Center for Strategic and International Studies

TRANSCRIPT

Event

CSIS-DAPA Conference 2021: U.S.-Korea Defense Cooperation in Biden Administration

DATE

Thursday, February 10, 2022 at 10:00 a.m. ET

FEATURING

Minister Kang Eun Ho
Minister, Defense Acquisition Program Administration

Robert B. Brown
General, U. S. Army, Retired; President & CEO, Association of the United States Army

CSIS EXPERTS

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Seth G. Jones: Welcome, everyone. We are excited for you to join us at the Center for Strategic and International Studies.

I'm so glad to have everyone here for this conference. And we have navigated quite well through the pandemic, so it is particularly good for those of us in person to be able to discuss these important issues.

I want to thank DAPA in particular for being fantastic partners as we have worked to put on this really important event.

The U.S.-Korean alliance continues to thrive. And I am so excited for the next generation of partnership as we work together to bolster our economies and to ensure a free and open Indo-Pacific. Our partnership was born in blood, and for decades was laser-focused on deterrence and securing the Korean Peninsula. However, I see a space for us to enter a new era of cooperation as we build a partnership on a global stage and jointly – and I mean that – jointly confront challenges across the region, while still maintaining a robust deterrence across the Korean Peninsula.

I should note on the side that I did my doctoral work, as I was telling Mr. Kang earlier, at the University of Chicago. And half of my Ph.D. class was Korean. They were the smartest half of the Ph.D. class as well. So I have worked very closely both on the policy and in the academic communities, and forged strong friendships. Korean and America industry in particular, and more broadly industrial cooperation, have tremendous shared promise. As we struggle through the strange supply chain issues even in peacetime, we can't help but think about the security implications for the future. Korea and the U.S. have decades of trust that has been built up and been forged. And it has governments that have built on common values and principles, including democratic ones. And closer industrial cooperation, as we've seen, has tremendous potential benefits as the U.S. looks to shore up some of these supplies of critical goods.

President Biden and Moon laid out a bold agenda for our partnership at their May 2021 summit and articulated a vision for Korea and the U.S. to maintain their shared position as the linchpin for the regional and global order. That means, in part – and I think what's important here – is evolving a defense enterprise that can adapt at a faster pace, bring in commercial innovation. This is what sets us apart, I think, from previous eras is the importance of that commercial side, and to draw on the strengths of both nations to respond to threats to the international order. I am tremendously proud of the work that we have done here in pursuit of that goal, as we work together, U.S. and Korea, to ensure that we are equipped for whatever challenges we face.

And I just want to thank – we have them on stage – Minister Kang and General Brown – in particular. Many of you may not know this, but Minister Kang was a fellow with our Korea Chair some years ago, and we're pleased to have him back in the building for his insights on the future of the U.S.-Korean cooperation. So welcome back. General Brown will do a terrific job and, as Cynthia will note, has tremendous experience on the Korean Peninsula, including serving in the U.S. Army. He brings an incredible and vast knowledge base about our bilateral relationship, and the broader importance of the Indo-Pacific.

So without further ado, I would like to hand the event over to Dr. Cynthia Cook, the director of the defense industrial group at the Center for Strategic and International Studies. So thanks and, Cynthia, I yield the floor to you.

Cynthia Cook: Seth, thank you for those inspiring remarks, which reminds us of why we're here today, which in part is to celebrate the great partnership between the Republic of Korea and the United States.

It is my great honor to introduce our distinguished panel. First, let me introduce the moderator, my colleague Dr. Victor Cha. Dr. Cha has been at the Center for Strategic and International Studies as a senior advisor, and as the inaugural holder of the Korea Chair, since 2009. He is also a professor of government and holds the D.S. Song-KF Chair in the Department of Government in the School of Foreign Service at Georgetown University, where he also serves as the vice dean for faculty and academic affairs – graduate affairs. Dr. Cha spent three years at the National Security Council as director of Asian affairs, and is also a very prolific author, having written five books, some of which have won astounding prizes, and numerous articles on international relations and East Asia in leading journals. So we've very, very pleased to have such an expert moderating the panel today.

The panel will lead off with short remarks from our two panelists. Our first distinguished speaker is General Robert Brown, who is the CEO and president of the Association of the United States Army. General Brown retired in 2019 after serving his country for 38 years as an officer in the United States Army. His final tour was as commanding general of the U.S. Army Pacific, leading the Army's activities in the Indo-Pacific region, which include the Republic of Korea. He served at least an additional dozen years with various units focused on the Indo-Pacific region, and also deployed to Operation Iraqi Freedom as a brigade commander and as a deputy division commander. His very distinguished career includes numerous recognitions of his service, including the Distinguished Service Medal, the Defense Superior Service Medal, Legion of Merit, Bronze Star Medal, and a very long list of others which, at his request, I have truncated today. (Laughs.)

Finally, we will have as our second distinguished speaker Minister Kang Eun Ho, who is the minster of the Republic of Korea's Defense Acquisition Program Administration, or DAPA. He is responsible for the oversight of DAPA's extensive portfolio of force improvement programs, procurement of military supplies, and defense industry promotion. My colleague, Seth Jones, recognized Minister Kang's service here at CSIS. And we are so very glad to welcome him back, and we really await his remarks. Following Minister Kang's remarks, Dr. Cha will moderate a panel. Thank you.

General Robert B. Brown (Ret.): All right. Well, thank you, Cynthia. It's great to be here. I got to say, it's fantastic to have an actual live audience. I know we have virtual as well, so welcome to everybody on virtual. But it's been a while. So, you know, the good news is you don't have to say, "you're on mute," and let me know that. And we're very excited. I want to thank the Center for Strategic and International Studies for hosting this important conference on DAPA, as was mentioned earlier. A really key topic. And it's great to be here. And Minister Kang, great to be here with you. I'll look forward to your remarks and how we can continue to improve.

You know, just to start off, sometimes I think we take for granted the history, and it was mentioned an alliance formed in blood. And sometimes we sort of forget. Right before I retired, I was at a dinner with the INDOPACOM commander, a Navy admiral. We had the Army commander, myself, the Air Force commander, Marines, Navy, PAC Fleet commander, Coast Guard, and our Republic of Korea military counterparts at this dinner. And we started talking about the history. And we realized, of the 12 of us there, 11 out of the 12 fathers fought in the Korean War. And so think about that. Kind of amazing. My father was a Marine in the Korean War. He always said I went astray going in the Army, you know. But every – when you looked, everybody – all but one – in different services. But just think about that history. And I can tell you that it gave me an immense pride over my 38 years, from the time I was a lieutenant all the way up to four-star general, being involved in this alliance closely with our ROC military partners – that close alliance. It gives me incredible pride, and particularly when you look at that amazing history.

