
PRESENTATIONS AND DISCUSSION

National Security Threats

With General Keith Alexander, Admiral Gary Roughead,
and Michael McFaul, Moderated by Commander Bart D'Angelo

COMMANDER BART D'ANGELO: Let's start with General Keith Alexander.

GENERAL KEITH ALEXANDER: The papers were great. I want to talk about two issues: cybersecurity and then the growing national threats that we see in the future. I was in Admiral Mike Mullen's office in 2007. He asked me to come down there because some submarine popped up in the middle of one of the fleets. Admiral Mullen asked, why didn't we give him insight into it? We had a discussion, and the answer was we can't predict the future without seeing it, but we can understand the adversaries' intent and future options with cyber. Admiral Mullen was clearly impressed and intrigued by the discussion. He asked, how many people would we need from the navy. And I said, about a thousand people.

And that became the foundation for US Cyber Command. I bring that up because it was the thought that cyber would be an element of national power. Two thousand eight was actually when we started cyber command because of the attack on the Defense Department by Russia trying to exploit our military in Afghanistan through the use of compromised thumb drives. This event was called Buckshot Yankee. And that started us down the road of establishing cyber command. General Jim Mattis was at CENTCOM [US Central Command] and came up to NSA [National Security Agency] to be briefed on a classified program we were running in cyber to support his command. We had a chance to show them what a real cyber operation looks like. Not ones that you read about in the paper, about some four-hundred-pound

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guy sitting on a bed hacking. This was sixty-four people in a focused operation going after a target that everybody said was impossible. There were three things they said were impossible to do. We had this young lady who talked really fast, and just watching her talk to General Mattis at the time was amazing.

And what they did is they solved three problems that everybody said you couldn't do. You can't do this, you can't do this, you can't do this. They did each one of those, and we did the same thing on other adversaries. And what that really led us to understand is that we didn't think about cyber as an element of national power. Today in Ukraine and over the time since General Mattis was secretary, what happened during the elections, and what cyber command was able to do is just a small portion of what can happen with cyber. The fact that you can go in and do things to the critical infrastructure of a nation, to their defense department, to their communications, is so misunderstood by almost everyone, how bad that can really be, that we really need to rethink how do we now delve and weave cyber operations into our national security strategy.

Because I think it's coming with AI, with all the advances, and it's good to have Raj [Shah] and Mike [Brown] here, because you guys see this from your roles at DIU [Defense Innovation Unit], but the part that's missing is often people who are in cyber operations are thinking about doing one thing, endpoint or a SIEM [security information and event management tool]. Oh no, I do firewalls. What we're talking about is not looking at those things. Those are tools. It's like a rifle and a bullet. We're talking about what's the strategy that follows the national strategy in accomplishing missions and goals, because cyber is clearly playing a part in that right now in Ukraine. We've had US and European forces helping Ukraine since the beginning, actually a few months ahead of that. And that intelligence information and those actions led to many of the things that were given by the US to Europe saying, "Here's what's going to happen, A, B, C, and D."

And they nailed every one of those. That's from good intelligence, that's from good operations, and it has some tremendous opportunities for the future. We don't think about it like that. And I think that's something that I just put on the table because it is going to change at a significant rate in the near future. With everything that's going on in these networks, it's changing. Everybody has a computer and a phone. Everybody's connected. We see all these things going on, and our adversaries are connected even when they don't believe they're connected. *So this is going to be the first phase of the next*

battle. China has that in its doctrine. When they take on a technologically superior adversary, the US, they're going to start with cyber.

And they have more people than we do. So when you think about it, that's a problem. Our adversaries are going to attack us first in cyber. We need to respond faster than we would with missile defense, and we need to be prepared to do that.

Russia made a mistake, a big mistake, going into Ukraine. You can just walk all the way through it. So how does this end? Well, if I were to just predict it, my boss was down and saying, "Okay, what's going to happen?" I'd say it doesn't look good for Putin, doesn't look good. And who would take his place? Nikolai Patrushev, Alexander Bortnikov. One of those two guys is probably in the lead. And they're both just as bad.

So the issue that we're going to face is, I think, Putin is clinging onto office right now. Going after Crimea and giving Ukraine more capability is absolutely in our best interest. If you think about where Russia sits, the worst thing that our nation can have happen to it is to have Russia and China together and powerful enough to accomplish the goals they want. We would not be able to stop it. There would go Taiwan. There would go parts of Eastern Europe, and we couldn't stop it. So we have an opportunity now to stop it by breaking off Russia. I think as a strategic goal, if you could make Russia neutral or maybe even an ally, it would change the whole equation with China. Think about that. Think about what could happen. So all of a sudden [opposition leader Alexei] Navalny takes on a whole new meaning.

