THE BROOKINGS INSTITUTION

FALK AUDITORIUM

THE STAKES AT SEA:
AMERICA'S COMMERCIAL, SCIENTIFIC, AND NAVAL ROLES IN A CHANGING GLOBAL LANDSCAPE

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OPENING REMARKS:

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DISCUSSION:

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SUZANNE MALONEY: Good morning to all those of you who are joining us here in our Falk Auditorium at the Brookings Institution in Washington, D.C., and hello to the many who are joining us virtually online from around the world. I'm Suzanne Maloney, the vice president and director of Foreign Policy here at the Brookings Institution. And I'm delighted to welcome you to today's event on America's maritime role in the changing global landscape. This is one of the first events in our new speaker series, “The Seas and Strategy” and part of a growing body of Brookings work on maritime issues and naval power.

America has been a maritime nation since its earliest days. And to this day, every part of American society is shaped by dynamics at sea, from the flow of goods on the vast container ships that symbolize modern globalization, to oceanographic sciences that help us understand our changing climate, to American naval power, which is the bedrock of our power projection around the globe. Of course, America is far from the only nation dependent on sea-based flows. So are our allies and partners, and so are many other countries, including China. As we all learned in jarring ways over the past few years, markets are hugely dependent on them safe movements of good by goods by sea, whether that's grain ships from Ukrainian ports in the Black Sea or fuel ships through the Suez Canal or commercial goods flowing through the Taiwan Strait. But as tensions between the world's top economic and military powers rise, new questions loom about the implications for commercial and scientific cooperation, to say nothing of mounting naval tensions.

Our panel today is here to discuss these complex issues and the stakes at sea today. Before I turn it over to our moderator and our distinguished guests, please allow me to offer some brief introductions. Admiral Michael Gilday has served as the 32nd chief of naval operations since 2019. Throughout his career, he has commanded cruisers, aircraft carriers, and destroyer Squadron Seven. Admiral Gilday has also assumed significant joint leadership roles, notably serving as the director of operations for NATO's Joint Force Command in Lisbon and the chief of staff for naval striking and support forces NATO. Prior to his appointment as CNO, he most recently served as director of the Joint Staff. Dr. Margaret Leinen is the director of the Distinguished Scripps Institute of Ocean Oceanic Oceanography Oceanography, UC San Diego. Very distinguished and very complex. She also serves as UCSD’s vice chancellor for marine sciences and is the dean of the School of Marine Sciences. She leads innovative research that addresses the critical environmental challenges that face our planet. Prior to her current role, Dr. Leinen was at the National Science Foundation, where she led vital programs in marine, atmospheric, and earth sciences. Peter Levesque is the president and CEO of CMA-CGM North America, one of the world's largest container shipping companies, as well as CEO of American President Lines. With over 30 years of international transportation experience, Peter has held several executive positions, including president of Ports Ports America Group, the largest terminal operating company in the United States, and the chief executive officer of Modern Terminals Limited. And finally, our moderator for our discussion today, my colleague in the Foreign Policy program here at Brookings, Bruce Jones is a senior fellow in the Strobe Talbott Center for Security Strategy and Technology, an expert in U.S. strategy and international security. Bruce’s most recent work, “To Rule the Waves,” which you can purchase if you're in the back in the back of our auditorium here today or on any online retailer. “To Rule the Waves” navigates the complexities of global commerce against the backdrop of mounting naval tensions. Before I begin, let me note that we are live streaming and on the record. For those who are joining us virtually, please send your questions to events at Brookings Dot edu or using the hashtag USMaritime on Twitter. For those in the audience, we will be passing mics during the question and answer session toward the end of our session here today. Bruce, over to you.

BRUCE JONES: Thank you very much. Thank you all so much for being here, admiral, Dr. Leinen, Peter, it's a real pleasure and an honor to have you all on stage with us today. I'm going to jump right in. Suzanne highlighted some of the issues that are consequential for the United States, for the world of the maritime sector. From your vantage point, what are the stakes at sea? Admiral.

MICHAEL GILDAY: So I'll begin with my bumper sticker would be that the global economy floats on sea water, and so assuring open access to sea lanes, ensuring that they're secure and available for all to operate under, on and above the sea is critically important to achieving that main thing, which is economic prosperity for all. 70% of the countries in the world touch the oceans. And so we're all dependent, very much dependent on on on the sea lanes to maintain our strong, strong economy, strong, strong trade. And so the US Navy since Bretton Woods, for the last almost 80 years, has been forward. And we have to be forward to ensure

that those sea lanes remain open, working by, with, and through our allies and partners. We're not doing this alone. As I mentioned earlier, we all benefit from this. And so for me, that is first and foremost why the Navy needs to be forward, and why it's important that we be out there always.

BRUCE JONES: Peter, that's a good introduction to you. From your vantage point.

PETER LEVESQUE: Yeah. Bruce, Thank you. I think unlike the Navy, it's very much the US is no longer a leader in maritime trade. We lost that about two decades ago with the sale of APL to Singapore and the sale of sea land to Maersk. So today here we are in the United States with the $23 trillion economy that is very much dependent on our relationships in the services of foreign flag carriers like CMA. So today in the maritime industry for container ships, these big container ships, the US, we don't build them, we don't own them, we don't sail on them. But we're very much dependent in the US economy that these relationships work. And they do work today, thanks to the Navy and their security and helping us to have that kind of security in these sea trade lanes. I will say too, that even though these carriers like CMA are foreign flagged, we also in CMA's case, we own APL, which is a US flag division of CMA. So we do provide services to the US military, to USAID and for US-impelled cargo. Maersk does the same through the maritime security program and Hapag-Lloyd in Germany does the same. So the dynamics are interesting and as we look at the supply chain of the United States and who the players are, where it used to be very much us today, we rely on relationships from around the world.

