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NAVIGATING GLOBAL CHALLENGES:  
A CONVERSATION WITH VICE COMMANDANT OF THE COAST GUARD ADMIRAL LUNDAY

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UNCORRECTED TRANSCRIPT

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**O'HANLON:** So I just wanted to begin by asking you about sort of the state of the Coast Guard, your men and women, your equipment, your readiness, and maybe you could remind us, compared to an \$850 billion a year Pentagon budget. What's your budget? And, you know, are you able to get all the things done that I just mentioned and, you know, with, with an adequate readiness and taking care of your people and your equipment, given today's world.

**LUNDAY:** Thank you, Michael, and thank you to Brookings for this opportunity to spend some time with you today. The Coast Guard is vital to America's national security and economic prosperity, and that's especially true today, where we are seeing the demand for Coast Guard services and our missions and capabilities higher than in any other time. In my nearly 40 years of service. With all of the challenges we are facing domestically and overseas in the strategic context that the US is a maritime nation, over 90% of our commerce and trade come by sea. That's been so since the beginning, and certainly since the Coast Guard's creation in 1790. So each year, over \$5.4 trillion of commerce travel to and from US ports, inland waterways and the Great Lakes to markets overseas. And so the US relies on that for as the lifeblood of our economy. Now, the Coast Guard's role is to ensure the safety, the security and the defense of our ports, waterways, including the Great Lakes, against threats in the physical and the cyber domain so we can sustain our economic prosperity and security. Now, not only do we do that here in the United States, but we're globally deployed to ensure the security of that marine transportation system that's connected to a global system. And that we can sustain the rules based international norms that preserve not only freedom of navigation on the seas, but the movement of commerce between the US and overseas markets, and security throughout the maritime domain. Now that international framework that we help to sustain and reinforce overseas, of course, that's been the guarantee of our security and stability of the US and our allies for the past 75 years, at a time when Beijing and Moscow and others are trying to undermine and re design that framework and their own view, their own warped vision. And so the US operates here at home and abroad. Now we do that, with a unique role we play between defense and diplomacy. We are an armed force at all times. One of the six armed services, part of the joint force, fully integrated with those services. But we're positioned in the Department of Homeland Security, because we actually also are a law enforcement agency. We're a lifesaving service or humanitarian service, and we do environmental response, and we're part of the intelligence community. So there's a lot of different things that we do. So when the president or other senior leaders in US government look for tools of statecraft in the maritime domain, they often between defense and diplomacy, will find and rely on the Coast Guard as a unique instrument of national security. Now, we talked about some of the missions, but we also stop the flow of illegal drugs into the US we prevent

the flow of illegal migrants by sea into the US and prevent mass migration by sea. We reinforce and combat rules against illegal, unregulated and unreported fishing. And we do environmental response, including worldwide.

**O'HANLON:** It's a lot. And you're doing that on less than \$15 billion a year.

**LUNDAY:** It is, and it presents us with significant readiness challenges. The Coast Guard's budget today is \$12.3 billion. Of that, about 10.5 is operations and sustainment for today's activities for our people and our assets. And then only about 1.6 billion is for procurement, construction improvement or capital investment for all of the acquisition programs to recapitalize our aging assets. And so that presents challenges because right now the demand the Coast Guard is seeing we need a \$3 billion PC and I budget to just be able to maintain track with our current acquisitions. Let me explain how the readiness challenges are manifesting because they're happening today, and then the budget situation is going to impact us and our ability to be ready in the future as well with recapitalization. So today, we have readiness challenges for our people and our aging assets and our people. We face a personnel shortage of 10% of our enlisted workforce, about 3000 people. That's the backbone of our Coast Guard. And we came out of Covid, like many organizations, seeing challenges with hiring. So we've had to invest a significant amount from other sources into recruiting and retention to be able to build back up that workforce. Now, some of the implications of that are we can't crew all of our ships and all of our stations. We've had to temporarily shutter some of our small boat stations and we've had to lay up three we will lay at three of our major cutters because we don't have enough enlisted personnel to crew them. And so those are temporary measures. But, and right now we are making progress on recruiting, but we still have a ways to go. On the asset side are we're struggling to sustain the readiness of our current fleet of ships, of boats, of aircraft and offshore infrastructure and our IT systems and networks. Let me give you an example. If you want to get underway on a major Coast Guard cutter today, you have to do what we call a controlled parts exchange with other ships at the pier. That's a fancy term for cannibalization. Will steal parts or borrow actually from the other ships just to get another ship underway. Now, you can do that for a short amount of time, but when you do it over a number of years, you're eating your own readiness. And that's what we're seeing. Coast Guard Cutter Healy, one of our only two US icebreakers, had just begun her summer patrol and was up north of Alaska in the truck, and a few weeks ago had a electrical fire in the engineering spaces. She's now having to return to homeport to try and effect repairs. Most of the much of the machinery systems aboard are antiquated, and for some there aren't even parts. We're going to work as hard as we can to repair it and try and preserve the rest of the patrol, but that's

in doubt. And that's a concern, because if Healy can't continue that patrol, the US will have no surface presence in the Arctic this summer.

**O'HANLON:** How many ice breakers would you like to have if you could just wave a wand and get the number that you think would be optimal for the United States?

