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Event

Delivering Space Capabilities for Warfighting Advantage

"Keynote & Fireside Chat with General B. Chance Saltzman, Chief of Space Operations"

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FEATURING

General B. Chance Saltzman
Chief of Space Operations, U.S. Space Force

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General B. Chance Saltzman: Wow. This is a good crowd. I'm excited to be here. Let me say thanks to Dr. Hamre. Thanks for all you do here at CSIS and for the whole team. And if I had more partners like Kay, I wouldn't have to come up here and talk to you guys as much as I do. (Laughter.) So, you get it. Thanks for reading those documents. I always wonder whether anybody reads those. (Laughter.) So, thank you. Thank you very much. Thanks to CSIS and Hudson Institute for hosting this. Kari, thanks for all you do and what you've done over the last few years, for me personally and for the Space Force. Thanks.

I can't really top how Dr. Hamre opened this. This discussion is, to say the least, very timely. You've all seen the recent emphasis on acquisition reforms from the president, Secretary Hegseth, Secretary Meink, congressional leaders, so many others. This is a national security imperative, and a generational opportunity. So, I'm glad we can bring so many tremendous minds together to have this discussion and start to chart that future.

Today I want to just spend a few minutes maybe framing where I stand on this acquisition transformation and how I view the strategic landscape ahead of us. And then I'm excited to sit down with Steve and have a good discussion. So, I hope the questions are hard. So hard that Steve can't really understand them and he simplifies them for me. That'll be a good back and forth. (Laughter.)

Now. You've heard at every level national leadership talking about acquisition reform recently. It's because it's so vital to the success of our military and to us as a nation. And for the Space Force, our ability to deliver combat-credible space systems and sustain them through conflict, I believe, is that warfighting imperative. And I don't think that obligation has changed, but the strategic landscape certainly has. So let me start with an assertion: While the defense acquisition system appears broken – it appears broken – it's actually working as designed. The issue is it was designed for a different era, not for the current conditions we face today.

Today we face a complex, dynamic security environment. And we're in an era of exponential technological change. The acquisition systems and practices we've used in the past are simply not suited to allow us to compete and win in today's strategic landscape. We must change if we want to maintain our edge. Now, I know all of you in the room have been around acquisitions in the acquisition business for a while. You've seen many attempts at reform. You also know that most of these efforts did not result in the improvements, at least on a scale that was required to drive real change.

Largely, those efforts, in my opinion, tried to fix process with more process. They also had a narrow focus, looking at just the acquisition of capabilities, not the full lifecycle from requirements through delivery and sustainment. What's required now to meet the complex conditions of this generational moment is a fundamental change in the approach. We must accept more process risk to achieve more mission success. This will certainly come with more small-scale shortfalls, but those setbacks will ultimately result in more effectively fielded capabilities, and hopefully on shorter timelines to the warfighter.

So rather than looking backwards, let me describe what this ecosystem of capability delivery could look like if we take bold action today. So, imagine the year is 2035, just a decade from now. The honorable Steve Kitay is the secretary of the Air Force. (Laughter.) And the Space Force is effectively and rapidly bringing cutting edge war-winning space capabilities to bear for the joint force and the American people. The domain is more contested than ever, but we're delivering what our warfighters need on an operationally relevant timeline.

So, on this morning in 2035, Secretary Kitay asks CSO number five, General, he says, to what do we attribute this tremendous success in space acquisition? Now, CSO number five ponders for a bit, reflects on how great CSO number two was – (laughter) – and then describes a series of key initiatives that enabled such a responsive acquisition system. So now let your mind kind of wander. What could those key initiatives be? Well, I don't have a crystal ball, but I do think I have a responsibility to try to make that vision a reality. Well, not the Secretary Kitay part. We'll leave him to figure that vision out.

But this morning I'd like to outline some tangible steps that I think we can take today, in 2025, to fundamentally improve the way we deliver space capabilities and provide us – or at least get us closer to making that vision a reality.

So, first, let me begin with perhaps the most critical element. We need to develop our workforce to tackle this complex work. The Space Force will need an operationally savvy group of acquisition experts to get this done. These Guardians will need a broad understanding of service responsibilities and missions in space, in cyber, intelligence. And they will need a deep understanding of the government's capability delivery process. To build the acquisition depth we need, we must identify the positions within our organizations which require the advanced acquisition training and knowledge, portfolio account – or, acquisition executives, system program directors. We need to ensure that the Guardians that fill these roles have the necessary skills and experience. Now, this may sound obvious, but it requires us to focus on giving depth

to those that require it, and not water down their experience by cycling the jobs too quickly across an unnecessarily large pool of personnel. In other words, in an attempt to give everyone experience, we give no one the necessary depth of experience. But for those that we do track to build deep expertise, we will conduct deliberate training and experience. This will include our new acquisitions IQT course, expanded deployment to industry, and close partnership with the evolving Warfighter Acquisition University.

