:**

It's an international treaty with various states that have signed on, including the Arctic states.

**Maj Wheat:**

Okay. Interesting. Anything else on-air law?

**Maj Lemberg:**

Yes. So, the Chicago convention is the main source, but there's also other sources of air law. And so when we think about air law, we also have to discuss the domestic implications. And there are various domestic law sources, including the Constitution, as well as our implementation of our commitments under these international agreements, like the Chicago Convention. So, we have the FAA, which provides regulation and also air defense identification zones.

We've promulgated this via domestic mechanisms. And although it is an international law, it applies here. And it's important because there are different zones, unlike maritime law, where you have territorial seeing contiguous zone and exclusive economic zone, you don't have that here an airspace. Instead, you have two types of airspace, national and international. So, national airspace is anything to the left of 12 nautical miles, which means it's under the sovereignty of the coastal state and then international airspace is anything beyond that.

And when you're in the navigational zone that determines what you can do. So, that's why it's important to us here at 12 nautical miles, you're within national airspace. So, it's less last permissive than the law of the Sea. You have a lot of constraints on what can happen within that national airspace. Is that airspace directly above a nation and its territorial sea is up to outer space.

And each state has complete and exclusive sovereignty over its national airspace. The entry of foreign aircraft into that airspace requires prior permission. And there are certain exceptions. But, you know, mostly you can't just have like innocent passage or any sort of right in that sense into that airspace, unlike in maritime law, where you could have innocent, innocent passage under certain circumstances.

**Maj Wheat:**

So how would this apply in the Arctic? Can you give an example?

**Maj Lemberg:**

Sure. So, in the Arctic, we have a lot of states that have interests in the area. We have different Arctic states that are coastal states like Alaska as part of United States. Then we also have Russia and Greenland and Iceland and Norway. I'm trailing on. But basically, the Arctic states, some of them are very close together. And so especially when we look at the boundary between Alaska and Russia or between the United States with Alaska and Canada, we can't just cross into the national airspace of one of those other countries without previously having received that authorization and coordinating.

**Maj Wheat:**

Okay. That's interesting. So, any exception to any of these rules or treaties?

**Maj Lemberg:**

So there is an exception for the Chicago convention where if you're under duress in certain emergency situations and you do need to divert, then you can enter into another nation's airspace without that prior

permission. Usually, however, you would need that authorization and then you would coordinate that through the State Department.

**Maj Wheat:**

And are all of the Arctic states signatories on the Chicago convention? Yes. Okay. So, what do we have as far as space law goes?

**Maj Lemberg:**

In space law, we have the main source of law, which is the Outer Space Treaty. And its full title, it is the Treaty on the Principles Governing the Activities of Spaces in the Exploration and Use of Outer Space. We refer to it in short form as the Outer Space Treaty or OST, and it was entered into back in 1967, but is still applicable today because it's really a living, breathing document. It was written at the time where there weren't too many spacefaring nations. And although that's changed, and science and technology has changed, its fundamental principles still apply today.

So, it talks about how we cannot have any sort of national appropriation or claim of sovereignty to outer space. Outer space such as the moon and different celestial bodies should be free, for use for all states. We can't play any sort of nuclear weapons or weapons of mass destruction in outer space. We can't place them in orbit or on different celestial bodies like the moon or station them. But we can still use space as the military. So that is significant, because the military can still use space in the sense that we can have GPS, we can do these other things out there and make use of it in that sense with our satellites and other assets.

**Maj Wheat:**

So can you tell our listeners because, you know, now we're talking about space and they're like, Hey, I thought we were talking about the Arctic, which is, you know, down on the ground or the water, as you said, at the ocean. So how does the Outer Space Treaty potentially come into play with the Arctic?

**Maj Lemberg:**

So, the Arctic is a very strategic area that is hard to get eyes on just due to the extreme nature of the environment there. The fact that it's a lot of it has been covered in ice previously, even though that sea ice is melting, there's still a lot of it there. So, one of the ways that we get eyes on it is through space, through our satellites, through the capabilities that we have through space. And so we—we have different ways to photograph the area even from way up where we can get these great views and see not only the sea ice but the whole region. And because of that space is really, you know, so important in this regard.