BRUCE JONES: We were talking backstage. Right now, of course, people are watching in the news. The the workers strike at Long Beach. We saw a couple of years ago, huge delays in cargo ships at Long Beach. Long Beach last year, I think did 9 million container drops. Shanghai did 60 million things down here. And it's only one of five Chinese ports in the top ten. That gives you a sense of the scale of Chinese dominance of the of the commercial trade.

PETER LEVESQUE: Oh, absolutely. And China owns or operates 90 ports in 53 countries today.

BRUCE JONES: We'll come back to that. Margaret, from your perspective.

MARGARET LEINEN: So we've heard the emphasis on global trade and how tightly that is linked to security. But there are a couple of other pieces that are related to the ocean that are incredibly important for for us and for the world. The first is that climate change is joined at the hip to the ocean. The ocean is the flywheel climate. About 25% of the CO2 that's emitted winds up in the ocean. But 93% of the heat generated as a result of those greenhouse gases winds up in the ocean. So if you think about the changes that we're seeing in temperature and warming on land, the ocean is protecting us from 93% of the impact of that. It's just incredibly important for us to understand exactly how that works. And we didn't we didn't even know that number until about 15 years ago. So and then the relationship between the ocean and the atmosphere is the basis of the whole water cycle precipitation. Everything that you see with atmospheric rivers on the West Coast, people didn't even know that term until about five years ago. And and flood and drought are just integrally tied to the ocean. The second thing is food. We don't think about that too much in the US, but 2 billion people on the planet depend on seafood protein for their their protein. And that means that there is a great and you hear all the time about the the overfishing. So that represents a potential an incredible disruption. You know, if we if we see that food. That food supply becoming insecure. Another thing that people don't understand is the very strong relationship between human health and the ocean. So all over in Southeast Asia and parts of Latin America and South America, cholera is a major problem. Cholera is the the virus that causes cholera is transmitted through plankton, a microscopic ocean organism. So plankton and that transfer link is an ocean link between what's happening in the ocean and cholera outbreaks on the other side. The ocean is one of the foremost sources of potential drugs. Organisms that make toxins to prevent themselves from being attacked, eaten, etc.. And those toxins are the, you know, some of the primary compounds that are associated with drugs. So right now, there are several antibiotics, which would be the first antibiotics approved in almost 25 years that we have a a drug in third stage clinical trials for glioblastoma, the cancer that John McCain and and Beau Biden. And for which there has been no drug. So it's an incredible source of resources in that sense as well. And then we're talking about all kinds of uses of the maritime environment for wind power, for kinetic energy, from currents, from offshore installations, for

aquaculture and so forth. So I'll talk more about the security link. But these are all pieces that are integrally tied to our economic security.

BRUCE JONES: I'll add one, which I think is there's a kind of growing awareness, all but only recently, which is that we live in a data driven world. Everything we do smartphone, zoom meetings, etc. 93% of all data is carried on undersea cables, which I have to say, I think of it as globalization's most important and most fragile network. I want to ask you each starting with you, Peter and we'll, and with you what you see as the major challenge in front of you in your sector.

PETER LEVESQUE: The major challenge for us is, is obviously what happens in the South China Sea. $5 trillion of goods flow through the South China Sea every year. It's a major shipping lane, obviously, for for CMA and for the other carriers. We're worried about what everybody's worried about. The two planes go bump in the night or two ships go bump in the night accidentally and spiral into something bigger and all of a sudden we can't use those trade lanes or insurance companies won't insure our ships to go through those trade lanes. It's a real concern. And I think I don't think we fully comprehend how big of an impact that would be, not only the global supply chain, but to the U.S. supply chain in particular, if tensions get to the point where that's an unusual, unusable space.

BRUCE JONES: I'm pretty sure the admiral is going to comment on that. But, Margaret, let me let you go first and then we'll.

MARGARET LEINEN: Sure. So Peter talked about the change in the dominance in in marine transport. We are at a cusp in marine science. 20 years ago, although there were lots of players, the U.S. was, you know, absolutely dominant in marine science. Two things are disrupting that. The first is the funding for science by the European Union, in addition to the funding of individual nations. So Europe as a whole has gone together and has a whole cascade of very large projects, 25 to $50 million a year, projects that are that are marine ocean science oriented. And then there's China. And the growth of marine science in China is staggering. Just in the last ten years, we have seen them invest in whole new oceanographic institutions, each of which are as big as Scripps or Woods Hole, and they have just been constructed of whole cloth there. And I brought this with me so I can get the names of the initiatives straight. But since about 2005. China has had medium to long term science and development plans and MLPs which prioritize megaprojects. Every single one of those has had at least one Marine megaproject. And they're they're not uniform across all of science, but there have always been marine megaprojects, sometimes more than one. Early on it was focused on infrastructure. So it was observations, certainly satellite, but major ocean observations. Then in the medium term it was shipbuilding. So there were there they had a National Engineering Research Center initiative. Three of those centers were built that were around ship design, shipbuilding and ship navigation, and that resulted in just a burst of construction. Every one of the new oceanographic institutions, as well as two new ocean universities that that were just constructed of whole cloth since 2010, have a research vessel that is larger than any U.S. ocean research vessel that has benefited from this kind of construction. And the latest mega-project is called deep sea stations. And there's not a lot of of information on exactly what China considers a deep sea station. But you can you can understand the the strategic importance of being able to have some that have a nexus of capabilities that is in the deep ocean. And so the big challenge for us is not the intellectual ability, but the sheer financial tidal wave of funding elsewhere that we're trying that we're up against.

