Secretary Mark Esper: Well, good morning, everyone. And, Bill, thank you for that very kind introduction. I’ve had the privilege of knowing you for many, many years now.

And John Hamre, so good to see you again. I’ve known John since, boy, late ‘90s, when I was on the Hill and he was – you were running CSIS then as well, as I recall, and we’ve had a lot of – many years together conversations. He’s a great friend, a mentor in many ways. So I appreciate your service to our country as well, so thank you.

Thanks also to C(S)IS and Kathleen for hosting this important discussion. This is now the third year in a row I’ve had the opportunity to speak here. It’s always great.

The theme of this year’s Global Security Forum is timely, as emerging technologies will fundamentally transform the character of warfare in years to come. This is not a new phenomenon, however. Our history is replete with examples of the momentous impact of technological change and advancement on warfare. In fact, we are approaching the 100th anniversary of one such time, namely the experiment that ultimately led to the creation of the United States Air Force.

As we all know, after World War I Brigadier General Billy Mitchell, one of the earliest proponents of airpower, convinced Congress to test whether aircraft could effectively bomb ships at sea. His unit successfully demonstrated that they could by easily sinking a captured German battleship. General Mitchell’s continued advocacy for airpower despite years of resistance from his superiors ultimately changed the future of warfare.

A decade after his death, the United States made the U.S. Air Force an independent service. Nearly a century after his bold experiment, we are reminded of General Mitchell’s foresight as we stand up the United States Space Force, a force that will ensure America’s dominance in the newest warfighting domain.

Now, with each generation come new transformational technologies. History has taught us that those who are first to harness such innovation often gain a decisive advantage on the battlefield for the many years that follow. The National Defense Strategy helps us to do just that as it guides our efforts to develop new capabilities and adapt the force to a security environment shaped by new threats from our strategic competitors. The NDS prioritizes China first and Russia second in this era of great-power competition. Both of these revisionist powers, as we know, are trying to use emerging technologies to alter the landscape of power and reshape the world in their favor, and often at the expense of others.

Beijing, for example, is combining direct state investment, forced technology transfer, and intellectual property theft to narrow the gap between U.S. and Chinese equipment and weapons systems, while also developing the asymmetric capabilities to counter our strengths. Indeed, the Chinese government is using its diplomatic, military, and economic power to advance its aims in ways that are heavy-handed, often threatening, and usually contrary to international rules and norms.
As we speak, the Communist Party of China is using artificial intelligence to repress Muslim minority communities and pro-democracy demonstrators. In fact, the party has constructed a 21st-century surveillance state with unprecedented abilities to censor speech and infringe upon basic human rights. George Orwell would be proud. Now it is exporting its facial-recognition software and monitoring systems abroad.

Equally troubling is the manner in which it has acquired much of this technology. Beijing is determined to obtain and exploit American intellectual property and knowhow at any cost. Since 2018 the Justice Department has filed charges against Chinese nationals and entities in at least seven separate economic espionage cases, including a conspiracy to steal trade secrets from a major U.S. semiconductor maker. Over the same time period, the department has secured convictions and guilty pleas in at least six China-related espionage cases.

These examples just scratch the surface. In recent years the Department of Defense and its industry partners have been under continuous cyber siege by Chinese hackers. American universities and colleges have also become a prime target of Chinese espionage and exploitation efforts. In July a part-time professor at the University of California Los Angeles was found guilty of attempting to illegally export semiconductor chips with missile applications to China. And last year the Justice Department indicted a University of Kansas researcher on fraud charges for conducting federally funded research while concealing that he was also working full time for a Chinese university. And on January 15th, it was revealed that this individual is part of a larger Chinese effort to recruit researchers and professors at American colleges and universities.

Other types of nefarious Chinese government activities have occurred at leading academic institutions around the country. Despite widespread outreach, however, Beijing shows few, if any, signs of changing its ways. Rather, the government has recently passed new legislation that tightens its grip over any data that flows across its networks, including access to the confidential information of U.S. corporations.

Addressing these threats requires us to rally the country behind our strategic competition with China and to take a whole-of-nation approach to the problem. Our success is contingent upon a cohesive strategy across public and private sectors. For the Department of Defense, this means overhauling our policies and reshaping the culture within the department, between the Pentagon and industry, and indeed, among our allies and partners around the world.

