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### **The Future of Military Power**

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YouTube session: <https://www.youtube.com/watch?v=7vScSCvheW8>

Nick Schiffrin:

Thank you. Thank you very much everyone for sticking around ahead of lunch, and as I say to my guests on the news hour, we'll try and get through a lot in a little bit of time. So keep your brilliance brief to both of you and I will open for questions. So please think about questions in the last 10 minutes or so. The title of this panel is The Future of Military Power. In some ways, I think one of the themes over the last few days is the future is today, especially when it comes to the wars that we have been seeing. So why don't we start with lessons from the present. And Mara, why don't you kick us off? What do you believe are the lessons that we should learn about the future of military power first from Ukraine?

Mara Karlin:

Great, thank you so much, Nick. It's such a treat to be here. So a couple lessons from what we're seeing from Ukraine and the Middle East, I might say. One, the returning relevance of the continuum of conflict. What does that mean in English? What it means is that we spent the post nine 11 wars focused on fighting terrorists and fighting insurgents. Then we said, nah, it's all about fighting militaries. Really high-end modernized warfare. Turns out what we're learning is it's, yes, it's all of the above. Second big lesson learned is allies and partners and just a reminder of how critical they are, you've got 50 plus countries who are supporting Ukraine with military assistance. When we saw Iran spectacular conventional attack on Israel in April of this year, you had countries from around Europe, the Middle East, and of course the United States stopping the overwhelming majority of that. Third, I would say deterrence. It's back. We got to focus on it. We got to do everything we can to have tailored deterrence so that we are signaling what we are trying to show our adversaries.

Nick Schiffrin:

Chris Brose, what are the lessons from Ukraine and what does the future of urban combat look like according to the lessons from Gaza.

Chris Brose:

Great, thank you. So I think building on what Mara said, the easy obvious answer is new technologies and new operational concepts, but that is very familiar to all of you. I think if you kind of back it up a level, there's sort of a couple of big points that jump out. One is the importance of adaptability. Any technology that gets fielded on these kinds of modern battlefields, it's maybe going to work for a few

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weeks, maybe a month or so, but then it's going to be overtaken by events when you're fighting against a pure competitor or a great power with a similar type of arsenal. Similarly, the ways in which we're fighting, all of these things are just going to have to adapt and change. And the militaries that are capable of going through that cycle of building, fielding, learning, rebuilding, redeploying, doing that faster, doing that better, that's where the real advantage is going to come from.

And then I think the second piece is producibility. These conflicts that we're seeing are bringing us back to a world where these wars are not going to be short, which is what we've largely assumed in the past. They're going to be largely protracted and we are going to lose a lot of systems. These are going to be wars of loss and production and reconstitution. And when you look at Ukraine as an example, right, I think the Ukrainians themselves have said they're losing thousands of drones every month. We thought that we were producing a lot of weapons in the United States until the Ukrainians burned through a decade's worth of Javelins and stingers in the first several months of combat against Russia. So I think the main point here with respect to the United States is we've actually not built ourselves to be adaptable or producible. We have systems that are very exquisite, that are very hard to mass manufacture and we are not really prepared for a world where we're going to lose a lot of systems, shoot a lot of weapons, and have to produce them in high volume.

Nick Schiffrin:

So pick up on some of those points. Pace of change, ability to produce is something that multiple panels have been talked about and how do we convert those lessons into reform? So Chris, why don't we start with you. Let's say it's November the eighth. I am Secretary of Defense designee Tom Cotton, and I call you and I say, all right, smart guy, I just read your book and I got this sentence. The means by which the US military generates understanding, translate that knowledge into decisions and then takes actions in war have not been built to adapt. Give me the elevator pitch of how to take the lessons learned from your book, post your book into what the next administration should do and what that means for the future of warfare.

