

## Driving Change with Speed

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**Kirk Rieckhoff:**

Thanks. Well, good morning, everybody. It's been exciting event so far. Yesterday the Secretary, the Under and the Chiefs laid out a pretty ambitious change agenda, and then just to make it a little more fun, they said, "We've got to do it right now." So this session is all about how do we drive that change with speed? What I'd like to do tonight, or rather this morning, is to ask first if we can go back to the very beginning of why, why is it that we need to do this right now, and fast?

**Kristyn E. Jones:**

So hopefully it was clear from some of our comments yesterday how aligned the top leadership of the department of the Air Force is, and how we need to move out with a sense of urgency to address the threats in our strategic environment. As I mentioned yesterday, our battle space is increasing from sub warfare to cis-lunar, cyber, EW. So the threats are expanding, technology is moving fast.

In some cases, our adversaries are moving faster and getting their new capabilities out than we are, and we need to make sure that we're ready. First to be able to deter any conflict that might come up, to have G or anyone else say, "Today is not that day," but if we need to be able to fight and win, and those are the things that over the last couple of months, we've all come to a conclusion that we need to make changes so that we are ready today and for the future to win now, and to win the competition in the long run. And the changes that we're putting in from the secretariat and each of the services will give us the mechanism to be able to do that.

**Andrew P. Hunter:**

Well, I'd like to say we got a preview for re-optimizing great power competition as we did the operational imperatives work last year and the year before. And that was an opportunity for us in the acquisition community to work side by side with the operational community, to really focus on mission threads and what capabilities are required to close those threads reliably, consistently over time in a resilient fashion.

And what you find is we are required then to work across our stove-pipes, in a way that is extremely non-traditional and that is also not facilitated by our organizational structure. So the why really is we have to be able to do the things that we identified as operational imperatives. We have to be able to be postured to do it as a natural act, not as an unnatural act. So for the acquisition community, the things that are identified and that were announced yesterday by the Secretary, the Under, and the Chiefs, are the things that we need to be able to consistently and reliably deliver on challenges like our operational imperatives now and over time, over a span of time that includes the competition potentially over multiple decades.

**Frank Calvelli:**

On the space side of the house, as you all know, it's the threat, right? We all built a magnificent architecture today in space that is absolutely phenomenal that we all should be very proud of, but it was built in a time where launch was very expensive, and space was a benign environment. So we tended to go with larger satellites on very long development cycles. And we have a need, space is so important to the joint force that we have a need now to fundamentally transform our space architecture to be more

resilient, and that's going to be through proliferation of systems, as well as diversification of orbits. And it's all about speed now, it's all about how we get there to face this pacing challenge with speed in our acquisitions.

**Kirk Rieckhoff:**

So on that point, Frank, the portfolio in the Space Force and in the Air Force is massive. So where do you need the speed the most?

**Frank Calvelli:**

I think we need the speed and really trying to drive towards smaller systems. The physics of what we're trying to do in space, we're not constrained to extremely large apertures or a large spacecraft. We actually can do our mission with smaller systems and more proliferated systems. We know for a fact in the space world that smaller systems means faster development. It just does. You just can't build big systems fast. And so, the key for us is really whether it's missile warning, missile tracking, space communication, space to build, and awareness is to build smaller systems at speed and where we can use existing technology. Because if we use existing technology, it's going to allow us to go faster as well.

**Andrew P. Hunter:**

Yeah. In terms of the where, we've had some pathfinders, so we benefit from the fact that we know what right looks like. Right looks like what we are able to do with establishing the PEO C3BM. Again to work across stove-pipes, to horizontally integrate capabilities from the air fleet with our space capabilities, with ground capabilities in operationally meaningful ways to deliver the facts that we need to do. When the secretary established PEO C3BM and said, "This is the hardest job I've ever given anyone." And he has handed out many challenging jobs over many years, but we're reinforcing what we believe is success, because as General Cropsey has stood up that organization, and brought together the pieces that we gave him from the architecture piece to the programmatic piece, and in close coordination with the operational side, the ABMS cross-functional team, we're seeing success. We're seeing a lot of return in the early stages of that work.