**LUNDAY:** Well, I think the Commandant and other senior leaders have been very clear. The US needs 8 to 9 icebreakers, three of which need to be heavy icebreakers. Now, currently we only have two the Polar, the Healy, which I mentioned, the medium icebreaker that operates north in the Arctic, and then the Polar Star, which is 48 years old and every year goes down to Antarctic for our national resupply mission to McMurdo station. Now, I think the Navy and others would make that a museum, but we still operate it as a heavy icebreaker. It's capable, but it's old. And so we need the new polar security cutter that is finishing design maturity. And we hope to begin construction by the end of this calendar year, end of December. The first of three that are under contract right now to be built. In the meantime, Congress has given us support to acquire a commercially available polar ice breaker. There's only one in the US that is available, and we have money. We're beginning the process to purchase that and make it operational as a bridging strategy for the Arctic.

**O'HANLON:** So we have about taking all that into account. About a third, the number of icebreakers we'd really want to park at most.

**LUNDAY:** At most. And I and we are on the demand for more presence to ensure US sovereignty in the Arctic is critical. At a time where recently, the US just asserted a claim over the extended outer continental shelf and our presence to be able to conduct research activities and ensure the sovereignty of that new US claim is critically important. We need that presence.

**O'HANLON:** So I'd like to talk more about some of the other things you do in a little bit more detail, but I realize you have a broad perspective. You've served in the Atlantic as well as in the Pacific, and your Atlantic Command went up to the Arctic and all the way to the Arabian Sea. Your Pacific command and operations and experience goes all the way over towards near the coast of China. You've got a law degree. You've got an engineering degree. All these things are relevant to being the Vice Commandant of the Coast Guard, given all the missions. Maybe I would ask my next question in the following way. Of all the things that the

Coast Guard is doing, where is there the greatest unmet, need that? In other words, if you are able to get beyond the 43,000 and the 12.3 billion and have a bigger Coast Guard, and you really can see a specific set of tasks that we should be doing as a nation where it would make a major difference in outcomes. Is there one place that strikes you as more important than another? In other words, are we really unable to do a good job on migration or law enforcement or fisheries enforcement? Is there any specific area that really jumps out at you as a place? We really should be able to find more resources to do better and do more?

**LUNDAY:** Well, I think there are several specific areas that the commission has talked about. Certainly we have support from the administration and from Congress to increase our presence in the Indo-Pacific. In fact, over the last five years, the Coast Guard has moved or placed new ships in Hawaii and Guam, nine new ships in Hawaii and Guam. And so that's a substantial increase in already a strong presence in the Indo-Pacific. The other area that we focused on is an increase in our capabilities in cyberspace. First, to protect our maritime critical infrastructure here in the United States, because we see this convergence with operational technology between the physical and the logical domains and an increasing reliance on that cyberspace and not only opportunity, but risk. And so we work with other federal agencies like the Cybersecurity Infrastructure Security Agency-CISA, US Cyber Command, states and maritime industry to improve that security, all part of ensuring that the American people know that they can rely, that their marine transportation system in the US will be secure. It's also important that we signal to others that because of our strength in cybersecurity, they will be unable to hold our critical infrastructure at risk. And that signaling is also important. Then the other area is the Arctic that we talked about already. Because the US is an Arctic nation and we're a Pacific nation. And so our presence or our ability to maintain our sovereignty, strengthen our partnerships, our alliances is vitally important to our national security. And that's a key part of the role of Coast Guard place.

**O'HANLON:** So when you talk about maritime infrastructure, could you give a little more detail on what that entails, what that encompasses? I mean, obviously buoys and and but I say also ports. Is it also cranes. Is it also where we unload and load ships? Just what does that entail?

**LUNDAY:** It is. And so in every US port and including the ports on our inland waterways, throughout the navigable waters throughout the United States and the Great Lakes, there are US port facilities, most of which are operated by private companies. Some are quasi governmental as well, and they're all subject to safety and security regulations by the Coast Guard ships that are in US ports. If they're US flag, they're

mariners. US mariners are regulated by the Coast Guard and licensed, and then their safety and security regulations are also. Subject to Coast Guard oversight and regulation. Now a foreign flagged vessel, a foreign ship that will which, of course, trade every day in and out of US ports. They're subject to international conventions and rules on safety and security. And so when a foreign flagship comes into the US, the Coast Guard, in coordination with other partners in the port, CBP will go on board and ensure the safety and security of that vessel while it's in a US port. Increasingly, not only physical security, but increasingly under international convention cyber standards as well.

**O'HANLON:** So your cyber responsibilities extend to all of these port facilities, all these waterways and inland as well Great Lakes as well as saltwater for the entire United States.

**LUNDAY:** They do. And actually they've been strengthened recently too. In February, the president issued an executive order that did that that move forward in two areas. One, it gave the Coast Guard greater authority that sort of built on our existing authority that went back to Cold War sources to protect US ports from sabotage and subversion in the height of the Cold War. That an authority that's very strong, we still use today in the executive order allowed us to our captains of the port Coast Guard, senior officers in each port to issue maritime security directives related to cybersecurity. Immediately, the command on issued a security directive nationwide about concerns with Chinese manufactured cranes that are that proliferate and are used throughout many port facilities in the US that have specific vulnerabilities we're concerned about. The other area that the executive order in the initiative, enabled was to move us to move forward in a regulatory manner. And so, the Coast Guard issued in February a notice of proposed rulemaking on new cybersecurity regulations, higher standards for port facilities in the US. And we're in that rulemaking process now.

**O'HANLON:** If I could just follow up on the Chinese made cranes. Is the concern hypothetical or is it evidential? In other words, have we found. Bugs inside of the software. Are we worried that the Chinese would use this infrastructure to gather intelligence? Are we worried that they could sabotage it in time of war and impede us from resupplying forces abroad? Is this a hypothetical worry, or do we have real evidence that makes us think that they're up to something?