A picture is worth a thousand words. And we see the picture behind me. The lights of the thriving Republic of Korea and the dark of North Korea. You know, and do we need to say any more to see what the alliance has done in strengthening and growing the incredible Republic of Korea and how far it's come? And I'll talk a little bit more about that. This partnership was developed on mutual trust, on shared values of democracy, human rights, common strategic interests. And I think it's really important that military strength has kept the peace and promoted prosperity among the two nations for 70-plus years. And threats and challenges continue to evolve, though, in

the 21st century. And we can't rest on those laurels and say, OK, now times have changed and there are greater threats. So we really need an alliance to seek opportunities for an even deeper engagement, more innovative, and greater cooperation across government and industry, as well as the military, I mentioned, but government and industry remain ahead of 21st century challenges. The military will remain key, security is extremely important, but there must be more.

And I think you—you know, you could safely say without any doubt the Korean Peninsula is more important now than ever in support of security and stability in Northeast Asia – this critical part of the world. And you could look and say one of the most successful multinational military alliances in history is the United Nations mission, for 70-plus years. If you look at United Nations Command you see there were originally 22 nations involved in U.N. command. Of course, it was started – founded by U.N. Security Council resolutions. It has the role of enforcing the armistice agreement, facilitating diplomacy with North Korea, and an integrator of multinational forces during crisis or conflict. And it's important noting – a lot of folks say, well, how long? United Nations Command, when does this end? I think it's very important that at least until we see a unified Korean Peninsula, it's essential that we maintain the United Nations Command, and those multinational partners, for security. Absolutely key.

Combined forces command, a U.S. and ROK military alliance, is also the glue that holds the alliance together. And absolutely, as I mentioned, I've been proud to have been a part of that. And there are other folks here – (inaudible) – Bernie Champoux a huge part of that in his commands in Korea and in the Pacific. And many – I know everyone involved is so proud of that. It's been an unmistakable – combined 600,000 active-duty military personnel, roughly about 30,000 U.S. of that – an unmistakable deterrent to potential adversaries of the cost of aggression. And it reflects the mutual commitment of ROK and U.S. to peace and security, for sure.

Now, to be fair, you know, the military relationship has some clear advantages, right? I mean, obviously I'm talking – I'm very proud – but there are some advantages. You know, it's a linchpin for stability, but there was – the history that I talked about, the tradition, certainly the existing structures that were formed, huge advantage, the funding, the commitment to exercises and to maintaining that. All these are – and it was a fight tonight mentality, to prevent conflict. Strength to prevent conflict. So certainly, some advantages and, again, has deterred outside aggression against the Republic of Korea for 70-plus years. So it's essential we don't let any fissures in the alliance, don't allow any that adversaries can exploit, because they will. If they see a crack, they're going to exploit it, no doubt about it.

So peace, provided by military strength, has been a key to fostering South Korea's miraculous success. General Douglas MacArthur at the end of the Korean War said, and I quote, it will take at least 100 years for South Korea to recover from the war. I'm sorry to say General MacArthur was wrong, and thankfully. (Laughs.) And it did not take 100 years. South Korea's economy has increased nearly 400 times since 1960. Think about that, 400 times since 1960. And it's now become the 10th-largest economy in the world. Pretty amazing when you think about what South Korea looked like at the end of the war, and those vivid pictures. The one on the screen is really prior to – really, the start of the ar. At the end of the war, the destruction – and then where they are, 10th-largest economy in the world.

The ROK success contributes to a mutual prosperity, by the way. This isn't just a Republic of Korea only. Korea is the U.S.' sixth-largest trading partner. We benefit greatly. And total trade in 2020 is more than 150 billion. So, you know, we see the emergence of a rapidly growing defense and aerospace industry in South Korea. Those leaders are here that are helping with it. And it's grown beyond relying in imports to exporting their defense products which, because of quality interoperability with Five Eyes countries, is becoming extremely successful. Recently – recent example, it exported $7 billion of military equipment in 2021 alone, and expected to top 10 billion in 2022. And Australia and Egypt's recent purchase South Korean Hanwha defense – their K9 self-propelled artillery and K10 armed ammunition recovery vehicles is just a recent example of that success. And we see that growth.

But, as I mentioned before, some very positive things, but we cannot rest on the past 70 years. The world has gotten much more complex and dangerous than it has ever been. And it calls for more innovative cooperation than ever before, beyond military – maintain that military strength, but government and the private sector. The world is really – geopolitically, is growing smaller and smaller. And South Korea's vital strategic position in Northeast Asia makes it really a nexus of trade, incredible overlapping interests in the region. When you look at the Indo-Pacific with one fifth of of world's economic output coming from the Indo-Pacific region; four of the twelve of largest economies of the world; four of six of the world's largest militaries in the world. Security, threatened first and foremost by North Korea's provocative interests, again this cooperation is key, military, government, private sector, absolutely, absolutely, key.

Of course, we all know North Korea's conventional threats, their military, and asymmetric threats that we're seeing nearly daily now, with recent launches and even moving into the ballistic missile capabilities, talk of hypersonics, and so forth. And then there remains cyber threat, chemical stockpiles. So, you know, some real key issues that remain, no doubt about it. Republic of Korea's centrality to the broader Indo-Pacific is absolutely

critical, more than on the peninsula. The center of gravity really for 21st century geopolitics, as I mentioned earlier, you look at 60 percent in the Indo-Pacific – 60 percent of the world economy and more than half the world's people are in the Indo-Pacific.

So there are also challenges from China, [the] rules-based international order that they're challenging. In fact, kind of ironic, as I see it, because China benefitted probably the most since World War II from the rules-based international order that enabled the incredible growth in the Indo-Pacific region. Now they want to change it, and their desire for spheres of influence in East and South China Seas, their regional tensions, the risk of escalation. And quite honestly, in my 38 years of having dealt with China, more aggressive now than I've ever witnessed at any other time. It's just – and it is a cause for concern because certainly nobody wants conflict with China, but there could be accidental, because of the aggressive nature of what they're doing – accidental conflict, for certain.

So the United States and the Republic of Korea together must oppose activities that destabilize a free and open Indo-Pacific, that's for sure. And we must be together on that. And a commitment to international laws, including freedom of navigation and overflight is absolutely critical. You know, we used to say, and I said about a thousand times – Bernie, I should ask you to join me – katchi kapshida, we go together. And it was always interesting when we'd say this in exercises, because the U.S. soldiers would say "katchi kapshida," and pronounce it terribly. And then the ROK military would say "we go together" – and pronounce it perfectly, I would add – but we never quite caught on. But I've since learned from Minister Kang, however, that it's beyond that. And I'll cover that. It's more than we go together. It's also we work together.

So as we look at leveraging industry and the unmistakable advantage over adversaries, really the strategic competition, the race for dominance, and key emerging technologies is absolutely critical. And it's interesting, it's a huge change. It was mentioned a little bit earlier. It used to be government would lead the way in ideas, and industry would get those ideas. The internet, many things we have, GPS, came from government. Well, that's totally changed, as we all know. The government can't move quick enough. You need industry. You must have industry. And there – and then the government has to then take the ideas from industry, which is changing the whole system, which sometimes in a bureaucratic system isn't all that easy, right? There can be challenges because bureaucracies are designed to say no. But it's a big change, and government can't innovate fast enough.