BRUCE JONES: Admiral.

MICHAEL GILDAY: I think a common theme here so far in the discussion has been a growth in the reliance in the maritime commons. And we see that increasing. We talk about the Internet of Things and now we're talking about the ocean of things. Examples would be a 100% increase in offshore wind energy by by 2030 and increasingly reliance on oil exploration further from shore in in deeper waters. That trend is increasing. We talked about climate change. The trade routes between Asia and Europe will fundamentally change in our lifetime due to the erosion of the polar ice cap. And so the Arctic becomes now an area of competition that we must think more deeply about. So I go back to the to the point that I made upfront about the rules based international order that serve service globally, not just the United States, obviously, but it's been a tide lifts all boats in many different ways. In terms of I think it's contributed to the reduction of global poverty, It's

it's increased the amount of information that that flows across across the globe. And so there's been so many benefits, I think, for the Navy and our partners. And I spent an awful lot of time with my allies and partners with allies and partners just met with all the European chiefs of Navy two weeks ago to talk about common challenges and opportunities. We continue to work together, and I think part of that is to show those that would like to challenge the rule based international order that that it's unacceptable and perhaps enticing them to join the rest of us in following the rules that that we currently all abide by.

BRUCE JONES: I'm going to draw you out on a couple of those points, if I could. First, the Arctic. You were just in London for the first Sea Lords conference, and one of the things you did there was call for a large fleet exercise in the northern waters. Just say a word about what was behind your thinking there.

MARGARET LEINEN: So the parallel I would draw is to the remote Pacific exercise or RIMPAC, that we do every other year in the Pacific. That involves about 30 to 30 navies and tens of thousands of sailors. It's it's been a it's been a catastrophically successful venture for four navies. And they're not just from the Asia Pacific. They're from all over the globe. Join us for that exercise. And I think that we could do the same up in the Arctic. And it doesn't have to be led by the United States. The United States can be part of it. Remember, you know, now it's Sweden, hopefully Sweden and Finland joining NAITO. Eight of the nine nations of the Arctic. So I actually part of Naito. And so I think that that's a force here. And I think that as we talk about, we talk about NAITO, we usually frame it thinking about the transatlantic relationship. And I think that over time will begin to talk more and more about the trans polar nature and interests involved here.

PETER LEVESQUE: Are you keeping a close eye on transport routes?

MICHAEL GILDAY: It's something that obviously anything any trade routes that open up, they're going to allow us to move product from the manufacturer to the store shelf faster is something that we're interested in. We don't have a plan today on that, but we are watching it.

BRUCE JONES: And Margaret, you have researchers in the Arctic. You have participated in international scientific collaboration in the Arctic. Now, how important is developments in the Arctic here that.

MARGARET LEINEN: They're incredibly important. Not only are the polar regions changing faster than any part of any other part of the planet, but what starts in the Arctic or happens in the Arctic doesn't stay in the Arctic. It affects the general circulation of the ocean and so forth. And one of the key things is that this change in the Arctic is going to be something that hasn't happened in millions of years, and we aren't really tracking it the way that we should be are climate modelers are sort of in two camps about the Arctic. One of them says, yes, summer will be ice free across the entire Arctic. Others say that there are feedback loops that certainly will thin the ice, but it will never be completely ice free. The fact that we don't know that when everybody is thinking about how to exploit the Arctic is that's a strategic weakness.

BRUCE JONES: Admiral, you didn't use the word, but China looms large in this conversation in terms of the pace of the commercial development over the last 20 years or the explosion of scientific research in the last several years, and probably the fastest naval buildup of any country since we did after Pearl Harbor. I suspect you spent a lot of your nights thinking about China. You have Chinese ships cutting across America and frigates and destroyers on a on a semi weekly basis. How to what extent does China's naval buildup drive your sense of the challenges that we face.

MICHAEL GILDAY: The lack of transparency concerning their intentions, respect to how they're how they intend to use their Navy to reach President Xi's goals are concerning with respect to military expansion. That said, I go back to allies and partners are increasingly reliance on those relationships is not a single thing we do out there on the oceans every day. And we have 100 ships at sea, a third of the fleet out there at any given day that we're not doing without with or without allies and partners being involved. When I think about in terms of being a bit of an optimist and if I take a look at what we've done with a large number of nations to combat piracy in the Gulf of Aden and off of off of the coast of East Africa, the Chinese have been involved in that and they've been good partners with respect to combating piracy, thwarting it and keeping those sea lanes open and accessible for all. So that should be a model, I think, for the behavior that we should expect

from it, from from the PRC. And I would encourage more of that type of collaborative those types of collaborative operations and see the benefit all of us.