Chris Brose:

Yeah, so I think the sort of simple, but nonetheless kind of hard answer is we need a different class of military capability. This isn't an either or. I think a lot of the lessons of Ukraine or we need the old things as well as the new things. We need a lot of all of it. But I think the emphasis I would put is on the new things, we need weapons, we need vehicles, we need AI enabled and autonomous systems that can be mass produced and that gets less into the sort of acquisition and procurement discussions that we have forever. It's actually to the left of that. It's like what are we actually spending money on? What are the programs we actually have to build? What are the requirements for these capabilities need to look like? And that's where I would submit the lessons of Ukraine need to actually get turned into new programs that are going to transform the United States military. And I think some of that is ongoing. I mean you're starting to see things like the Air force's collaborative combat aircraft program, new programs that are trying to do low cost weapons, so things that are actually going to change this dynamic where we're putting producibility and adaptability very much upfront as a core requirement. But unless and until we

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actually start building those kinds of programs and funding them and moving them quickly through the process, we're still going to be talking about old stuff.

Nick Schiffrin:

Mara Carlin, are we still talking about old stuff?

Mara Karlin:

I don't think so. I think it actually is a yes and conversation where we have a lot of the legacy systems, it makes sense to have those. The US military is literally postured around the entire world in a way that no other military could even dream of replicating. And so we've got those systems and we increasingly are doing what we can to adapt to the new. So you want to actually have both. What it comes down to is also how are you going to operate, right? How are you going to use these systems, use and operate today's military and then build tomorrow's military? One of the key ways you do that frankly, is that you do it with allies. So you all are probably familiar with Aus, this kind of transformational relationship among the United States, Australia and the United Kingdom. And these are three tremendously sophisticated militaries that are building together. They are operating together, all focused on that pacing challenge that is China.

Nick Schiffrin:

Chris, you're up here representing Andre, not necessarily speaking for them, but you're obviously a member of its senior staff. Do you believe, does Andre believe that the solution to this is throwing money at the defense industrial base that exists currently?

Chris Brose:

Again, I would say what I said before and I would echo Mara, I mean I do believe it is a both. And I mean I do believe this is a situation where we need everything that everyone can contribute. So it's not a question of just stop doing things, just kill investments that we've been making. It's more about how you execute this pivot to new things. So where I come out and I very much do speak for Andel, whether that's a good thing for Andel or not, I'll let you guys decide. I think our view is you do need the emphasis on the new and you do need increasing amounts of resources going into that. But I think the thing that I would say is in the overall scheme of a defense budget that's now tipping the scales at 850 billion, the reality is the building of new things is going to take time, right?

It's not as easy as we're just going to spend or dedicate 250 billion for new things and all that stuff is just going to appear. And I think that's the kind of the main point, again back to the lessons of Ukraine is things actually do take time in the industrial base, right? I think our focus is on things that take less time, right? I think, look, I'm all in favor of submarines. I want more of them, but money in gets you capability out in a very long time. We need things that are much shorter in terms of flash to bang that are much faster to scale. Where again, if we're focused on time, if we're concerned about urgency, if we're listening and taking seriously what some of our leaders are saying about potential contingencies in Taiwan and this decade, if we don't start making these kinds of changes and investments in new capabilities, we are going to be sending the US military and our allies and partners into the teeth of that

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problem with whatever they've got today. And I think that we've run the social science experiment in Ukraine and it turns out it doesn't end well.

It is not easy

Nick Schiffrin:

And we know a lot of the efforts in China wouldn't end well either because we've working in

Chris Brose:

That and they're problems requiring very different kinds of systems. And we can talk about that. But I think main point here is this is something that has to start now. And unless we start making these investments in the new things, it's never going to scale and it's never going to get us to where we need to be in the near future.

Nick Schiffrin:

Mark Harlin, you're out of government now, but you were recently in government, you wrote the National Defense Strategy when it comes to this defense industrial based question, do you have some sympathy for the legacies who say the US government's not a very good customer, sir?