Second, we must think how we approach documenting requirements. We need to drive clarity and maybe more importantly simplicity in our system requirements, and then allow our acquisition professionals and the contractors, give them maximum latitude to make trades and deliver quickly on systems that solve warfighter problems. This includes minimizing requirements needed for testing and prioritizing speed of delivery over trying to reach perfection in requirements. There should be no end state in requirements. We need to deliver a minimum capability as quickly as possible, put it into operations, and then continue to deliver enhancements as the operations, threats, and the environment evolve. And we need to have those requirements discussions and potential disagreements much earlier in the process. That way we can come to the table not to debate requirements with industry, but as a combined government-industry team focused on solving a warfighter's most pressing problems.

Third, we must formalize our approach to force design. The service owes it to all of our stakeholders – Congress, industry, the S&T community, allies, partners. We have to clearly communicate the warfighting space architecture we need now and into the future. Our Objective Force tries to do just that. It tries to formally document the what, where, when, how many of space capabilities, personnel, and resources we need to achieve mission success. By clearly signaling to all our stakeholders what the architecture looks like, we're setting a clear, complete, and hopefully stable demand signal for all to follow, ultimately shortening the timelines to realize our vision.

Fourth, we must structure ourselves and our processes for rapid, agile, and iterative procurement. Our new portfolio acquisition executives, or PAEs, will have the authority to make resource trades – within legal limits, of course – across their portfolios and the agility to quickly adjust as circumstances change. Empowering our acquisition leaders to manage risk and make decisions quickly enables us to deliver on that imperative of speed. And we'll also explore the milestone criteria that our PAEs are accountable for, tailoring them specifically for unique aspects of delivering space acquisitions and space capabilities. Through this framework, we'll define a minimum viable capability. The goal is not to

chase perfection in requirements or performance, but rather to deliver some capability incrementally improving on what we have that can be ready quickly, and then we improve on that continually and use it operationally. A capability that is good enough and is ready now will always be better than a perfect solution that arrives too late for the fight or one that never arrives at all. So, we're moving away from a fixed, all-or-nothing ops acceptance milestone in favor of smaller, more frequent delivery increments. We'll bring that minimum capability to bear for the warfighter sooner, and the upgrades will be informed by real-world operational lessons learned.

And finally, this new mindset requires an evolution of our test and fielding framework. We must move away from long, single-event requirement selloff testing in favor of continuous, streamlined test approaches, shifting our test mindset to validate only what is required to ensure the minimum viable capability as effective for the users and no more. Streamlining test documentation and execution with a focus on acceptance, not assurance, will ensure testing is integrated, focused, and does not unnecessarily slow down fielding of capability. With so much of our national security resting on the shoulders of our acquisition workforce and our ability to deliver systems quickly, we can't afford to maintain the status quo. We simply can't wait for near perfection in our systems before putting them into operation. We can't spend ages refining requirements before we start developing a new system. And we cannot add process where it doesn't add value. If we do, I think it will be too late.

We must deliver on this warfighting imperative for the joint force and, quite frankly, for the American people. Our future Guardians and the future of the nation depend on it.

Thank you again for being here. Thank you for the invite to have this discussion. I really look forward to the questions so if it's OK, I'll sit down with Steve and we'll get started. Thank you very much. (Applause.)

Stephen Kitay: All right. General Saltzman, good to –

Gen. Saltzman: Secretary Kitay, how are you, sir?

Mr. Kitay: Thank you for that promotion. Really appreciate your remarks. Really appreciate you being here with us today.

Good morning to everybody. As General Saltzman mentioned, I'm Steve Kitay. I'm the senior vice president of space defense at True Anomaly. I'm honored to have worked with General Saltzman for many years now. It's been in a number of hats from government to industry.

One of those hats was when I was on the House Armed Services Committee as a professional staff member from 2011 to 2017. So, although Secretary Kitay isn't going to come out today, staffer Kitay may come out and I'm not going to hold any punches.

So, we will get to the hard questions, and you all please feel free to engage. Ask questions. I've got an iPad here so get them queued up. I will work them in.

Thank you for what you do. You're the right leader for this moment. You're a visionary. You've really laid out where the Space Force needs to be and are driving that change to get us there so thank you for what you do, General Saltzman.

You know, there's a question that I've always wanted to ask you and it's a very, very important question.

Gen. Saltzman: Scared to death here.

Mr. Kitay: But I was waiting for the right moment, and I think this is that moment.

Gen. Saltzman: OK.

Mr. Kitay: All right. So, Star Trek or Star Wars fan? (Laughter.)

Gen. Saltzman: I think there's really only one choice here. Star Wars is a clear favorite. (Laughter.)

I remember – yes, Steve. (Applause.)