BRUCE JONES: You have to, of course, plan for contingencies that are less positive than that. Peter, you talked about the potential for contingencies, the Taiwan Strait. You have ships that sail in those waters doing research. How worried are you about the the risk of a crisis, the risk of disruption? I mean, this would be a pretty dramatic event if we were to end up in a full blown naval clash in the Western Pacific. How worried are you about those kinds of stories?

MICHAEL GILDAY: I am encouraged by the most recent turn in dialog by senior leaders with respect to toning down the, I would say, militaristic tone. I think that's been helpful. I think that we need to continue to operate out there and we need to continue to operate forward. We need to assure allies and partners and at the same time, we need to deter any anybody, any nation that intends to challenge those international rules, challenge the security interests of not only the United States, but our allies and partners, and put our economic interests in jeopardy. And so I think we need to be out there and we need to be in the way. We can't just be milling about. It has to be purposeful and it has to be non provocative. Let me let me just underscore that. We had a destroyer that went through the Taiwan Strait along with a Canadian ship this past week, and we were challenged by the Chinese. What you are seeing in those interactions, and I'm very proud of not only the commanding officers of the ship to go nose to nose with the PRC and the Russians, but also our aircrews in the air that are experiencing the same type of at times, aggressive behavior. And so we are handling that, I think, very well, very professionally. And remember those mil to mil relationships that we have across the globe with our fellow militaries? Those are intended to be a a shock absorber. And so no matter the political climate, those military relationships have to be steady, predictable, and they have to be very measured. And so that's what we that's that's what we're focused on.

BRUCE JONES: And this is what I want to do is bring in some questions that came from we have several hundred people listening online and some of them some questions in advance. And I had other questions, but I'm going to confuse mine with theirs. And one of them I was going to put this negatively, Isaac Carden, who's a Carnegie, wrote in a positive version of this question I was going to ask. I'm worried that in the American polity, in the American debate, there isn't an adequate attention to the issues that you all are talking about, an adequate attention to the stakes we have at sea. I put it more positively to ask you, what is it that federal, state, local governments, private sector actors can do to raise awareness of how much is at stake in this country and internationally in the sectors that you work? Peter, I want to start with you.

PETER LEVESQUE: Well, I think the the event that kind of brought everybody into the supply chain world was covered. A lot of people really didn't understand how things got to the store shelf until COVID hit and the congestion hit. And we had 150 ships off of L.A., Long Beach and what that all meant in terms of gumming up the global supply chain, the U.S. supply chain. So in a weird way, the conversations that we have today on the Hill and everywhere else are a lot easier because people have taken the time to understand whether they wanted to or not, how important the global supply chain is and how important the network is and how that works inside the United States. So COVID actually gave us the awareness that we probably couldn't have reached in the next ten years over the course of two.

BRUCE JONES: Yeah, I've joked sometimes, Admiral, to your colleagues that when you drive into a Wal-Mart and you've got all these containers sitting in the yard, there should be a sticker on them saying brought to you by the U.S. Navy so that people could directly understand the relationship between markets and commerce. From your vantage point?

MARGARET LEINEN: Well, I think it's really our responsibility to be more effective communicators about how important the ocean is in all of these areas, especially in the non-security side. You know, you do a wonderful job of convincing federal government that that our security rests on the Navy as well as the other forces. But getting across the issues of the economy, not just the again, the transport economy, but the economy of energy, the economy of resources and the dependance, It's no longer the ocean is no longer optional for policy. And for many years it has been. There would be, you know, for, I don't know, 20, 22 years we've had some kind of a policy document on the ocean. But I think that a lot of it has largely been ignored in

terms of action enabled by funds from from the government. And I don't think it's optional anymore. The ocean is an optional, and we have to get that message across.

BRUCE JONES: Admiral.

MICHAEL GILDAY: I would just reinforce what they both said. Americans expect that that Amazon box arrive at their front door when when when it should arrive. They expect it always to be on time. It isn't until things are interrupted and they cause inconvenience or, you know, or you feel it in your wallet that it's actually going to make a difference and really gripped the attention of the American and the American public. A train a train wreck in Ohio with that hazardous material would be another example. You don't think twice about train travel on the safety of trains in the United States. And so it is not until a vessel like ever given goes sideways in the Suez Canal at the potential cost of, let's say, 10 billion a day over time, that will affect people in their pocket, but they don't see that piracy the same thing until people really see how that's going to affect them on a day to day basis. They just assume that we're just going to take care of that and things are going to get back to normal very, very quickly. And so that said, I will say to the points that the others made that the U.S. Congress recognizes the importance of the maritime commons. And I am after from a for military standpoint, after two decades of ground wars, we've seen a significant shift in investments in the Navy and the Coast Guard in the maritime. And so it's it's overdue, but it's very welcome. And they're very serious and focused on on that and those investments.

BRUCE JONES: It brings me to another question, which was sparked by something Peter said and also came in from from an online audience, which is around shipbuilding. Do we have enough shipbuilding capacity in this country? And if not, what can we do about it? Let's start with you and Peter.

MICHAEL GILDAY: The short answer is, no, we don't. So when I first joined the Navy, we had about 30 shipbuilders. Now we're down to seven. And I think in the commercial side, it's not much different. Back in those days and in the mid 1980s, the US government stopped subsidizing those private shipyards. So you saw a contraction in the number of builders that we have. And again, we are limited by law in terms of where we buy their ships. They need to be us made. And so we have focused on trying to keep a very predictable economy set of headlights for the shipbuilding industry to give them stability and predictability over time that that business is going to be there in order to replenish or to keep to keep the fleet updated with respect to ships right now across those seven shipyards. We have more than 50 ships in construction and another 70 plus on contract. And so, again, that's been due to the help of the Congress. And so I see that trend moving in a in a very healthy direction on the commercial side. And this is not my area of expertise, but I did notice that the Department of Transportation recently made an investment in grants for some 25 or 27 smaller shipyards to keep them viable in this economy. So.