The architecture generating the benefits that we expected, the close collaboration with the operator generating the benefits we expected. So that's what right looks like. We need to be able to do that in many more places. We need to be able to do it in electronic warfare and in MSO operations. We need to be able to do it for things like navigational warfare, and PNT in close coordination with the Space Force. So we benefit from seeing what right looks like, and seeing where else can and should we do that. And then the other example of what right looks like is our collaborative combat aircraft program. What that was able to do is allow us to accelerate what I call our vertical integration, which the secretary talks about is accelerating the pace of science and technology work, and commercial development work translating into fielded war fighting capability.

And the example of collaborative combat aircraft, the Skyborg effort, which was a major AFRL Vanguard, but which was not originally connected to a program of record has essentially turned into a program of record. It is the foundation for the collaborative combat aircraft, which we are now accelerating rapidly into production. So that's the kind of accelerated vertical integration that we know we need. We know what right looks like, because we see it with collaborative combat aircraft, and we are going to be implementing that in many other areas, including in the weapons portfolio in the area you're fueling and the mobility fleet portfolio as well.

**Kristyn E. Jones:**

I was just going to say, if there's a couple of things to take away from what we're doing, one of the key things is what Andrew just mentioned, that integration. Integration across platforms, across our commands, the integration to close our long range kill chains, the integration with industry, with our partners and allies. A lot of the changes that we're making in standing up the new organizations, from the secretariat in each of the services, are to allow us to have that integration deliberately upfront so that we deliver the capabilities that we need.

**Kirk Rieckhoff:**

So the need for speed and the need to change, at some level, it's not really new, right? We've known about this for a while, so what's different this time?

**Kristyn E. Jones:**

So I'll start out with the fact that as I mentioned yesterday, we have incredible alignment on the strategic environment from the National Security Strategy, National Defense Strategy, our joint war fighting concepts and the alignment of our senior leaders. We spent a lot of time talking about the changes that we needed to make, and we got agreement on every one of the changes that we announced yesterday from all of our four stars, all of our deputy chiefs of staff who were involved in the process. So I think alignment is really one of the things that is going to help us to be successful. I also think that everybody is very aware that we have a real threat in a way that we haven't had in the past couple decades. We were able to handle our counter VEO contingencies. We need to make sure that we're ready for whatever is coming ahead and the change that we're seeing in our adversaries that are laser focused on us helps us all to have that alignment and understand what's really at stake.

**Andrew P. Hunter:**

It's a really good question and something that we have to think hard about, because change is hard and you won't necessarily deliver the outcome you're going for unless you're very focused, and clear, and disciplined in going to enact it. I believe in this case we are very clear, and focused, and disciplined. We understand the pace and challenge. That's what we're organizing to address. It was in the title of the initiative. So I think we're very focused on what it is we have to achieve that is, I think, somewhat different, right?

So when we talk about driving change with speed, yes, but it's a specific kind of change. It's specific capabilities we know we need to enable and we need to field, and we're going to be focused and disciplined in that. I also think we've demonstrated that we understand how to execute the close partnership between the operational community and the acquisition community, which actually delivers change with speed in a way that is not easy to do, and has been tried and not always succeeded, but we've demonstrated it with operational imperatives, and now we're taking that next step to make it more broad and universal.

And then lastly I would say is, we've done a lot of great work and much of it predates me. So the credit goes to the incredible people in our organizations, and AFMC, and ANQ, and in my predecessors at laying the foundation with industry on foundational architectures, technical architectures such as our advanced mission systems, government reference architecture, which really provide systems engineering and engineering foundation for rapid change of capabilities and rapid evolution of capabilities. And that's been a big success. Again, that's something we've demonstrated we are establishing, and building out, and making more robust a broader swath of those architectures to help us drive change with speed.