Mara Karlin:

Look, we sure are a complicated customer, right? You heard from Jane Harmon yesterday about I think the last time we had on time defense money was 2011. That is bumpy. And when we take just this one example of munitions, we have been in feast and famine with munitions. We've always had munitions as an orphan orphan issue. We always knew we needed more munitions to be effective. The last few years everyone's been convinced including Congress, this is what's gotten you your procurement. So while I have a little bit of empathy for it, at the end of the day, we need to have focus. I would also just caution us slightly, and I'm guessing Chris will agree with me on this as well. This can't just be a story of stuff. It can't just be the story of the hot weapon. Ukraine has reminded us that the hot weapon of the moment isn't going to be the hot weapon then, right in the future. Frankly, that's the history of warfare. We can look back a hundred years and see that as well. Your enemies will always adapt counters. So how quickly are you learning? How quickly are you training your troops to be able to respond?

Nick Schiffrin:

And it's not only about stuff, it's also about manpower. So let's talk about that. A comment that General Cavalli made almost in passing, he was talking about Ukrainian soldiers or Ukraine needing to field more soldiers. He also said NATO members need to field more soldiers and there needs to be increased manpower across the west. And let me bring in what Chairman Millie said a couple of days ago. He said that robots will comprise one third of the US military in the next 10 to 15 years. And I would argue other militaries are going to be similarly designed and the number of human troops will probably be reduced as you move toward robotic systems. Chris Rose, is that right?

Chris Brose:

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Yeah, I do think it's right. I think probably we could go further in the sense of what that balance really looks like. And I think this is the great opportunity that we have. Our traditional models, we throw a lot of money in a lot of people at the problem in order to generate military systems and operate them, doesn't work so well when your main competitor has four times as many people and increasingly the same amount of money. I think the real value with these new technologies is in autonomy. It is essentially inverting that relationship between lots of people to few systems, to maybe the same amount of people, to lots more systems where they are now supervising the operations of lots of military systems and weapons. I think that's actually an order of magnitude increase. So I would disagree a little bit. I dunno how general Millie parses it. It's less about third. It's more of not replacing people but actually making these people better able to be more effective in their agency and reach because they have far more capability at their disposal in terms of that human to robotic system ratio. Mara is Millie, right?

Mara Karlin:

Yeah, Nick, I don't think you're going to hear a lot of debate over whether or not we should increasingly move to an UNC crewed and autonomous military. But actually where we should probably spend a little time thinking about is that one half of 1% of Americans serve in the military. The overwhelming majority of Americans don't have much interaction with those who serve in their name. So how do you bridge that, that propensity to serve that general Kobo mentioned as well? I think actually we should look into that quite a bit and then think where are humans going to be most relevant? Where are they going to be most useful? I would also just note since it came up, obviously the focus is on China. You do have to juggle a bunch of other threats it turns out, which we can get into if you like. But I would note the US military has a heck of a lot of experience waging wars working with allies and partners. That last war that China waged was 1979 or so and it did not turn out so hot.

Nick Schiffrin:

Are you saying that China is less capable than we perhaps fear It is.

Mara Karlin:

What I'm saying is let's take a holistic look. When we are looking at our challengers, we got to look at the stuff, absolutely. We want to look at the training that they have. We also want to look at who's going to be on their team and who's going to be on our team.

Nick Schiffrin:

Chris Rose, ma Carlin. Well you both talked about partnerships. Mara brought up Aus, I know you want to make about partnerships as well. Let's focus on production when it comes to partnerships and why that's important. And do you believe this administration, any administration in the past has done enough to really supercharge the idea that there needs to be partnership in production?

Chris Brose:

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You want me to start? Not really. I mean I think the allies and partners are things that we pay great lip service to. Historically we talk about the value of them, but when push comes to shove, my experience has been we're still very reluctant to transfer that piece of technology, sell that capability, tip that balance, bring them into our operational planning in a real way where they're a real contributor. And I think that world has gone, I think we're starting to see that obviously in the war in Ukraine. But I think moving beyond that, the only way we're going to be successful is through multiplication. And that goes into how we deeply kind of embed one another in the operational planning that we're doing and it goes into a level of cooperation where we need to start seeing each other as kind of a common industrial base.