**LUNDAY:** Michael, I would say in the form all of those concerns are concerns that have informed the decision to issue the nationwide directive about the cranes. We need to be able and the maritime industry and the American people need to be able to rely that our critical infrastructure in the maritime domain that we

are so dependent on is not at risk. That we have confidence in it and that it cannot be used for, for a range of purposes that would undermine national security.

**O'HANLON:** I wanted to follow up also on what you said about the Indo-Pacific. And you mentioned, Admiral, that there are now more assets that we have in Guam and Hawaii. And you seemed, encouraged by that. Are we in the right ballpark in terms of adequate capability, or is there still a certain distance to go? And how do you evaluate the requirement? How do you determine what would be enough Coast Guard presence in the Indo-Pacific in the South China Sea, measured against the, you know, mission?

**LUNDAY:** Yeah. And Michael, this is an area we've had strong support from across the administration and Congress to increase Coast Guard presence in the Indo-Pacific, in a sustainable way that makes us effective. And and this gets, again, back to our value proposition between defense and diplomacy. First of all, I think it's important to emphasize that we're not only a Pacific nation, but we're a Pacific island nation because our identity as Americans includes the identity of Hawaiians and those from our three territories and Guam, the Commonwealth of Northern Ireland, Mariana Islands, and also American Samoa. And so that makes us a Pacific island nation connected in values, beliefs, culture and heritage to other Pacific Islanders in a way that other major states just some other major states don't have. And so what we find is that many of the Pacific islands in Oceania, the Central and South Pacific, they have exclusive economic zones and most of their sovereign wealth is in their fishery stocks. But they don't always have the capability to be able to provide their own presence in their own easy and enforce their own maritime security. And so we have completed 12 bilateral agreements with Pacific Island nations, where we will take a Coast Guard cutter, one of these 154 foot fast response cutters, or one of the larger cutters like the Harriet Lane, which is currently in the Pacific doing this work in Oceania. And we will put their government official on our cutter, and we will enable them to provide their own presence using our cutter or aircraft. So today, the Harriet Lane is in Oceania, and she's breathing renewed life into these bilaterals and has had ship writers aboard so far in this patrol from Tuvalu, Tonga and also from independent Samoa. And so that's a critical part of the presence and and partnership we have with these nations west of the of Guam. We also have key partnerships, that are important. We not only operate our larger ships with seven fleet, and we sailed Coast Guard cutters through the Taiwan Straits and International Strait as part of seventh fleet. But we also do cooperative exercises and search and rescue and maritime security with Japan Coast Guard, with South Korea, with, the Philippine Coast Guard. I had a meeting yesterday with a senior official of, Vietnam at Maritime Safety Administration, and we work closely with Vietnam Coast Guard as well as others in the region. And so that's

because many of the nations that are maritime nations don't have a power projection Navy. Their navies are more like the Coast Guard. And so we connect with them much better.

**O'HANLON:** If I could stay on the Philippines just for a second. My colleague Lynn Kyok is here. And others who work on the South China Sea. There's obviously a lot of tension in the South China Sea today that involves China and the Philippines over the Second Thomas Shoal and other, you know, rock formations of one type or another where ownership is disputed. In some cases, China's an outright violation of a ruling by a tribunal that was set up under the UN convention on the law of the sea. In other cases, there is, you know, legitimate debate over who owns what. And unfortunately, there's also tension and some violence, as the Chinese have tried to prevent the Filipinos from exercising their claims to their own Second Thomas Shoal, for example, is the Coast Guard part of that? Is the Coast Guard potentially a better way for us to get involved more than the Navy itself in this, in the sense that we may want to be assertive and stand by our ally, but at the same time not risk outright military conflict. And maybe the Coast Guard can finesse that problem more easily than the US Navy. Or is that not something that right now is within your purview?

**LUNDAY:** Well, we certainly are involved in being part of Indo-Pacific command pack fleet and Seventh fleet's operations in the region. So to that degree, we're already present, regularly present and involved in those operations, under our own authority. We are working closely with Philippine Coast Guard to help develop their capacity and capability. Now, of course, that's on the east side and not directly in the area of the greatest tension. But we all watch closely the two plus two dialog with Secretary Austin. Secretary Blinken made the announcement about us strengthening our ties and investment with the government of the Philippines. And so part of what the Coast Guard is doing in our increased capacity building, cooperative training, joint ventures. Not only bilaterally, but then in some multilateral, efforts as well, is to strengthen that US, Philippines tie. A practical example. The Philippines just had a cargo vessel sink in one of their ports, with a potential spill of several hundred thousand gallons of fuel. They asked for the Coast Guard's help. This is the second time in two years we will send our experts in oil spill response, part of a national US capability. And they're in Manila today. They're on scene with the vessel, and they're helping the Philippine authorities with their response to this environmental potential environmental crisis.

**O'HANLON:** If I could drill down a little bit on fishing, and I guess you've already mentioned a couple of times, Admiral, but I wanted to ask, how is the United States doing? How's the world doing at enforcing respect for fisheries limitations? I know there's a lot of concern about overfishing in many parts of the world



that can have at least two very unfortunate implications. One, we just, you know, reduce fish stocks below sustainable levels. Secondly, that the countries and people who own the fish, or who should have first dibs on the fish because of the economic zone concept, don't get that fish that other people come in and take it. So would we be able to address this problem more effectively with a larger Coast Guard, with more partnerships with other countries? Just how does how do you see the state of play on keeping the world's fisheries healthy?