So, I think it was 1977 when I wandered into a theater to see "Star Wars" and I knew right then I had to lead the independent service called the Space Force. (Laughter.)

Mr. Kitay: All right. Excellent. So, let's go ahead and dive in.

You know, for me when I think about the moment that we're at, from Dr. Hamre to Kay Sears to the remarks that you've just made, you know, to me that elephant in the room at this moment is really what Secretary Hegseth and his speech where he talked about this arsenal that we need to build, an acquisition reform being driven by the secretary of war, the president of the United States, both sides of Congress – the House and the Senate bipartisanly.

Some may say we're at a boiling moment so the question for you, General Saltzman, what's your reaction and what is the response from the U.S.

Space Force?

Gen. Saltzman: Thanks for that, and I couldn't agree more. This is a unique window of opportunity we have.

I was in the room at National Defense University when Secretary Hegseth pulled us all together and one of the things that struck me was, I'm sitting in the room side by side with industry. So, we're hearing from the secretary of war talking about acquisition and he's not just talking to the acquirers. He's not just talking to military.

He recognizes that this has to be a composite team effort. Industry was there. They're taking notes. They're listening intently. It was almost like a joint force, this combined force of industry and military that's going to have to solve this problem.

It's a real imperative and that came through when I listened to it. But I've heard Chairman Rogers and Senator Wicker with their SPEED and FoRGED Act. I mean, these are – this is a window of opportunity.

Everybody sees the need. Everybody sees that we're facing what potentially could be a crisis if we don't figure out how to deliver the capabilities we need, and I just think it's just an opportunity we can't pass up.

Mr. Kitay: I love that. So how do we – and I totally agree, and to Dr. Hamre's earlier remarks, you know, I think this is – this moment is different than in the past when acquisition reform has come up.

Now, as we all know, it's not buying these capabilities for the capabilities' sake. It's the operational imperative. So, help us understand what are the operational realities that really demand this acceleration and the speed that everybody's looking for and what do we risk falling behind on?

Gen. Saltzman: When we think about the delivery capabilities, the three words that come up pretty quick in any discussion are cost, schedule, and performance. And I know this is an experienced crowd when it comes to those three attributes of a program. But you heard me say that I think speed may be the first amongst equals. And let me try to make the case for that. To steal from John Boyd and think about the OODA loop as it might apply to a broad process for delivering capabilities, you know, we're trying to figure out what equipment, what systems are needed given the security environment. So that starts with observations. What's the threat look like? What are we facing?

We are facing a substantially modern, capable – highly capable threat

array. This is not emerging threats. These are not things that are on the drawing board. These are things that we are seeing in operational use today that hold our systems at risk. Very technical. So, the observations are there. And the observations that we know we have to use our systems to enable a joint force to achieve military objectives, those observations are there. The observations are pretty clear. Now we have to orient. We have to say, OK, how are we going to counter those threats? What is it that we can do? What's in the near term, in the midterm, in the long term? What can we do to affect the change to our system so that we can compete in this contested environment?

Then you have to make decisions and you have to act. You have to implement. You have to put it together. If in the decision process – so think S&T work, think exploring, and think RPs and AoAs. This is the decision process that we're all familiar with, right? And then you decide, this is the material solution. This is the contract we're going to sign. Now we have to start putting it together. If the decide and act takes so long that the fundamental observations shift, then you become disoriented. The orientation that you did around those early observations are no longer valid. And you are building systems that no longer meet the requirements that you started with.

If we can't tighten that loop so that the decisions and the actions that we take are oriented around the current set of observations, then it doesn't matter how well we deliver systems. It doesn't matter how capable they are. They're not – they're capable for the wrong thing. So therefore speed, compressing this cycle of action down, becomes really the first amongst equals. And so, you'll see a lot of emphasis on how fast can we get something in capability? Let's learn as we go. Let's figure this out. We'll adapt. We'll evolve. We'll do that quickly. But we've got to change the current system. We've got to put new things in place as fast as possible.

Mr. Kitay: So, when we talk about putting new things in place, and I look at the moment that we're at, and I think about this operational imperative that you laid out, you know, one of the things that strikes me about this moment is the private investment. Billions and billions of dollars coming from the private industry, not only going to space but going to space and defense capabilities. Now, the Space Force recognized that. And the Space Force put out a commercial strategy, recognizing that there's private investment coming and there's new ways to harness it. Now, the question that I'd have for you is, tell us, what has the Space Force done, and what's coming next?

Gen. Saltzman: Well, let's start with this notion that if you believe everything that we've been talking about so far this morning, that there's really a landscape

shift, there's something different going on that we have to fundamentally change the way we do business in order to address it, then the idea that we could just incrementally improve on previous processes comes up short. Small adjustments, nibbling at the edges, saying the system is in place let's just do it better – surely we can do it better if we focus, surely, we can do it better with a few more dollars, surely we can do it better. I think what we have to recognize is that trying to just use the old system in different ways is not going to produce the new results that we need.

