

**Center for Strategic and International Studies**

**“The Arctic of the Future: Strategic Pursuit or Great Power  
Miscalculation?”**

**Keynote Address: The Exit Interview**

**Speaker:**

**Admiral Paul F. Zukunft,  
Commandant,  
U.S. Coast Guard**

**Introduction and Moderator:**

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HEATHER A. CONLEY: I can see the Arctic gang is back together. The talking, the networking, that's what we love.

Good morning. My name is Heather Conley. I'm senior vice president here at the Center for Strategic and International Studies. And I always like to say when we can talk about the Arctic it is a good day, so we're already going to start our day off right. Thank you for joining us.

We are delighted to be in partnership with the Norwegian Institute for International Affairs and a consortium that's looking at the Russian Arctic. And so, as part of this program, this was part of this half-day event which has been generously funded by the Norwegian Research Council. It's an opportunity to look at the Arctic of the future, not only to dive deeply into Russia's very ambitious economic aspirations for the Russian Arctic but to look at other aspects; and then to dive more deeply into the economic dynamics of the Arctic, something that will drive the Arctic of the future, whether that's Russia's economic plans, now China's plans, or looking at the wider what we call blue economy.

But there is absolutely no better way to start a discussion of the future of the Arctic than with the commandant of the Coast Guard, Admiral Zukunft, whom, if I believe, sir, "zukunft" in German is the "future." So what perfect way to talk about the Arctic future.

And, as Admiral Z, as we affectionately call him, the 25<sup>th</sup> commandant of the United States Coast Guard, this is actually a moment, I have to say, of sadness, because four extraordinary years as commandant of the Coast Guard. I wish the Arctic was his total focus. He somehow manages to keep his focus on it while he's judging extraordinary responsibilities for interdiction in Latin America, cybersecurity issues. The Coast Guard is deployed in over 160 countries and no one seems to know that. We're just so grateful that we see the Coast Guard an ever present on our coasts and helping to protect life through storms or through search and rescue.

So what better way, in many ways, to say thank you than to invite Admiral Zukunft to give what I call his exit interview, to help us understand and put into context the last four years. And he has been extremely busy, he and his Coast Guard colleagues. He typically calls the Arctic the fourth coast. I love that. I'm stealing that. But truly the Coast Guard is our Arctic first responder. Very exciting developments. Admiral Z was the signer of the Arctic Coast Guard Forum, putting that historic structure into place; recently announcing a vessel traffic management scheme for the Bering Strait with the Russian delegation to the International Maritime Organization; some exciting news to upgrading the Coast Guard presence in Alaska with first response cutters and patrol boats. This is all exciting, but we all just really want to hear about the icebreaker. So I'm sure you will tell us that. (Laughter.)

But before I welcome Admiral Z to the podium, let me just say thank you. Thank you for your decades of public service. Thank you for defending our nation. And thank you for everything you've done for the Arctic. We're so grateful.

So, with your applause – and I want sustained applause, please, dear audience – (laughter) – please welcome Admiral Z. (Applause.)

ADMIRAL PAUL F. ZUKUNFT: Good morning. And, Heather, I really do have to reciprocate, because if not for CSIS – this has really been our booster engine to get this rocket called the Arctic and some of the ways and means of how do we address the Arctic off the ground.

So it was about four years ago I was here and we talked about the Arctic in I would say aspirational terms. And then we had an Arctic Strategy. We had a National Strategy for the Arctic Region, and we went from aspirational to conceptual.

Well, guess what? Now we are virtual. We have got five shipyards competing to start building heavy icebreakers. We have the appropriation to build one and a half. Six is the number we need. But four years ago people would say there's no way you will get – we'd been working this for 20 years and we will never get this program off the ground. But we will get an icebreaker. You know, that is the ways and means aspect of a strategy.

So what's at play in the Arctic right now? We have an ocean that is opening up as ice recedes, and each year we're seeing record recedence of sea ice in the Arctic region. And then what is filling that vacuum? Human activity. Well, what kind of human activity? Much of it is economic-related. If you look at the Yamal region – and certainly this is vital to Russia's economic security as they look at LNG coming out of Yamal, and when you have relatively ice-free or you have ice-capable LNG carriers that can make the shortcut through the Northern Sea Route to support the European market. China. Why would not China want to be interested in the Arctic region as well, if they have the economic means to do so?