There are some immediate steps we are taking now. First, investing in the cutting-edge technologies of tomorrow will require DOD to make tough choices today. To ensure our finite resources advance our highest NDS priorities and make the most of every taxpayer dollar, we are divesting from legacy systems and lower-priority activities.

At the same time, we are implementing aggressive reforms to free up time, money and manpower in all that we do. This will continue in the FY 2021 budget. One of the ways we are doing this is through the defense-wide review, which was launched the week after I was confirmed. In just four months of work, we focused on reforming the fourth estate, and we saved over $5 billion. We will use these savings to drive progress on critical technologies like artificial intelligence and
hypersonic missiles. Second, a strong relationship between the department and the private sector is another imperative to maintaining and expanding our competitive edge.

While the Pentagon continues to support cutting-edge innovation through government-funded research and development, we need to be fast followers of the commercial sector. It is the private sector that is leading on many fronts such as cloud computing and machine learning.

Beijing recognizes this as well and continues to acquire U.S. technology through foreign investment, corporate acquisition, forced tech transfer, and other means. U.S. companies have unwittingly – or in some cases, tacitly – transferred IP control or made other compromises to the Chinese government in their pursuit of market access, low-cost manufacturing, or other gains.

When I meet and speak with CEOs, many of them now recognize the mistakes that were made. They are altering their strategies and adopting their approaches, adapting their operations to protect their companies and to help safeguard the United States. Many are now putting national security first. They are working alongside DOD to protect American innovation and our leadership in critical fields.

At the Pentagon, we also acknowledge that we have changes to make. There are things we must do in order to work more closely with our nation’s innovators to become a better customer and to partner in more effective ways. That is why we are implementing the most significant acquisition reform in years. Doing so will make it easier for companies of all sizes and sectors to do business with the department while enabling the Pentagon’s leadership to more readily identify and provide the advanced solutions our warfighters need.

I’d like to touch briefly on some of our highest priority technologies. First of all, there has been a lot of media attention on 5G, and for good reason: 5G offers the potential of lightning fast, voluminous, and ubiquitous connectivity.

China understands this, and that’s why I have warned our allies and partners against allowing Chinese firms to put their security of their networks at risk with attractive, low-cost solutions. Doing so jeopardizes our military interoperability and intelligence sharing, and by extension, our partnerships.

To counter this, we are encouraging allied and U.S. tech companies to develop alternative 5G solutions and for our respective governments to do everything we can to enable their success. For its part, the Department of Defense recently launched a major initiative to accelerate U.S. 5G activity through collaborative experimentation with industry at four military bases around the country.

A second priority is long-range fires. Winning future conflicts requires us to stay ahead of our competitors’ growing anti-axis, aerial denial capabilities, which is why the joint force is developing capabilities that improve our lethality with greater speed at greater ranges.

The department nearly doubled its long-term investment, almost 5 billion (dollars) more in FY 2020 for hypersonic weapons alone over the next five years. And our FY 2021 budget will be even stronger.
We have significantly ramped up flight testing and other experimentation so that we can accelerate the delivery of this capability, in all its forms, to our warfighters years earlier than previously planned. On a similar front, the NDS recognizes the rapidly evolving missile threats we face. While we continue to expand our conventional missile defense capabilities, we are also investing in advanced technologies, including the development of new sensors, interceptors, and advanced command and control systems to defend against hypersonics. And to ensure future dominance, we must not only generate the game-changing technologies first, we must also effectively deploy them.

Take artificial intelligence, another priority technology. We stood up the Joint Artificial Intelligence Center, the JAIC as we call it, to integrate the power of AI across the many levels of the department. Our goal is to get the war fighter into the cloud to pull our vast streams of data and to deliver AI capability out to the tactical edge as soon as possible. The JAIC not only plays a leading role in modernizing our war fighting systems, cultivating a premier workforce, and strengthening our partnerships across the sector, but it is also developing principles for the lawful and ethical use of AI.

Each of the technologies I mentioned has a cross-cutting impact on multiple war fighting domains, but the greatest concentration may be in our newest one, space. For the first time in 70 years, we have taken the historic step of creating a brand new military service, one that will fully leverage the incredible success of the private sector companies that are engaged in space. The United States Space Force promises to be another incubator for a whole new generation of advanced technologies, much like NASA was a breeding ground for a wide array of high-tech breakthroughs in the 20th century.