BRUCE JONES: Peter.

PETER LEVESQUE: Yeah, it would be great to bring back U.S. shipbuilding in a big way and be able to build these big container ships in the U.S.. Pricewise, it's it's almost 3 to 4 times more expensive to build one of these ships in the United States. That's just the fact. So China, by far is the most aggressive in being able to provide the shipbuilding services. Korea is another one. And it's it's purely a cost situation if Europe and we have 600 container ships. So when we build a new ship, you know, we're not going to go to the most expensive place to do it. That's just the way it is. Even our U.S., you know, our U.S. flag fleet, those are U.S. flag under the Marine security program, not necessarily U.S. ships, but U.S. flags. So see the U.S. crews and that. So it would be great to have it come back. I don't think it's possible.

BRUCE JONES: And we asked you specifically. I mean, China is obviously a large player here, but South Korea and Japan have large shipyards.

MICHAEL GILDAY: Yes.

BRUCE JONES: Cheaper than ours, heavily subsidized, but also allies. How much does that factor into your your equation when you think about acquisition of new ships?

PETER LEVESQUE: Well, that's all we look at. And so those are the places that we would look at to build new ships and the the complexity of these ships now to with the LNG and the methane ships that we're building, it's just an area that we don't have here today.

MICHAEL GILDAY: I would say it's worth examining the market, though, in terms of in terms of military shipbuilding. And so there's an Italian firm that now builds US Navy warships have the contract on our new frigate in Wisconsin. And so there may be room there for medium sized ship, ship, shipyards to build those types of ships in the United States in certain areas of the country where perhaps it's a bit cheaper with respect to with respect to the skilled labor. But that's a challenge in and of itself, is having them having the right, the right skill sets and the right numbers.

BRUCE JONES: This is, I think until I met with them yesterday is super interesting story of an Italian mega multinational that's working with a one of the oldest shipbuilding firms in United States in Marinette, Wisconsin. Fascinating story. Another set of questions that came in online is around research in the underwater space. And Scripps has been a leader here for many years. You had the Argo program, one of the first to use unmanned, if not fully autonomous vehicles to do climate modeling. You're also integrating an unmanned drones. Can you say a word about that? And then I want to ask you, with what I know in your shipbuilding plan, that's a big fact. So.

MARGARET LEINEN: Yeah, so many of the things that I mentioned before lead us to focus on the ocean below the surface and. Being able to get access to that. Being able to do what we want to do in it are really, really key. And a lot of the focus has been on not so much building the platforms themselves because we have a lot of great platforms, but developing the capability for those platforms to measure new things, to take samples, analyze them and send back the data instead of the samples. It's cheaper. You can do a lot more of it. And another piece of this is the growing call for the ocean Internet of Things. And Admiral Gilday referred to this. Almost all of the focus has been on the things as opposed to the Internet piece. And that's because that piece is really hard. You can't you know, you can't rely on on light waves. You have to rely on either fiber optic or something that's connected or or sound, which is the weight of the ocean. But you don't have the bandwidth to send things. So being able to overcome that hurdle and think about being able to measure, to send back data, to transfer data, to have intelligence, swarms of instruments that will go out, which we take for granted in the atmosphere would really be a game changer. And so that getting that capability for the deep sea is is one of the load stars.

BRUCE JONES: This was these sets of issues were central to your updated shipbuilding plan or your your your fleet plans have been maybe just say a word about where you think we are in U.S. Navy terms, in terms of unmanned, unmanned vessels.

MICHAEL GILDAY: People talk about space is the last frontier, but there's so much that we don't know about the oceans in the ocean bottom. We are shifting to significant resources to unmanned. So for for under the sea, some of those are autonomous vehicles that that are fairly large. Others are launched out of torpedo tubes. But the key here in terms of the information that they're able to collect is how to use that data in the best way possible. And so while the unmanned platforms themselves are fascinating, the air element is the real secret sauce. And so air capabilities are given us the ability to take a look at that data, to learn more faster, to be to be much more predictable. I think, in terms of how we understand ocean currents, things going on under the seas that maybe maybe we didn't understand would take years to figure out crunching data. And so the reliance on AI, I think is fundamentally the biggest game changer with understanding, with getting a better understanding of the undersea.

BRUCE JONES: Now, you've also got programs most out of Fifth Fleet doing innovation and you use these. How long is it going to take to bring those on stream in terms of actual deployable capabilities?