And there's been an enormous amount of work, much of it, driven by the Congress in terms of really breaking down these export barriers and other types of barriers to this type of technology transfer and this type of alliance cooperation. But it's a long way of saying I think we have an opportunity to really operationalize these alliances from a co-production, co-development and co-production standpoint where our allies are contributing technology as well. So we're working as a company a lot with the Australian Navy. They are leading the way and I would argue leading the world in the development of maritime undersea systems. That's something that we're working very closely with them on. That is something that they've taken the lead on. That is something where I think they can push the United States further than where we currently are as a country now. So really looking at allies as actual contributors of technology, not just buyers of things that Americans build.

Nick Schiffrin:

Mark Aus is the perfect example of course, of export controls being broken down. But to Chris's point to see American and European production as co-production, how can you do that when European producers don't even consider co-production within the continent, let alone with the United States?

Mara Karlin:

So there's a couple points here. One is sitting on Aus for a moment. We're actually in the throes of arguably the most monumental export control reform to allow those three allies to collaborate. That's a big deal. Enable a whole bunch of collaboration in a bunch of areas to enable Indo-Pacific security and stability. When you're looking at the Europeans, I mean we are looking at a very different Europe than five years ago, right? Nearly 75% of NATO allies have hit 2%. You see a real momentum. I mean frankly it's a wonderful situation that you've got both at you and NATO saying let's do more. Let's invest more. That is ultimately a good thing. And where we need to go now is sort of the next turn of that dial and figuring out where can we work together and where do we actually just need to build on our own competitive advantages. But you also see this frankly looking at cooperation with countries like India as well.

Nick Schiffrin:

I've only got a couple minutes before I open it up to questions. So please think of questions and I want to get both of you guys to respond to a little bit of the political moment here. So in last night's speech, JD Vance did not mention the word Ukraine or Russia or Europe. He mentioned China eight times. And I

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have been accused by some of my critics of finding the facts where sometimes there is only argument. So I'm going to take JD Vance's facts and argument when it comes to the Munich Security Forum, what he said in February, because I think it's the most crystallized criticism that he has made. He said this, I don't think we should pull out of nato. I don't think we should abandon Europe, but I think we should pivot. The US has to focus more on East Asia. That's the future of American policy for the next 40 years and Europe has to wake up. And then he started giving specifics about munitions PAC three patriot interceptors Ukraine uses in a what the US makes in a year. Patriot missile systems are in a five-year back order. One 50 fives run a more than a five-year back order US is ramping up production, but artillery production is five times US production. And that was his conclusion for the Europeans needing to understand the US is going in a different direction on Ukraine. So Chris Rose, does JD Vance have a point?

Chris Brose:

Yes. I think the main point that he emphasized was we are not building enough weapons. I would take issue once you get down into the details where the devils live, the weapons that we are providing to Ukraine are not the same weapons that would be relevant in an Indo-Pacific contingency if we're shooting two artillery at the Chinese we lost a long time ago. I would also argue that the experience of learning how far off we are from an industrial based kind of production standpoint in Ukraine, a lesson I am grateful we are learning now rather than in the teeth of a far larger, far more stressful contingency in Asia. I think the bigger problem that I would point out, and again agreeing with his central thesis of China, Asia needs to be the priority. We're not building enough weapons. When you actually look at the weapons that we are looking at more relevant for that type of contingency, they're not actually mass producible.

These are incredibly exquisite systems that are full of very specific at times, very obsolete technology that are built by highly skilled workers in very manual ways. They're being produced in the low kind of dozens or hundreds and for, I dunno, many years now, right? We've seen war game after war game say we're going to lose all of these weapons in the first week, which is not, again, hard to believe when the Ukrainians burn through as much weapons as Senator Vance was talking about. But when it takes two and a half years to get new stingers onto the battlefield, like I regret to inform you, it's going to take a lot longer with the high-end critical weapons that we're envisioning into Pacific. So my point is yes, he's right. Yes, we need to spend more money on munitions, but unless we are spending money on munitions that are actually going to be scalable, that are fit for purpose for that region and that problem that we can build in orders of magnitude greater capacity, we are going to have to be designed differently. We don't have those weapons now full stop. That's what we're going to need to do in the future and hopefully where whoever wins in November, we'll put emphasis

Nick Schiffrin:

Mara Carlin. Does JD Vance have a point?