Last week General John Raymond was sworn in as the first chief of space operations. His leadership, along with Air Force Secretary Barrett’s, will be instrumental in fully standing up the service and preserving America’s military superiority for decades to come. Just like many other things of great import, dominance in space will require a whole of government approach to maintain U.S. technological superiority and leadership. That means we must out-compete, out-innovate, and out-hustle everyone else. We have a solid history of doing so, and we are in a strong position going forward with our largest R&D budget in 70 years.

But all this is still not enough. We must also safeguard America’s innovators, its companies, and our supply chains. Simply put, we must also be better at defense. That is why we are strengthening our foreign investment laws, our export controls, and our cyber defenses. Our allies and partners are beginning to take similar actions. Them doing so will be critical to our collective success.

Finally, across the force, we’re working to shed our risk-averse culture and establish an ecosystem where experimentation is incentivized, and innovation is rewarded. We need a new generation of brilliant iconoclasts like General Billy Mitchell, innovators willing to challenge the status quo and conventional wisdom. And we need forums such as these to unite government, academia, and the private sector in pursuit of common goals.
Together we must demonstrate to the world that America is the global leader in the responsible development, deployment, and employment of game-changing technologies. Unlike our adversaries, we will use these capabilities to keep the peace, to promote prosperity, to ensure security, to protect sovereignty, and to defend the international rules and norms that served us all well for decades. By doing so, the United States will, I believe, remain the responsible, values-based, global partner of choice for many, many more years to come.

Thank you for your time and I look forward to our discussion. (Applause.)

Kathleen H. Hicks: Well, thank you so much, Secretary Esper, for coming. As you said, you’ve been very kind as secretary of the Army to be here several times. And it’s a delight to have you here as secretary of defense. Before we get into the meat of the discussion, let’s get one top of the – you know, top of the – front-page issue resolved or covered. There’s been back and forth between the department and press on injuries in Iraq. Can you just – this seems like a brushfire that need not continue. Can you just talk a little bit about the degree to which the Pentagon is open to sharing information with the public about injuries sustained in Iraq during the Iranian missile strike?

Secretary Mark Esper: Well, we’re fully committed to being transparent about what happens, but we need to make sure we’re accurate and that we categorize things properly. And that’s our commitment. And it’s not just Iraq, it’s wherever troops are engaged. And that’s our commitment.

Kathleen H. Hicks: Very good. Right on topic of what we are talking about here today, and even in your comments particularly with regard to 5G, there was a piece in The Wall Street Journal today, talked about the Commerce Department withdrawing some proposed rules that they were considering because the Pentagon pointed out – this is as the story goes – that there were some risks to U.S. industry of making hard rules for the United States’ companies to be able to do business with Huawei. This is right at the heart of this intersection of national security interests and how we make sure we have an ecosystem of innovation. Can you talk a little bit about how you’re thinking about weighing these pieces together and the role of DOD both as a driver of or expressing the need for innovation, but also having to worry on the defense side, if you will, about our security?

Secretary Mark Esper: Yeah, no, sure. Look, I’ve been working these issues for 20-plus years and they’re never black and white. So you have to be very conscious of not just your first-order effect – that’s the easy thing – it’s the second- and third-order effects. And so we got to weigh those out very carefully.

As I said, we have to play a strong offense. That includes increased R&D. That includes, you know, better IP policies, as we were talking about beforehand. But it also means a strong defense, whether it’s export controls and other defensive measures that we can take to ensure that our technology is protected. But we also have to be conscious of sustaining those companies’ supply chains and those innovators.

So that’s the balance we have to strike. There’s always a good interagency process that debates that back and forth. And I think more often than not we get it right.
Kathleen H. Hicks: You talked about creating a – I think you used the term, you know, kind of ecosystem of innovation or culture of innovation. What do you think your best levers are as secretary within your own department to try to drive that? Who are you leaning on to help you do that? And what’s appropriate for top-down versus bottom-up?

Secretary Mark Esper: Well, you know, the levers, of course, are money and policy and regulations and directives and things like that. Those are – those are easy to do. And then there are the innovative things that the services are doing. So for example, Air Force in the last couple years has adopted the so-called pitch day where innovators/entrepreneurs can come in and pitch ideas and topics and maybe get some money on the spot. The Army has done the same thing with Futures Command and its version of the shark tank and whatnot. So the services are experimenting. That’s good and we encourage that.

