

>> Ladies and gentlemen, our first panel of the day will be EXIM and National Security: Global Competition for Critical Industries. Please welcome our moderator, Douglas Holtz-Eakin, President, American Action Forum. He's joined by General James Cartwright, United States Marine Corps; Eric Fanning, President and Chief Executive Officer, Aerospace Industries Association; Seth Grae, President and CEO, Lightbridge; and Tom Stroup, President, Satellite Industry Association.

>> Well, thank you very much for the chance to be here today. As everyone knows, the theme of the conference is the intersection of economic security and national security. I'm privileged to have a panel full of experts on both fronts, so I think we should take advantage of that expertise and I think I'd just like to start at the far end and walk down, and tell us a little bit about how you view that intersection, either from an economic point of view or a security point of view, and where the EXIM role would be most effective in pursuing those goals.

>> Well, I'm Seth Grae from Lightbridge Corporation. Nuclear power is intricately tied to national security and to economic issues. In May 2010, Russia and Turkey signed an agreement to deploy Russian reactors in Turkey, when America really was not competing on the export credit agency financing like what Russia was willing offer. Hundreds of Russian nuclear personnel and other key officials flooded into Ankara and have stayed there, in a NATO ally, ever since. And look at what's happened in Turkey since, a NATO ally, and I think that's related. And now we're seeing similar situations as there are bids in other NATO allies, the Czech Republic, in Poland, and without a quorum on the EXIM Bank board, the US can't meet the bids back and those countries may become dependent on Russia for energy. We're seeing in the UK, China offering export credit agency equity financing on condition that a Chinese reactor then be licensed in the UK and built there and then could be marketed around the world, that's been licensed and built in a major Western country. And we're looking at a pipeline of \$740 billion of new build supporting tens of thousands of American jobs, and the American vendors literally can't meet the bids back right now because we don't have a quorum on the EXIM Bank board.

>> Douglas: Tom?

>> I'm Tom Stroup with Satellite Industry Association. The Association represents commercial satellite operators, manufacturers, launch companies, and service providers. The question of the importance of national security is certainly a very important one because a significant portion of the defense traffic is carried over commercial satellites and there's a great dependence on the Earth observation capabilities of the satellite industry. This has historically been an area of dominance for the United States, and increasingly our adversaries are catching up and looking at ways of impacting our ability to communicate and utilize that capability. Just last week I

was participating in a workshop in preparation for a War Games exercise where we were looking at the capability of the commercial industry 10 years out, because it's so important to our military preparedness. So the capabilities of the industry are very important and the ability to have a strong manufacturing base and access to financing is of great importance to the industry. Just one of our members announced over the course of the last few years the loss of three substantial satellite orders because they did not have the ability to provide EXIM financing. Indeed, just yesterday I was talking to one of our member companies in the Earth observation segment and they're planning on launching another portion of their constellation and it's all being licensed through Luxembourg. And one of the reasons for choosing Luxembourg was the ability to get financing through the country. So certainly access to this is important not just to our manufacturing base but also to our operators.

>> Douglas: Eric?

>> I'm Eric Fanning, the President and CEO of the Aerospace Industries Association. We represent companies doing business in space, civil aviation, and defense. Combined, it's an economic output of \$865 billion a year. The industries have a combined trade surplus of \$86 billion a year, 2.4 million American jobs making 81% more than the national average. And if you believe, as I do, that our country's national security is tied directly to its economic security, you can see the importance of an industry that utilizes export-import. And what we've lost since we've had a quorum and been able to move through some of the larger deals, we had a previous chairman of AIA, Tom Kennedy of Raytheon, liked to say that American companies compete against foreign governments. And we see that. Just since the last quorum for EXIM, I'm told there were nine new ECAs that had been formed, that number has probably increased, there might be a new one being established while we sit here this morning. Other countries are using this mechanism effectively and we're tying our hand behind our back and not establishing a competitive global landscape that's at the detriment of American companies and American jobs. And the supply chain of these companies in my industry are all interwoven and so what's good for companies that are able to make use of EXIM is good for the entire ecosystem.

>> Let me clear up. Are there people out there?

>> No, they're bright lights, that's all.

>> Can't see a thing. They kept us in a dark room and brought us out here and.

>> They're trying to break us, so you better just tell them what they want.