And so what is at stake up in the Arctic? We know there's about 13 percent of the world's oil, about a third of the world's natural gas, rare earth minerals on the seafloor. Back in 2014 oil was trading at just over \$100 a barrel. It then dropped to as low as \$30 a barrel. Today it's trading at about \$70.70. It's still a very volatile market.

But we often look at extracting oil and gas through the short-term lens. Other countries view it as the long term. Quite honestly, this is strategic reserves, if you will – maybe not for today, maybe not for tomorrow, but when technology is brought to bear that can extract these natural resources for a profit. Yes, the United States is an Arctic region.

So when I look at what are some of the strategic ends of the Arctic, one of those is clearly economic. The other one is security.

We are looking at Russia militarize some of the islands that used to be predominately for search and rescue. They will launch two icebreaking corvettes that will carry cruise missiles that will ply the Arctic region as well. And so we have to ask ourselves, how do we protect our sovereign interests in the United – in the Arctic region, on the fourth coast?

Well, what do you need an icebreaker to do? So it's no coincidence that we have stood up an integrated program office with the United States Navy to look at what do we need an icebreaker to do in the 21<sup>st</sup> century 20, 30, maybe even 40 years from now, which is about how long these platforms are in existence. And if you don't factor in a military equation, you're probably a little bit shortsighted.

And a lot of people ask me, so, what weapons system will you put on there? I don't know what the weapons system's going to be of 2035. It might be directed energy. It might be something completely unique that isn't in our inventory today. But if you don't reserve space, weight, and power to accommodate those systems, if you truly have to exert sovereignty on the fourth coast, we need to be able to assure we have the flexibility to do that.

As I've said in previous discussions here, you know, the United States Coast Guard, in working with NOAA, we have mapped out the equivalent of the state of Texas beyond our traditional 200-mile EEZ. And if you look at what's in our 200-mile EEZ and in our extended continental shelf, vast riches exist there.

As the – one of the few nations – I always say, so, what do Libya, and what do North Korea, and what do the United States all have in common? And you'll probably say I'm not sure where that Venn diagram intersects. Well it intersects with three countries that have not ratified the Law of the Sea Convention. And so, absent ratifying, you know, we really don't have the governance mechanism to declare our extended continental shelf, an area the size of Texas, with vast riches.

China is very interested in this very same area and they view that as global commons. Why would they not? I can't fault them for doing that. And if they establish a pattern of behavior and if we ratify the Law of the Sea Convention and decide, hey, this is ours, there's been a pattern of behavior with China to say, well, we traditionally operate there.

Russia, on the other hand, has declared all the way up to the North Pole as part of their extended continental shelf. It's a bit of a stretch. And we've seen repudiation of the Nine-Dash Line, but it has not stopped aspirations by other countries saying, well, we still declare the Nine-Dash Line as ours. In this case, clearly I'm talking about China.

So you have potential tensions arising with freedom of navigation. I don't anticipate that you will see ice-free Arctic, you know, year-round. But quite realistically, as early as 2030 with a number of studies, you know, we may see an ice-free Arctic as early as 2030 in the, you know, I would say the shoulder season – talking, you know, July/August/September, maybe into October.

The more viable route, quite honestly, is the Northern Sea Route. It's a little bit more circuitous going through the Northwest Passage. Last year we sent a Coast Guard cutter through the Northwest Passage from Alaska to Baltimore, Maryland, over the top. But when the wind stacks up that ice, they can't move. So it is not ice-free year-round. And, oh, by the way, when we did that, we worked with our Canadian counterparts because Canada, like Russia, views the Northwest Passage as their internal waters. We interpret that as, no, this is an international strait and it is open for transit passage, which is our same interpretation of the Northern Sea Route. We don't have agreement there.

Those are policy decisions. Those are policy decisions that we, the United States Coast Guard, do not own. But if at some point in time we truly want to assert freedom of navigation, this would be a platform that you would use it with, an icebreaker – a U.S. icebreaker, a national asset.

And so, when I talk to the secretary of the Navy, as we look at how many carrier strike groups we have, they say, well, how many heavy icebreakers do we have that can operate anywhere in the world? I said, we have one. And if one gets into trouble, we don't have a self-rescue capability. We might have to call on another nation to extract us or we get – extract the crew and we literally abandon ship. It's a place where no service chief wants to find themselves, without a self-rescue capability.