But the thing we really got to get at – and it takes time; it’s the most – it’s probably the most difficult part, the hardest to change – and that’s culture. You have to get to culture, right, so that folks in DOD, military and civilian alike, are willing to kind of put money down on something that may not be 100 percent or 90 percent or 80 percent. You got to be able to take some risk and you got to be able to accept some failure. You don’t want epic failure, but it has to be – it has to be thought out. We don’t live in a risk-free world, and so you have to manage that piece.

So to me the hardest part is culture. That will take time. And the test will really come when something fails, and it fails not because of, you know, poor judgment or bad decisions, it fails because either the technology wasn’t ready or it wasn’t designed properly and we just need to keep experimenting, and if we don’t overreact to that; we allow people to test and fail. That’s the cycle we were trying to do in the Army, where you test, you fail; you test again, you succeed a little bit more; you test again, you succeed a lot; until you get it right. It has to be iterative. And so I think we have to work at the culture at the end of the day.

Kathleen H. Hicks: As a former service secretary in even those examples you’re giving there’s a lot of value in the competition of ideas that can happen from that bottom-up. But there is also this concern on the joint piece of it, and now you’re sitting as secretary of defense. How much effort or emphasis do you think there needs to be on anything like joint concepts, pushes on the joint side for experimentations out in the field, the role of the Joint Staff and OSD in terms of thinking about the future joint warfighter as opposed to today?

Secretary Mark Esper: Right. Well, you know, I’ll give you the standard answer: It depends. (Laughter.)

You know, one of the things I set out when I – when I sat down as secretary of defense is we mapped out 10 or so goals we wanted to accomplish. One of the first things we need to do is to develop a new joint warfighting concept. And so now the Joint Chiefs of Staff is busily working on that. I get updates every several weeks. But you have to have that joint warfare concept, how we will fight in the future not only across three domains but five now – it’s air, land, and sea, space, and cyberspace – and so that you’re taking everything in. That will guide a lot of how we approach things in different technologies.
Take hypersonics, for example, something I mentioned. Heather Wilson, Richard Spencer, and I worked hard to get the services working together.

Kathleen H. Hicks: Right.

Secretary Mark Esper: And that resulted in, you know, an acceleration of our efforts. So now you have each of the services have a couple programs each on hypersonics and they're moving forward fairly well. And we're trying to do that across a number of other fields.

When joint approaches make sense, we should pursue them. When they don't, we should allow the services to advance on their own timeline. And we just need to think through it.

To kind of go again with one hard, fast rule, black or white, I think is too simplistic. We just got to think through what makes most sense and encourage cooperation at a minimum.

Kathleen H. Hicks: Yeah. Staying on hypersonic systems, obviously, we know the Russians have – Putin has displayed his interest in hypersonic missiles. The Chinese, openly reported, have been testing. What's your – your former negotiations policy, DASD. What's your sense of whether there's a new arms race underway and whether there is any set of incentives that could bring a slowdown or a pause in this acquisition approach from all three of these countries?

Secretary Mark Esper: Well, hypersonics are just another weapons system, right? They have unique features. So I don't see an arms race, per se. When I think of arms race I think of the Cold War, which I grew up in. I don't think we're looking at anything like that.

But we are always competing against the next generation of weapons systems and this is one of them. The United States broke – you know, had the early breakthroughs in this field, and now we need to double down on that and accelerate our efforts. So I don't see an arms race. I think it's another arrow in our quiver that we need to have and we need to develop and modify, and based on the needs of the combatant commanders we will deploy them, you know, in close consultation with our allies and partners to make sure we have that technology available to us.

Kathleen H. Hicks: Well, maybe just broadening out, then, as you sit down with allies and you talk about concerns in their regions or collectively for the global concerns, to what extent are some of these emerging areas – biotech, too, as you've mentioned; hypersonic systems; space – to what extent are those conversations starting to revolve around setting our own rules and norms of behavior?

Secretary Mark Esper: You know, it depends on the technology. Obviously, for good reason there's a lot of concern about AI – how it would be used, what it could do, what it cannot do – and we need to have a thoughtful discussion on that. We've begun that within the department Is the – you know, the ethical use of AI going forward.

It depends on the weapons system. In some cases we have rules and norms. In some cases we have treaties governing some of these things. So I think we need to look at them case by case and make sure we understand what the impacts are.
But again, at the end of the day my goal is to make sure we have overwhelming overmatch in any number of areas so that we can prevent war, so we can keep the peace, and God forbid if war ensues that we can bring home as many young American men and women possible safe and, you know, remain victorious at the end of the day. So giving – having peace through strength, as we know, having those capabilities allows us to deter war and actually preserve the peace.