**Frank Calvelli:**

Yeah, I would say if I look at the Space Force, Space Force was formed because of great power competition. And positions like mine and the Space Force, I mean were formed to go fast. I mean, that is the goal. The threat is too great. Space is so important not only to the joint force but to the country. And so, we need to make sure our architecture with speed becomes resilient so that the nation can depend on space, whether we're in peace, whether we're in crisis, whether we're in conflict, space needs to be there for the nation and that's really the sense of urgency that's out there.

**Kirk Rieckhoff:**

Fantastic. You've mentioned earlier, Andrew, some of the successes you've had of going fast, and I was just wondering what are some of the lessons learned from the places where you've seen this working? If you could talk about that.

**Andrew P. Hunter:**

Well, I know I keep saying it, but it is the most important lesson, which is the criticality of marrying up the operational perspective, but really the expertise, the understanding of the operational problem with the acquisition community that understands technically how can those problems be addressed by technology, and what is the level of maturity that technology, and what is the scope of the effort required to deliver it? So it's that, just dialogue. Neither one is really able to do that on its own, because as just the acquirer's looking at the acquisition end of the problem, the technical end of the problem, we can end in a completely non-viable operational implementation of the technology.

If the operators just look at it from an operational perspective, they could ask us to build something that's unbuildable, or is just not deliverable within the timeframe they want. So it's that continuous and close cooperation between the two. That has been the strongest lesson learned and I would say is the principle reason beyond everything else, much as I love my foundational architectures and some of our new contracting approaches, which are really phenomenal. Beyond all of that, what has made the rapid progress we've made on collaborative combat aircraft possible has been the partnership between AFMC and ACC, and the discipline and focusing on the most urgent requirements, and working closely with industry to understand their understanding of what's viable. So close cooperation with industry as well, to make the rapid progress.

**Frank Calvelli:**

So we know for a fact that building small lets you go fast in space acquisition, but the other part of that equation really is execution. And what I mean by program execution, it's delivering a program that works on cost and on schedule, just slipping schedules out or overrunning programs just hurts our ability to go fast. And so, we as all space acquisitions professionals that are here in the room, our job really is to set that upfront act strategy up properly, make sure we put under contract a program that has realistic cost, realistic schedule, with the industry partner that has the skills to execute the program, and then once under contract, manage the hell out of it, right? Acquisition is a contact full-time contact sport. I mean, we need to be involved on a daily basis making sure we're delivering on costs and schedule. But our key for our success for speed is not just building smaller, it's actually delivering to plan and delivering on schedule.

**Kristyn E. Jones:**

So before this job, I've been involved in business systems for a long time and I think the things that we're seeing in efforts like CCA and C3BM are just as relevant there, that if we come up with a requirement

and throw it over the fence, we're likely to not get the outcome that we want. So I think that partnership through the entire end-to-end business process is very important and that's highlighted by the things that we're doing also in the operational area, where I think we're continuing to learn more, there's more we can do is our partnership with industry along the way as well. Some of the things that we are doing with CCA for risk reduction and getting a lot of different perspectives I think are great. Also, our commercial space activities. So I think continuing to bring in that perspective, as well as our operators will help us to be more effective in the long run.

**Frank Calvelli:**

Let me comment on that for a second though. I agree to you completely, but we need help from industry, right? The culture of low bidding has to end. We really need your support and when we ask for an RFP, whether it's aerospace that we get back a realistic program, realistic in terms of schedule, realistic in terms of cost, don't bid to win and think we're going to fix it later. We don't have the dollars to fix broken programs later. We have a track record across the Department of Defense for the last 40, 50 years of awarding unrealistic costs and schedule, and then fixing it later. We can't do that anymore. We have to be awarding executable programs and we need industry's help in doing that.

**Andrew P. Hunter:**

And if I could just maybe add another layer of detail on what it is I think we've gotten right in collaborative combat aircraft, which I can talk more about now than any of these prior sessions, which is a great relief, but it's out there now that we have the five vendors that we're working with. And when I say working with, that is a daily engagement. If you think of classic acquisition, okay, we have a very formal requirement that is ratified all the way up to the chairman of the joint chiefs of staff, and then as semi-invisible going forward.