What if he were running Russia? What would that mean for us? By going after Crimea, letting Ukraine go after Crimea would really put intense pressure on Putin, and I'm not sure he could make it. H.R. [McMaster] and others can jump in on that. I don't think that'll happen. With respect to China and Oriana [Skylar Mastro]'s paper on China, I think there are a couple things to consider regarding Xi Jinping. His life growing up was influenced by Japan. They were humiliated by the Japanese. He talks about that. He says that will never happen again. His first and ongoing interest is in having a military that will ensure that will never happen again. And the second is the unification of Taiwan. He wants both of those to happen in his lifetime. And it's interesting. He is driven, in my opinion, to make those happen.

I think taking China on head-to-head would be really tough for us, especially if Russia were on their side. This would be really tough. I think we have to look at that landscape and say China, Russia, and I'd put Iran over here because that's going to have a part in it. What do we do about those three,

and how do we help change that landscape? And interestingly, we have the time now to impact what's going on in Ukraine, to actually help shift that whole future to a much more favorable position for our country and for the world. Because now, Xi Jinping is going to look out, "Okay, sanctions really work. Russia collapsed. I don't want that to happen. Maybe I take a little bit more time, and we can go to a more peaceful solution." Iran, I just put Iran in because they're an outlier. The Supreme Leader was reportedly going to die last September. He didn't do that; he missed that event. But the guy who potentially would take over is Ebrahim Raisi, the guy who helped execute ten thousand people in 1988 because those people were against the revolution.

Raisi is a hard-liner. And remember, Iran went after our financial sector in 2012, after going after Saudi Aramco and others with distributed denial of service attacks. And they threatened to do that with wiper viruses in 2014. If that had happened, it would've shut down the global financial system, and they would have nothing to lose, because they were under sanctions. So you have those three countries that we should be thinking about in a macro strategy of how we are going to handle these threats in the future. I believe cyber is something that can actually help push and maneuver our national strategy in a favorable way.

And so I'm very thankful for all the work that you all did in helping us set that up. I think that's part of our future. I'll leave you this one thought. Ninety-plus percent of cyber is in civilian hands. The government can't see it. If you want to protect the country, we need a radar system for cyber where the government can see attacks on it in an anonymized way, in such a way that we can defend the nation from an attack, because it's going to come and we need to be ready. And so that public-private partnership is the future for cybersecurity. Thank you.

D'ANGELO: Over to Admiral Gary Roughead.

ADMIRAL GARY ROUGHEAD: Keith, you're wonderful. We haven't seen one another in about three or four years, and he just set me up beautifully. So I can't wait to start, but I'm going to step back a little bit and then drill down into some more specific things that I think will echo what Oriana has written. But my view is as we look longer term and more broadly, we really need to take a look at ourselves and assess our power, presence, and influence in reshaping Eurasia, which I think is what Keith is talking about. And the players in that reshaping are going to be the four world empires, China, Persia

[Iran], Ottoman, and Russia. And so, how will all that play out? How do we want to posture ourselves? And it's more than just the military dimension, because as we think about access and influence, what people in the region like to see of the United States is our military, the development that we can provide them, and the change in their lives. And then the other is markets. Our military has, many have said here, significantly diminished over time.

With respect to development, we're getting our butts kicked by China primarily, largely because of our hesitancy toward risk-taking and for insisting on very high US content that prohibits us from engaging in cooperative efforts with other countries. And then in markets, we are just not there, particularly in the Pacific. Our absence in TTP, now CPTTP [Comprehensive and Progressive Agreement for Trans-Pacific Partnership], is resounding. We can hold up the IPEF [Indo-Pacific Economic Framework for Prosperity], a lot of good stuff in IPEF, but on my recent visits to the region, they'll say good things about it, but it's not access to our market.

And so that influence and presence and power that we have in this new reshaping area, I think, is going to be a bit of a challenge. And we need to think about that as well. In that reshaping, the potential for conflict is in the East, Middle, and West. We're already in a conflict in the West, and I know Mike McFaul will go on about that. We've taken our eye off the middle. But that still has great potential to disrupt. And we've created a bit of a vacuum there. And that takes me to the East, and we can talk about Taiwan, but a conflict there is a conflict in the East Asian littoral.