**LUNDAY:** Well, fisheries has been a mission. Countering illegal fishing has been a mission, a mission of the Coast Guard for for much of our history. And for us principally, not only enforcing US law and then international law governing fisheries management, but because it is the world's number one protein source and so vital for, for so many nations as a vital source of food. And so it becomes not only an economic issue, but also a security issue, for many of the nations that rely on that protein source. But we've seen as the strategic competitions heated up over the last several years, it's become more of a security issue and central to the strategic competition as well. So we talked about the bilateral, arrangements we have with countries in Oceania to help them protect their own and their own natural resources. But we also were involved in enforcing international regimes made up under regional fisheries management organizations that set out rules of behavior and also have prohibitions on illegal fishing that in methods that could undermine those stocks. I think what we are concerned about is the level of organization by illegal by IAU fishing, through companies and industry that has become so significant, illicit activity and illegal transshipment where they are moving fish stocks outside the visibility of coastal states within their easy where they don't have visibility of their own resources being taken or stolen, or inability to tax or gain revenue from that movement. But we're also concerned about the potential undermining of local governance because of the presence of distant water fishing fleets, whether it's, PRC flagged or Beijing backed, other foreign flagged fleets or, Taiwan flagged or other major flag distant water fleets that that move around the globe and engage regularly in illegal, unreported and unregulated fishing. The partnerships is is a critical aspect not only between nations but also with non-governmental organizations. The Coastguard has signed a partnership with Global Fish Watch, to leverage their significant NGO capabilities in global surveillance of illegal fishing. And so we are looking to partner with private and private sector as well, because they have some capability that, that we really can rely on to help make our efforts more effective in terms of Coast Guard size, our Offshore Patrol cutter acquisition, which is replacing an older series of major cutters. Those cutters will provide critical presence in the Bering Sea in the Pacific and the Atlantic to help combat IOU fishing. And we need that future capability.

**O'HANLON:** Do you want to say a word further, please, about about the state of acquisition programs? You mentioned that there's not enough money that you estimate you'd need 3 billion a year to replace and modernize your fleet. Right now you have, I think. He said about 1.8 billion in the current budget. But could you just give us sort of the 101 on the 3 or 4 major programs you're trying to push forward and what they're each intended to do? I realize that's going to be of interest to a lot of people in the audience today.

**LUNDAY:** Thank you. Michael. Well, the Coast Guard's engaged in the most significant recapitalization, and I'll focus on the fleet, our ships, our cutters, really in Coast Guard history. And so the the first major programs that have been successful and are nearing the end of completion of the programs of record are our 460 foot, excuse me, 416 foot national security cutter, which we've talked about already. And then our fast response cutter, the smaller 154 foot cutters that are incredibly capable and have been very successful, but the ones we are focused on principally now, the other two are the Polar Security Cutter program, the heavy icebreaker, the first one that the US has built in 50 years. And then the second is our offshore patrol cutter, which will replace the workhorse, the bulk of our of our at sea presence and fleet. And that is currently underway as well. Let me talk about the polar security cutter. Originally, awarded for design, but we saw some delays and challenges for a number of reasons. With the original shipyard that won the award and Covid. Bollinger, Mississippi acquired that shipyard and the contract, and they are working to finalize the design and be able to begin construction. But it's been delayed. And, they are we are working this the acquisition management is a joint venture between the Coast Guard in the Navy. So we can rely on the Navy's expertise in shipbuilding. And we're working right now with Bollinger, Mississippi, the builder, to finalize and update cost and schedule, to be able to build and deliver the first polar security cutter, the first of three, on the offshore patrol cutter. We have two stages or two phases being built by two shipyards, the first four being built by Eastern Shipyard and, Panama City. They launched the first one, the Argus, last October, and then Austal, the second stage. They'll begin construction later this year on, numbers five through eleven. So these are very capable ships. We have gotten support so far, but the challenge is how will we build and sustain production of two offshore patrol cutters a year? At the same time, we're building polar security cutters because these are major capital assets. It will require a \$3 billion budget to simultaneously move forward on those. If we slow down production, the cost of each ship goes up significantly.

**O'HANLON:** Do we even have the shipbuilding base to do that if we had the money? In other words, in the broader debate about US shipbuilding capacity and and the Navy as well as the Coast Guard. We've seen

discussion in the last few years about the way in which we sort of whittled things down to the point where we don't really have surge capacity for construction. And we've seen this with the Aukus submarine deal, where part of the arrangement is for, you know, I'm glad it's happening, but it's sort of amazing that we got ourselves into this position where we needed Australian cash to directly subsidize the US submarine construction industry in order to build up capacity, because irrespective of how much money you flood into a budget, if you don't have enough trained workers and enough places to build, you can't do it anyway. So how does that same set of constraints affect the Coast Guard? And do we need a parallel program to what Australia is now helping us do with the submarine shipbuilding base to expand our surface combatant and surface patrol, shipbuilding base?

**LUNDAY:** Thank you. Michael. We are seeing the same challenges the Navy is seeing with the US defense industrial base and shipbuilding. I think the shipyards were hit by the same post-Covid recruitment challenges. And there's a demand for a limited set of workforce, particularly in the Gulf Coast shipyards, where right now our major acquisition programs are based, including our Waterways Commerce Cutter, another acquisition program. So as those yards are challenged to bring in the human talent and train them up with the skills necessary, that's impacted our ability to move at speed and scale that we need to. And I think the Navy's experience the same. But there's no question historically, from the very beginning, when we built the first revenue cutters, US Coast Guard cutters are built in the United States. And they will be. And so whatever we can do to help the industry become stronger and be more capable to deliver the quality that American shipbuilders deliver, that's where we need to go. But it's been a significant challenge. Part of the other challenge, the polar security cutter that is building an icebreaker, that's something we haven't done since the late 90s. And so once that trade specialty and I think this is probably true with regard to submarines, once it disappears from the workforce, you have to build it back up from scratch. Now, there are opportunities where we can benefit from the expertise from allies and partners while still building in the US during, NATO Summit here in DC. The. Nelson announced the new icebreaker collaboration effort Pact or the Ice Pact. This is a tri part party agreement between Canada, the US and Finland, to share information personnel technology on icebreaker construction. And so that opens the door. They'll have to be an MOU. And we'll have to define exactly how the agreement will work. But it opens the door for bringing expertise from Finland and Canada more into the US sharing of technology. It does not impact our current polar security cutter acquisition, but it may help as we move forward. And so we're encouraged by that.