Once that's happened, you pitch that to industry and say, "Here it is, build us that. And here's an RFP that details how we want you to deliver us the technical proposal that's going to fulfill that vision."

And it's very linear and there's one invisible benchmark against everything is judged. What you see with collaborative combat aircraft is a different approach, right? Multiple vendors, continuous daily engagement between the government team in the industry team, leveraging digital tools. So they're actually looking at the design as they're talking, so that when you get to the end game of a final technical proposal, it's not a guess on the part of industry of, is this what they were really looking for? We've done our best to squirrel around as much as we can, find out as much as we can. No, it's daily engagement and I think that's really critical.

**Kirk Rieckhoff:**

We've got a large audience out here of Air Force and contractors, and when we look across this group, I would be curious what advice and what guidance do you have for them?

**Frank Calvelli:**

I think it's just critical to get the upfront documentation correct, to really take our time in getting a coherent request for proposal in place. And then, I think we need to all start to evaluate schedule and cost realism as part of source selection criteria. I mean, we do I think a really great job on the technical piece of it, but I think we need to really ensure that what we're awarding is realistic, and has a chance of actually delivering on costs and schedule. I just don't think we can continue to afford to rob our future modernization by paying for programs that are not executing properly in the past. And so, it's really

going to be critical for all of us to really... Don't award a broken program, I guess would be the thing I would say. I mean, make sure that the program that you award is something that can be executed.

**Andrew P. Hunter:**

Well, I think the issue of managing risk is one that we are always both trying to help industry understand our perspective on and also the workforce. What mission am I giving to our workforce in terms of tackling and managing risk? And it's the core of what they do and they're professionals at it, but there's many different ways to manage risk, and you can prioritize which risks you're managing to deliver specific outcomes. So I think what we've done, what I believe we've done and will continue to do under re-optimizing for great power competition, is give the workforce really clear expectations for what is the pacing threat, what do we have to do to address it, and therefore how do you manage your program and manage the risk within your program to optimize the outcome or the output that we're taking? And if our workforce is clear on that, they're the ones in daily contact with industry, and with the specific industry teams working designs, and working to deliver for us, that's the information flow that I think we have to have, and it's really about the clarity and the consistency of that vision.

**Kristyn E. Jones:**

Yeah, I'd like to pick up on the risk idea. That's something that I think is really critical to our ability to move out with a sense of urgency. I mentioned yesterday we are increasing our emphasis at enterprise risk management and being able to look across both services, and the impact on the outcomes we need for great power competition. But specifically to risk with our programs, we need to empower our leaders to fail fast and to learn. General Alvin talked about that a little bit this morning, that we're not going to get everything right all the time, but we need to have a culture where we can learn. I had the privilege of being in PACAF just a few days ago for General Snyder's promotion to four star, so that should sink in, to four star. And one of the things that he talked about was when he was a lieutenant, that he didn't always get everything right, but he had leadership that recognized his potential and gave him a chance, and now he's in charge of what's arguably our most important AOR for this pacing challenge.

So I think that the ability for leaders to underwrite mistakes in the pursuit of excellence, for our PMs and the folks who are making day-to-day decisions on our programs to not be afraid of failing, but to move out and to know that their leadership supports them as they're trying to do the right things. I've seen, and I know that each of our SAEs has seen charts that have way too much green, because there's this fear of being transparent.

And so, I think as we move forward with great power competition, we need to have that culture of transparency, of identifying where our obstacles are, and being able to tackle them without this fear. The other advice that I would give for industry, so again, I was on the industry side before coming back to government, and I've seen this and I understand how things work. A lot of times people are incentivized to maximize their sales to a command, to a program, and a lot of what we're trying to do here is to talk about integration. So we need industry to also be thinking from an integration standpoint. So account leads, defense sector leads, help us to do that. We're trying to have enterprise solutions. Please don't go out and sell us the same thing 30 something times. We need to figure out the right way to optimize our resources. And so, we need you to be thinking from an enterprise perspective as well.