And it is so easy to sit here on a stage and say that. And then you have to recognize that we are going to challenge people's jobs because they've centered themselves around doing things a certain way. We're going to change business cases, because the way you made profits is not going to be the same. The way we field systems in terms of testing is going to create new levels of discomfort for assurance of mission. Are we ready to take on those uncomfortable feelings, take on the awkwardness of saying this is going to be done differently. We're going to be unanchored, unmoored for a little bit as we explore a better way to do this.

That's the real challenge that is in front of us. The government is not very good at that. The government loves, you know, this feeling of comfort: Yes, we will make change, but we will do it in a nice, deliberate, evolving kind of approach. And my fear is we don't necessarily have the time to let that play out. This has to be a radical shift, a fundamental change, and it's going to come with a lot of uncomfortable situations.

So, I think that's what really – we're going to do things differently. How well can we work together to figure out what those are? That's the issue.

Mr. Kitay: So doing things differently, you know, does – this process starts, ultimately, with requirements and what is needed for – you know, to be built out and, ultimately, make its way to the warfighter. So, Dr. Hamre, you know, mentioned toasting to JCIDS is dead. You know, how are you thinking about the requirements process changing? And then, also, how do you think about collaboration with industry?

Gen. Saltzman: Yeah. You know, I think it's great point. The death of JCIDS is one of those unmooring events. That is – that the process that we drove through the Pentagon to deliver capabilities, and now it's not really there. So now what? It's uncomfortable. You know, and that's what I think is kind of exciting about this time. It's not exactly a clean sheet, but, boy, it's pretty close.

And so, we just need to – when it comes to requirements, I think I – if you'll permit me an overly simplistic analogy, because I think it makes a small point. Don't try to read too much into this. But I think back to the

first smartphone I got, you know, which wasn't that long ago. Like, there's young people in this room that think they've always had smartphones and it's been around forever. Those of us that had BlackBerrys and flip phones know that it's really been – it's pretty recent history where we've had smartphones. But I think about, you know, those early 2000s, when there were engineers in a room saying we need this smartphone, here's the idea. I don't think they wrote the requirements for the smartphone that would match what I have in my pocket right now with the – with the internet connectivity, with the applications for mobile banking, for the quality of the camera, the video, the landscape photography that you're doing. All of those requirements that we just take for granted now on the phones we have, that wasn't the vision back then. But they didn't write those requirements and then sit around with nothing fielded for 20 years until they felt like they could meet those requirements; they just started. They said: This is – this is better than a flip phone. You should buy this. This is better for you. And we agreed, and we did it, and then suddenly they got tons of feedback – you know, it would be great if the phone did this. And so, they made business decisions about which of those features they wanted to put in and what's the next iteration, and you know, we see the tracking of incremental progress that leads you to a very capable phone that you have now. And, obviously, that's going to continue to go in perpetuity.

That is not how we do our requirements. We say: What's the threat? What's the grandest thing we could think of? How are we going to tackle this? We write these 20-year visionary kinds of requirements for these systems, and then it's really hard to put them in place.

So, I'm trying to constrain the requirements down. What is the minimum number of requirements that, if satisfied, would deliver an incremental improvement to what we have now at a reasonable cost? And how do we get it in the hands of the operator as fast as possible to learn operationally what would be the next set of improvements?

That's just a slightly different model. It's not completely out of the realm. We've had certain programs, I think, that have tried to adopt that approach. But I think this is going to be more broad than that. How fast can we put something smaller, an incremental improvement, but quickly address the new operational need and then improve from there? That's a different set of requirements, smaller set, something that's manageable.

Mr. Kitay: That makes a lot of sense. It's speed. It's more commercial-like approaches. It's not necessarily building towards the hardest case, but building towards something that you can get out there and to the warfighter faster.

Now, if I think about, you know, we're out in industry looking in and trying to figure out how to work with that process. And one of the, you know, things we've heard from the Space Force is that there's going to be this Space Futures Command, and that was announced at some point. What's the status of that?

Gen. Saltzman: We're going to do it. Now, if it doesn't sound like Space Futures Command, forgive us on kind of readjusting our thinking, but we are – we are leveraging the work that's gone on for a number of years in the Space Warfighting Analysis Center. The data-driven, physics-based modeling and simulation that they've done has been incredible in terms of giving us clear articulation of what the systems could look like – need to look like in order to meet the mission requirements that we've laid out.

So, what we're really doing is saying, well, that's great, but there's also more analysis. What's the operational concept? Is there – are there three squadrons that have to fly these things? Do we need two geographically separated ops centers or is this still one op center? And how do we make it cyber secure? Is it a global array of antennas or do we centrally manage this? Those operational concepts were never really factored in. So, we designed the system and then we try to play catch up. What's next? How are we going to do this?