>> I guess for me, I come from a slightly different perspective on the value of EXIM. One, I'm really pleased to have the opportunity to be here this morning and to thank EXIM for what they do and how they do it. Granted, there are great desires to do more and be more aggressive and get out there, but what has been done to date really has been meaningful. And for my 40 plus years in the military, there was a trend for all of the different countries that I certainly had the privilege to serve in or have people serving in. When you go into a country, a stable government is generally, the foundation for a stable government is the ability to provide energy, water, and security. That underpins effective governance, that underpins stability, that underpins the quality of life for the people that are being governed. And while the military can provide a little bit in hostile environments to start to move energy, water, security into the region, it quickly has to be picked up by agencies like USAID. But at the end of all of that is bringing in American companies and American business and American values that through EXIM, through their ability to provide quality products, our values are inculcated into that country. And it's night and day difference when you go someplace where there's nothing underpinning the government or the government is basically 100% just security and it's their own and it's really more about internal security than external. So the value brought here and the proposition and every combatant commander that's out there in every region for, certainly for my 40 plus years, the idea here was to set the conditions so that American companies could come in and raise the standard of living, focus on the things that are essential to good governance, and keep those values and have those values persist in good times and bad. And this is they key, this is the transition key that keeps it from being a shooting war to a friendly competition, to a growing economy, to a contributing partnership. And to me that's absolutely essential and this is really the key to do that. And I don't know a combatant commander in my time that didn't see it that way. This is something that's really core to how we do business.

>> So, I'm now well along as well and I can remember when I worked for George H. W. Bush and he waived the Jackson-Vanik amendments and allowed EXIM, in one of its great moments in history, to support trade with the former Soviet Republics as one by one they tried to start the path toward democracy. Is there another place on the map that you can point to today where we gotta think about that as a country?

>> Africa, for sure. Much of the work that African Command is doing is the early stages of trying to create a sustainable energy source and capability, goes to the nuclear issues, et cetera. Getting water in, the connection, the reason that we're so interested in the new advances in nuclear energy is because it handles both energy and water. Desalinization and whatnot is a nice byproduct of clean water that's available. And then getting to the issues of security so that the government can provide for their people. When there are ambiguous

borders and a lot of cross activities going on there, raiding and whatnot, it is next to impossible to get things stabilized. But getting good jobs, getting good products, getting energy, getting water sources in are the underpinnings to make that work.

>> And Seth, for your folks, what does the map look like in Africa and who are you competing with?

>> Well, I'll only start by, you know, mentioning Africa, this is a little low but. In Africa, of course, there are several countries looking at regional programs for nuclear power or individually, like South Africa and Egypt, that could be very large programs. And strategically, we don't want them entering into what could be 100-year relationships with China and Russia, depending on them for energy. And we also want to make sure that they have enough power to have the living standards they need, the water desalinization. The big markets the US are looking at now include six reactors that India has earmarked for American supply that can't be supplied right now without EXIM's support. At least \$8 billion of US content into those units. And as I mentioned, there are bids coming up now in the Czech Republic and in Poland, where the US doesn't meet the bids back either. So it's a challenging time until we get a quorum on the board here.

>> So, as part of the reauthorization, are there reforms that ought to be put into that reauthorization that would enhance the national security capabilities at EXIM? Are there things like, should there be a national security mandate? We've had mandates of other types in the EXIM world. How do you think about that, Tom?

>> Yeah, so, to highlight Africa as an example since we were talking about that, because communications is so important to any developing economy and there are areas of Africa that can only be reached by satellite communications. And I think that's a good example of the importance of the industry to be able to ensure that they have access to the Internet, access to communications. And from a security perspective, we know that the Chinese have announced plans for a constellation of low-Earth-orbit satellites in competition with what many American companies are doing. And it's extremely important that we have the ability to provide communication services to those communities, and our members have been working on things like Wi-Fi hotspots to deal with the affordability aspect of it. But I think that from a national security perspective, Africa is a good example of where it's important that we have a strong satellite community and infrastructure within the country.

>> Douglas: Eric, did you want to pick up on that?

>> Well, first of all, there is wide bipartisan agreement for reforms, it does require a quorum to approve a number of those reforms, so it's kind of an ironic situation that we find ourselves in. But if I can

just refine this a little bit more too, what General Cartwright, I've spent most of my life in national security, by the way, I'm among the legion of people out there that considers themselves actinolites of General Cartwright. He talked about a whole-of-government approach to problems around the world, what the military does, what development agencies do, what EXIM allows is a whole-of-country approach, as he said, to bring in the private sector. And it's not just selling a product or a service, there's a tail that comes with that, a longterm relationship that comes with that. And we risk losing that, as it's been said, to other countries. But there's a soft power element to that that maintains a relationship in a sustainable way, the private industry there providing the service, providing the product, taking care of it, upgrading it, what have you, that is more acceptable to us as a country than a sustained military presence, let's say. And so without EXIM we are taking away important parts, important tools out of our tool box, that the Chinese and Russian aren't. They have control over more levers in their country. We don't, as the United States, by design, by choice, we're all glad that we don't. But we have ways to make sure we have whole-of-country approaches and this is an important tool.