**Andrew P. Hunter:**

Can I just add, sorry, one quick thought on, because I mentioned managing risk and then I put it in the context of individual programs, but there's also enterprise level risk, which honestly is one of our biggest

challenges, right? And one of the things that re-optimizing for great power competition is most designed to address, because we're pretty good at working with industry on programmatic risk. Enterprise risk is not something our system was really designed to address, and so we've addressed that. We're working on that. We're creating on the acquisition side system centers with the technical expertise to understand emerging risk and roadmap, how to get after it and well into the future, and respond rapidly to things that catch us. We're creating the enterprise level capability within AFMC to see risk across our programs, through the integration development office within AFMC, and there's someone formally tasked to address enterprise level risk of that nature, and a clear partner on the operational side with the integrated capability command that's doing the same thing from that end of the business.

**Frank Calvelli:**

Yeah, I was going to say on the space side, another benefit of building smaller systems is one, if you fail, it's \$15, \$20 million a satellite, but you take a program like NextGen Geo, NextGen Pole or OPIR systems at about \$3 billion a copy, it's a lot less forgiving to fail in a program like that, when you're only building one or two of them, and you get on orbit, and it doesn't work. So if you're going to take risk, go build smaller, it allows you the benefit of taking risk and failing, which is a great opportunity to learn. But when you're doing a huge program that's \$3 billion a copy, only building two of them, that's a program where you probably don't want to take much risk.

**Kirk Rieckhoff:**

Well, maybe just to pull that thread a little bit more, because I think risk aversion will definitely slow things down. What is it that you three can do to help? Because essentially the burden is on your PMs, they're coming forward to manage this risk. When we talk about failing fast, how can you three help them?

**Frank Calvelli:**

I think we help by encouraging them to take the risk with the smaller systems on the space side of the house. I mean, encourage that. I have seen just some fantastic work out of the space systems command team, the space development agency team, and the space rapid capabilities office team when they're able to have a smaller system. The other thing I really like about smaller systems and shorter development times is ownership. So on a three-year development like we're seeing out of SDA and some of the work at Space Systems Command, you're seeing the material leader or the SML, there are the entire life cycle. That's amazing. That's awesome.

I take a more traditional program that might take seven to 10 years to develop it. I may have one SML, get the program started, next one come in, take it through PDR, next one through CDR, the next one to launch. And by the time that satellite launches, I've had four program managers and the staff turnover three or four times. And so, I think there's a really great opportunity when we're building small to have much more accountability. And we have always found that when you have people who are engaged and they have ownership of it, they're more likely to be successful as well, as opposed to, I'm just passing through on the acquisition.

**Andrew P. Hunter:**

Yeah, I think there's a lot we can do, and I think this is hard, but doable, and I try to do it every day in our organization, is get people to think deeply about what do we mean when we say success or failure, right? A test that doesn't meet all of its test objectives is in one sense of failure, but in most cases in our test experience, it's not a failure, right? We learn something to make the system that we're working on

better. And the key thing is not to stand everyone down and figure out, hey, why did we not achieve all our test objectives in that test and spend months doing it? It's how do we turn as rapidly as possible to get to the next test, which will be successful, because of the learning that we got in the last test, and will then allow us to advance our technical understanding even further with the additional things that the next test will demonstrate.

And I think we have shown that we are doing that. We can do that, and we are doing that in many of our test programs. It's also worth saying that traditional success doesn't always mean success for the enterprise. Secretary Kendall likes to tell a program of when he was in his early days in OSD as a director of tactical warfare, was working with an army program for an air defense capability in Europe, something that was near and dear to his heart as a former air defender in the army who worked in Europe. And they canceled the program, and he talked to the program manager, and the program manager said, "You can't cancel my program. I met all my requirements."

Well, he did, but the threat had moved on and the program was no longer actually going to address the enterprise risk that was necessary. We also have to have that understanding both within government and with industry, that you can succeed according to the traditional definition and still not have something that ultimately we say, "Yeah, we got to move that into production." Because it may be something else we made, it may be a space capability that ends up being the thing that really solves the operational problem more than an air capability. And that's one reason why Frank and I work very hard to say synced and integrated, because it is often the case. First of all, our capabilities don't work without each other, and it's often the case that the real answer will lie on the other side of the fence.