**O'HANLON:** So I'm going to open things up pretty soon to the audience. So please be thinking of your own questions. But I'd like to follow up on 1 or 2 others first. We've talked a lot about China, but not much about Russia. And I wondered, if you are busy tracking trade in and out of Russia, some of which is under restriction or sanction in light of Russia's attack on Ukraine from 2022, actually from 2014, but obviously intensified in 2022. Is there any kind of, you know, update you can provide us on shipping in and out of Russia and trends you're seeing there your ability to monitor that, given the restrictions on the size of your fleet, etc.

**LUNDAY:** Well, part of our role within the broader US government and with our allies is to ensure the enforcement of not only international sanctions, but also specific US sanctions on trade with Russia based on their unchecked aggression in the invasion of Ukraine. And so we are part of the US government's effort, along with our allies, to make sure that we can police and enforce those sanctions appropriately, not only as a member of intelligence community, but, with that see presence working closely with the Navy and our allies. The other part, I would say it's important that we, the Coast Guard, be able to provide presence to meet Russian presence that may be encroaching on our exclusive economic zone. They can sail, you know, under UN clause and international law. They can sail through our easy. But it's important that we demonstrate we have the ability to meet them when they are there, because it is US sovereign territory, even though they can navigate freely. And so I'll give you an example, Michael, on the 6th of July. This was actually China, but we've seen it in the past with joint Russian and Chinese surface action groups, warships sailing in and around are in our EZ and around our EZ. But on the 6th of July, the Kimball met three ship PLA Navy Surface Action Group in our EZ off Alaska. Shadowed them professional behavior, but demonstrated we will be there with our own presence to ensure US sovereignty. In late November 2022. There was a joint Russian PRC Service Action group and we did the same thing. We met them, interrogated them over the radio and made sure they knew that the US Coast Guard in the US was present. We don't do that alone. It's closely coordinated with Alaska Command and Northcom. And so beyond the sanctions, it's important that, that we demonstrate, to Russia, that we, the US presence is there in our own sovereign territory in the Arctic.

**O'HANLON:** If I could just a couple more topics before going to the audience what I wanted to I'm going to come back to the border and illegal flows of narcotics in particular, and how we should be thinking about that problem. It's obviously a serious problem for the country. It's a pertinent problem for the presidential campaign, for whatever else we're going to be discussing as a country, in the months and years to come. But I also wanted to ask you sort of a, a greenish question about the state of the oceans, environmentally. And

you've alluded to helping the Filipinos deal with, an oil spill, and you've mentioned that you're active all over the world in environmental enforcement. But I wondered if you could just take a step back and tell us, how are the oceans doing these days? And, from a Coast Guard perspective, from what you see, not only fish, which we've already talked about, but, you know, pollution, garbage, etc., how are the oceans doing?

**LUNDAY:** Well, Michael, I think, they are under significant stress, not only the oceans, as an ecosystem, but also the, the sub parts, like fisheries, stocks or other parts of the ocean ecosystem that are impacted. And that's not new. That's, that's I think it's accelerating. And and you don't need to be a scientist to see the impacts of that. If you travel in the Pacific Islands and Tuvalu is a good example. There is a lot less of Tuvalu than there used to be. I was there in 2020, 2019. And, the island is disappearing. I mean, it's gradually disappearing as we see a sea level rise. And that's not a, a scientific problem for the people of Tuvalu and the government. That is an existential threat. There are other Pacific islands that are challenged in a similar way. If we go up into the Arctic, we're seeing the melting of the permafrost because of warming, in the region. And so structures and shore infrastructure. That we were. We relied and others relied that would be stable. On the permafrost is now beginning to be unstable. And so that's, that's causing significant challenges as well. And then over time, we've seen the collapse of fish stocks in certain areas, certainly. In particular areas. And we're seeing the movement of fish stocks as well. And that's challenging, governance regimes and our ability to, to enforce existing regimes. So it's a significant concern. We're also seeing challenges in the use of the maritime environment, even along our own US coast. The increase and and the imperative to get, get more into space, military, government and commercially, all of that has an impact on the maritime domain. And and we need to understand and be able to safeguard against some of the adverse consequences of that important work. The important wind energy national imperatives to create wind energy off the Atlantic coast and Gulf Coast in other areas also has impacts on the maritime domain that we need to manage competing demands that also could have an adverse impact. And so that's something we're spending a lot of time and attention on.

**O'HANLON:** Before I finish up my questions with the, illegal narcotics issue, I wanted to ask one more specific, matter about the state of fiber optic cable, undersea fiber optic cable. What are the Coast Guard's responsibilities in that regard? I don't know if that that's something that you have to monitor or help protect, or if that's a private industry and ownership kind of matter. But where do your obligations and responsibilities extend in regard to undersea fiber optic cable?