MICHAEL GILDAY: So we'll have 100 unmanned by the end of the year in the Middle East. And so they're they're augmenting our manned ships. We just don't have enough manned ships to cover 70% of the world's surface. And so we're shifting that now to U.S. Fourth Fleet, which operates around South America. And so this July will begin in our largest exercise down there called units will introduce unmanned to South America and to our South American partners. Let me say this In the Middle East, of those 180% of the investment is

made by allies and partners, not by the United States. The unmanned platforms are one piece of it. The data that we're collecting in are leveraging AI to both display and be more predictable. And how things are moving is is probably a more important piece of it. In South America, there are a couple of things that we want to get after. Number one is, is the security of the approaches to the United States. I think think the Caribbean, think drug flow, think illicit trafficking. The other is illegal fishing off of both coasts of South America, which is a big problem. And so this potentially unmanned gives gives us along with allies and partners, which is really key here, the ability to keep an unblinking eye on that kind of activity, collect data. And if we want to talk about pier, see again, to expose that gray zone activity, that's the most important thing that we can do about that, about that malign behavior is to expose it to the world. And then it's not consistent with a rules based order that, you know, we've talked about here earlier.

BRUCE JONES: And that's, I think, a big program in the Pacific where you've got substantial. Illegal fishing. You've got major climate issues and I think there's a lot going on. U.S. Navy, U.S. Coast Guard, allied Coast Guards and others in terms of ocean intelligence gathering, essentially. I want to ask one last question for me, and we'll turn to the audience. Allies have come up in one way or another throughout this. Central to your presentation of your approach. You factors in in your shipbuilding and your commerce, etc.. It's part of your collaboration. But so is China in, you know, there in all of this. How do you think about the boundary between those things, or are the things you'll do with Korea that you won't do with Japan? Or there are research projects you would feel uncomfortable having the Russians and the Chinese? Or how do you how do you think about that boundary? Peter first.

PETER LEVESQUE: Well, it's been interesting post-COVID, where even during COVID, we've seen this this massive this shift of sourcing from China to Southeast Asia, India, Latin America, Mexico. This is a good thing because prior to that, I think importers and retailers woke up during COVID and said, oh, my God, you know, all our sourcing eggs are in one basket. So there's been this derisking from China that sourcing is moving to allies, the French or the French foreign concept that's also helped in the supply chain in the United States, because those areas that the sourcing is shifting lends itself to the Suez Canal and to the US East Coast and Gulf. So instead of aiming everything at L.A., Long Beach, we have a de-risking, we have a risk mitigation of U.S. ports and we have a risk mitigation in sourcing. So whatever crisis comes down the road in the future, I think we'll be much more prepared. But it's very much around the trust of these all of these allies and where the sourcing is moving. And that's what we're seeing and that's what we're supporting.

PETER LEVESQUE: Margaret, how's this work in your world?

MARGARET LEINEN: Well, science is a team sport and the and the ocean is so big that no individual nation can really do the kinds of observations and experiments just on their own that really are game changers. And so we're used to international campaigns. What what we want is for the U.S. to be the preferred partner in all of that. And in the same way that we think about it in defense, where we want to be the preferred partner for allies. And it's the same for science. And so, you know, there's intense competition for the best idea or, you know, the funds to roll out a new ship or new instruments or capabilities. But in the end, we rely on that distributed knowledge to be able to operate.

BRUCE JONES: Any concerns about that?

MICHAEL GILDAY: Yes, but let me use an example. And that example would be August, recently signed by three heads of state, U.S., Australia and the U.K., of course. And when people think about that agreement, the first thing that comes to mind is submarines. But there's a whole second pillar of the orcas agreement. It has to do with with the exchange of exquisite technologies in the areas of quantum computing, of A.I. unmanned. And so we have really strong security protocols of those countries. But I also think that that is perhaps the framework that we can look to sharing sensitive information more broadly, perhaps in working with other nations on a on a case basis. I go back to technology zero Trust would be an example of those types of firewalls, if you will, that you could put in place to help to help maintain our sense of security. But there are good companies out there all over the all over the world, and we can carefully, I think, pick and choose who we work with and to what level and doing in an informed way, in an unemotional way to benefit ourselves and and allies and partners.

MICHAEL GILDAY: I've definitely seen an uptick in sort of discussion in Asia in particular about pillar two of orcas. And one of the questions that came in from line from a Japanese lawmaker about the possibility of expanding cooperation with orcas to let me open the floor to our audience. I'll take two or three questions, if you don't mind, and you can kind of pick and choose what you want to answer. We'll do a couple of rounds. So we're going to do this side of the room first and then we'll have a second round. So starting right up front.

AUDIENCE MEMBER: Thank you. John Harper with defense scoop. My questions for Admiral Gilday. Admiral, can you give us an update on where things stand with Project Overmatch and what's going on with the Carl Vinson? And then kind of looking ahead, how do you envision rolling out those capabilities to the rest of the force? Are you going to do it fleet by fleet, or what's kind of the path ahead on that?

MICHAEL GILDAY: So for the audience that may not be familiar with Overmatch. What we wanted to try and do with this project is to be able to take any data, containerized it and send it over any network. So instead of building a whole new, whole new operational infrastructure is to basically leverage what we have, primarily leveraging commercial technology. Right. And just pivoting pivoting it to a tool to a military use. So think about it. Think about the fact if you're watching a YouTube video and you walk outside these doors, you're going to see your phone, you're smart, your handheld is going to instantly switch from Wi-Fi to whatever carrier that provides your service. And so it's that same type of thinking where it's actually software software control software defined in terms of prioritizing what data is most important and where it ends up and by what path. So we've had great success in leveraging some great technologies from industry, and we've we're now experimenting with a carrier strike group. So think about eight ships across many different networks in many different types of data. I think that will likely focus on the Pacific first and then and then expand globally in our other fleets. We are also working closely with some key allies and partners with respect to this. Most notably, I think would be the Australians of France and the French and the Brits. And I think that that will I think that that will expand over time. It's going it's going well, but we still have more work to do. We're learning every day.