We must have defense industry cooperation, and counters – emerging threats requiring cutting-edge technology, enhancing interoperability really the backbone of allied capability for ROK, U.S. and other allies that share it.

And it's a driver of continued shared economic prosperity that will be absolutely key. So if you look at the way ahead beyond military to strengthen, just encouraging U.S.-ROK research and development, product development investments, jointly working on that. Interoperability depends on joint investment. You have to – both have to have a stake in the game. And we'll never fight alone. I heard Dr. Hamre told us that last night. So, you know, nobody's going to go at it alone. You'd be crazy. The partnership is where it's at, multinational together, as we mentioned earlier.

And so we need common capabilities best achieved through co-development and adjusting those policies and procedures that enable us to get there. We must win the race for dominance in some of these areas. And, you know, you know what they are but, you know, artificial intelligence, key 5G, 6G capabilities, robotics, biotechnology, and probably the – one of the most significant I see is big data. You know, data, the leveraging of data. Now, the world has changed so much there's overwhelming amounts of data. We have to figure that out. So getting industry involved earlier in the process is absolutely key. And then looking at joint capabilities together, and the technology can be used in operations, and how to develop an integrated industrial base will help the military, it'll help the government, and it'll help us move forward in increased security as a result and maintain that security.

So to enable joint development, we need to continue to review U.S. and Korean export licensing requirements, facilitate easier sharing of data. It's much too hard, I can tell you. I've been right there when I wanted to share data, and there's a person right next to you, and there's ways you can share, and you can't do it. You got policies that prevent you from doing it that make no sense. We've got to – we've got to break the code on that. We've got to get there. At the same time, you know, we have to protect intellectual property. We've got to maintain security. And we all know cyber threats are out there. And cyber is not just a threat of shutting folks down, but a threat that we'll build too many firewalls and then we can't ever talk to each other, which is almost as big a threat as a direct cyberattack, when you look at it. So we really need to do a better job of coordinating, cooperating, looking at those policies that make sense so we can share information easier.

A couple of military – you would expect the military guy to give a few military examples of industry working together that could really help. And I've talked to commanders that are there now, some things they need. We have great interoperability, but still lack even human-to-human effective translation capabilities. That would be a game changer. Industry could definitely help us with that. We know that for sure. But the bureaucracy prevents that. Improving training. I showed you a picture earlier, all you have to do is go to Seoul and you see the incredible growth. It's amazing. And you look at the whole region. Where there were open spaces before there are skyscrapers and it's closed. So training has become difficult. If you think of it,

you have to train together. And you need to use simulations to do that. So we need better simulations. You need to use synthetic training environment.

But you also need live fire. You go to go out there and do it for real sometimes. It's like the Super Bowl's coming up Sunday. It's like if the Super Bowl teams never got to practice together, they wouldn't do very well in the game, right? So you've got to practice together. It's not a game, but they got to practice together to prevent conflict and have the capabilities. And so we could use a lot of help from industry on how to do that better, and be able to – you know, maybe some ways to develop munitions with reduced range, reduced noise, better able to enable live fire training with some of the militaries. And finally, AI. Huge potential in AI with military needs. Just look at one area I'll talk about is the [demilitarized zone (DMZ)] and the number of landmines in the DMZ. What if you could use artificial intelligence to cover that area safely and get rid of landmines and danger – you know, just, again, so many areas AI would help. But that's just one.

So those are just a few examples of what's possible with deeper industry collaboration that'll help the military side, but it'll also spillover into industry and that collaboration. The reality is industry is key. Industry's ideas are key. It requires flexibility of government policies, and that's why I'm glad we're having this conference to discuss these type of things. And the restrictions – you know, reduce restrictions and procedures to really unleash the amazing potential of industry so we can move on in the 21st century and remain secure, for sure. So the goal is taking that U.S. and ROK alliance to the next level. Beyond the military with industry and government working together. The timing is perfect for U.S. and South Korea right now, when we look at the administrations working together again, the summit they had last May, the efforts like this. And, again, thanks to CSIS and DAPA for pulling this together.

So, you know, we do have to maintain the close military alliance, of course. But moving to the next level will require that same degree of cooperation between industry as we have seen for 70-plus years, between the military. The continued investment and focus on Northeast Asia is paramount. The Korean Peninsula is key. And it's key to ensuring the stability of this vital region, no question about it. So deepening our engagement across government and industry will ensure continued prosperity and security for the next 70-plus years. So I'll close with katchi kapshida, which I said a thousand times. And then for the first time ever "katchi ilhapshida"– I probably said it totally wrong – (laughter) – but "we work together." Thank you, Minister Kang, for that last night. I learned that from him last night, and I agree with it completely. Thank you very much. (Applause.)

(Note: Minister Kang's remarks are made through an interpreter.)

Minister Kang Eun Ho:

Dr. Jones, thank you so much for your warm welcome. Also, I would like to extend my gratitude to Dr. Cook for your wonderful introduction. And my special thanks goes to General Brown for your excellent, inspiring keynote speech. Especially he has 38 years of military experience behind him, and he came out of it with strong commitment and confidence in our alliance, and understanding of the importance of ROK, and acknowledgement of the role the alliance played in the success. And also, especially I'm inspired by his conviction that we should strive for a greater – another 70 years forward by not only engaging governments but also industries.

Also I would like to express my gratitude to all those who are present. Especially even though we are here are the tail end of the pandemic, many people couldn't attend this meeting in person, but I would like to ask for your understanding and thank you for your presence. And I'm standing here as the second keynote speaker with a lot of trembling, after the awesome presentation by Dr. Brown, because he captured all my best ideas. And I think can sum up my statement in one sentence: I wholeheartedly agree with the points made by General Brown. (Laughter, applause.) I think that could be nicely summed up that way. Notwithstanding, since I have script that is prepared, I'll just go ahead and make some remarks. (Laughter.) So don't blame me just because it looks quite similar to what he presented, and just take it as a strong, you know, alignment our two nations have when it comes to these critical issues.

We kicked it off yesterday with a private session, and this is our second day of the conference today. Since the inauguration of the Biden administration, the two countries have been actively engaged in exchanges, including the ROK-U.S. summit. And the defense area has not been an exception to such a trend. And that's why this venue for discussing the two countries' future of defense industrial cooperation is so meaningful.

After President Biden took office, he sent the message, American is back, to the world. Indeed, the U.S. seems to be broaching the world order and the ROK-U.S. cooperation as its new buzzword. The U.S. is devoted to addressing climate change, responding to cyberthreats, and enhancing supply chain resilience in collaboration with allies and partners. And particularly, through cooperation with allies, it is showing its will to strengthen the influence in the international community and restore the world order. Depending on the Biden administration's foreign policies, conditions for the ROK-U.S. defense cooperation will change as well.

The two countries are expected to enjoy more opportunities for cooperation in defense industry and technology sectors as allies, and agendas in the emerging sectors, such as supply chain, space, and cybersecurity will have a bearing on the defense industry as well. This conference serves as a great forum in presence of key government officials and industry experts to

discuss the future of our defense industry cooperation in this new environment. And I would like to extend my deep gratitude once again to CSIS for organizing this valuable meeting.