**LUNDAY:** Thank you Michael. So again, most of the maritime critical infrastructure, including fiber optic cable is owned and operated by private companies. And the Coast Guard does have responsibility for that. As part of maritime critical infrastructure, most of the terminal points of fiber optic cable, trans oceanic, come into port. Facilities that are subject may be subject to Coast Guard regulation, but certainly our captains of the port have responsibility, as do other government agencies, for ensuring the safety and security of those of those critical telecommunication systems. What is our capability to actually do that effectively? It's not historically an area we have had to spend a lot of time focused on. But after we've seen challenges and incidents with, pipeline Nord Stream, not telecommunications, but we've seen cuts and threats to telecommunications and fiber optic systems. And so we're having to spend more time thinking about how do we help ensure the security of those systems as well. But it's something we need to think more about because of the America's reliance on that, for national security and commerce.

**O'HANLON:** So this last question is, you know, there's no obviously no easy answer, but the country truly is facing a crisis in fentanyl and, overdose deaths, you know, ballpark of close to 100,000 a year plus or minus. It's amazing the toll that it's taken on Americans. And of course, there's no easy answer. This stuff is really hard to detect to track. We're putting pressure on China to deal with precursor chemicals. We're trying to do other things, seeing some progress in certain domains, but it's very hard problem. I'm sure you would agree. Is there anything? However, by way of a big idea we ought to be considering as a nation that we're not doing now, that could make maybe more of a difference. And I realize the Coast Guard's role in that may be just one piece of a broader national effort. But is there anything big picture that we can do to do better by way of this crisis?

**LUNDAY:** Well, thank you, Michael. I think from our experience combating the flow, not we don't see a lot of fentanyl in the maritime domains coming up from the in the Eastern Pacific or the Caribbean. It's principally cocaine, some marijuana. But the same transnational criminal organizations and cartels, are engaged in fentanyl trade, production and trade as the activities I described that we see most often. But the only big idea, I guess, I would offer that is that the level of power that these organizations have, particularly in Central and South America, is overwhelms the power and ability and in some cases undermines the governance of established governments. And so is there a way we should explore treating these transnational, organized criminal groups as quasi governmental, deserving of the focus and attention and resources to combat and undermine and dismantle them? Because of the level of malign influence they're having on the region and

that is spreading into other commodities, it is delegitimizing other otherwise legitimate commercial trade. We're seeing them branch out into those areas, and they're pushing into other markets in Africa, into Europe. And. Further into the Pacific as well. And so with that increase in power, they gain an ability to overwhelm smaller governments or so corruption in a way that they can effectively overwhelm them. And so, the strength of our work together with allies, with partners in Latin America is critically important. But the level of investment that the US is making to address the severity of the problem, I think, is the question.

**O'HANLON:** So if they were treated more like you said, treat them almost at a different level of organization and hierarchy, almost like a quasi state in the sense that would mean that we would have a lot more. If we followed that logic, we would devote a lot more resources to essentially going after them, understanding their financial dealings, understanding their membership. Is that the kind of thing you're driving at?

**LUNDAY:** Well, Mike, first of all, I'm not a policymaker. And so my job is not to make policy today.

**O'HANLON:** Sorry.

**LUNDAY:** But I think, no, that's I think what I would say is we are doing that kind of work, the US government with, across the US government, and some of the urgent focus on stopping fentanyl flows within the Department of Homeland Security and US government is reflective of the level of commitment we're seeing today by the US government and the executive branch. But I think the severity of the impact of fentanyl and the and other synthetic opioids that are, that impact, I'm concerned, will get more severe within the United States and will require us to think in new ways to your questions about how we've traditionally. Addressed it both from a prevention response and an enforcement model.

**O'HANLON:** Thank you. So please wait for a microphone after I call on you and identify yourself. If you could, please. We'll start with Lynn over here on the side, and then we'll work over.

**AUDIENCE QUESTION:** Thank you very much, Mike. And thank you, Admiral. In 2021.

**O'HANLON:** Please identify yourself.

**AUDIENCE QUESTION:** Oh, sorry. My name is Lynn Kwok, and I'm the Lee Kuan Yew Chair for Southeast Asian Studies here at Brookings Institution. In 2021, China passed, a coastguard law, empowering, the Coast Guard to conduct law enforcement activities, including using weapons in maritime areas under Chinese jurisdiction, a term that China interprets very expansively. This year, China passed a further regulation, giving its Coast Guard the power to detain foreign vessels and warships as well as other sovereign. Immune vessels are not, exempted from this regulation. To your knowledge, has China sought to implement or to use its Coast Guard law? Since 2021, when the legislation was passed? Has it used it against the United States? Vessels? Public vessels or, the vessels of its allies and partners. Thank you.

**LUNDAY:** Thank you for the question, Lynn. As to whether China Coast Guard has used the new authority against other fishing vessels, for example, in the South China Sea. I don't know of specific instances, but there may be. And I'd have to take a look at the specific history since then in terms of whether they've used that authority against US government vessels. No, I don't believe in any case they've done that. What the US Coast Guard, what the United States expects is that China will follow the rules and behavior of a responsible state actor, and that the Coast Guard will behave in accordance with those same rules in a professional way as we expect professional mariners to, as we expect other coast guards to. And so that's the level of, that's the US expectation. But we haven't seen a challenge from China Coast Guard to, to US sovereign vessels at this point.