So what we're really doing is taking the work that SWAC and then expanding it, adding to it a concepts and technology center, adding to it a modeling and sim, a war gaming center that allows us to expand on what they were doing to more wholly and comprehensively put together what it takes to field a combat-credible force. Not just a capable system, but a combat-credible force. Where are the simulators, where are the ranges. All of that work that's done. And so, we're going to build a new field command that does that.

When I said the "Objective Force," when you think about this new command that comes out, this new field command, the ultimate product that they produce on a recurring basis is called the Objective Force. The Objective Force will be a very detailed document, think spreadsheet. For this mission area of missile warning, here are the systems that we believe need to be in place in the next 15 years, now and into the future, in order to continue to do missile warning the way we want.

It'll be a list of the kind of systems – broad-based understanding of the systems – some that exist, some that are in development, and some that haven't started yet – to get to a future state. It'll describe whether we need multiple bases to do this, whether we need multiple squadrons, if there's new MILCON associated with this. We'll try to lay all that out,

again, to publish it to the stakeholders, so that they can see what our plan is and see a stable, comprehensive demand signal to what we need to buy, what approvals we need, how much resourcing we might need to put it in place. That is the purpose of that new field command, is to generate those documents that provide that clearly articulated demand signal.

Mr. Kitay: OK. So, function is going to be critical. The name, TBD. But that makes a lot of sense. You know, I'm going to pull on a question from the audience here. It goes maybe just one click deeper on what you were just talking about. And it's from Sandra Erwin at Space News, who I see over on the right here. And I think, you know, a lot of us rely on, you know, what the media is helping report on, you know, the latest in in the Space Force and in the Department of War. So, her question was: What is the latest on your Objective Force initiative to lay out a 15-year plan for the Space Force, and any estimate on when that will be released?

Gen. Saltzman: It's a good question. Thanks, Sandra. (Laughter.) If I say soon, is that enough, Sandra? Enough? Soon? (Laughter.) No, here's the way my simple brain works. I just like round numbers. I can do – I can add 25 and 15 and come up with 40 faster than 26 and 14. And it just, those – so I want to publish Objective Force 2025 before the end of the calendar year. That's the task I've given the staff. And of course, they immediately pushed back. Oh, we can't possibly do that. I think they can. So, I'm really trying to hold them.

I think the bulk of the work is almost complete. I think, while you may not see a published document before the end of December, I can pretty much tell you that the work will be complete by the end of December. And we will be in final approvals to say yes. We'll take this to the secretary, obviously, and make sure that the whole staff understands what we're trying to do. So, I think the work of the force design will be done in 2025, and then hopefully publish it, again, to stakeholders in early '26. That's kind of what I see as the current timeline.

But the idea of the Objective Force is it is a living document. What we want to do is publish them on five-year cycles. So, 2025 will come out. And we'll be looking at a time epoch out to about 2040. But, again, it's not everything new that's needed for 2040. It's all of the systems between now and 2040. So, there are systems we are flying today that we will continue to use into 2040. So, the Objective Force will account for that. There are some systems we use today that will – that we will wean ourselves off of in the intervening years between now and 2040.

The Objective Force will say that, hey, we plan to kind of sunset in the 2030 timeframe, 2035, and the new system will be growing along the

same time, so we preserve that mission capability. So that's the way you want to think about it. It's not what do we need for 2040. It's what happens between now and 2040 to make sure we have that Objective Force we need. But we recognize that the circumstances are going to change. So, there will be annual updates based on resourcing, obviously. And then every five years we will re-snap the chalk line and say – so, Objective Force 2030 will be looking to 2045. So, it'll be this rolling campaign of learning to make sure that we have the force documented that we think we're going to need in the out-years.

Mr. Kitay: OK. Well, I love that you're pushing on that, you're pushing your staff to get it out. We need you doing that, sir. We need you getting this information out. And it helps move all of us forward. You know, when I think about you – and if I make this, you know, a bit personal here at this next step. And, you know, I had the honor to work with you and many others on what became the creation of the Space Force. And, you know, when we were working together on this the idea was not just to reorganize boxes on a chart. But it was designed to create a service specifically focused on the unique nature of this domain, warfare in this domain, and providing the capabilities at speed.

That was a big thing when this came up, was acquisition. And, of course, delivering capabilities is the focus of today's discussion. When I think about you personally as the chief of space operations of a very, very young service, and you are setting what the future will be and what really that role is in that process, how do you think about the chief of space operations' role in delivering capabilities?

Gen. Saltzman: Yeah. Thanks for that. Because, yes, acquisition is important, because a force without the right equipment is not really a force. And it's the acquisition processes that deliver that capability in the hands of our operators and teammates. But the right systems alone is not enough. That's why I mentioned operational concepts, and tactics, and procedures, and, you know, organizational principles, and resiliency and ground structures. You know, how do you pass off? What are continuity of operations? How does – what does that look like? All of that is required. What is the sustainment approach to the systems that you deliver?