As General Brown just mentioned, the ROK-U.S. alliance is really succeeding. And it's been one of the most model successful alliance cases. It was born out of the Korean War in the 1950s. And for the 70-plus years since then, despite many political challenges and external factors, it has grown into a mutually beneficial alliance. During the summit between President Moon and President Biden last May, we were reassured of their strong commitment to the alliance. And the two presidents agreed on cooperating by coupling Korea's south – new southern policy and the U.S.' Indo-Pacific initiative. The summit recognized the ROK-U.S. alliance as a critical partnership and presented an upgraded blueprint for the alliance by lifting the revised missile guidelines and reflecting Korea's DPRK policies.

Also now the ROK-U.S. alliance goes beyond security, economic and regional matters and covers climate change, public health, cooperation on advanced technologies. And it's solidly positioning itself as a comprehensive strategic alliance that strengthens cooperation on global issues. Cooperation between the ROK and U.S. defense industries has also grown mature, along with the evolution of the alliance. Several years ago, President Hamre of CSIS proposed to us a new concept called ROK-U.S. third generation defense industry cooperation.

So far, the history of the two countries' defense industry cooperation went through the first-generation cooperation, where Korea simply purchased U.S. weapon systems through U.S. military assistance. And then the second generation, where Korea purchased U.S. weapon system with technology transfer, where Korean businesses supplied U.S. firms with components and parts through offset trade. Now the third-generation partnership was proposed to get the two countries to cooperation from joint development base to joint production and joint marketing. I personally am in full agreement with that proposal. Over the past five years, Korea purchased 10.5 trillion won worth of weapons from the U.S., which is about 78 percent of our foreign arms purchase, and brought in cutting edge weapon system from U.S., such as Global Hawk and F-35. As such, the two countries are actively cooperation in the defense sector quantitatively.

However, the third-generation defense cooperation has yet to even take its first step, which pursues collaboration from the development phase. Korea's defense industry capability is taking a leap now, so we need to make a success case in defense industry cooperation that is sustainable and mutually beneficial, based on a more mature ROK-U.S. alliance. Also, in line with U.S.' realignment of its supply chain policy, Korea can consider an option of participating in the U.S. supply chain as an ally in the defense

industry. Korea holds excellent technologies in semiconductors, secondary batteries, and IT sectors, and has a number of highly capable up and coming defense companies as well.

If Korean defense companies can be part of the U.S. supply chain, the U.S. will enjoy stabilized supply chains through cooperation with Korea, and Korea will foray into the U.S. and global market. And both countries will enjoy mutually beneficial outcomes thanks to joint development, joint marketing, and cost saving powered by our own strengths. The ROK government is pushing for defense science and technology and nurturing of defense industry with an aim of acquiring advanced weapons system and development capability.

First off, we selected eight technologies – such as unmanned autonomous operation, AI, quantum science – and we are increasing investment in them and channeling our defense R&D capacity to them. We are also in the middle of drawing up a comprehensive defense space industrialization plan, in preparation of new security environment in the space era. This has a significant overlap with the DOD's 11 modernization priorities. That means if two countries cooperate in the areas of our common interest and focus – such as AI, autonomous vehicle, quantum science, space, et cetera – we can reap much better results.

Under the policy cooperation between the ROK and the U.S., if technical personnel in charge of actual research can get together often to talk and share information, this will lead to join research cooperation projects of various types. When the number of these projects grows, we will also lead to increase in positive results beneficial to both countries, ultimately enhancing the quality of the bilateral R&D cooperation significantly. On the other hand, the ROK government recognizes that defense industry is a critical sector, linked on multiple levels such as security, advanced science and technology, industry, et cetera, and implements a number of policies to nurture defense industry and enhance their competitiveness.

An excellent example of such endeavor is the recently established Korean Defense Capability Program. We had a separate discussion on this yesterday, but the key is this program aims not only at expanding opportunities for domestic defense firms to take part in defense projects, but also facilitating domestic and foreign defense industry alike to look beyond their competitive relationship and build a more long-term and strategic cooperative relationship. In order to – ROK and U.S. defense industry cooperation to have a success story based on these policies, the two countries should enhance mutual understanding on each other's defense industry policies and jointly explore areas of cooperation where we can have a win-win partnership.

Honorable Vice President Jones of CSIS, General Brown, and Dr. Cook, and Dr. Cha, and distinguished guests, Korea and the U.S. are like long-time friends, with 70-plus-year-old alliance. Just like long-time friends deeply trust each other and do not doubt the trust, the ROK-U.S. alliance has been growing without getting swayed by external factors for a long time. It is like a deep-rooted tree, and us here together, we serve as the root to further solidify the already robust alliance. At every opportunity we have, we need to remind ourselves that our grandfathers and fathers fled and gave their lives and fought together in a war. And we must say that we sincerely thank all American soldiers who fought for freedom and peace of a country that they once didn't even know where it was on the map. And we need to say that we honor their sacrifice.

Our – (inaudible) – and actions, accumulated over 70 years, and that has become the ROK-U.S. alliance as we know it today. I believe this conference is a great and meaningful location to reflect on this ironclad alliance, 70-plus years in the making, as well as the to address its way forward. Once again, I would like to thank all of you for taking part in this great conference. And thank you for your attention. And for one last time, as General Brown said, I would like to say one motto here. Many people – I hope that many people can join us when I say go together. But for industry people, we say go together and work together, for the industry people. So I will say go together, and then you say the same thing.

(Continues in English.) I will say just only "go together," but you should shout "work together." Go together!

Audience Members: Work together!

Min. Kang: Thank you. (Applause.)

Victor Cha: Well, thank you, Minister Kang and General Brown, for truly excellent keynote presentations. And I want – first, I want to thank the International Security Program, Seth Jones, Cynthia Cook, Greg Sanders for putting on this conference and the public version of this conference. The partnership between CSIS and DAPA is something CSIS truly values.

And we really do have Minister Kang to thank for that, because not only was he our first visiting fellow from DAPA, the whole concept of DAPA visiting fellow at CSIS as a way for DAPA and the Defense Procurement Community in South Korea to learn more about the United States, how the United States defense industrial production works, cooperation networking – you know, Dr. Kang was – then he wasn't a minister. He was just Dr. Kang.

But at that time, Dr. Kang was really the one who kind of came up with the whole concept and was the one who both presented it to CSIS and also presented it back in Seoul. And I remember watching him giving these presentations and thinking – and I said this to folks here at CSIS – he really gets it. He really understands what it means to cooperate with think tanks in the United States and in Washington, D.C., like CSIS. So we really have you to thank for our being here, our being able to be here all together.

So both General Brown and Minister Kang started off with a wonderful overview of the U.S.-ROK alliance. And I cannot resist but provide my own as we get into our discussion. And I think – so, as some of you know, I study alliances. It's what I do as a professor. And when we look at defense industrial cooperation between the United States and South Korea, it really is a great way for anybody to learn about this alliance and how it has changed and evolved over time. So, for example, as Minister Kang said, when we think about the cooperation, it started off in a very one-dimensional, un-directional fashion, which was the United States providing military equipment to South Korea, the United States selling military equipment to South Korea.