Why? Because China is going to play the East China Sea, the immediate area around Taiwan and the South China Sea, as one theater. As has been said, all the discussion about when the invasion of Taiwan is going to take place, I think, is extraordinarily unhelpful. One guy knows when that could happen, and that's Xi Jinping. The other dimension is that we keep focusing on an invasion, but the ability to squeeze, coerce, and use cyber to really disrupt the Taiwan public is significant, and that will not be lost on China. The other thing I think that we need to focus on significantly is we're not fighting in Ukraine. We're supplying Ukraine. We're supplying them with weapons, with information, and with moral support.

We need to think about supplying Taiwan. And we are so inadequately prepared to do that, it's almost embarrassing. The geography, we need to issue maps to those who want to talk about Taiwan so that they have an appreciation for the distances. Yokohama is roughly two thousand miles from Taiwan, Singapore about the same, Guam is about the same. It's almost seven thousand miles from Long Beach to Taiwan.

And the distance that we're supplying Ukraine, I think it's 428 miles by road from Warsaw to Kyiv. So we're just unaware of what this vast area would be. US flag shipping constitutes 6 percent of the global fleet. The last mobilization we did for the ready force that would be in the front lines to provide supplies had just a 41 percent readiness rate. And if we don't think that China is going to lean on shipping companies and flag countries with regard to what they move with their lines, we're badly mistaken. I think it is something that we need to plan for. But in the area, we don't have the tanking, nor do we have the logistics support for the rapid turnaround of rearming, because there are a lot of weapons that would be used that can't be armed at sea. So we need to think deeply about that.

I would offer some cautions as well about China. Almost every conference you go to where you talk about the Taiwan conflict, someone points out that China hasn't been to war in decades. China hasn't been bloodied. China's entire military, as Oriana said, is designed for one thing, and that's the East Asian littoral. It is focused on that. They trained to do that. And oh, by the way, when it comes to capital losses, we haven't been bloodied in decades. We are going to have another *Moskva* [Russian Navy cruiser] in the East Asian littoral. It's as simple as that.

The other thing I would say, as part of that, we need to think about what the operational command structure is going to be in that very disrupted space. What we have now was put in place essentially after World War II. It's not ready for this fight in East Asia, and yet we're completely locked into that. One of the points that was raised was the role of allies. Love the allies, they're hugely important. But I think we have to be realistic, particularly as it comes to the European allies. Absolutely essential politically, absolutely essential economically, for any type of sanctions that we want to play. But when it comes to fighting in East Asia, it's not an option, and we have to be realistic about that. Canada wanted to show their support, so they were going to move more frigates to the Pacific. They have five frigates in the Pacific. They have seven more left to move. That's it. That's the size of their major combatant naval force. And the newest one is twenty-seven years old. Germany has eleven combatants, and yet they would like to be in the Eastern Pacific or in the Western Pacific. And the Royal Navy is now down to eighteen. And so my point there is I think that as we look at where these potential conflicts are, the allies really need to stick to their geographic knitting. In the case of Europe, it's Europe, the Mediterranean, and the Middle East, and that brings us to the Pacific. And it's Japan, Japan, and Japan. We should be encouraged by their

new security and defense strategy and by their commitment for more money. That's going to take some time to kick in.

They need to be brought into Five Eyes [the intelligence network of the United States, United Kingdom, Canada, New Zealand, and Australia]. They should become a Six Eyes partner. I got some of the issues that we may have with that. We should get away from AUKUS [the trilateral security agreement of Australia, the United Kingdom, and the United States]. It should become JAUkus, and [we should] get Japan in that group, because they can bring real technical capability to the problem. And we have to appreciate their public as well, as Oriana touched on.

Post-Ukraine, public opinion in Japan went way up. But when you start shutting down highways in Japan to move logistics from Yokohama to Yokosuka, or Atsugi, when you start flying more out of the airfield, that's going to change the equation. So we have to understand that problem. We have to work with Japan in that regard and begin to think about the predicament that they're in because, as they say, they're on the nuclear fault line. They have China, Russia, and North Korea that they have to worry about at the same time. So, we really need to think anew about Japan, upgrade that level of alliance and really get skin in the game with codevelopment and coinvestment on some common systems. So I'll end on that note. Thank you.

MICHAEL McFAUL: I read these excellent papers. If you haven't read them yet, please do so. I read them through a very particular lens—thinking about what are the lessons from Ukraine that we could learn from these papers regarding the way we assess threats and deal with threats.