You don't have to look too far – too much further than Ukraine to say, hey, the Russian military on paper was tremendous. But it immediately had some problems. Immediately had some problems. And a lot of it was because there's more to fighting than just having systems. And that was – that was a kind of a lesson, I think, that some of us learned. Is you got – we got to do this comprehensively, to put this capability together. So, acquisitions is a part of this. And this crowd is a bunch of pros, so you

know those milestones, and you know how S&T work, and DEL 1 and 2 and 3, it all rolls into, you know, analysis of alternatives, and RFPs, and – like, that's the system.

But developing those requirements early on, as we talked about, and then testing and fielding those capabilities, compressing all of that in time and space, is an important piece of that. And I think as the CSO I have to think about all of it, from good idea to really sunsetting the system and replacing it with something else. That whole life cycle is a service-level responsibility. And so, I'm going to focus on making sure that we have the right workforce trained and in the right positions. That is a uniquely service responsibility, to train the workforce to do this work. I'm committed to it. We're going to get the requirements right. We're going to change our mindset for how we write requirements.

I was talking to Dr. Hamre before this. It's easy to say what the – what I think the chief's position does is it makes sure that there's a disciplined execution of that mindset and not let requirements kind of creep out from under you. Being disciplined about how we put small numbers and minimum requirements in place. Letting the acquisition system do – and most of those acquisition authorities are, of course, with the secretary and the secretariat. They'll figure those things out. They'll manage the milestones. But then somebody's got to test it and say, yes, we think this meets our requirements. Back to the chief, again.

I got to make sure that the test community is early involved, saying: If you write this requirement this is what it's going to take to test it, and it's going to be two years. You heard Kay talk about, if we put these cyber-secure requirements in, the testing – the development and the testing alone is going to extend this out. So, we've got to be very judicious about which ones we want to pick and how we want to test that. And then fielding. How much can we do in parallel so that when it's ready to go, it's fielded, and it's out there and happening? Those are not inconsequential pieces to delivery. And the service chief has to account for all of those, not just think about that middle part, that milestone B to milestone C, where everybody kind of focuses sometimes – program initiation to delivering those first few operational capabilities.

Mr. Kitay: I appreciate those remarks. And you mentioned workforce in there. And you mentioned workforce as your first item when you gave your opening remarks. And this next question is – actually, I'm not – don't look at it as industry exec Steve Kitay. Don't look at it as staffer Steve Kitay. But this is Second Lieutenant Steve Kitay, who was an Air Force acquisition officer. And my question to you – and that was over 20 years ago. My question is, what would you say to second lieutenant acquisition officer in the Space Force today, and what their future is?

Gen. Saltzman: Second Lieutenant Kitay? I would say you, sir, have a bright future. (Laughter.) You chose to join the Space Force? How smart of you. So, this is – you picked second lieutenant. And so, there's really three distinct categories of Guardians. We have officers, we have enlisted, and we have civilians. A lot of program management, the acquisition professionals, are civilians and officers. That's kind of the workforce that we talk about. The military piece of that are the officers. And what we're trying to do – I mentioned that I think they have to be operationally savvy with deep acquisition expertise. And I think that's an important pairing.

So, we want to give our officers, our young officers, an operational experience so they understand the missions. We're training them all in intelligence. We're training them all in cyber. We're training them all in space operations. And then – and a portion of them will become acquisition competent. And then we'll try to drive deep expertise for the rest of their career. But having that foundation of operations, I think, is essential. They'll know the language. And I think that's half the battle sometimes. You know, if you have to spend a lot of time explaining to the contracting officer or to the program manager how this is used in operations, or how this tactic is different than that tactic, you're spending time and energy that maybe could be spent elsewhere.

If the acquirer is also an operator and has a fundamental baseline understanding of those things, you just skip that step. And so we are, you know, kind of OPEX for all, if you will, to use the old phrase. But that's the idea. Give them that foundation. I like the fact that they're also going to be trained as intelligence officers. They're also going to be trained as cyber operators. If you think you can perform space capabilities without a deep understanding of network and cyber security, you don't understand our business. And so, I'm going to give those officers that foundational understanding, the vocabulary, so that when they become acquirers they are speaking the same language. We bypass all that. It's going to enhance the collaboration.

And quite frankly, by the time you're an eight-year captain, you'll have spent four years in operations, four years in a SPO, you'll be trained as an intelligence officer, a cyber operator, a space operator, and an acquisition professional. As an officer, then you can do anything that the Space Force has to offer. Those are the only career fields we have, by the way. There's only five. Only five career fields for officers in the Space Force. And you'll be trained in all of them. So, you know, once somebody is everything, we don't need to even track it. We just track the positions. What jobs need what competencies and make sure that people are qualified for it. Because now we can take your experience and put it where it's needed.