Looking at the Arctic logistics, huge challenge up there. But to understand the logistic challenges, over the last several years I've made a number of trips. When Shell was drilling up there, I noticed that they had a flotilla of 28 ships supporting that drilling activity. It was all sea-based and not shore-based operations.

I went out a year and a half ago out to Greenland to visit the Jakobshavn Glacier on the west coast of Greenland. Now, when we flew over the ice fields, we noticed torrents of blue – crystal blue water going down moulins, big sinkholes. And where is all of that water going? It's going into the North Atlantic. Why is it leaving? Because temperatures are rising in the high latitudes.

We met with the Inuit elders out in Disko Bay, which is normally frozen nearly year-round and now it's ice-free year-round. And I said, what is happening here? He said, well, that glacier hadn't moved in the last millennium, but in the last five years it's retreated 25 miles. That is glacial – that is the speed of light, if you will, for glacial retreat.

This last year I was up on the North Slope visiting a number of First Nation villages. We were in the village of Shishmaref, and when we flew in the first thing I noticed were homes toppling into the ocean. As sea ice has retreated, that is a natural breakwater for winter storms. And right now there are about 30 villages north of the Arctic Circle in Alaska that are endangered by erosion and a rising sea level.

And what happens in the Arctic doesn't stay in the Arctic. We had 52 inches of rain in Houston, Texas, during Hurricane Harvey. Warmer air holds more moisture.

And if you go out to Hampton Roads, Virginia, during a spring tide you have standing seawater in homes that were valued much higher than they are today because of a rising sea level, and then you have land subsidence.

If you're down at the village of Isle de St. Charles in Louisiana, no one's home. That was a First Nation residence as well. About 140 people lived there. We spent several hundred million to evacuate their tribal land because it is now going underwater.

So sea level is rising. Call it what you want, but when I talked to the Inuit elders, they have a name for it, and it's called climate change. And so I don't get after the attribution of that, but as we look at sea ice retreat and water levels rise – and some of the modeling predict, you know, we could have upwards of two meters by the end of this century. And it's very difficult to model melt in the Antarctic region. This is just Arctic melt as well. But that is at play as well, which means all the more reason, you know, we need to have good domain awareness of what is happening in the high latitudes, what is happening in the Arctic.

What do you need an icebreaker to do? I mean, I mentioned on the one side you weaponize it. But at the other – on the other hand, you know, this is really the sentinel of the Arctic as well, to provide that domain awareness. Right now our communications hover just above the horizon on the high latitudes. In fact, the United States Coast Guard is investing in CubeSats to improve our persistent coverage for search and rescue for distress beacons.

But the other logistic challenge, you know, on February 26<sup>th</sup> there was a 3,000-gallon diesel bladder that collapsed in Shuyak Strait, which is in the Aleutian Island chain – 3,000 gallons. It cost \$9 million to clean up a 3,000-gallon oil spill. Tyranny of distance, of what it takes to stage an oil response. And this is on the Aleutian Island chain. You know, what happens if you have an oil spill on the North Slope? If you want to talk logistic challenges, there is no bigger challenge than that.

And then how do you get after that? You know, do you do it by investing in shore infrastructure, or do you invest in at-sea infrastructure as Shell had done in the past as well? So, yes, challenges persist.

When we talk about miscalculations in the Arctic, the biggest miscalculation is if we literally freeze our relationships and look at the Arctic region through a unilateral lens. Which is why we, the United States Coast Guard, created the Arctic Coast Guard Forum when the United States chaired the Arctic Council, to bring in all of the eight Arctic Council members.

And let's approach the Arctic region from a Coast Guard lens first and foremost. What is at greatest risk? Clearly, the environment. Less than 5 percent of the Arctic is charted to what we would say 21<sup>st</sup>-century standards. So what if a vessel transiting encounters a seamount that's not charted, and now we have a vessel run aground up there? Search and rescue. How do we protect the norms of the First Nations that live up there, as well? And more importantly, how do we share information, especially scientific information? Are fish truly going to migrate north? We declare a moratorium of fishing on the high latitudes, but it's just that. It's a moratorium without an enforcement mechanism, as well. So this is an opportunity to really work by, with, and through the other Arctic Council nations, with other coast guards. And we have a very transparent relationship.