Kathleen H. Hicks: Kind of going back into the department, you mentioned acquisition reform and the work that you have had underway. You talked about it in sort of a – you know, a generational level of acquisition reform. Can you talk about some of key elements that you think are going to be really meaningful to spurring innovation on the U.S. side?

Secretary Mark Esper: Sure. I mean, we talked about – I mentioned we have – we were publishing a new acquisition regulation. It’s the first time in many, many years to do so. We’ve had a lot of good support from Capitol Hill with regard to new authorities. So we’re taking great advantage of the middle-tier acquisition authorities, all those things that encourage us to prototype and develop at a much quicker pace.

Within the department we have – have/are updating our intellectual property rules. I think that’s very important. You know, for any company it’s – your IP are your crown jewels. And so we wanted to take a more customer-friendly approach, corporate-friendly approach to that, and really think through how do we – what is our IP approach in any type of acquisition or development, and have that negotiation upfront. In some cases we will want your IP, in some – and we’ll – and we’ll have to, you know, compensate for that. In some cases it won’t be important to us.

So we have to have those discussions. But those are two or three areas alone that we’re trying to really capitalize on. And like I said, you know, the services are making their own approaches to really draw in those young innovators, those entrepreneurs who have cutting-edge ideas and they just need a little bit of seed money to develop them. And I think finding those people will be really key to the future.

Kathleen H. Hicks: Do we have the acquisition workforce that we need to help us on that journey – the contract officers who are thinking flexibly, the training in place, and the numbers?

Secretary Mark Esper: Yeah. We have great people. It’s a matter of constantly, you know, updating them and making sure they have the skills that are needed for this era. And it’s not just technology; they got to understand what the legislative authorities are. If you’re a contracting officer, you got to understand what our IP policy is so you can contract properly.

It’s a team approach. In the Army we tried to approach it by doing – by organizing a cross-functional team so that all the right people were in those negotiations talking and contributing so you get all that upfront rather than, you know, in sequence down the line, which tended to draw out the process.

So nurturing that workforce, making sure they get out, they’re – you know, they advance their own degrees, they have interaction with corporate America, with
companies and whatnot, it helps really improve the workforce. But you've got to stay up to date, and that's our responsibility to do that.

Kathleen H. Hicks: And you know, you talked quite a bit about partnerships – partnerships with academia, partnerships with industry. Of course, you have a background in all of that. What are you doing – you have predecessors who created DIUx, or different methods they were pursuing. How are you building into the DOD system that reach out to those partners that create a whole-of-nation approach on innovation?

Secretary Mark Esper: Sure. Well, you're right. Some of my predecessors had some very good ideas and were trying to advance them. I mean, we've – obviously DIU is out there. Army has the Futures Command. The Air Force is doing its thing. We have the JAIC, which is a new development in the last year or so that we're pursuing. And I try to do a lot of personal outreach to CEOs. So I've had any number of sessions with groups of CEOs and individuals where we talk about technology. What can we do better as DOD to be more customer friendly? And all those things.

You got to maintain a dialogue. It's a partnership. We can't keep them at arm's length – “them” being the private sector and our companies. It's a partnership. It's framed by the contracting that we eventually do with them. But you got to work together. What we need them is to help us think through solutions, not just – not just meet a laundry list of requirements. Help us think through the solutions. They know what's on the drawing board. Their technologies in many cases are far more advanced than we would be thinking about these days as well. So we have to leverage that in a very constructive way.

Kathleen H. Hicks: Are you hearing concerns from their end, or even from inside the department, around the STEM workforce of the future, or other skillsets – key skillsets that we need to make sure the United States is nurturing?

Secretary Mark Esper: Not as much about the workforce side. I mean, it's – like I said, we have to continue to keep our workforce updated in terms of professional skills and knowledge, and whatnot. Their concern, “their” being companies, is always the speed of our bureaucracy. It's too slow, it's too late, too rigid, things like that. And those are all fair assessments. We just got to do better. But it takes time. There are bright spots out there in each of the services and in DOD acquisition. And we just need to promote those folks, those initiatives, and make sure that we're showing the right example. We're showing what good looks like.