And I think that's going to be a powerful force multiplier for us.

Mr. Kitay: Well, if I could go back and do it again, I'd do it in a heartbeat.

Gen. Saltzman: All right. We'll sign you up.

Mr. Kitay: It sounds pretty awesome.

Gen. Saltzman: Sign you up.

Mr. Kitay: So, all right. All right. I'm going to pivot in the last 10 minutes here to some of the questions that are coming in, to make sure that we do – you get to hear from the audience here, and those online as well.

The first one is from Dr. Stacey Dixon, who is the former principal deputy director of national intelligence. Stacey, thank you for being here. She says: Historically, the space community has been very focused on the hardware, the satellites, with software being an afterthought. Are you communicating the investment in ground as compared to satellites? And how are you doing that?

Gen. Saltzman: Well, I think you just heard me say that if you don't understand the networks, if you don't understand the user interfaces, if you don't understand algorithmic warfare, then space warfare doesn't make a lot of sense to you. So, I couldn't agree with you more. That's why I want to give at least our officers who are going to lead these formations and do the program management and do the strategic planning, so they have a broad understanding of all of those requirements, because it's going to be essential to being effective. Just absolutely. I can't quote you the exact number but take it on faith that there's been a dramatic increase into the Space Force's use of this softer acquisition pathway as an acquisition approach. Everywhere we can apply it we are applying it, because you acquire software differently. And we recognize that, and it's such an important part of our business that we're really focusing on that heavily. In fact, we give directions to our developmental teams, find people that have software acquisition experience and make sure we're tracking that separately because it's a different competency. It's a different skillset. And we want to track those competencies.

I'm back to competency-based assignments, not career-field-based assignments. You don't get this job because you happen to be assigned to a career field. Do you have the right competencies to fill this position? If the answer is yes, we'll put you there. If not, then we'll try to give you those competencies but somebody else is going to take that job in the – in the near term. But software is one of those important competencies we have to have.

Yeah. Thanks for the question.

Mr. Kitay: All right. Next one is from Chris K. at Triton Space. And I think this is a question many of us have: Is the Space Force willing to accept more risk and more failures to achieve eventual mission success?

And I might add on to Chris' comment here: How do you then get that into the culture of the Space Force so the lieutenants, the majors, the colonels, the sergeants are willing to take that risk and not fear that their career is going to be put on the line?

Gen. Saltzman: I mean, the short answer is absolutely. How can we go fast if we're not willing to take risk? How can we pursue an idea where there are a lot of unknowns if we're not willing to take risk? So, the easy answer is to say absolutely we're willing to take risk.

Then the question is: OK, what are you going to do when there's a shortfall? What are you going to do when this isn't working out? This is about not describing the progress that we're making in terms of success or failure; it's going to be measured more in learning. How fast are we learning? Are we learning the right lessons to put the next best capability in place and how fast can we do it? So, shortfalls are just opportunities. If you want to say failures, that's just – that's just intense learning opportunities. And then we adjust fire, and we fix it, and we go to the next one. And so, I think once you realize that you're on a learning campaign to deliver and enhance capabilities incrementally, then risk has a far different outlook.

Let's use a hardware example. If I'm building a proliferated low-earth orbit constellation and I'm going to replace each satellite on a three-to five-year timeline, am I worried about the risk of a system not lasting 20 years? That used to keep us up at night. If a system wasn't going to last 10, 12, 15, 20 years, you wouldn't get the dollar cost averaging out to warrant the launch. That is not where we're thinking anymore. So, the testing that was required for that kind of redundant system to keep that mean mission duration as long as possible, we don't need that anymore. So, once you say you're going to tech refresh your on-orbit constellation faster, you have fewer regrets if you get something a little wrong, which allows you to think differently about the risk of putting something on orbit.

And I can't tell you how much we appreciate the commercial sector for lowering the cost of launch so we can even have those discussions, for scaling manufacturing of satellites so that we can have the discussions about how fast and how cost-efficient you can be to replace technology

on orbit – something we didn't think about when I started flying satellites. Now we can. So, it changes our risk mindset. It gives us the opportunity to change our risk mindset. Now we just have to literally change our risk tolerance.

Mr. Kitay: Building upon that maybe in a different way or a specific application, there is a question from Susan at Argotec. And what she asks is: Do you think in-space servicing will include more than just refueling?

Gen. Saltzman: This is, again, where I don't have the crystal ball. But what I do know is that being agilely able to perform our missions will be a key to success in the future. And I think it's hard to say we're going to be agile with how we execute missions without adding to it things like servicing. It could become one more tool – hey, I can't replace this satellite, but can I fix it; hey, can I maneuver this a little differently if I can refuel it. I think it opens up the opportunities if that becomes a tool.