I've got eight points and eight minutes, and I've got my stopwatch running here. I'm going to finish in time. I want to start, though, with a giant caveat. We're doing these assessments regarding the war in Ukraine only after one year of conflict. It's as if we're assessing the outcome of World War II in 1940. I just want to emphasize that I don't know how this war's going to end.

So with that caveat, I want to run through eight points that I think are lessons building on Oriana's paper and Joe [Felter], right at the end, building on your paper. And focuses on Amy [Zegart]'s as well.

Number one, the US intelligence community did a fantastic job of predicting the invasion. Fantastic. And then they declassified their analysis to warn the world that it was coming. That was brilliant. But then they did a less-than-fantastic job of assessing the balance of military power between Russia and Ukraine. We abandoned our embassy in Kyiv because we feared Russian

soldiers would be in downtown Kyiv in a matter of days or weeks. In the run-up to Putin's invasion of Ukraine, I was in many discussions with military experts, both in and outside of the US government. Very few people thought that the Ukrainians' armed forces would be successful in defending Kyiv and then going on the counteroffensive so successfully last fall. As we're building budgets for threat assessments, I think this failure in intelligence must compel us to ask: How did we get the measurement of power—the assessment of the balance of power between Ukraine and Russia at the start of the war—so wrong?

I think this a big challenge for first, the intelligence community, and second, for the broader national security community, including us here today. On the intelligence community, I would speculate—reflecting on Amy's paper—there was the decline in spending in the nineties on threat assessments in the post-Communist world, and then a shifting of resources after September 11, 2001, to other priorities. Our expertise on Russia declined. But even more dramatically, we lost our depth of expertise on what I would call the periphery of the Russian Empire or the Soviet Empire.

When I was a student here at Stanford, I was paid by the US government to learn Polish during the Cold War, because we wanted expertise on the non-Russian, non-Soviet parts of the empire. We're not doing that as much now. It was noticeable to me when I served in the government almost a decade ago; I am guessing those trends hadn't changed much until the Russian invasion of Ukraine last year. My guess is that we have more Pashto speakers than Ukrainian speakers in the US government today. We've got to change that, and I think that's part of why we got it so wrong.

Who's the leading expert in the United States government or in academia, for that matter, on Ukraine? Go through your list in your head right now. There are some, but not many. (Stanford, by the way, should establish an endowed chair in Ukrainian studies.) Who are the leading experts on the Ukrainian military in or outside government? Have you noticed that a lot of the commentators and writers on the Ukrainian military are actually specialists on the Russian military? In the multitude of conversations and discussions in which I participated in the run-up to the war, I was impressed with the depth of knowledge our expert community had on the Russian army but struck by how little we knew about the Ukrainian military. We need to change that.

Second, related to that, I think we have a problem in threat assessment, and Oriana and I have had this discussion for years, including in Taiwan just a few months ago. We count things that we can see—soldiers, tanks, planes,

drones, military spending, etc. We are not very good at counting will to fight, preparedness, doctrine, strategy, software, etc. If you look at the assessments of capabilities of the Russian military before February 24, 2022, it was one of the top three armies in the world. I'm writing a book about lessons from the Cold War for how to deal with China and Russia right now. Our failures in threat assessment from Russia before the beginning of this war remind me a lot of the threat assessments we had in the 1970s about the Soviets, because we could count certain things but couldn't see other things.

Third, we rightly spend a lot of time measuring capabilities and intentions of threatening states, reading Putin's mind, assessing his beliefs and wants, and tracking his instruments of influence abroad. I am an eager student, not an expert on China, but it seems to me that Chinese experts give similar attention to trying to assess the intentions and capabilities of Xi Jinping and the Chinese Communist Party. We rightly want to know what they are seeking to do in other countries. We spend less attention on measuring the actual impact of Russian or Chinese actions in target countries. We need more deep analysis of impact, not just intentions. We often assume that the target countries don't have a say, right? There's just so little agency assigned to the countries being targeted in our threat assessments. Obviously, that was a big mistake regarding Putin's intentions in Ukraine.

In Africa, we can count Chinese spending on BRI [Belt and Road Initiative], but what actual effect are these investments having on regime type or foreign policy orientation of the recipient countries? China today is spending outrageous amounts of money on [foreign-language news channel] CGTN and other media outlets targeted at audiences around the world. Are these programs having the desired effect? Just counting up the budgets for the media outlets doesn't answer the question about impact. I used to live in Washington and used to get the *China Daily* insert in the *Washington Post*. Did that have any effect in terms of preferences of *Washington Post* readers?