Kathleen H. Hicks: Congress obviously has to be on board. You mentioned that there have been some divestments to make room for new investment. You mentioned that the '21 budget that we hope to see in a month – less than a month will have some of the same. Congress is obviously an important partner in making sure you can do that. Do you think there's been a good relationship with and understanding on the Hill about those needs, to create the space?

Secretary Mark Esper: For reform?

Kathleen H. Hicks: To create the space for new investment through divestment of legacy systems?

Secretary Mark Esper: Yeah. I think many members do, particularly those on the defense committees. They understand what we have to do. I've been telling the Pentagon now for two
and a half years that our budgets aren’t going to get any better. They are where they are. And so we have to be much better stewards of the taxpayer’s dollar. And that means, like I said, divesting of legacy things, divesting of things that don’t deliver a high ROI, if you will, relative to others. And, you know, Congress is fully behind that. But then there’s that moment in time when it hits their backyard. And you have to work your way through that.

But we have to make that – we have to make that leap. We’re at this moment in time where we have a new strategy, a very good strategy, the NDS. We have a lot of support from Congress. And we have to make this – we have to bridge this gap now between what was Cold War-era systems and the – and the counterinsurgency, low-intensity fight of the last 18 years, and make this leap into great-power competition with Russia and China, China principally. And that requires, again, a whole new way of thinking, new war fighting concepts, and new technologies. And we’ve outlined what those are. And then make that leap. And it’s going to be hard. And change is tough. And most people don’t like to change. But we have to do it if we’re going to be successful in the future.

Kathleen H. Hicks: The National Security Strategy, not the NDS, the National Security Strategy talked about something at the time called national security innovation base. Is that the right way to think about the – at the broader U.S. government level and whole-of-society level how we should be moving forward? And if so, what progress has been made on that?

Secretary Mark Esper: I think – I think that base is very broad. And you can’t – it’s not just big companies. It’s large companies, medium companies, small companies. It’s the young entrepreneurs right now that are tinkering away in a garage somewhere. We have to find all them. But it’s also our global partners. And we have a lot of great companies off our shoulders who do good work for DOD and have good systems. And we need to encourage all that and buy the best systems that we can for our war fighters. So I think that base is very large. We have to nurture it.

One of the things I’m concerned about, I think we talked about beforehand, is competition. We’ve got to have more than two companies or three companies competing in any one field, whether it’s, you know, radars or missiles, or, you know, artillery systems. You have to have a lot of competition. Competition drives down price and drives up performance. And so if we lose that competition, that’s what concerns me in the long run.

Kathleen H. Hicks: So this gets to overall the health of the defense industrial base and the degree to which it’s – the commercial sector, if you will, this idea in general of commercial off-the-shelf, which we can use for lots of applications. There are some systems for DOD that are pretty specific. What is the state, in your opinion, of the defense industrial base as it relates to this more specific set of suppliers and their supply chains? And do you have folks thinking ahead to how to improve that situation?

Secretary Mark Esper: Yeah, sure. We have a lot of folks thinking about that. And, you’re right, there are some companies that do just defense work, right? I mean, not – mostly. I should say mostly defense work. And you have to be very careful with those. We have to nurture that defense base, and we have to make sure it’s there when we need it. We went through this years ago with tanks, right, armored vehicles. You don’t find
those in the private sector except for defense suppliers. But there are other technologies where companies can certainly survive with or without DOD.

So you got to be conscious of all that, but, again, for me, it’s competition. We got to be very careful of the competition. And if you’re a defense company the other factor you have is predictability – or, I should say, lack of predictability, because you have – you know, we face – we faced sequestration for many years. CRs have become commonplace, unfortunately. And that has an impact on your – on your revenue flow, if you’re a company.

And so what many companies, the same thing we want at DOD, is predictability in our funding, is what will it look like, so we can manage our programs over multiple years. When you can do that, it allows you to manage your workforce. It allows you to manage your plant better. For us, we can manage programs. We can do multiyear contracts that lowers our price and give us more quantity. All those things are important. So there’s – the need’s for predictability. And that’s what we need from Congress is that predictability.

Kathleen H. Hicks: OK. I’m going to go to the audience questions now. We have some questions related to the comments you made and are generally discussed about China and the defensive side at home, if you will. One piece of which is about students. What do you think is the right policy we should be pursuing with regard to restricting students from abroad studying in our research universities?