Now, what I don't know is does it make more sense to fix something or replace it. You know, this is the old – you know, my dad still tries to take his plasma TV to the TV repair shop, and I'm like, dad, just – (laughter) – buy another one. Like, this is not – this is not how we do this anymore, right? (Laughter.) So, I don't know what the – how the cost business case works in the future, but there may be certain systems where it just makes sense to try to put something on orbit and fix it on orbit as opposed to replace it on orbit. But that may not be true for all missions or all constellations, and we just got to be agile enough to apply both systems as required.

Mr. Kitay: OK. Thank you for that.

Well, next question, I don't think you can have a defense event without Golden Dome coming up in some form or fashion. So –

Gen. Saltzman: I'm not familiar with this. What is it? (Laughter.)

Mr. Kitay: So, you probably figured there would be a question here. This is from Victoria at Secure World Foundation. She says: When will we know what the Golden Dome architecture will look like?

Gen. Saltzman: Oh, I – boy, that's – these are questions I ask Mike Guetlein all the time. (Laughter.) So, I am the wrong person to answer that question.

I'll just maybe try to defend his process by saying this is a pretty complex endeavor that Mike's been given, and he is the right guy. I'll tell you, he's got the background, the experience to really pull this off. It's a system of systems. It's going to require everything from new sensors, data

transport, link structures. It's going to require data fusion on a scale we haven't seen before. It's going to require new effectors – some old, some new – and how those integrate together. There's going to have to be decision support. This is a complex system that Mike's been asked to do.

So, I would just ask for a little grace and give him a little more time, because it is so complex that it's going to – to get it right, he really needs to do the mission analysis. And I can tell you, I see him; he's working hard to make sure he's got the landscape right and understands all those detailed requirements of how this comes together. But I'd say let him do his job because he's going to get it right, but we don't want to rush to something that doesn't work together because this is a complex system of systems.

Mr. Kitay: All right.

Well, with that, we have one minute left, General Saltzman. I want to leave the floor to you if there is any closing remarks that you want to make, anything you want to highlight and leave this audience with. I'd just say thank you. Thank you for your leadership. Thank you for what you're doing. Industry, this group is behind you. We are partnering with you. We are ready to help continue to ensure the Space Force is the world's best and the warfighters have the capabilities they need. So, with that, let me hand it to you, sir.

Gen. Saltzman: Well, thank you, Steve. Thanks for this opportunity. Thanks for the questions. It's always good to work with a guy of this caliber, so thanks. Thanks for that.

Mr. Kitay: Thank you.

Gen. Saltzman: Just closing thoughts, because we've covered all the important points, I think. But if you don't get from me the sense that I firmly believe this is a team sport that includes industry and academia and think tanks and military and joint partners and allies, this is a team sport. The challenges that we face, if we try to independently solve them, we will not be as successful as if we try to solve them collaboratively as a team. So, I'm fully committed. The Space Force is fully committed to making sure that those partnerships only grow and become more and more rich. So, thanks for starting that journey with me.

Second, I think if you take away from here that speed is paramount and building processes that are designed around speed is going to be important, which means taking risk, I'm willing to hear responsible risk-taking. That's going to be an important phrase that we come up with. Where does it make sense to take risk and where would it be unwise? I'm

going to need experts, and industry's got a lot of them that are going to help sort this out. We're going to need that teamwork associated with risk. But doing things the way we've always done business is not going to work for the future. This is a fundamental change, and we've got this window of opportunity with our national leadership and all of the stakeholders that I think we can make real changes.

And then I'll just say, boy, the Space Force, the Guardians that are out there are doing amazing things. If you haven't had an opportunity to go out to their workplaces and see what they're doing, please try to find an opportunity to do that. Become pros at what they're doing and ask them what their biggest challenge is. I try to ask – when I go out and see the young Guardians on the – (inaudible) – I ask two questions, inevitably. And leadership shrinks and, you know, I ask the young people: What's the biggest threat to your mission? And what I'm really asking – I know the threats to their mission. I don't need that information from them. I want to know if they know and are tracking the level of detail of the threats to their systems.

And let me tell you something, they are pros. They understand the threats to their system in great detail. And it's so heartening. And I say, what is it that you're doing to counter those threats? And then they just start down their list. So, the pros that are out there, these young people, the Guardians, are doing amazing things. You ought to go ask them how you can help. You ought to sit there and listen to the challenges that they face, because I know you've got some answers. And working together at that level is going to be important.

So, thanks for the collaboration. Thanks for all you do to help this effort. Like I said, this is a generational opportunity. Let's not miss it, but let's go in through it together. And I think we'll come out on the other side with a better answer. And Secretary Kitay and CSO five – (laughter) – will be well set in 2035. So, thank you so much. Appreciate it. (Applause.)

Mr. Kitay: All right. OK. There's going to be a 15-minute break. Feel free to go get coffee, meet new people, debate the ideas. And thank you again.

(END)