AUDIENCE MEMBER: From the Seventh Fleet that you're focusing on.

AUDIENCE MEMBER: Yes. In the Pacific. And again, it's a it's a DevOps kind of environment. So we're learning as we're doing.

BRUCE JONES: I'm going to take if you don't mind, I'm going to take two or three questions and then you can sort of pick which ones you want to refer to. So John, with his hand up there and then these two on the side and then we'll come back.

AUDIENCE MEMBER: Hi, my name is undergoing well, I'm associated with the Burn Back podcast, and my question is on naval supply chains and securing those. So it seems that we operate. On a containerized economy and those containers will often require land based ports for physical unpacking, physical staging, etc. What happens if we lose access to the ports in the event of conflict? For example, Guam, a foreign distribution site, a material processing center? What happens if we lose access to the ports and their warehousing functions? What do we do to secure the naval supply lines? Thank you.

MICHAEL GILDAY: Can I open it up and then pitch it your way to.

BRUCE JONES: Mind if we just take another couple of questions and then we'll do that. Okay. Just up here.

AUDIENCE MEMBER: Great. Thanks. It's Caitlin Kenney with Defense One. In light of the recent interaction between the U.S. ship and the Chinese ship in the Taiwan Strait and the stalled communication between our military leaders, are you seeing maybe a new phase of competition with China that could see dangerous interactions increase? And is the Navy working on any new procedures or policies on how to operate in that area to remain safe but not reduce our presence?

BRUCE JONES: Take one more question and then come back to Admiral and to you if you want to comment.

AUDIENCE MEMBER: Thanks very much. I'm Jesse LePen at the State Department. And I actually just wanted to to really offer to throw into the mix, and that is state colleagues from the Navy and across USG, We're building out a new initiative for Atlantic Cooperation, and that's Pan Atlantic. So all the discussion about partners and allies has been very global north focused. That's traditionally where we've operated. But as we think of a single ocean, the inclusion of partners in the global South, in Africa, in Latin America is really important. So we are taking that forward and thinking in sort of the sectors that have been outlined in terms of security, environment and economy.

BRUCE JONES: All right. Thank you very much, Admiral.

MICHAEL GILDAY: So to the last point, I think that's the way we are looking at it, more expansively, more inclusive. I think that's competitive space for those that want to follow the rules based order and those that may be challenging it. And so that is space that we can't ignore or ignore to our detriment. To the question about our, you know, how we operate out there with respect to the PRC. We are operating in accordance with international law under on and above the sea so that others can, too. And so we are trying to operate very responsibly and again, to keep things. We are not looking to be provocative. We want things to remain. Stable and predictable. That's our job out there during peacetime. And to deter anybody from doing anything malign as best we can. And if they do something malign to expose it, as I mentioned earlier, with respect to the gray space, in terms of you, you made a point about Guam, and this gets to just putting all your eggs in one basket. Right. And I think we're looking at a more diverse set of allies and partners. Where can we operate? It's not just bases. It's also places that you have to that you have to think about. And they don't necessarily need to have a U.S. flag there. We can't afford that. And that's not really what we desire. I think it's I think it's leveraging those partnerships in a more wholesome way to be able to operate together, be able to leverage those ports more effectively. I also think that there is that there's another that there's another piece here with respect to unmanned, where we can more effectively leverage unmanned and kind of a lead follow framework where you might have a manned ship with with a bunch of unmanned that travel with it that allow you to to move stuff quicker and more effectively in a more distributed way in areas like the Pacific.

BRUCE JONES: [Inaudible].

MICHAEL GILDAY: It just on Guam. That's an interesting question because we just had the typhoon, so we had to go to plan B. That's a lot of what we do with the U.S. flag on the military side. The nice thing about container shipping is it's extremely flexible. So there's 700 ports around the world. We can be wherever TRANSCOM needs us to be and have those contingency plans ready to go and just sail there. So one place goes down, we can open another place or move to another place fairly quickly.

MICHAEL GILDAY: Margaret, thoughts on this?

MARGARET LEINEN: Well, I think that what what your what you're hearing and in terms of the the flexibility and in terms of of a wide variety of players and and allies holds true on the science side as well. And we you know, we were intensely competitive but were intensely oriented toward partnerships. And that's what keeps everybody at the top of their game.

BRUCE JONES: Good. I'm going to take a couple of quick questions from this side of the room and then we'll wrap up as we begin to run our time. Gentlemen, here.

AUDIENCE MEMBER: I am, Ethan Chu, part of the Coalition Defense of Taiwan Project at AEI. So given the insufficient U.S. shipbuilding capability right now with battle, four ships even projected to decrease in FY 24, there has been some calls to change the law to offshore some naval shipbuilding contracts to Japan and South Korea. Do you think that would be effective or even tenable, at least in the short term?

BRUCE JONES: So I would say that that that's really a political issue that right now is constrained by by law. And so my focus is just trying to field a, you know, most lethal, capable, ready force that I can every day given the resources that I have. And if other opportunities open up, I would definitely wouldn't turn my head to them. But we've got to deal with what we have.

BRUCE JONES: Let me ask you, in terms of opportunities, a country that hasn't come up, which it strikes me as having sort of enormous potential in a space, but not yet realized, perhaps as India. And I'm curious from each of your vantage points where India fits into your perspective commercially, scientifically, strategically, here.