>> I would just add that, one, the active role of an administration is critical to this. We can put process in place but the will of the administration to exercise the tools and have a vision for what it's gonna look like is absolutely essential. Second is that, as you look around the world, after World War II the definition of whether or not we were paying attention to a country and whether or not we were supporting a country was how many troops we based there. That doesn't work anymore. 100,000 troops in someone else's country is no longer a venue by which you provide stability. It is looked at almost in the opposite in that if you have to have American troops it means your government can't keep you secure. And so in a world like that, the sooner that the military can demilitarize American policy and get out and turn it over, the more stable, the more long-lasting that relation becomes, and that's just the reality of the world that we live in today. And not looking at that reality misses the point. And if I have a criticism on American policy it's often times we over-militarize it and we focus strictly on military competition between the two countries rather than the venues by which business and cultures and whatnot can interact on a basis of a strong moral background on the goods and services we provide and how we provide them, how we educate people, how we bring them into the work force, sustain the work force, and build sustainable education constructs in which they can have advanced capabilities and contribute.

>> On that topic, I'm the moderator but this is now, I'm gonna take my moment for editorial comment. I'm out of the Larry Kudlow school, I didn't come to support the EXIM's mission because they taught me that in my PhD program at Princeton, I came to it because it's a lever that we need to have in the competition that is this global economy. And in

terms of support from the administration, I have been baffled, and this is the editorializing, baffled by the willingness of the Congress to pass the BUILD Act, take the Overseas Private Investment Corporation, which has an investment mission that's exactly parallel to the EXIM's mission on the sales, and scale it up and rename it as the US International Development Finance Corporation but not support the EXIM fully. So, I do think we need to demilitarize a lot of our activities, that's certainly been a goal of the Trump administration that Congress supported in one venue and not in others. I think it'd be very nice for it to do this in parallel and bid up the capacity of the EXIM Bank. So now I wanna ask the wild card question. I'm an economist, I read the news every day and I don't know how to think about things. Everyone says that the economic development of 5G is an important phenomenon that will be a transformative moment for the US economy and economies around the world, but with the, the global dominance of Huawei as a provider of the technologies that are built into it, it poses genuine security threats. How do you and your businesses think about things like that, how should the American people think about these trade-offs? And particularly in, you're representatives of the most technologically advanced industries that the US has developed, how do you thread that difficult needle? Who wants to go first?

>> We, this is AIA's centennial year and as a part of that we've done a number of things, including a study to imagine 2050, which is impossible to do and get it right. But it allows us to think about how things might be and what the architecture is that's necessary to get there, and that includes the role of government in investment and making sure the right regulatory framework is there. But what we're finding is that part of that architecture, that this vision for all the sectors, relies on, includes certain technological underpinning like 5G and its successors, like artificial intelligence, and if we don't get there first, we seed a lot of the market to other countries and, more importantly, we seed a lot of the policy to other countries. How this is gonna be used, how it's gonna be shared, what the limits are. So I think, thinking about things like 5G and AI is critical to imagining the future and making sure that we not only remain competitive but are the dominant players in that so that we have a voice in the framework, the regulation, the policy that comes with it.

>> Douglas: Seth?

>> From the satellite industry's perspective, it's a tremendous potential growth area. Because 5G promises a great deal of capacity, faster speeds, but it generally covers very short distances. And the only way we're going to see 5G brought to good portions of America and the rest of the world is via satellite, so we see the growth opportunities. Also, if we don't ensure that there are sufficient spectrum and other regulatory environment for the industry, we have the potential of seeding it to the Chinese. And Huawei gets a lot of

attention but it's not the only Chinese company that should get attention because, I mentioned before, their plans with respect to constellation satellite communications, which has the potential to put them in the same position that Huawei has with respect to terrestrial infrastructure.

>> Well, the American nuclear power industry brings the highest standards in non-proliferation and safety and security, and part of that is that we bring the plants in being completely offline so that nobody can hack into them, so there is no pathway in or out that could be abused for control of a plant. So whereas there in deploying the plants are of course many areas where 5G will be helpful in tracking supply chain globally, et cetera, for the plants themselves we try to keep them completely offline. And one issue with some of our competitors is that they don't.

>> So, is it enough to be concerned about Huawei's security threat or should there be an EXIM-like activity to support US producers of those technologies around the globe? Go ahead.