And it was really pretty much a one-way street. And it was a very asymmetrical alliance, what we call a patron-client relationship in many ways. This then evolved, as Minister Kang and General Brown said, to the so-called – John Hamre's second phase, right? Offsets. And now we're on the brink – we're on the threshold of talking about this new phase. And in many ways, that totally mirrors the overall evolution of the alliance relationship. Across almost any sector, we see how this relationship started out as a senior partner and a junior partner, and now have become more equal. And in some cases, Korea is ahead. Korea is leading the United States.

And I mean, just to give an example, to me one of the great examples of this was when the United States reopened diplomatic relations with Burma/Myanmar. And we actually held an event at CSIS where we had USAID and the Peace Corps here as they were preparing to think about starting Peace Corps deployments to Myanmar/Burma again. And they signed a cooperation agreement with KOICA in South Korea because Korea, as some of you know, it has the second-largest Peace Corps volunteer network in the world, next to the United States. And KOICA had been in – had been in Burma for years. So this was now a case where South Korean Peace Corps volunteers were working and training U.S. Peace Corps volunteers as they were going into a new area. And there are many other – there are many other examples of that.

And in many ways, this alliance has gone from an alliance that provided private and exclusive private goods to the two parties, the United States and South Korea. It still does that, as General Brown said. It's mutually beneficial,

but it's now evolving into a relationship that provides private goods to each partner, but also public goods to the international community. And on the defense industrial side, of course, we see this in terms of some of South Korea's recent sales to places like Australia, the Philippines, Egypt, and others.

But I think it should not go without mentioning that while I think for many of our older generation we think about this alliance as rooted in a deep history of fighting together and working together, for some of the younger generation out there when they think of this relationship, they are increasingly thinking about it in terms of culture, where Korea's a sort of leading edge in terms of pop culture. And they think about it in terms of these new sectors of cooperation between the United States and South Korea that were showcased at the Biden-Moon late '21 summit – global health, climate change, and supply chains are very important areas. So this really is—this really is a relationship that has evolved. And defense industrial cooperation, in many ways, is one of the prime examples of that.

So I'd like – so we'll have a little bit of a conversation and then we'll open it up to the audience, if that's OK. And I'd like to start off very broad and then, you know, sort of narrow down our topics. And so I'd like to start, if I could, with Minister Kang, and ask you, at a very broad level, what it is about the United States that, from a South Korean perspective – what is it about the United States that you see that makes the United States sort of the ideal industrial – defense industrial partner for South Korea?

Min. Kang: Whether it's Dr. Hamre, or Dr. Cha, or General Brown, I think we all have common view as we talk about the third generation, it is a testimony that the alliance has done a lot of good things in enhancing not only democracy but also South Korean economy, which went a long way toward enhancing stability and prosperity in Northeast Asia. Along the way of progress – the defense industry – Korean defense industry has made a lot of progress in quality and quantity along the way. So as we really have envisioned, the third-generation defense industry cooperation, which areas do we select, which markets do we want to generate is not really the main topic. Rather, we really want to focus on joint development, joint production, and joint marketing.

And the basic tenet and philosophy behind it is not purely economic, but really deeply rooted in the vision that this alliance needs to develop even further, and the defense industry can play a key role in achieving that. Korea has a certain role that it can play, hopefully, in adding to the great success and achievement that the U.S. industry has already made. In particular, General Brown mentioned something truly significant. This cooperation should not be confined to government, but industry needs to join this cooperative effort, this economic progress that Korea has pulled through in

the past, and what the corporate sector in Korea has gained along the way, need to be tapped into so that it can contribute to the growth and development of the defense industry.

I'm sorry to mention some specific names, but I'll just give them to you, like Samsung, that has top-notch technology and communications, and Hanwha and LG that has really top-notch technology in certain defense areas. I just give those examples to you, so that we really have some good potential to tap into that area to further drive our joint benefits. And this will benefit our industrial development too. So our mutual strength needs to be combined and used in most effective ways.

Dr. Cha: Thank you. And I do want to actually spend some time talking about this third generation. But before I do that, I wanted to go to General Brown. So you've heard what Minister Kang has said in terms of why South Korea thinks the U.S. is an important partner. Could you tell us why you think South Korea is a good industrial defense partner of the United States? And also, you did give a fantastic overview of the Indo-Pacific. What role do you think South Korea plays in the U.S. Indo-Pacific strategy?

Gen. Brown: Yeah, thank you. So I think I go back to, gosh, 30-plus years ago, when first working with the ROK army. And it would be the U.S. here, and the ROK army there. We were working together, but separate. And then over the years it's slowly come together to where now we're intertwined. Even the division, the U.S. division that's in Korea, has a Korean deputy, has soldiers, it's mixed. And so that's much like what's happened also with the defense industry. As we see, you know, it was – it was kind of separate, and the U.S. would provide. And now it's getting to the point where, as the minister mentioned, the technology is incredible, that the Republic of Korea is capable of. I mean, one only has to go to Seoul, it's the most modern city I've ever been in. Just an amazing city. And so you look at those capabilities, and it makes perfect sense, based on our longstanding relationship, to share more.

And we've had to go through – in the United States, we've had to change the system again, where the ideas used to come from government and go to industry. We've had to change that. And all of the services, all the military in the United States now have ways and avenues to get ideas from industry faster. It's the only way we can stay ahead in this complex world. And it's happened because, if you look, the world used to, as little as, say, 25 years ago, the challenges, the fog of war, if you will, that caused us issues was not enough information.

We just didn't get enough. And then soon you started to see where we're at now, where the challenge is too much information. And there's overwhelming amounts of information. But yet, that big data and that information is not easily accessible, et cetera. So you've got to partner with

industry to leverage that and use their – the government cannot move fast enough. And so logically Republic of Korea, with their technology, and advancements, and as close as we are, what a tremendous partner to help move forward.

As far as their positioning, I see – already see greater involvement in ROK military off the peninsula. And I think it's very important. As you mentioned, they're involved in many humanitarian assistance operations, involved in many peacekeeping, involved in many ways helping – even had forces that joined us in Iraq and Afghanistan at one point as well. But I see that growing as stability continues to increase the peninsula, and you can. And I think the greatest fear I would have is someone would say, OK, let's say things are at a very – things calmed down, and North Korea suddenly has a vision and things are more peaceful, maybe unification of the peninsula.

I think it would still be very important to maintain U.S. forces on the peninsula, working with ROK military, because of the key role across the Indo-Pacific. It's just it's such a key area. As I mentioned, so much trade, so much of the economy. So much that you – you know, if there were nobody out there that was trying to disrupt it, OK, it wouldn't be a problem. But we all know that's not the case. There are those that want to cause issues. And a free and open Indo-Pacific, that we've all benefitted from, they want to make it more beneficial to a few. And we want it to be beneficial to all. And so that's going to require the cooperation of ROK military as key to that off the peninsula as well.