These are empirical questions. They are hard to answer both for the US intelligence community and the academic community. But to develop better threat assessments, we cannot just look at the intentions and capabilities of competitor states but must also look at impact.

Fourth, open-source intelligence. I love what Amy's writing about. I think we have to focus a lot more on that. I don't want to tuck it back into the government. I think some more hybrid model is the right model. I would like to see it as much more of a fusion model than inside the government. There is not enough connectivity between those outside of government and those

working inside US intelligence. There is so much more “intel” now on social media that does not require security clearances to read and assess. The role that TikTok and Twitter are playing regarding the Russian war in Ukraine is unprecedented. (The explosion of disinformation on these platforms and others is also unprecedented.) By the way, it would be a national security catastrophe if Twitter collapsed. We should think about that.

Fifth, Russia’s invasion of Ukraine has underscored that old-fashioned weapons like long fires and tanks still matter. I’ve been to a hundred conferences on cyber threats since I got out of the government eight years ago. I have never been to a conference on Howitzers. I want a conference on Howitzers. I want a conference on HIMARS. I want a conference on 155 millimeters versus 152, because it turns out that Howitzers still matter in warfare in the twenty-first century. All the cyber weapons and all the drones matter too. But better threat assessments in the future require us to get back to the basics of conventional warfare.

Sixth and related, the Russian war in Ukraine should teach us a lot about our defense industrial base, as well as the defense industrial base of other countries. Ours is strained right now with the war in Ukraine. We have given less attention to making these older, less sophisticated weapons. And now we are running out of them. Oriana and I were in Taiwan last summer. I was shocked to learn how some weapons that were promised years ago to the Taiwanese have not been sent yet. We’ve got to fix that problem, and maybe one of the ways we fix it is through joint ventures and coproduction. The Ukrainians want this for the future. Maybe it’s another model that we should think about moving forward.

Seventh, deterrence enhancement. This is an echo of what Oriana has been discussing. We need to very soberly admit that deterrence in Europe against Putin failed. We didn’t want this war. Deterrence failed. So we should figure out why it failed and then make sure it doesn’t fail with respect to China and Taiwan. And when doing so, we must remember an obvious fact: deterrence only works ahead of time. It does no good after the fact. In the US, we had a big debate about sanctions before the war. I advocated spelling out our plans for sanctions in as much detail as possible before Putin invaded as a way of shaping his calculus. The US government had a different view. They worried, with good reason perhaps, that any discussion of sanctions before the war started would only fuel division within the coalition of countries implementing sanctions. I still think that was a giant mistake. But it’s a debate we should be having now about China and Taiwan.

Could announcing the sanctions we intend to impose on the PRC [People's Republic of China] if Xi invaded Taiwan help to deter that threat? I don't know. But we should be having that discussion now, not later, not after the war has started.

Finally, I think we need a holistic approach to threat assessment but also to the national security budget. I want everything to be all together. In part because I want to hide in that budget things that I think are critical that we are not doing well—for instance, public diplomacy. The ideological struggle that Joe wrote about, we're losing that inside Russia. We're losing it in the Global South. Too many countries don't agree with our framing of Russia's war in Ukraine as a war of imperialism and annexation. We have to up our game. We have to understand that this ideological contest with both Russia and China is central to our national security. In a newly imagined national security budget, I also want to see funds for Ukrainian reconstruction. Like what we did in Europe after World War II, reconstruction in Ukraine after this war is over is such a vital thing for our national security, and yet we are not framing it for this war, and therefore I worry that Ukraine could win the war but lose the peace. What we need is a giant NDAA [National Defense Authorization Act] that includes all these things that I'm talking about so that we can begin to reconceptualize public diplomacy, economic development, and support for democracy abroad as vital components of our national security. Someday, we could have one budget for defense, development, democracy, and diplomacy.

D'ANGELO: Questions? Comments?

ERIC FANNING: Oriana—or anyone else—you talked about how it doesn't matter if it doesn't have an operational impact. The Chinese are just focused on capabilities. What are they thinking about economic aspects in terms of their decision calculus?