>> I was gonna jump in. I guess we didn't put Sputnik up, we didn't invent the rocket to get to space, so part of R&D, the hardest part of R&D is envisioning what doesn't exist. If it already exists, you know you can do it and your willingness and tolerance and risk factors are fundamentally changed. So that's kinda one perspective. The second is the absolute criticality of communications is certainly there and when you match that up with processing power and capabilities and start to move into a world that is enabled by robotics and automation and AI, et cetera, 5G becomes really important. If the only standard that exists out there is from one company, then that creates the imperative that Eric and others here have defined. I'm more of a fan of diversity. So to me the imperative is, get American industry into this, get them to develop their capabilities, try not to lock in standards too quickly, prematurely, and compete on a fair basis. And EXIM gives us that fair basis to compete on a global scale, but we've gotta also do our internal homework here in the States. Shutting out and legislating out a competitor for some valid reasons, I'm sure, but still, doing that is, it's somewhat of a non-starter. I mean, okay, we can hold our breath and complain but at some point if the whole world is moving that way and we're not jumping on board or not participating in a meaningful way, then we're gonna be left behind. And that's the imperative, I'm sure, that these gentlemen see. But I would, banning somebody from doing it because they may not behave the way we want them to behave is probably a non-starter. I think it's probably hurting us more than it's helping us.

>> I guess a thing we're missing, in any discussion about 5G we don't talk about the importance of spectrum and the spectrum to the satellite industry, because there's been a rush to make as much spectrum as possible available for terrestrial 5G services. And

fortunately Commerce Department came out with a report yesterday emphasizing the importance of spectrum to the space industry, the satellite industry in particular because, again, if the industry does not have access to sufficient spectrum, we're going to seed the lead that we have to other countries and not be able to ensure that service is provided in rural areas in the United States and elsewhere. So, in many ways, that is one of the more important gating factors, there's a tremendous amount of investment that is coming into the industry already. Certainly for the reasons that we've described before I think there's an important role for EXIM and other potential programs like that to ensure that we have the ability to provide these services and equipment throughout the world. But for right now, that's one of the important gating factors for our industry.

>> We, spectrum, when we think about 5G, spectrum is what we focus on quite a bit. But to go back to what General Cartwright said, American companies do really well in a fair competition. And that's the way we'd want to win, is to make sure that we have a leveled playing field and accessing export-import is an important tool in helping American companies get there. Foreign companies, foreign countries want American products for a number of reasons, including the quality, including, as General Cartwright said, the values that come with those companies and with those products. So that's, I would agree that we don't want to shut out a competitor, we wanna make sure that the playing field is leveled because we have a good track record in those environments.

>> Seth, talk a little bit about your industry. The nuclear industry has hardly been the golden child, domestically, but it has important security components to it, there's no question about that. What's the international market look like? Who are you competing with in particular that you could use the help of EXIM?

>> Right, right, well. The main vendors in nuclear power come from South Korea, France, Russia, China, and the United States. Other than the United States, those vendors are state-owned, state-controlled, and bundled with financing, generally up to about 93% with equity financing from export trading agencies, sometimes a 100% on a build, own, operate model. Over 90% sometimes on debt financing from export credit agencies, China putting it together from among three different agencies. The market, as I said, right now is about a \$740 billion pipeline globally, every actor is coming up for bid. It is a growing market internationally overall. Nuclear power mostly is being deployed by Russia right now, about 50% of the reactors in the world are being built by Russia. And, as I mentioned before, those are generally the start of what Russia expects to be a 100-year relationship. From the time they sign the first contract, it's about 80 years 'til they decommission the reactor and then about 20 years of decommissioning activities, and about 100 years of energy reliance from those countries on Russia on fuel supply and on services. So these are very

important economically, these are very important strategically. So when we look at these biggest orders coming up from Czech Republic, to Poland, to the UK, to India and to several places in Africa, they really are strategic. And there's also a bridge happening right now. A lot of these orders will be for smaller and more advanced reactors. Saudi Arabia might soon order two large reactors but they might order about 26 or so small reactors for locations for water desalinization, for hydrocarbon-related activities spread around the coast of the country. You'll hear from John Hopkins on a later panel from NuScale, who's really the leader in the field on getting the first small reactor into the NRC and hopefully soon out into the marketplace. And if with EXIM support, the US government support, we can get the NuScale reactors deployed into the next phase of these markets, that's gonna help clear behind it other American competitors and small reactors and advanced reactors that will go through the NRC on very similar processes. But if they can't meet the bids back on what even could be a \$3 billion project for a small reactor, it's not, under 10 million that the Bank can now support, America could lose out there too.