**Maj Wheat:**

Okay, so that was the Outer Space Treaty. Anything else related to space law we need to discuss?

**Maj Lemberg:**

Yes. There are other notable international agreements that apply to space, including the rescue and return of astronauts, which has a very long, full title. It's actually the Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space. That agreement feeds into the Outer Space Treaty, but it specifically provides that states are responsible and need to take steps to rescue and assist astronauts, as well as return them to the launching state. It also provides that, upon request, states will provide assistance to launching states to recover space objects that have returned to Earth outside of the territory of the launching state.

**Maj Wheat:**

So, kind of, how might that come into play in the Arctic?

**Maj Lemberg:**

So, this is significant in the event that anything should fall to Earth from space, which we call space junk, or say there was a launch failure, something—something where you had an item that was supposed to be in space that's now fallen to Earth. If it's falling to Earth and it



hits in the Arctic and it hits a, you know, Arctic state, this would apply.

This would also apply if perhaps, you know, it hits and it lands in an area that's covered by the Arctic Sea, either with ice or otherwise, and it ends up in this international area, such as the open seas. So, there's also a very important indigenous population in the Arctic that has been there for millennia, and they're going to be the first ones, if anything were to fall from space or if there's any sort of search and rescue effort, if—if something were to happen on sea ice, because they're inhabiting these areas.

So if—if something were to fall, and it has in the past as the example that we see with Canada, where there was some something that fell from space and it landed in Canada, but it didn't—it didn't belong to Canada. The launching state was not Canada, it was another state. In this case, it was actually known that it was from Russia.

These items need to be retrieved and they're supposed to be done so upon request from the launching state, and then assistance is supposed to be provided in recovering those objects. So, in that case, although that didn't happen, there was an effort that was put into place whereby the United States and others came to help retrieve and repair the damage caused by that space object. Please note that I wasn't advising on that specific case, so there might be other aspects in regard that I'm not aware of.

**Maj Wheat:**

So you said that they tried to make it happen, but it didn't happen. So, is there really no kind of enforcement mechanism behind these treaties?

**Maj Lemberg:**

When we talk about enforcing international law, we talk about the UN, and there are different ways to petition the UN for relief. In this case, when it comes to the interest of states, you can directly petition the UN. If there's a non-state actor, such as indigenous communities, they

can also request relief, and in that case, they just don't have the same, you know, necessarily the same rights and responsibilities that state actors do.

**Maj Wheat:**

Okay, that makes sense. Before we move on, are there any other notable areas of law in space that we should discuss?

**Maj Lemberg:**

There are other sources of important international law that apply to space, including customary international law, UN soft law, treaties such as the treaties we spoke about. But more specifically, there are many, many bilateral, multilateral international agreements between the United States and different state governments and even entities that are foreign.

**Maj Wheat:**

Okay, great. And so that was space law. But you also mentioned earlier that there are some cyber law components at play here. So, can you talk about those?

**Maj Lemberg:**

The Budapest Convention is the main international agreement that we talk about that applies to cybercrime and electronic evidence. And it's applicable here because it provides a framework that permits practitioners to share their experience and create relationships in emergency situations. It also provides for the criminalization of certain conduct, procedural law tools to investigate cybercrime and secure electronic evidence related to those crimes, and also provides for more efficient international cooperation in these areas.

**Maj Wheat:**

So how would that come into play in the Arctic?

**Maj Lemberg:**

If there was any sort of hacking or any sort of cybercrimes being committed that implicate an Arctic state, then the Budapest convention would allow those states to have this framework to build these relationships

in order to address those cases. It would provide for the criminalization of the conduct, as well as for the laws to investigate the different crimes and secure that evidence and make sure that those responsible are held accountable.

**Maj Wheat:**

So, I guess my question is, would that only come into play when we're talking about multiple states within the Arctic? Like, why wouldn't it just be the jurisdiction of the state where there's the criminal issue?

**Maj Lemberg:**

The Internet's unique in that a lot of the times, crimes relating to it are international in nature. And so, the Budapest Convention provides for different states to harmonize their national laws and to work together to investigate and cooperate for these cases.