ORIANA SKYLAR MASTRO: The economic stuff would be more effective than the military stuff. The problem is it's even harder and so far from where it needs to be. So, of the many discussions that Mike and I have, and other people have, comparing the situation with Ukraine and the situation with China, yes, it was very impressive how everyone came together to sanction Russia, but China did not learn the lessons you think they learned from that. Specifically, because I asked this of the Japanese, and they said, "We're going to be firm," and I replied, "What are you telling the Chinese?"

When I asked senior cabinet members, they got so flustered, red in the face, and said, “Well, our relationship is very important.” And so the bottom line is yes, a lot of countries are sanctioning Russia, but when I’ve been in the region, and I’ve asked government officials, “What are you going to do if China attacks Taiwan?” senior people say, “Well, our trade with China is more than our trade with the United States.”

So I think China expects, right now, token sanctions for three to five years. They’ve tried to sanction-proof their economy by focusing on ten critical industries, getting overland oil pipelines from Russia. And so it’s not that they don’t care about the economic costs. This goes to the point that General Alexander made. Xi Jinping is driven, but he’s completely deterrable. I like to say this war is inevitable, but we can delay it forever.

And so if all the US allies got together and said, “China, if you attack Taiwan, we will no longer trade with you.” I don’t mean we won’t buy this one thing or that thing but we’re going to completely cut off trade, that is far too high of a cost for China. Xi Jinping is not going to want to risk the rejuvenation of the Chinese nation, but it’s my understanding that we are nowhere close to getting that type of coordination and agreement.

And I’ll just say, I think Mike made this last point about signaling. I’ve read a lot of Chinese writings analyzing the war, and one of the interesting things is they talk about the failure of US deterrence and they talk about how the United States economically responded in unpredictable ways. And then they have these indirect pleas that are, “Hey, anyone in the United States, if we’re wrong about our assessment about how this is going to look after we attack Taiwan, maybe the United States should make that clear at some point.” But we haven’t done that at this point.

JACQUELYN SCHNEIDER: So I really was struck by your comments, Gary, and I want to ask a question that I think may be helpful as we go through the rest of the day. And I’m struck when we think about Ukraine. One of the large differences with Taiwan is the difficulty of replenishment, and we don’t have Poland right on the border to bring weapons through.

And so I was interested, especially from the navy side and the navy background, how do we build a navy that’s not only able to fight in a Taiwan scenario but also able to support and defend the logistical chains that are going to have to occur. And then, is it even possible to bring weapons in on a side of the island that’s not in the midst of the fray?

So I was interested; we’ve talked a lot in public about how big a navy needs to be and what it needs to include. The navy doesn’t generally like

to think about itself as convoys, but what could that look like for the future navy?

ROUGHEAD: And I think one of the realistic things that needs to be faced is what timeline are you looking at? Because if you want to build a navy that could sustain protected sea-lanes across the Pacific, I'll be dead by the time it even starts. But I think that you could do some realignment, which is politically hard domestically. Some of us have tried to move assets from one port to another. You just get killed politically, domestically, but I think that has to be part of the drill.

I think the other dimension is to rapidly acquire, as cheaply as you can, some more lift, strategic lift. We now should be engaged with foreign shipping companies and other countries that have flag shipping on some commitments for being able to move things. I think pre-positioning, particularly in Japan, is going to be important as well as in Guam.

But I really think getting some heavy lift in place to do what I call keeping the lights on in Taiwan is needed because the squeeze would come on food and fuel, and we need to have some reliable conveyors to take that in. So short term, acquire what you can, arrange what you can, and then have plans to be able to sustain from Japan.

The other thing I would say is the concept about the places, not bases, within the first island chain. We've been working on those for thirty years, and we're no closer. Xi Jinping was there in the Philippines last week, and he dumped \$23 billion into the economy. How's that decision going to come out when we go in and say, "Hey, we'd like to have some more access."

That's why we talk about markets and development because that's what can sway people over to our side, and we're not playing that game.

MASTRO: If I can just add a quick operational point of things I do not understand about why we're not doing them in the naval service, and maybe Admiral Roughead can explain it to me. The first thing is submarines are so critical to this fight. I think they're the most critical asset and most of our submarines have to go all the way back to Guam or Hawaii, as they don't replenish in Japan. I've asked people at USEJ [US Forces Japan] why this is the case. There's some speculation about nuclear power, but then our aircraft carriers are allowed in Japan. Torpedoes are conventional. Whatever it is, we absolutely need to do all of that stuff in Japan. I mean the Japanese subs take two to three days to get to the Taiwan area. We take three weeks.