Dr. Cha: All right. Thank you.

I wanted to sort of narrow the focus a little bit. And both of you in your remarks mentioned the importance of cooperation from the private sector. And so I guess for Minister Kang, I wanted to ask you, you by name mentioned some of these private sector companies in defense industry and technology. And I guess the question I have there is what do you see as being the challenges and the opportunities that these companies face in a U.S. environment, right? In – like, when we think about joint research or joint development, what are some of the challenges and opportunities that you see for these companies, you know, as they deal with other U.S. companies, as they try to become – grow relationships with the U.S. government?

Min. Kang: In principle, between our two nations we have a long history of our cooperation. And along the way we grew, going through the first and the second generation. Government to government cooperation is almost seamless, but as we envision the third generation, as Victor – Dr. Cha mentioned, industry input is very important. I wouldn't necessarily define it as a barrier. We spill much ink, and we share a lot of insights, which was great yesterday. But this was unprecedented effort. Even as we engage in our

dialogue, implementing it is quite another thing, because there seems to be a lot of reservation, or maybe a little hesitation.

So when it comes to make concrete cooperative results, where we have engagement from government but also industry, we need to be willing to take certain risks. We may encounter certain unexpected barriers, and we may find some differences in perspectives. And it may be perceived as a little conflict, perceptionally at least. But as we keep trying whatever barrier we may run into will be there only to be overcome. I have firm belief for this, because that's how our relationship grew, overcoming all the challenges. And one big testimony is our defense cooperation, as General Brown mentioned.

The alliance began with military cooperation, but it grew further, that it encompasses culture, economy, what have you. So I think the same potential is there for our defense cooperation to kick off. So what is really urgent right now is just to do it at this moment. Thank you.

Dr. Cha: Thank you. Oh, go ahead, General Brown. Yes.

Gen. Brown: Can I add something? I really agree 100 percent with the minister's comments. But I think what you see, and I've seen it over many years, in bureaucracies – and every government is a bureaucracy – there's a tendency to avoid risk at all costs. And there is risk in cooperating. You know, you look at cooperation in areas, you open up doors that were closed previously, you can get great advancement, but there is also some risk that things may be compromised. And I think the tendency is, unfortunately, to hold all those things close and establish policies that create barriers.

And I would liken it to, you know, we're trying to – with data, for example – you're trying to get to where you have a data blanket that exists. And right now, we just have threads that are all in different silos and they're not woven together as a blanket. But there is risk in that. And there are barriers. So it requires a mindset that there will be – nothing is going to be perfect. There will be compromises and security challenges. But you work through them and get stronger. But it is a mindset change. And sometimes that's very difficult in a bureaucracy where, you all know, everybody says they want change. They want you to change, you to change, they don't want to change, right? So it does require change.

Dr. Cha: So that's actually a very interesting point, because it leads me to the question that I wanted to ask you, General Brown, to comment on, which is, you know, like you said, change is difficult, right? Especially for government bureaucracies. Change is very difficult. But arguably, one of the variables that is new now you mentioned in your talk, which is the U.S. focus on resilient supply chains. And so if – I guess, could you comment on what Minister Kang said in his speech about their aspiration for Korean defense companies to be

a part of those resilient supply chains. Is that something that you see as feasible, a good idea? I'd love to hear your thoughts on this.

Gen. Brown: Yeah, no, thanks. I think, based on the long-term relationship and closeness in the alliance that that is a great idea for stability in the supply chain. However, I can see those individuals that will argue, 'no, it's all got to be – it has to be U.S.-based only for real security.' And they will – they will be hesitant to go anywhere beyond U.S. borders. And it's a challenge with a democracy, of course. You know, policies change and so forth. And so you're trying to work closer together, increase the supply chain security, and in other areas. But those risk are there, as I mentioned. And there'll be those that highlight the risk and say it's not worth it.

I believe it's foolish to think you could do it all alone. We mentioned earlier, you don't do anything alone anymore. It's not the way the world is now. You can go fast and go alone or go far going together. And we'll go much farther together, but there are risks. And I do worry that – I've seen it myself, involved in innovation in the military. I was kind of a rebel, if you will, going against the system many times. And when you would go against the system, you might have tremendous success numerous times. But the first time there's a failure, a whole – a bunch of folks pop up and say: See, I told you! You can't do that. You shouldn't do that. And they try to shut it down.

So that's what we have to avoid. And I think communications, working things out, figuring out these policies, and trusting each other – which is very easy with Korea and the United States because of our long-standing relationship. And we can build on that. But I say it's easy. It's not easy, because it's change. Yeah.

Min. Kang: And to that, as General Brown just mentioned, I would like to add a specific situation. Before yesterday's seminar, Dr. Hamre said that the U.S. DOD's defense R&D budget this year is about $112 billion. So that is a big budget. But the U.S. DOD, although it has that kind of amount, it cannot have – it cannot execute all that budget for all different areas. So U.S. will focus on the advanced technology. That will be a game changer. And it has to risk failure. Maybe one or two cases will come out as success, but it will still have to focus on advanced technologies. And R&D has to go, but then that's not going to be enough probably. But in reality, we have to maintain the industries and follow the rules.

And maybe in some portions we have to maintain our R&D in certain areas. But Korea has a very strong hold in that. We're not yet there to be focused on the advanced technologies. And our budget's not enough to just solely focus on that. But some of the areas that U.S. is interested, and U.S. will continuously need, Korea can fill the gap through our R&D. And I think we need cooperation and collaboration on that, so that we can respond to the

threats from the adversaries, and we can understand our common need and interest.

And also General Brown just mentioned that some of the Korean companies have – already have advanced technologies that U.S. companies don't have. So these new technologies – rather than we focus on that, rather U.S. will fund that, and then Korea can provide the technologies that we already have, and we can jointly manufacture and market. Then that will be a – definitely a win-win situation for both countries. And we have to go beyond economic and industrial cooperation, but this ROK-U.S. alliance will enjoy more firm success by we expand in the different areas of cooperation.

Dr. Cha: So I think that you're both making a point that deserves to be underscored, which is that from a U.S. perspective, and if we look at the Biden administration and their strategy in Asia, it is very much along the lines of, you know, first the administration wanted to re-instill confidence in our allies in Asia that the United States was back, right, after four years. But it was back dealing with a big challenge, in a rising power, but one in which the United States might lead, but it really wanted allies to be an integral part of it. And that – you know, that's a big change, right, from the way United States was a preeminent power through the end of World War II, through the Cold War. It is a very different environment now, and one that's much more conductive to the type of things that we're talking about.

If I could, Minister Kang, actually get a little bit more specific now. And when we talk about some of these things in terms of third-generation cooperation. In General Brown's speech he mentioned two things, and I just wanted to get your thoughts on that. And one of them was the whole question of interoperability with U.S. technology. And then the other was protection of information. And I'd love to get your thoughts on that as we talk about sort of the next, third-generation cooperation.