**Maj Wheat:**

So now we've kind of covered all of the legal areas. Why is this something that's interesting or a hot topic per se now?

**Maj Lemberg:**

So the sea ice is melting at a great extent. I believe NASA scientists have documented that we're losing the size of West Virginia in sea ice each year. And this is important because as the sea ice melts, we have different competing interests, different disputes over territory and resources that are heating up.

**Maj Wheat:**

So I guess what does that really mean? Like when we're losing ice, what does that mean for us?

**Maj Lemberg:**

The losing of sea ice is important, not just for, you know, the environment and all the different climate impact that we've discussed, but for our interests and for us to defend our strategic interests in the region, because now it's opening up all this area for not just for international trade routes, but also for competition. So when we're

talking about the military's interests in the region and we talk about the National Defense Strategy and the Air Force's strategy there, there have been specific areas where we've defined what our what our interests are there. And so we are competing now with Russia and China and other nations for control of the Arctic resources, which are now more readily accessible due to this melting sea ice.

## **Disputes in the Arctic**

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**Maj Wheat:**

I see. Okay, so are there any specific disputes that have already happened within the Arctic?

**Maj Lemberg:**

There are various territorial disputes to note, including Hans Island, which has since been resolved between Canada and Denmark, where they've agreed on deal over the disputed island. They have decided to divide the island between them instead of fighting over it. And in the past it had been noted that they would engage in this silly swap of different bottles of alcohol to try to make their claim to it, and now that's no longer happening. Now they've agreed that they can almost split it exactly in half, with the Greenland side getting a little bit of more land, if we're being honest.

**Maj Wheat:**

That's really interesting okay. Any anything else?

**Maj Lemberg:**

There's also the Northwest Passage, which is an ongoing dispute between Canada and the United States over which state has the right to control which vessels in the area. And it's recognized as international waters, but it technically runs through certain areas that have been claimed by Canada to be their territorial waters. And so, as a result, Canada has tried to limit what type of vessels can enter the passage and has claimed that they've been doing this in the interests of climate change, but of note, it's been recognized that the United States has not accepted that position.

**Maj Wheat:**

Interesting. So that's still ongoing then?

**Maj Lemberg:**

That's correct. This is an ongoing dispute between the United States and Canada over the waters, whether they're considered international waters or territorial waters.

## **Competing Interests in the Arctic**

**Maj Wheat:**

Okay. So you're talking about these competing interests. What are some of the other or some of the main countries that we're talking about with these competing interests?

**Maj Lemberg:**

So, China, China, China, as SecDef has said, is our number one focus here where we're talking about the Arctic. China has declared that it's a near-Arctic state and has different approaches to the Arctic that promulgates its more Confucianism approach, its more nationalistic approach to its legal regime. We have also noticed that the Chinese legal system has been promulgating a sort of information warfare or what we also call lawfare, where it has manipulated different legal concepts to try to further these interests, and this has been seen not only in the South China Sea, but also here in the Arctic.

**Maj Wheat:**

So, I guess here's my question, though. China wasn't one of the eight states that you listed as being part of the Arctic. So how is China coming into play here?

**Maj Lemberg:**

China is very interested in the region due to the rich natural resources there, specifically natural gas. And so due to that, China has made claims that it is a near-Arctic state which is not founded by fact or law or otherwise.

**Maj Wheat:**

Okay, so there's trying to kind of stake a claim in it.

**Maj Lemberg:**

Yes, so for China, the Northern Sea route is the most appealing to them because it provides for an alternative to the Suez Canal and would provide them with a convenient way to provide their shipping directly to certain areas where it would drastically cut their transit time. So, it would provide for a huge benefit to them. And they also have interest in the resources that we discussed in the region, and so they've been developing different icebreakers and different assets in order to potentially access those resources more easily.

**Maj Wheat:**

Interesting. Okay, so what about Russia?

**Maj Lemberg:**

Russia is the other state that we view as a competitor in the region. The Russian Arctic is significant in size. It is very large and also has a lot of cities and a lot of people and a lot of domestic product that is generated from there in comparison to other states that are in the Arctic. There are various continental shelf claims that are being lodged by Russia, and it's important to them when we look at the Northern Sea route as well, the shipping lane along their northern coast and the North Atlantic that runs between Norway and Alaska.