The second thing is the importance of Kadena [Air Base, Okinawa, Japan] and the combat radius of Taiwan because my assumption was, given what Admiral Roughead had said about the vulnerabilities of tankers, that we would not be trying to do significant air-to-air refueling if we were operating from Kadena. I have recently learned that that is not our operational plan, which doesn't make a lot of sense to me.

The whole benefit of Kadena is you don't have to do that. So I get the benefit of having more time on target if you do air-to-air refueling but given the vulnerabilities, we should probably rethink that. And then we need, it's not only in Japan, I think the Southwest Islands we need to start building those up significantly, even farther south, closer to Taiwan even than Kadena. We need new bases there.

And the last thing about places, not bases, a friend of mine recently showed me a picture of an F-22 landing on a dirt road. They have recently been allowed to start exercising in that way. Our assets are very expensive. I get it. It's like me just this morning wearing a new pair of my Jimmy Choo boots, and then my kids spilled their whole cereal all over them, so, "Why do I even try to have nice things?" So I get it. We don't want to ruin these assets, but we need to be much more flexible in how we're operating.

And the amount of time I spent on duty researching where we could put air-conditioned facilities for things like wartime and posture, I was like, okay, we might not have that.

MICHAEL J. BOSKIN: A couple of quick points that span the entire panel, Gary, Oriana, Keith, and others. If I was stepping back and I was Xi Jinping or the military leadership, and I had this vision of invading and so if they don't capitulate, I'd want to be doing a lot of things that weaken their will and disrupt them in advance, way in advance of an invasion.

And it seems to me the most obvious one—maybe not to you, you all know a lot more about this than me—would be a massive cyberattack on the Hsinchu Science Park [that would] shut down Taiwan Semiconductor and really wreck their economy. In the short run, it would destroy a large fraction of their exports, a large fraction, half the world's advanced chips if they could keep it closed for a period of time.

So Keith and Oriana, are they capable of doing that? Would we have the political will to respond to that, short of an explicit invasion? I mean, how do we start thinking about things like that if they're relevant? If you think I'm off base, just say so.

ALEXANDER: China will attack Taiwan with cyber and they would attack government and significant commercial companies as you stated. Hopefully, Taiwan Semiconductor is isolated from the internet. But there is always a way to get in and do destructive things. You can see what happened to Iran and others. Such an attack would have a global impact and would probably do as much harm to China economically and politically as anyone else.

I do think you bring up a key point. Russia, what they're doing in cyber, and what they end up with. If Putin wins, China is going to be more emboldened. Putin can't win, and it goes back to some of the comments. So we have to stop that, take that off the table, make Russia pay a price that would be unacceptable. I think that's the greatest deterrence for China.

And what they see going on right now in cyber, they're all over the Russian attackers. China is seeing what's going on. They know somebody out there is really good at what they're doing, and they're having success, and it's the US and Europe combined. So I think the Chinese would be very careful about doing something at that level because we could hit back. That's a national security decision.

MASTRO: So if I can just add, China has already won that battle over weakening the will of the people of Taiwan, at least from their perspective. I mean 74 percent of the people of Taiwan think China would never attack them. In our discussions when we were in Taiwan in August, the biggest concern was the lack of willingness to fight. In our discussions with senior people in the semiconductor industry, I directly asked. They said, "There are forty people who are critical to this industry." And so I said, "Does the United States need to get these people out before China attacks?"

And to a person, they all kind of wave, and they're like, "Well, I've been to China a lot, it's not so bad." So maybe I read a lot from the US perspective based on our experiences in Afghanistan and Iraq, we're like, "Okay, there's going to be this huge opposition in Taiwan, and so China's not going to want to take Taiwan because sure, they can get Taiwan, but it'll be a pyrrhic victory because then they'll be fighting for decades."

I mean, they have more people in camps in Xinjiang than there are young men in Taiwan. They are very concerned about the PLA [People's Liberation Army]'s ability to land on the island. Internal repression, they spend more on that than they do on their military.

So I think, obviously, we need to enhance the ability of Taiwan to hold off, mainly so the United States can get there. But there is no scenario. I think

we should all be clear, there is no scenario in which Taiwan can defend itself without direct US involvement.

And I'll just say really quickly about Russia because I have finished a two-and-a-half-year project on China/Russia military relations. They are very clearly preparing not to fight together, not to fight simultaneously, but for Russia to serve as support, indirectly maybe in equipment, as a strategic rear, energy. Things that will make it harder for us to coerce. Even the Russians might do some air patrols that limit our freedom of maneuver, which look purely defensive so Russia can say they're defending the Far East.