Min. Kang: Before interoperability, the third-generation partnership, joint research and development will be very important. Of course, so far the source of Korean technologies is from the U.S., and especially in the defense and military technologies are a very good example – through our second and first generation, through trade, and our cooperation with the U.S. So many of our defense industries and our government agencies were able to grow. And I don't think there's a huge problem in terms of interoperability because of those background. And when we develop and research new technologies, if we can do joint research together then there won't be any problems regarding interoperability going forward.

But if we independently do our own research, develop our weapon systems and operate them, the ROK-U.S. alliance and our combined exercise and operations will have to come up yet another time to invest into

interoperability. So given that we need to have that in mind, that we need to work together in terms of joint development joint R&D, joint production. And there are many technologies very advanced in the civil sector. And if militaries can use that, that will help with the interoperability aspect of the problem.

The thing that I'm pretty concerned about is that also – which was also mentioned during yesterday's session – is that the U.S. thinks that it's not so effective in investing in those technologies. We talked about 2.75 LOGIR, which is a low-level technology. But depending on the situation, it can be a very effective missile. We started out as a joint production goal, but the U.S. withdrew and the ROK continued on with that. But if we can, like, work on these weapon systems together, that'll be very effective, if we have stuff together. And then we are talking about large armored vehicles and other weapon systems. We can think about that.

And when we do the research and development in Korea, we can consider the options of using U.S. SMEs. And if they can participate in Korea's R&D Korea will have a bigger market and U.S. will tap into Korea's technology. And that – source technologies will provide more effective strategy for the United States. And if we can develop further, then it'll open up more opportunities for us to work together in the future as well. And we can respond to threats better together in the future.

Dr. Cha: If I could, could I ask you about – before we open to the floor – just two of the things that I took note of in General Brown's remarks, I'd love to get your comments on. Again, in terms of avenues for getting to third-generation cooperation. And one of them is the challenge of cybersecurity. And then the other is export licensing agreements

Min. Kang: Not just joint research between the two countries, but the biggest topic between the two countries is cybersecurity, in terms of our research. Thankfully, thanks to the recommendations from the U.S., in 2014 Korea passed a bill to protect the technology security. So we have some sort of footing to protect our security of technology. And especially when we're doing the combined operations exercise we can tap into each other's technologies and we can operate together without worrying too much about security right now, although that's a big issue.

Right now U.S. has a risk management framework and has experienced many developments. And Korea is also trying to respond to that through some joint taskforce team type of thing. In terms of cyber and cybersecurity sector, it is one of our biggest issues as well. And I hope that there'll be a huge collaboration between the two countries to see bigger advances in this sector.

Dr. Cha: And export licensing agreements?

Min. Kang: Regarding export licensing, I think I know what it generally asks for. So DAPA has been doing a lot of export and increase, and then soon maybe you're worried about our reckless export. But I think rest assured that's not going to happen. When we export our technologies and weapons we do not ever not miss out and leave out security related aspects. When we export our technologies, all the government agencies talk about it and discuss. And under our own system, that was also set up by the recommendations of the U.S. side.

And we think about whether this export will either undermine the world peace and security and also if this valuable technology – whether it has possibility of being abused by the adversaries and bad actors, and if there is any bad factors for our national security. We consider all this before we decide on export. And when we do the actual export, we require necessary measures on the other side. And we have all the necessary tools and devices in place.

Dr. Cha: Thank you. General Brown, did you want to – did you have anything you wanted to comment on, on what the minister said?

Gen. Brown: Well, I agree with it all. Just to reinforce, you know, there'll never be enough research and development money. And what limited amounts there are, I think our only chance at really advancing together is through the generation three level effort. It's very – I've learned recently – I didn't pay that much attention to this when I was serving. But I learned more recently it's very difficult for industry – used to spend a lot more on research and development. And their amounts have come down a lot. And we have no hope at true interoperability without sharing in that research and development together.

There will always be – interoperability has different aspects. On the one hand, the equipment will never be perfect. Even if it's developed jointly, there'll always be issues with the equipment. But you can work through it. We stand a greater chance at interoperability when you do R&D together and you get involved early together. The human-to-human aspect to interoperability is a huge strength in ROK-U.S., obviously. And that can continue to grow. So I think – and cyber is a great example, you know, where we should be doing more together. But again, there are those that – there are risks in doing that, and there are those who will say it's too much of a risk and want to keep a close hold. But you gain much more working together.

Dr. Cha: Great. Thank you. OK. Wonderful discussion. I'd like to open the floor now for any questions or comments people might have. I'm told that there is a

mic that's set up over on this side. So you can just come up to the mic, or you can just shout from your chair. (Laughter.) We'd prefer the mic, I think. Yeah.

Gen. Brown: We answered all the questions. (Laughter.)

Dr. Cha: Yes, please.

Q: (Off mic.)

Dr. Cha: I think if you go to the mic so that the recording can hear you.

Q: Thank you so much. So good afternoon and, again, thank you for your wonderful and insightful comments.

One question I had for the general was the question about the training and the cooperation efforts that we need to continue. Based on your overwhelming experience, what are some positives that you have seen that would be a good use case for the continued cooperation between the ROK and the U.S.? Whether it may be to NATO, or specific sharing of information through the combatant commands?

Gen. Brown: You know, thanks. Great question.

There are a lot of examples of individually countries developing some of these, but the ability to train and share together the better. But I think what we're starting to see is – for example, we have an effort in the United States, it's called the synthetic training environment, that we're working in. And it goes from where you used to have to have a big structure, bring people in, to replicate an environment, to where they actually wear – like in goggles – they wear it, and it's portable, and they can use it in – really started by Secretary Mattis when he was secretary of defense. And that you could go through with a soldier, for example, hundreds of experiences and examples.

Well, that would be the – you know, before actually having to do anything for real. You could be in a jungle scenario, desert scenario. That's the type of example that would be very valuable if we could – if the synthetic training environment, jointly working with a ROK military, where you could have great participation and really be able to do what you need to do, short of the live fire, and train at the level you need, that level of expertise. Very, very complicated, where you could do a lot more. We don't want to develop it just U.S. It should be exportable to allies. And involvement early would have been a great thing. It still can happen. But it's a little more difficult because it didn't start from the beginning. But that would be an example of the type of technology that could help.

There are others out there. And I think the key would be early, what is needed, and the input with ROK military and U.S. military to industry, and industry helping develop. There are solutions out there, like that synthetic training environment. The majority – all of those solutions came from industry, not government efforts, and the technology from industry. And there are things that are being used in the gaming world, for example, that are very useful in other technologies to help with training, et cetera. So that – if we could get folks together and work that, it would be an even better project, could benefit all, and help maintain a safe and secure region, which of course leads to greater prosperity, and what we all want – a free and open Indo-Pacific.

Q: Thank you, sir.

Dr. Cha: Other questions?

Q: General Brown, Minister Kang, thank you so much for this invigorating discussion. I'm a senior fellow here at CSIS, in the strategic technologies program, and also my day job is a telecom security, communications security attorney.