At the height of Hurricane Harvey, we were actually doing the largest-ever search-and-rescue exercise, hosted by Iceland this past September. Not a tabletop. We moved a Coast Guard cutter up there. We had aircraft. We had planes. But really to look at some of the challenges of, you know, how soon can you arrive on scene? Where are the trauma centers in the Arctic? They're not there. Where do you build out logistic hubs? But more importantly, how do you communicate with seven other nations besides the United States? How do you push information back and forth? And if you want to build trust and confidence in another nation, don't start with a freedom of navigation exercise. Start with something that's humanitarian in nature, such as search and rescue, such as environmental, such as we have a movement of fish moving into the high latitudes that could threaten the subsistence lifestyles of people who live up there. These are very near-term issues that especially the indigenous residents of the Arctic are grappling with right now. I mean, so let's work that, but work the relationship piece first.

And so I'll bring it full circle with the relationship that we have had and enjoyed here at CSIS. And again, Heather, maybe we're going to name that first icebreaker the Conley. We'll see. (Laughter.)

MS. CONLEY: It has a nice ring to it.

ADM. ZUKUNFT: It does. (Laughter.)

But, no, I see a lot of brilliant minds in this room here today, and I would be remiss if I just sit here and go on and on. I'd really like to have an exchange with you as well. So let me cede the remaining time so we can have an open and frank discussion. Thank you very much.

MS. CONLEY: Oh, Admiral Z, thank you. (Applause.)

I know time is very short. I want to ask one question, then I do want to open the floor. So this is in the spirit of an exit interview: What do you think in the Arctic portfolio your greatest accomplishment and your greatest regret? So I'll let you hold that thought.

And let me take one or two questions from our audience. If you could just identify – OK, three right across here, and I'll let you pass the microphone. Please introduce yourself and ask your question.

Q: Stuart Dye from Cleveland Maritime Group.

My question relates to Law of the Sea. How critical is it for us to become a subscriber to that? Do you see any progress in that regard in a strategic need sense?

ADM. ZUKUNFT: Yeah, great question. And we've been working this for – you know, since the Law of the Sea Convention was first promulgated, and here we are. I mean, you know, when you start looking at Libya, North Korea, United States among the non-ratifiers.

And many people look to the United States. At the International Maritime Organization, they actually look to the United States Coast Guard as the governance model for all things maritime. But it's a little bit awkward if we haven't signed on to the rules of behavior, otherwise known as the Law of the Sea Convention. For us to truly be that leader in the maritime realm, you know, we need to sign up to the ground rules.

Ironically, a lot of the discussion right now is about the Jones Act – you know, the Jones Act of 1920. We need to revisit the Jones Act. It's old law. We need to get rid of it.

So, since you asked about Law of the Sea, you know, if you have an opportunity, here's what happens if we repeal the Jones Act. All our coastwise trade will probably be done by a third nation, namely China – not just coastwise trade, but plying our inland river systems as well. If we're looking at, hey, we can lower the cost of doing business, we can have a third nation do it on our behalf.

The next thing that goes away are our maritime academies. You don't need them because we have foreign mariners. We don't know who they are, but they're foreign mariners plying our waters, and our internal waters as well, to conduct maritime commerce, which is a \$4.6 trillion enterprise in the United States.

And then the next thing that goes is our shipyards, our shipyards and the technology that goes with the shipyards.

So a segue from Law of the Sea Convention, but right now there's this fixation of we need to get after the Jones Act. That is not the time and place to go after Jones Act. This is much more strategic as we look at Law of the Sea, and the consequences of repealing the Jones Act could really have severe repercussions as well.

Q: Admiral, John Farrell from the Arctic Research Commission. Thank you very much for all you've done for the Arctic, and thanks for inviting us to have a frank discussion. Appreciate that.

You spoke passionately this morning and well-informed about climate change in the Arctic. And you did say, however, that you didn't want to assign causality in a Foreign Policy article, and today you said you didn't want to assign attribution to that. I realize the Coast Guard is not a scientific organization, but there are scientific organizations that are very willing to assign attribution of that to human activity. And even the White House U.S. Global Change Research Program does do a very nice

job of assigning that attribution. So I think it's really important for Coast Guard to consider that as you plan 20, 30, 40 years out. You've got to get to that cause. Thanks.