Secretary Mark Esper: Well, certainly for defense programs we need to know who is – who is working on our initiatives, whether it’s basic or advanced research, or wherever it goes. We need to know who they are and that they’re not witting or unwitting accomplices, if you will, in terms of technology theft. And that’s not focused on one country. It’s multiple countries. But clearly for us the biggest challenge in China, because they – you know, they have an organized government plan to acquire and steal our technology. So we need to be conscious of who’s in our schools and universities, what they’re doing, what their purpose is, and make sure we understand it. It’s just an obligation we have regardless of nationality.

Kathleen H. Hicks: Do you think there are things we can or should be doing to attract, particularly the STEM field folks who are coming from abroad to augment what we’re – what we’re growing here inside the United States, even in defense-relevant areas?

Secretary Mark Esper: Yeah. Again, I just think we have to make sure that we understand who they are, where they’re coming from, if they’re properly vetted. You know, we vet people all the time coming into the military to be a young private or a young sailor or airman. Why shouldn’t we vet those who are working on our next-generation weapon systems?

Kathleen H. Hicks: So we have a question related to commercial providers who are utility providers off-base but who support U.S. military installations – power, water, telecom. How does DOD plan to help these utilities protect their infrastructure against – well, you can – against any – this particular question is on EMP, but presuming on cyber and other issues?

Secretary Mark Esper: Yeah. Well, I – you know, that’s where it comes to whole-of-government approach. When you talk commercial sector, a lot of that’s drive by DHS and other parts of the
United States government. I mean, it is incumbent upon all of us to take proper security measures with regard to cyber. It begins with your own hygiene, if you will, by the individual users and companies. So our immediate focus is on our own systems, and then we got to think about the defense companies, the main providers. And most of the big companies have their own cybersecurity programs.

One of the things we can do and should do is share intelligence, more of it and more quickly. That will help also in terms of recognizing and then defending against threats. So again, it’s – we have weak points around the country, particularly in the private sector. And that’s where we have to get – make sure we get the laws right, the authorities right, all those things to make sure we can help those companies protect themselves.

Kathleen H. Hicks: DOD’s tightened up its rules on its contracting base with regard to cyber. Industry, I’ve heard some concern about their ability to meet those new regulations and requirements. Are you – have you been having similar kinds of conversations, or are you pretty confident that industry can get there?

Secretary Mark Esper: I have not heard that from CEOs I’ve met with. You know, I understand the challenge. But, look, companies are just as concerned as we are because it’s their – again, it’s their crown jewels. They don’t want their designs, their ideas, their technology stolen either. If that happens to them, it undermines them as much as it undermines us. So I think they’re very protective of it. What we’re trying to do is set very good standards so that we know that, should conflict happen, that our systems can’t be shut down, or used against us, or compromised in a way that would impair our effectiveness on the battlefield.

Kathleen H. Hicks: Very good. This asks a question I already asked you. Here is one. Is there a need for a JFCOM – Joint Forces Command – like organization to operationalize a truly joint operational concept that continually integrates capabilities across all domains?

Secretary Mark Esper: Yeah, my initial reaction is no. I’m allergic to more headquarters and more commands. You know, I think it’s – it has to be built into the DNA of the organizations, so to fight jointly, to fight in that type of manner.

I think we do it all the time. I just came from SOUTHCOM yesterday, down in Miami, and we think all the time about the joint force, and not just the joint force, but joint force augmented by interagency partners, and augmented by our allies and partners. So again, down when I was in SOUTHCOM yesterday, I met not just our respective component commanders from our various services, but we had several allied officers down there in our headquarters, integrated, and that’s the way we need to fight. And that’s what makes us so successful, is we have partners and allies, and not just partners and allies who show up on game day but who are with us day in, day out, working with us.

Kathleen H. Hicks: So here’s a question I’m going to paraphrase. There are some who – I do not think you are one of them, but there are some who might suppose that we can basically rely on the private sector to do the basic R&D work to create the promising technologies. This relates in some ways to your fast-follower comment that you made during your remarks.
I think there are others who would argue that DOD has a long history of being a leader in basic research. You did make the point that you have the highest percent of R&D at this point that you’ve had. Do you think that’s sustainable? And do you have a way of thinking through which areas are most important in these emerging technologies for DOD to invest itself in and where it’s OK, if you will, to be a fast follower?

Secretary Mark Esper: Sure. Well, we do invest in a lot of basic research, and it goes through our universities, private universities and colleges, but it also goes through DOD organizations. But there are clearly areas where we’re going to be a fast follower. I can tell you, during my time in the Army, we were chasing constantly the development in communications technology, and it was always getting faster, and lighter, and smaller. And those are the things you need when you are development new warfighting systems. So that’s one technology.