**O'HANLON:** Sir, here in the back, the tan jacket.

**AUDIENCE QUESTION:** Yes. My name is Roger Cochiti. I'm an editorial contributor to The Hill newspaper. And you brought up in your presentation one of what I think are the most important national security issues, but often least discussed. And that is what I will describe as sort of manpower and recruitment, issues. And we don't have much discussion about why this is happening in statistically, the population in the United States has grown by almost 50 million in the last 25 years. And the role for women in all of the military services has increased, considerably. So on the surface, you would think you should be flooded with recruits, you know? And yet you and your colleagues in the other services are reporting exactly the opposite. It's not at all clear why this is happening. And you happen to be on the front lines of it. So I hope you can help explain to us why this is happening. And I'd also ask you to respond to Iraq to one possible obvious solution. And that is, at least on the surface, that little discussion occurs as well. 75% of all men graduating from high school are ineligible for military service because they are overweight. And, I don't know whether this is true



or not, but something is going on there. So isn't the future sort of obvious? You automate everything and reduce your standards for admission to the military, and in the long term, we wind up with a room full of overweight lieutenants running a group of ships that are staffed by robots. And, drones are the, you know, on the front lines and overweight video game people are, you know, running things. So, that's a ridiculous example, obviously. But isn't the future automation and drones and lower the physical standards? And so why is this happening and what is the solution? Thank you.

**LUNDAY:** Thanks for your question, Roger. That's quite a dystopian picture you paint in the future, and I don't actually see that many feet. Coast guard I don't think I see any fat Coast Guard lieutenants. We're in pretty good shape. But to your question about why do we think we are having a trouble with recruiting? And I think this is a question the other military services, other governmental agencies in the industry ask themselves as well, certainly for the military and the Coast Guard included. We do have high standards for admission, physical standards, other standards. And while we want to make sure those standards aren't artificially high, we haven't lowered them. We have seen a reduction. The experts, tell me that we've seen a reduction in the the number of the percentage of young people who are eligible to serve, because of physical challenges or maybe a medication history. And we need. Need to look closely at those requirements and make sure we are we are not overly constraining what our standards are. But the demographers also say that there are people that we otherwise would have recruited, the 20,18, 19 years ago that we would be attracting. They just weren't born 18 or 19 years ago, that that we're facing a shift in the demographics, that mean there's less people of that age that we normally recruit to recruit from. You talked about the physical fitness standards. So the Coast Guard is taking a similar approach that some of the other services have. If we have a young person that's graduating high school and they want to serve in the Coast Guard, but they don't have the physical fitness capability. Our recruiters will go with them. We have a program now. We'll help them work out before they actually enlist. And now we're experimenting with a program where when you show up at boot camp, we don't throw them right into the traditional cauldron right away of intense training, we actually want to make sure that they are physically, mentally, emotionally ready for what we're going to put them through. And the other services are taking similar approaches, so we can increase the success rate of those that complete recruit training or the academy or officer candidate school or whatever, however we bring them into the service. We this year in June, we talked about a recruiting investments. We achieved our recruiting goals and the enlisted workforce for the first time since 2017. 4400 a year is what our target is. Now, what that means is we're no longer losing people. Our shortage is stopped. Now we need to gain those people back. What I will tell you, though, is the quality of young people coming into the Coast Guard is

incredible. As I traveled around the last two years in the fleet and among our operating forces with my senior enlisted leader, Jeremy Demello, what we found was that if we used to talk about this, if we jumped into a time machine and went back a long time and we came out at their age, these young people today would run rings about us. They understand the world in which they live and operate much better than we did. They know why they joined the Coast Guard and are committed to the mission. More than I can remember being when I was their age. So I'm really inspired and hopeful for the future in terms of we are relying and looking forward to technology more than we used to uncrewed systems, but a future where everything is automated and there's just a few people I will tell you in the competition space we face today with the potential for conflict. Our history has shown us that what makes the difference is not superior technology for the United States and the joint force. It's what's up here and what's up here in the American service person. The strength of our joint force and our people, regardless of the capability of technology, has been what is ensured the success and security of the United States and our ability to prevail in conflict. And that will be the case going forward.

**O'HANLON:** Crew sizes are also pretty modest even now, right? I mean, we've already automated a lot. You've probably got 100 people or so or fewer on most of your ships.

**LUNDAY:** We have our crew sizes are smaller because of automation that presents its own challenges in certain ways in terms of, reliability of systems. But we're learning how to do that. And we're looking more toward uncrewed aerial systems and, and surface systems as well. How do we learn how to use those so that our investments, the American people's investments, that the Coast Guard provides value is done more, more economically but still effectively.

**O'HANLON:** Bruce.

**AUDIENCE QUESTION:** Thanks. Bruce Jones from Brookings. First of all, I want to say. Thank you to you and to the Commandant for sending federal executive fellows who are consistently among the best service members that come to Brookings. So thank you for that. I wanted to push you further on the, undersea infrastructure, the seabed infrastructure where this is on fiber optics, it's on energy. We're seeing, you know, increasingly we're going to see continental shelf mining for rare earth minerals, deep sea that's going to affect, Pacific Island states, etc. At the same time, we're also seeing developments in the UUV and the USV space that threaten that. And we see both in terms of the kinds of things the. Russians have done and the

baltic area to threaten infrastructure. And from a different vantage point. Whether the Ukrainians. Have been able to do, with service, uncrewed vessels, that in other hands could be pretty worrying for us from port security, etc. So in that entire space. The kind of undersea technology uncrewed Space. What kinds of investments do you think we need to be making? Not just necessarily for the Coast Guard, but perhaps for the kind of broader maritime security domain?