MICHAEL GILDAY: Commercially, it's a big part of our strategy going forward. If you look at what India is doing infrastructure wise now, it looks very much like China 25 years ago. Imports from India are up 45% already. So I think India is going to be the place and the next.

BRUCE JONES: Does that include ports infrastructure.

MICHAEL GILDAY: Port infrastructure in India? Yes, absolutely. Yeah. And, you know, India always had the problems of not being able to connect the road from one one place to the other. It's it's really moving at light speed now with the investment. And I think what Modi's doing there on infrastructure, it's it's real. The quality of manufacturing is has significantly increased. And I just think India is going to be a big player going forward.

BRUCE JONES: In the oceanographic sciences, we've seen Brazil, Turkey, China, Korea, Australia, the Europeans have we've seen anything like that growth in the oceanographic sciences in India.

MARGARET LEINEN: Certainly, and the investment in oceanography has been growing very quickly. We spend a lot of time in the Indian Ocean. We work very closely with India on the observations that are allowing much better predictability of the monsoons. Another. Is everything related to sustainability. So it's one of the countries that has a great dependance on seafood protein. And so they're very interested in all of the issues around the sustainability of those fisheries and everything that they're based on the entire food chain. So we've worked very closely with them on that as well.

BRUCE JONES: From your vantage point, the quad and related.

MICHAEL GILDAY: Yeah, very bullish in the relationship with India. So you mentioned the quad. The Malabar exercise, which is only growing in importance, are day to day operations in the Indian Ocean with the Indian Navy out of their airfields as well. I would also mention the fact that they in the past year they've joined the combined maritime force in Bahrain at U.S. Fifth Fleet. So they join the 35 other nations that we have operating together. I have a very close relationship with my counterpart. We just started doing maintenance of some of our ships in Indian ports. So there's a lot of examples of that relationship heading in the right direction. I'd also say that it's been helped, I think perhaps, unfortunately, by the by the by the the friction on the border between China and India and now India. I mean, now China, instead of just looking east to the Taiwan Strait in the South China Sea, must also look over their shoulder in India. And so I think that that in some regards is helpful for us in terms of strengthening that relationship and their resolve.

BRUCE JONES: I have a feeling that both from commercial, scientific and strategic terms, we're going to spend a lot of time hearing about the energy and sea and the issues on that side of this world straight. Ladies and gentlemen, as we wrap up, I'd like you to do me a favor. We're going to ask you to remain seated as I escorts our guests off stage. While we do that, we're going to play a short video that just introduces this series that we're investing in on the season strategy. But before we do all that, please join me in thanking our terrific guests for spending some time with us today. Thank you.

VIDEO: The world's oceans have emerged as a central battleground in the mounting competition between the world's top power 85% of all global trade and both by sea. It's how most of us get our crucial goods and sustain our ways of life in a matter of a few short decades. China has far outstripped every other country as a source for sea-based trade. Shanghai, the world's largest trading hub with 42 million shipping containers, last year, almost six times more than its largest American competitor. The Singapore Strait has displaced the Suez Canal as world's most important shipping line. It's not just commercial trade that relies on the oceans. Almost three quarters of the world's supply of oil and gas is found at sea or moved by sea to its final market data to pull in 93% of the data. The power of the Internet, social media and global finance moves from undersea cables that line the ocean floor. American internationalism was born at sea, and U.S. naval

dominance has long been a crucial feature of American power and leadership, along with being critically important for trade and energy. Oceans are also a literal weathervane of our changing climate and the locale of some of the most important climate science. There's a great deal to gain and a lot to lose on the world's oceans. For now, the US is the only Navy capable of projecting power across the high seas. But China is moving swiftly to compete and in some domains, like anti-ship missile technology, it has outpaced America. Russia has revived some parts of its naval might. Japan is unshackling its powerful navy. India is positioning itself to compete. And Britain is trying to restore some of its former reach. All of this amounts to an ongoing global naval arms race, pitting the world's top military and economic powers in a tense rivalry.

VIDEO: Over the past two years, the world has witnessed several events that highlight the high stakes at sea. When the massive ever given ran aground in the Suez Canal, publics worldwide were awed by images of hundreds of container ships and tankers lined up waiting to get through that still vital choke point. Congestion at the Port of Long Beach led to long wait times for container ships to offload their cargo, causing costly delays that Americans felt in their pocketbooks. An explosion that disrupted the Nord Stream natural gas pipeline that runs from Russia to Germany was a jarring reminder of the vital and vulnerable undersea infrastructure on which most major economies rely. Russia's invasion of Ukraine and subsequent fighting in and around the Black Sea disrupted the supply of grain and fertilizer to global food markets, threatening the lives and livelihoods of tens of millions of people worldwide. These events happened in the foreground, while in the background tensions about access and ownership are mounting in the icy Arctic high north, in the warm waters off Latin America, and along East Asia's many coasts. While submarines emerge as the front line of a mounting arms race between the world's major military powers, while technology reveals more and more about the natural resources in the ocean's vast depths, and as science continues to remind us of the profoundly important role the oceans play in stabilizing our climate, join us at Brookings as our new series “The Seas and Strategy” engages officials, operators, explorers and scientists in conversation and debate about the changing dynamics and crucial stakes of competition, cooperation and conflict on and under the world's seas.