>> I think that is so critical, having this capability. And we've, certainly from the defense side, have watched this so closely and now we're pretty much at the end of the NRC certification piece of this. In my mind, these advanced capabilities on the nuclear side are probably a far greater breakthrough than 5G, in the effect that it will have globally on societies, et cetera. I mean, the ability to have sustainable grids in a dispersed activity with a closed fuel cycle that is safe, and that's part of what we bring to the equation in comparison, it's a closed fuel cycle and the ability to stay within the non-proliferation regimes and to operate inside of them in a safe way and to create the engineers and the cultures that will support this kind of technology, is a huge boom to any of these countries. So, the effect that potentially is sitting in front of us with these new advanced energy production capabilities is really significant. And the US cannot even bid without EXIM, we can't even sit in the room at the table without EXIM.

>> Wow. I brought up the nuclear example specifically because China wasn't in that discussion. A lot of this gets framed as us versus China. So, for both Tom and Eric, outside of China, where else are you seeing the real competition? Where else would it be useful to have EXIM be able to fully operationalize and support your industries?

>> Yeah, so, certainly a lot of the competition has been coming from Europe, and that's certainly expected to continue. But the Chinese had the largest number of launches last year and they have announced a very aggressive program for communications satellites, as I've mentioned before, so I think that they are quickly being thrust into one of the more competitive roles.

>> China, Europe are major competitors but it really is spreading globally and the competition is heating up. Other countries have learned from our success and want a cut of that, and as General Cartwright said, there are a number of markets and segments where we can't even be in the room, be a part of the conversation, without that financing that EXIM provides.

>> Well, the panel is going to run out of time so I wanna give each of you a chance to send the message that you want to to close. This is obviously an important year for EXIM, it's an important moment for the United States in figuring out its path forward in both the economic and the national security front. And if Congress could hear one thing or the President could hear one thing, what would it be? General?

>> First, thank you for all that you have done. It has made a huge difference globally. And then second is, we have to keep working, we have to compete, and we have to have the venues by which we can compete. And if the definition of competition on a global scale is that we have to work as a nation to provide a national product out and to sponsor that product, then we need the environment in which companies can actually compete.

>> This is, thank you, also. Our nation's economic security is an important element of our nation's national security, and those private sector industry relationships that exist around the world are important for the United States in a number of different ways. And coming off of the national security side, aware of the importance of EXIM, much more into the details of it since I took the job at AIA, and I still struggle to understand the arguments against EXIM, I think the facts don't line up with many of the arguments against EXIM. But I would just, we had an event a couple of weeks ago in the Midwest with a Senator who said, "In theory, I'm opposed to government playing this role. "I'd like to get rid of EXIM, "but not until every other country does as well." This is really about competition in a leveled playing field, it's not advancing unfairly American companies, it's making sure they have the same access to tools and resources that their competitors do around the world. Not just to make sure it's a leveled playing field but in many cases to make sure they can get in the door to be a part of the conversation and make a bid.

>> And the satellite industry is often sighted as one of the important segments that receives funding from EXIM, and that is absolutely true. I mentioned in my opening statement about the importance of EXIM, our member companies have lost orders. Those are the ones that have been announced, I mean, very often they're not even approached because there's not access to financing. And I understand the philosophical concerns expressed by the member that you're talking about, but it's a competitive world and without access to EXIM financing, it is very difficult for US companies, both manufacturers and operators, to be able to compete.

>> The world can only meet climate and energy goals with growth and nuclear power as one of the components of the diversified energy mix. And other countries are realizing this and supporting nuclear power domestically and for export, partly for those reasons and certainly for air pollution. The tremendous growth in India and China is often couched as relating to climate change, but domestically it really more relates to air pollution. And nuclear reactors emit nothing into the air, no CO2 or other pollutants. And this market is so urgent to our country, both economically and for our security, that the number one point for Congress is on the Senate side, confirm the EXIM directors, because without EXIM financing, America literally can't meet the bids back and can't compete on these orders that are being competed for as we speak.

>> Well, I wanna echo what Eric said. I was trained and I believed deeply in the power of American companies to compete around the globe, that that's the route to success and that the government doesn't really need to help them out, they can do that. And I have come to the practical realization that the playing field is not leveled, the chart that you saw earlier is just stunning in its message in that for us to go forward without a fully functional EXIM would be the worst of all possible worlds. I'd love to live in a world with no EXIM, that's a great world. That's not the world we're in. But the worst world is one where we have a pretend EXIM that doesn't actually function. So this is a year to change that. And I wish everyone would just join me in thanking the panelists for their time and their insights.