Mara Karlin:

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Yeah, I don't know that there's a lot of debate that we're supposed to focus on China and Indo-Pacific security. Indeed the National Defense Strategy is probably the Punchiest and Pitus national defense strategy I've seen in a bunch of years and it says there is one top priority. It is the pacing challenge of China. Your real dilemma frankly is not that. Your dilemma is how do you sustainably and effectively tackle the other challenges, right? We had a panel this morning talking about European security where there's a panel this afternoon looking at Middle East security and actually the role of the United States in both of those regions has been critical. There's not this single television screen in international security where you get to say to adversaries and allies and partners, oh look at that one, don't look at this one. Right? So if Russia had gotten to eat all of Ukraine and then had started to wander over and start nibbling over at NATO territory, and by the way, if Russia had potentially used the nuclear weapons, it has threatened to use multiple times over the last two and a half years. I have to assume folks in the Indo-Pacific would say, wait a second, what about us? What do we do about that? So absolutely we need to prioritize China. It just cannot only be that the United States is not some midling power that isn't able to juggle multiple things.

Nick Schiffrin:

Alright, I have six minutes left, so take a couple questions from the audience. First one I saw was gentlemen, the dark suit. Yeah, right there.

Question 1:

Thank you. I'm ya Pik. I'm the policy director of the German Ministry of Defense and I was very intrigued by what we were saying, thinking about the future, how we make war in the future or the future military power. And I was wondering, we are very much looking at the experience of the Ukraine War, a protected conventional war, but the Ukraine war, the Russian war of aggression against Ukraine is a nuclear power against a non-nuclear power. So isn't it a bit risky to too much focus on that scenario because other contingencies that you were talking about NATO against Russia or in the Pacific that would include two nuclear powers or several nuclear powers. So what are the conclusions then? Is that still the lack of ammunition and the protected war and all the paradigms that you set out, are they still relevant or is it not more than a very short scenario of a war and a much more attached to the nuclear dimension and what is the continuum between the conventional and the nuclear? Can it start in the conventional and then go nuclear and then conventional again?

Nick Schiffrin:

So Maratake one

Mara Karlin:

Yeah, these are a lot of really good points. I mean the reminder of the relevance of nuclear weapons is critical. As I just noted. There have been multiple times where we saw serious nuclear saber rattling by Putin over these last two and a half years. Can you imagine the reality if that were the world that we had lived in, right? If we had actually seen nuclear use. So we absolutely need to think about them. Frankly, it's part of the reason why Secretary Austin mandated the National Defense Strategy would be done with

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the nuclear posture and the missile defense review for the very first time because we had to look across all those look as you know so very well. We need to be careful not to overlearn from any one conflict. And so we need to look obviously at what's happening with Ukraine and Russia. We need to also look at the Middle East and by that I don't just mean what's happening in Gaza though that's obviously quite informative. I also mean look at the Red Sea, right? Look at the US Navy's engagements and others with the Houthis. We've got to have a panoply of scenarios that are informing our defense planning so that when we get to the future, we're more ready.

Nick Schiffrin:

Question right over there and then I'll come back over to here. Yeah,

Question 2:

Yeah. Thanks. Hi. Thanks to the panelists. I'm Tim Parsons. I'm a partner at PWC leading our AI governance efforts. And so all of the robotic killer robots are interested thing, but it was also the former chief scientist of the US government accountability office. Question is really about even as we think about future warfare, this is the first drone war and you think about Ukraine and what's happened is we've been seeing an erosion from going from high tech into lower tech. It seems like we're moving towards the munitions to a World War II era because the Russian adaptation to electronic warfare and all these advanced systems have changed the dynamic in thinking about general Cavalier's force projection and force development type discussion this morning. What can we do in terms of future warfare looking at that, not just the quantity of munition, but the type of munitions at a time where it's getting harder to be higher tech.