So it's going to complicate what we can do even if their two sides are not fighting together in any direct way. And I do think Xi Jinping's watching what happens there but it's not a direct comparison of, they did bad, so we're going to do bad, or they were punished, or we're not punished.

In a lot of cases, "That's very interesting information that is irrelevant to us," is how they see it.

ROUGHEAD: We fixate on semiconductors, but the other business linkages in Taiwan to the mainland in so many different sectors come into play as well, and they have a voice, and I think that would be hugely important.

And then my point about Japan's location. Russia, just by pressing airspace with the Japanese having to respond to that, dilutes the effort down to the south. So we really need to think of the position that Japan would be in and how that would dilute any support that we would get from them for legitimate reasons.

McFAUL: So, one quick three-part comment. One on just thinking about the lessons, right? We're talking about supply lines. I would just remind everybody before Russia invaded Ukraine, everybody assessed that they had a giant advantage. They didn't have to go through sea. The country they were invading was right on their border. Why did that not give them the advantage we assessed before?

Second, I would say the same thing about missiles, by the way. Lots of discussion about the asymmetry there, and yet they're barely farther along than ten months of fighting, and all those missiles being lobbed in have not achieved the military objectives I think we had assessed. Why is that?

And then third, on the sanctions piece, and I'm not an expert on trade with China, but I would just say three things. One, in February, January, and in the lead-up, we had exactly the same discussion. Europe is dependent on oil and

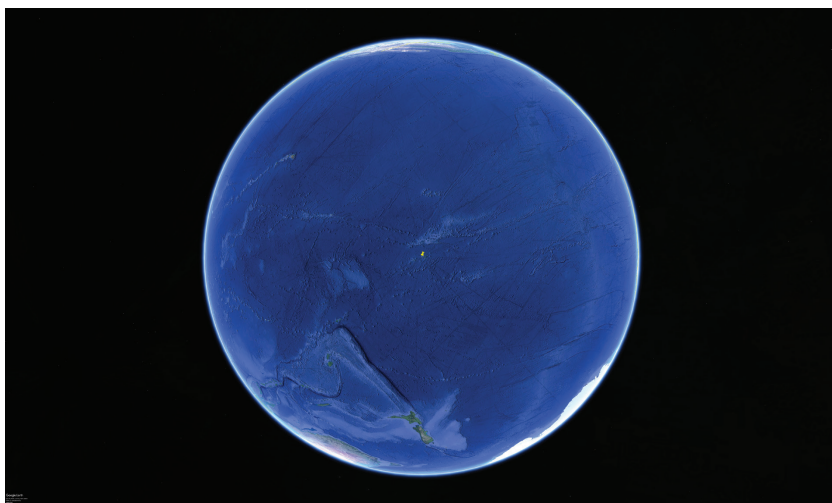
gas. They'll never do these things. Guess what? As of this month, Europe is using more American gas than Russian gas. Nobody predicted that eleven months ago.

Number two, thousands of companies have voluntarily left Russia. Not because of sanctions but because they just decided it was not in their public interest to be there, and they left billions and billions of dollars in Russia. They just left, ExxonMobil being the biggest one. And I just wonder if we're not underestimating.

If China invades Taiwan, with the American public, the political debate we have about China right now, is it really going to be feasible to say, "Well, we've just got to keep doing business as usual." We need to think about what the political moment will feel like if there's a war in Asia. I would like us to front-load that, just like we should have front-loaded HIMARS and Javelins. We should front-load that debate about sanctions but I think we should be careful. It's one thing when it's before the war. After the war, I think it's going to be a lot harder to say, "Well, we're just going to continue to trade with China."

MASTRO: Can I just highlight? China has to know that, and it has to happen before the war if it's going to contribute to deterrence.

MACKENZIE EAGLEN: I want to reinforce Admiral Roughead's point, which reinforces a point Oriana made. So why does geography matter? It's why mass



Source: Google Earth

matters. So this is a view of the Earth with just a pin in the center of the Pacific Ocean. I think pictures speak a thousand words, and it is just something I saw on Twitter and it has stuck with me ever since, to just give you a sense of the sheer distance that we're talking about in terms of the Pacific Ocean.

BOSKIN: All of us have taken flights to Asia and Europe and realize the difference. Four-movie flights from the Bay Area.