One of the things we talked about yesterday – and this may be my own myopic focus on the communications sector, but it really does strike me that at the heart of this third-generation partnership is the communications infrastructure that undergirds not just the commercial sector, but future warfighting efforts. Outside the cyber realm, which is one part of that, even in the physical battlefield further warfighters will be operating in a 5G and then later in a 6G environment. So I'd just love to hear your – given the incredible depth of the – of the collaboration in the commercial communications sector – we talked a lot about Samsung here, one of the major players in the world – between the U.S. and its allies, especially Korea, in 5G and later 6G technologies. What lessons can we learn from that commercial collaboration that can be applied to deepen the defense alliance?

Min. Kang: I think it was May last year when the two presidents had a summit in D.C. The biggest takeaway and achievement I believe was – even though many people talk about lifting the revised missile guidance, which was a solely achievement based upon our ironclad trust in the alliance. However, there was another big achievement, which was that the two leaders agreed to cooperate on 5G. In the warfare environment, communication plays and will play an even greater important role. And it will go into an even different dimension, as amount and quality of data can be exchanged if that becomes a reality. And it is confined to a certain unit – military unit. However, things develop so rapidly so much that all different soldiers can exchange data in a real-time basis and can be implemented, whether it is in the air, or on the land, or at sea.

Furthermore, if we add robotics that is so deeply down-to-earth implemented that even soldiers can use it, and it becomes an integral part of the warfare environment. And this is possible only through solely application of communication. And the warfare capability will be so different, and high and far, beyond and above the current level. So the game-changer will be communications. So related to that, going toward 5G and 6G is a must, as the goes properly. Samsung and other commercial entities, they have top-notch technology in certain areas in the domain of communication.

But China and other worrisome entities are making rapid progress and pouring lots of money. They have some serious possibility of advancing and even overcoming some of our speed. And if we have current offerings that you can tap into right now, I think the U.S. has every reason to tap into that to be better prepared for the future warfare scenario.

Gen. Brown: I'll add to that, first using an example going back to when I was much younger, when I had hair and it wasn't gray. (Laughter.) When I was fortunate enough to command the first kind of unit – the most digitally capable unit in the United States Army, the Striker Brigade, way back in 2002. And we – for the first time ever, we had a network where I could talk to all 5,000 and see 310 striker vehicles wherever they were. And I had a problem in combat that no one had ever had before.

I would have something happen in combat, and I would have too many people respond – a fantastic thing. In the past, something would happen and people would be isolated for hours, just waiting, nobody knowing what's happening here. Because we could see – we had a network, we could see the vehicles, we could see where the enemy was, you populate, have a – you know, we actually – would have to say, you go do something, you go do – I'm going to have too many people respond, which is a very good thing.

So that network – the network is critical. Working together would be a key to that network, because as we just – we talked earlier, you're not going to do anything alone. And the challenge we have now, we have literally hundreds of thousands of networks that can't talk to each other, even within a service, like the Army. There's certain areas – you know, data can't be shared rapidly between an aircraft and the ground, let's say a helicopter and the ground, in some cases. Can't be shared, let alone between the services, where you have to share between Navy, Marines, Air Force, Army, cyber, space. You have to share that information rapidly.

So the network is critical. There'll never be a network that's absolutely 100 percent perfect and foolproof, but the best chance of a network that will help enable great – or, multinational cooperation and rapid and fast decisions – the speed of decisions – will require that network to – you know, to make

decisions faster than your adversary will be key. Best chance of that is working together. However, there are those walls of the policy and, you know, lack of sharing that causes an issue. But if we could work together on that, it's our greatest chance of a network that truly will do what we need. I have a little bit of concern that in some cases the United States will go so fast and have a network where none of our allies and partners can join it. And that's not effective either. So we have to always keep that in mind.

Dr. Cha: Great. Thank you.

I think we have one more question, so, please, yeah.

Q: (Through interpreter.) Thank you so much for giving me the opportunity, Dr. Cha.

My question goes to Dr. Brown. As you served as the commanding general of the U.S. Army Pacific, I would like to pay my tribute to your successful, excellent leadership. And in that regard, I would like to ask you one question. As you are well-aware, in the Pacific area is such that it plays a significant role in many different regards. And we kept talking about the third-generation defense cooperation. When we zoom in on that area, what is the area you see where our two nations can make in-roads between our two defense industries? Which nations come on top in terms of the candidates? If you can maybe recall your experience, and maybe even current capacity as the leader of the Association of U.S. Army. What are those nations where we will be most advanced in terms of the possible success in gaining in-roads into those areas, rather the nations? Thank you.

Gen. Brown: Thank you. Just as we had planned, we worked together. So you can pick up your check for those comments on my leadership afterwards. (Laughter.) Just kidding. But it was my honor to work together while serving in the Pacific.

Great question. One of the advantages that, you know, for a free and open Pacific are the relationships. We don't have a NATO-like structure in the Pacific. And that's a very effective – we know what NATO does in Europe is so key. Unfortunately, we don't have that. However, for the U.S. we have five of our seven allies, partners are in the Indo-Pacific region, with Japan, Korea, the Philippines, Thailand, and Australia. And you look at, you know, very, very important allies working together. And the more we can do together, and we see that. Fortunately, on the peninsula every exercise you will see at least 15 nations there working together, sometimes up to 20-plus.

So that's a key advantage. Partners as well. They may not be allies, but partners that are out there are very – and it's a huge advantage. Because when you look some of those folks that would do our nations harm – North

Korea for example – they don't have allies and partners. Maybe China in some ways, OK, you could argue. China doesn't have great allies and partners. We have – so those allies and partners are key to strengthen. Of those, you know, one area I think is critical for maintaining the security on the Korean Peninsula and growth beyond is the partnership with Japan – needs to strengthen with Japan, Korea, U.S., Australia, India, and I could name several others. But those – you know, those are really key.

And I know there are historic challenges, some of the history. I understand that. But I take great confidence in when we – tensions were very high in 2017, and Kim Jong-un was really acting up. And I think we came as close to conflict as we have in my lifetime. And Japan, and Korea, the U.S. were working so closely together to prevent that. And it gave me great confidence that we can work through those historical challenges. But it is about allies and partners working together. It is a strength, and we must build on that. It gets to, again, with the industry involved and partnering, that is a key to success. So thanks for that question. Appreciate it. And again, honored to work with you, serve with you.

Dr. Cha: Thank you. So this concludes the panel. If you could show your appreciation to our two speakers that would be great. (Applause.)

And I'll turn it back to Cynthia to close us out.

Dr. Cook: Thank you, Dr. Cha, Minister Kang, and General Brown. I really appreciate this wonderful discussion, really inspiring vision of close collaboration. I think, from my perspective, next time we should talk about specific steps on how we strengthen the industrial collaboration between the two nations, and how we move forward into some, as-yet-to-be-defined, fourth generation of partnership, where we don't even have to think about it anymore. It's all – it's all solved. (Laughter.)

So thank you all for your participation today. Please join us for a short coffee break out in the lobby, and then those who are able to stay for lunch can reconvene in here. Thank you very much. (Applause.)

(END)