Nick Schiffrin:

Thank you. Chris, you want to take that?

Chris Brose:

Yeah, so I guess frame it a little differently. I see it less as sort of a movement from high tech to low tech. I see it more as a movement from things that I have to things that I can have in the future. So as the Ukrainians are going from less reliance on externally provided drones to internal production, it's not because it's making it lower tech, it's because they can actually build the quantities that they need at a price that they can afford. So I think the real lesson for us is on the requirements side of how we think about what we are spending money on. We don't usually factor in producibility as a core requirement. We don't usually factor in the ability to adapt and change the systems that we're buying because as a US military we've assumed that for basically a generation we're not going to have to produce much because we're not going to have to lose much and we're not going to have to change much because we're lapsed ahead of the competition. So I think we're moving in many senses back to the future where production on the hardware side is going to be, again, something that needs to be factored in from the get-go. But what really keeps that capability, high tech is all of the software defined aspects of what's happening on inside of it where you really start to see more of the AI enabled capability, more of the autonomy coming to bear, but you can nonetheless mass produce really both high quality and high quantity systems.

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Nick Schiffrin:

Got an Aspen rising leader up here.

Question 3:

Thank you. Good morning. My name's Jasper Campbell. I'm an engineer with the Mahan similar to Mr. Bro's company, we both autonomous systems. And my question is, as the panel thinks about expanding production capacity, I'd be curious to hear about how workforce development and retention factors into that considering the high skill nature of the work. Thank you.

Nick Schiffrin:

Why don't we both briefly take on that? Do you want to start?

Mara Karlin:

Yeah, absolutely. So I think there's two parts to this really, really good question you're highlighting. One is the actual skills. How do you make sure folks have the skills they need and some of that can be taught, no doubt. The other piece of it is actually returning to an issue that's come up a bit today and yesterday, which is propensity to serve. I mean, frankly when we look at China, we see these state-owned enterprises. There is no debate about what they think their mission is and who they think they're working for and what can we do among the national security community and among defense industry to really inject that sort of nationalism, that support and that focus on why we're trying to collaborate together. Frankly, I worry much less about the former than I do about the latter.

Chris Brose:

And just to say a word, I mean maybe to tease some news. I mean we'll have some pretty big announcements coming on how Andel is thinking about manufacturing.

Nick Schiffrin:

You can make them here if you want.

Chris Brose:

No. So look, I mean the honest answer to your question is we're in the process of raising a lot of money and we're going to put a lot of that money into really changing the way we approach defense manufacturing. It's a much longer answer, but to the workforce piece, back to this question of a core requirement needs to be systems that are simpler to build that are more mass producible. I think one of the core criteria for us is as much as possible, can you not make systems dependent on highly specialized workers and highly manual processes? How do you make defense systems and weapons that are mass producible by the largest labor pools available where I can start to tap into commercial automotive labor pools where it doesn't require large amounts of retraining, it doesn't require large amounts of specialized education. That's kind of the focus for us because our focus going in is we have to be able to produce at hyperscale, like large scale is done unless and until we are producing orders of magnitude

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more, we're not even close to solving the problem as it actually exists. And Ukraine as stressing, as an event as that has been for the defense industrial base pales in comparison to what a China contingency is going to look like. So if we're failing at Ukraine, we're not even close to being where we need to be for responding to a China contingency and that's what Andel is focused on.

Nick Schiffrin:

I think that's a good way to end, obviously a lot more to talk about this. So Mara and Chris certainly will be happy to talk to anyone who wants to talk to them after this. But we will let you guys go to your lunch and thank you very much, Mara, Karl and Chris Pros.

Chris Brose:

Thanks so much, Mara, Chris and Nick.