ADM. ZUKUNFT: Yeah, John. So, again, what I look at is at empirical data. And the empirical data I look at is the carbon footprint that's been measured basically since our independence, acidification of the ocean, and then ocean temperature. And what you see is since our independence to present day a 10,000-fold increase in carbon footprint. Along that same trajectory you see rise in acidification of our oceans. Most people are not aware that over 90 percent of the Great Barrier Reef experienced coral bleaching this last year. And then with that, you know, along that same trajectory – all three of these lines are perfectly in alignment with one another – with proportionality is a rise in ocean temperature as well.

So that was then and this is now. What's tomorrow going to look like? I have to deal with the consequence. And so when we start looking at, you know, where do you build shore infrastructure in the future, you don't want to build it where there's a 100-yard floodplain because as bad as the rain was in Hurricane Harvey last year, the year before they had an unnamed storm that dumped 26 inches of rain in Baton Rouge. No explanation for it. Why all the rain? So, again, a lot of people can speculate why, but I have to deal with the – you know, the consequence of that as well.

Q: Caitlyn Antrim, Rule of Law Committee for the Ocean. Thank you for coming.

And since Law of the Sea has already been raised, I can turn to another topic of interest. In your work through the Arctic Coast Guard Forum, have you gotten a feeling for how Russia will use its new Arctic bases and new Arctic shipping in more a Coast Guard function of emergency response and such? Having bases that can hold 100 to 150 people in the dead of winter gives you an operating – or gives them an operating platform we can't match on the most-traveled route. So I'm interested in seeing what you've been learning so far.

ADM. ZUKUNFT: Well, we learn a lot, and obviously some of what I've learned I can't share in this format. But, yeah, they are reinvesting in their distant search-and-rescue stations. But we're also seeing militarization of those very same facilities as well, so it's dual purpose.

And, again, there are sovereign interests. So if you look at all of the natural gas coming out of Yamal going through the Northern Sea Route, you'd probably ask yourself, you know, it would probably be in our best interest to be able to protect our sovereign interests as well, not just through search and rescue but what if someone tries to encroach upon this unique trade route that we have that, you know, arguably provides them a trade advantage over others, especially if you're declaring that as sovereign and not open to transit passage, and if someone were to challenge that. So we are seeing duality, not just for search and rescue but also militarization of these facilities as well.

MS. CONLEY: I'm going to have you come back to my question: your greatest accomplishment, your greatest regret.

ADM. ZUKUNFT: So I – first of all, I do not believe in legacies. Legacies are cancerous, because as soon as you come into any position and say this is going to be my legacy – it reminds me of "Forrest Gump," if you saw the movie. And he's running across the country several times, and then he finally stops in the middle of a desert somewhere and he goes, I'm tired, I'm going to go home now. And everyone behind him, they said, now what do we do? (Laughter.) No, you want to make sure everyone keeps running in the same direction, and not only running but running with fresh legs.

So this has really been whole-of-Coast-Guard. And not just whole-of-Coast-Guard, but all of DHS, getting DHS behind us as well to support where we are today, going from aspirational to now virtual. Real ships; first heavy icebreaker will be delivered in 2023.

My biggest regret is I won't be on active duty to have an opportunity to command that ship. So I think that would probably be my biggest regret, but maybe my only one.

But it's been the fastest four years of my life. The support that we have seen on the Hill, the support we have had with this administration has been nothing short of phenomenal, with the administration and with the 115<sup>th</sup> Congress. And those are relationships that you build over four years, and it's not a baton you can say, OK, you now have, you know, a relationship with these people as well. It doesn't pass as smoothly as that.

So that will be the next – you know, the challenge will be how do we establish those next relationships. Good news is my successor, Karl Schultz, has a lot of experience on the Hill. This is instinctive for him. And so I am very confident we're not going to drop this baton and we're going to keep moving this thing forward.

Thank you, Heather.

MS. CONLEY: Well, Admiral Z, you have an extraordinary legacy. And we promise in the spirit of "Forrest Gump" we're going to keep running, and I actually think that icebreaker needs to be called "Admiral Zukunft." (Laughter.)

So, with your applause, please thank Admiral Z for a great conversation and a great tenure. (Applause.)

ADM. ZUKUNFT: Thank you. (Applause.)

MS. CONLEY: Colleagues, if everyone would just stay seated, I'd like to invite our first panel forward, and then we're just going to escort Admiral Zukunft out. But please don't move. We are going to be right back in one minute. Thank you.

(END)