AI is another. Let’s say AI is one of our top 11, if you will. And so those are areas where you’ve got to be a fast follower. That said, I don’t see the private sector, on their own, developing hypersonic weapons. Nor do we want –

Kathleen H. Hicks: Knock on wood, yes. (Laughs.)

Secretary Mark Esper: Right. So those are areas where we’re going to have put money in, and we’re putting a lot of money – billions of dollars – into hypersonics to do just that.

Kathleen H. Hicks: OK. We have a couple questions on regional issues, specifically a few starting on North Korea. North Korea has claimed a new strategic weapon. How much of a threat do you see that to be – their recent launch? And how do you think it is possible, in other words, in terms of support to North Korea potentially from China, Russia that they have developed the kinds of capabilities they are now developing?

Secretary Mark Esper: Well, they have an aggressive R&D program and test program, to say the least, and we monitor it very carefully and very closely. We’re conscious of what they are trying to do. Clearly they are trying to build long-range ballistic missiles with the ability to carry a nuclear warhead, if you will, atop of it. So it’s something we’re watching very closely. It still remains to be the case that we’re pursuing a diplomatic initiative with them, and we think the best way forward is through a political agreement.

I will tell you, when I came into office two-and-a-half years ago, we were on the path to war if you will with North Korea. And, you know, the Army – everybody was preparing for a possible conflict, and I think the outreach by the president these last couple of years has really forestalled that. At this point we need to get back to the negotiating table and really figure out the best way forward to denuclearize the peninsula.

Kathleen H. Hicks: There’s also a question related to U.S.-South Korean and U.S.-Japanese relations in the context of the North Korean threat, but maybe to just tie it in, too, to the theme of the conversation today, creating the kind of market share to compete with China, to include how it affects defense innovation means that we have to have allies in the same market share with us.
How are we doing in terms of making clear that we value those alliances and how critical – and making clear to the American public how critical they are for us to compete effectively?

Secretary Mark Esper: Well, you know, line of effort number two in the National Defense Strategy says we should, you know, grow our partnerships and strengthen our allies, and I've spent a lot of time doing that. I've been to the region two or three times now; every time I meet with my counterparts in Korea and Japan. I've talked to them on the phone frequently, and then of course with other partners and allies in the region.

So we are better off, we are stronger with partners and allies who will be there with us, who have the capabilities to be there with us in time of need, and we need to continue to nurture that. We have cooperative programs, I know, with the Japanese. I've met just in the past couple weeks with the Japanese minister of defense. We talked about some of the cooperative programs we're doing today, we do a lot of arms sales between us, all those things to improve our interoperability and to make sure that we're more effective as alliance partners for that – for that future. I mean, we're – clearly, the threat in front of us is North Korea, but we all recognize that China is the long-term strategic challenge.

Kathleen H. Hicks: Are there advantages to the U.S. to having its forces forward in the region, and specifically in the Indo-Pacific?

Secretary Mark Esper: I mean, it's – the positioning is always helpful in terms of, you know, you want to be able to reassure partners and allies that you're there, committed to the region. I think we do a lot of that. We either forward-base folks or we forward-deploy as well. We're doing a lot of that. It gives you positional advantage geographically, if you will, and that's important. But we've got to make sure it's the right force at the right location. We can't be hung up by, you know, our legacy, where we've been, just because we've been there for many, many years. We've got to think forward.

And that's what I'm trying to do, is where do we need to be in the future? And so I'm spending a lot of time also cultivating new partners and allies. I've been to Vietnam. I've been to Mongolia. I met with partners from Indonesia and elsewhere. India, a very, very important country. So it's developing those relationships that'll sustain us over the long haul and help us preserve this international rules-based order that has just worked so well for all of us for many, many decades now.

Kathleen H. Hicks: Secretary Esper, those are all the questions that are relevant enough to the topic today.

Secretary Mark Esper: OK.

Kathleen H. Hicks: I really want to thank you for spending your time with us. Really, such a pleasure to have you. I hope you'll come back to CSIS again.

Please, everyone, remain seated while the secretary departs. But please join me first in a round of applause. (Applause.)

Secretary Mark Esper: Good. Thank you. (Applause.)
Kathleen H. Hicks: Thank you.

(END)