Of note, Russia has commissioned nuclear icebreakers and has more than 40 active icebreakers at the current time, as well as the roughly ten nuclear powered variants that the coast—the United States Coast Guard has identified that they're currently trying to develop.

**Maj Wheat:**

Can you just explain—what is a continental shelf claim?

**Maj Lemberg:**

So, the continental shelf claim goes back to the exclusive economic zone that we were talking about earlier, and the different insurance that states have in that area. Specifically, when we look at the exclusive economic zone that runs, you know, 200 nautical miles. And so

the Continental can sometimes extend past that. And so, if we're abiding by maritime law, you know, usually a state's interest would end where the exclusive economic zone ends. However, there are certain arguments lodged by Russia and others that are trying to extend those interests beyond the exclusive economic zone.

**Maj Wheat:**

I see. So, what are these icebreakers?

**Maj Lemberg:**

So, icebreakers are ships that we use to literally break ice. And so they are, you know, in that sense icebreakers that they're—they're breaking through the ice. They're trying to create these paths so that different ships can follow through and safely traverse these waters that are frozen or are frozen over with Arctic Sea ice for most of the year.

**Maj Wheat:**

Okay. So, we're talking about these competing interests and I guess what are we doing about them?

**Maj Lemberg:**

So, although there's competing interests, there's also opportunities. And so, the National Strategy for the Arctic Region from the White House in 2022 identifies different pillars. The first one is security. The next one is climate change, environmental protection. There's another on sustainable economic development, and a fourth on international cooperation and governance. And I'd really like to focus on that fourth one, particularly in light of my time at NASA.

It's my personal opinion that these international partnerships, these cooperations that we have with our allies, are so important. And the 2019 DoD Strategy also aligns with that. I think there's been a lot of important attention put on our role with our strong international partnerships in the region. We leverage them not only to protect our interests, but we also rely on them for day-to-day operations in the Arctic with the United

States Coast Guard and the partners in Norway and other countries.

And it's the only way, really, that we can best protect our—our interests. We're also building a larger icebreaker fleet. The Commandant of the United States Coast Guard stated that we needed to grow our fleet in order to counter these activities that are happening in the region, but also to provide for bolstered security. And so, there are icebreakers that are being built, and we do have two icebreakers already, but we're adding three heavy icebreakers and three medium icebreakers. And as the US Coast Guard commandant argued, it is very critical to try to close that gap in icebreaker capability.

## Closing Remarks

**Maj Wheat:**

Great. Thank you so much for that information. And with that, do you have any kind of closing remarks or takeaway thoughts before we close out today?

**Maj Lemberg:**

Just that I see some similarities between the Arctic and outer space. I can definitely appreciate the importance of developing those strong international relations, especially in a region that has such extreme climates like the Arctic, as does outer space.

**Maj Wheat:**

Great. Well, thank you so much, Major Lemberg, for joining us on the AFJAGS podcast.

**Maj Lemberg:**

Thank you for having me. It's been an honor.

**Maj Wheat:**

All right, listeners, that's all I've got for you today. As per usual, please feel free to review, rate and subscribe this podcast. And for now, this podcast is in recess.

[Gavel bangs twice].

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## Glossary

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- **AFJAGS:** Air Force Judge Advocate General's School
- **AKA:** also known as
- **DoD:** Department of Defense
- **FAA:** Federal Aviation Administration
- **JAG:** judge advocate general
- **JAOL:** Air and International Law Division
- **JBER:** Joint Base Elmendorf-Richardson
- **NASA:** National Aeronautics and Space Administration
- **NATO:** North Atlantic Treaty Organization
- **NORTHCOM:** Northern Command
- **OST:** Outer Space Treaty
- **PCA:** permanent change of assignment
- **PRC:** People's Republic of China
- **SECDEF:** Secretary of Defense
- **SOLAS:** Safety of Life at Sea
- **UN:** United Nations
- **UNCLOS:** United Nations Convention on the Law of Sea
- **US:** United States
- **USAF:** United States Air Force
- **USSR:** Union of Soviet Socialist Republics

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