**LUNDAY:** Well, thanks, Bruce, and thanks for your question. I don't know that I'm in a position to speak about investments that the Department of Defense is making in that regard, although I know it's an area of significant focus for the Department of Defense and the other services because of our reliance on that, on that critical infrastructure for our role and responsibility, part of what the Coast Guard brings, even if we don't have, significant undersea capability now beyond, our current, dive capability, dive salvage capability in some underwater uuv limited UUV capability, but the ability to, to surveil and be present, even using, UUVs on, on undersea infrastructure coming to the US, that's not a significant capability that the Coast Guard has in our right now. But we do have is the partnerships and strength in each port or place where here, that depends on that infrastructure, the relationships to understand the implications or changes in the security environment, almost in real time. So in every US port, the captain of the port sector commander, a senior Coast Guard officer, maintains a relationship through a series of standing groups that communicate and function on a daily basis that's not only federal, state, local, and tribal, but also industry so that we can share awareness of threats and challenges. When we talked about our work in cyberspace. Most of the effective work, even though we have a full US Cyber Command that supports it, actually happens at the center of gravity, which is where those relationships and our greatest authority lies at the captain, the port. And so our contribution is understanding how the risks and dependencies work, particularly with that, that undersea infrastructure that comes in. But we don't have a significant level of investment in that capability to be able to be present on that infrastructure right now within the Coast Guard.

**O'HANLON:** Go ahead to the front row, please.

**AUDIENCE QUESTION:** Thank you. Hi, my name is Shahana [inaudible] [I work at the Department of State and Oversea Maritime Migration. And so, first of all, thank you to the Coast Guard for your partnership. We work very closely with Coast Guard broadly, but also with your Office of Maritime Law Enforcement. My particular regional area is the Caribbean, and you talked quite a bit about some alliance building activities

you do in the Pacific region. And I'm wondering if you could talk a little bit about some of the Alliance building you're doing in the Caribbean to mitigate the risks associated with maritime migration.

**LUNDAY:** Thank you, Shahana, and thank you for the work, the important work the Department of State does with the Department of Homeland Security and other agencies to address some of the challenges in the Caribbean. So in my last role, I commanded our Coast Guard Atlantic area, but I also was charged with leading a DHS Joint Task force, Joint Task Force East. And our responsibility was you've all heard of the southwest border? Of course, it was the southeast border, the maritime border. And addressing the challenges that press against the southeast border, including maritime irregular maritime migration. And so what we found working with other DHS partners, with other parts of the interagency and then throughout the Caribbean, is that our cooperative efforts on maritime security to address a range of threats were also vital to being able to lower the risk of illegal maritime, irregular maritime migration, because what we find is that, as you know well, if we see a regular maritime migration that may not come to the US, it may come from Haiti up into the Turks and Caicos or the Bahamas. Well, it can overwhelm the government of the Turkish Turks and Caicos capacity almost right away, without strong support from the US, the Bahamas and others to help them deal with a significant sudden influx of irregular migrants, for example, from Haiti. And so the other part that becomes critically important, led by the State Department, is the work to support the, the international mission to provide the MSS mission to provide security and stability in Haiti, led by, the government of Kenya and, and within an international coalition. And so the US, led by the Department of State, but certainly within Homeland Security, within the Department of Defense and other agencies, is supporting that effort to bring more peace and stability into Haiti following the significant unrest after the assassination of President Moïse. But the challenge and the persistent risk of a sudden flow from Haiti, and because of economic conditions and deprivation in Cuba or from Cuba, is real and it's enduring. For example, in 2022 and 2023, we saw an unprecedented level of attempted irregular migration that we haven't seen in 30 years. And the Coast Guard interdicted at sea along with other DHS components like Customs and Border Protection. Nearly 30,000, people trying to reach the US without proper authority and repatriated them to Haiti and Cuba. Understanding agreements. We've seen that number drop off significantly, and so we've been able to deter that for the US Coast Guard, that is principally a life saving mission because the when people take to the sea and unseaworthy craft, we actually don't know how many people perish before we can rescue them and then return them to their home country. So we work very closely in that regard. And but we have a long way to go. The challenges there are significant in the Caribbean.

**O'HANLON:** Take one last question. While we're here in the lecture at and we'll have to wrap it up, I'm afraid.

**AUDIENCE QUESTION:** Thank you. Thank you. Admiral. My name is Martin Pele. I'm a co-founder of company name Windward AI. We try hopefully, to support the mission as best as we can. My question to you, sir. Obviously, the overwhelming amount of challenges that the Coast Guard is addressing and you spoke about, the budget constrains. AI, if at all. How do you think about it? What's your view of AI? And this can help specifically in a theater like the Pacific. Right. Too much water to cover, not enough assets. If there's something that the Coast Guard is leveraging. And to what extent?

**LUNDAY:** Thank you for the question. Someone who knows a lot more about AI than I do told me you may not be interested in AI, but it's interested in you, which is so sobering. So the Coast Guard has, made a deliberate, step forward to value data as a strategic asset. We are not as far along as we want to be or need to be, but you are making the investments and leadership and resources to be able to position the Coast Guard, to be able to be in a position of strength, to fully take advantage of AI and the machine learning capabilities that are already around us today. Not even to mention what may be available in the near future and is coming very quickly. And so we are looking to leverage the capabilities we have already through robotic process automation to improve the efficiency and speed of our own business functions, even how we process financial transactions internally. So we are already using AI in small, important ways that are making a difference, but we're also looking to use it operationally, for better maritime domain awareness, for better modeling. So we can understand, how patterns of IOU fishing or even irregular maritime migration may work, which will inform decisions on how we position assets, how we patrol, and maybe even what type of assets we may need in the future. Thank you.

**O'HANLON:** If I could ask a small favor. Give us 60s, please to leave before you do. And then, if I could ask another favor to please join me in thanking the admiral.