**Kristyn E. Jones:**

I think a lot of what we're doing here and what we need to continue to do is institutionalize the mechanisms to get the outcomes that we want, whether that's in these more integrated centers and being able to specialize more in a particular area, let's say in nuclear capabilities, or getting the training that we need so that people understand how to manage risk, and how to work with industry, and those kinds of things. Those are what we need to do, so that as leadership changes, that we continue to have the right momentum moving forward. And I know Frank in particular has spent a decent amount of time documenting in his memos some of the things that he's expecting, so that what he's asking for of the workforce now will continue to live on.

**Kirk Rieckhoff:**

Well, I just want to say thank you all for this. As we close out this last session, we've got Space Force and Air Force here. I would just love closing thoughts from you.

**Kristyn E. Jones:**

So one thing that I wanted to highlight, I'm wearing two hats right now, the undersecretary role and the FM role, and key to both of those is our budget and our audit. So one of the things that we're going to pop up at the end here is some information on a QR code about the impact of the long CRs... There we go, year-long CR, or if we go to our sequestration level budget, this would be really critical to us, especially to the Space Force. The FRA levels, if we exclude any negative impacts to our Guardians, impact us by about a 17% reduction to what we were planning. It's really sizable and would be catastrophic. So I'd ask all of you to help us to amplify that message, that we need to get Congress to act. We're already months into '24 and the longer we wait, the further we're falling behind. China isn't dealing with this kind of delay, so please help us in that.



The second thing that I would say, again from both my FM and undersecretary hats, is the importance of our financial statement audit. For any of our big primes in the room, we know you're all auditable, otherwise we wouldn't be doing work with you. But many of you are holding on our government equipment, our operating materials and supplies. So just a few days ago, the secretary sent a note out to our biggest primes. You may have seen it already, but if not, please ask for it. That stresses the importance of you helping us to maintain the accountability of that equipment that's in your hands, and being open to the auditors when they're asking for that information. So I just wanted to stress that. I don't know who else will make those pitches, but I just wanted to say thank you for your partnership. We're making lots of progress on the audit. In fact, we're currently in the rankings first of those organizations that don't currently have an audit within the DOD, so that's tremendous progress, but we need your help to keep moving.

**Andrew P. Hunter:**

Well, hardy endorse on the need for the FY '24 budget, and for support as we do FY '25 and start to kick off the FY '26 process as well. Certainly the secretary articulated, we've been fortunate we were able to get after things like collaborative combat aircraft and C3 battle management, because we had '23 funds. And so, our being under continuing resolution allowed us to continue to operate, but we really can't take that leap forward, that acceleration that we're going after without the '24 budget request, it's still an essential element. And then there are many other efforts beyond CCA and C3BM that are awaiting FY '24, because they're in the new start category. And I very much agree that I have to have the capabilities that Frank is generating using the FY '24 budget funds that the Space Force has requested for the things that I'm doing to succeed, and ultimately meet their purpose.

The one other thing that I really wanted to make sure I mentioned, because it's so critical and has been such a focus of re-optimizing for great power competition, is also our focus on the nuclear enterprise. Probably the most risk intolerant part of our business, because operational risk is completely unacceptable in terms of having to be able to meet the national strategic requirement. And because we're undertaking such a massive modernization program. And so, the efforts to enhance our focus on the nuclear enterprise, to elevate the what's today the Nuclear Weapons Center, will be the Nuclear System Center, in importance and in its authority and its role to coordinate, and make sure that we're able to deliver the nuclear modernization and integrate it into a integrated nuclear enterprise. Really significant. And the role of a nuclear material manager, who ensures that all of these things, including NC3, really work together. It's a massive part of our re-optimizing for great power competition. I think it doesn't get maybe all the attention, but I think it's one of the most important things that we have.

**Frank Calvelli:**

Let me start by saying just how impressed I am with the space acquisition workforce that's out there. The amazing folks at Space Systems Command, Space RCO, Space Development Agency, and SAF SQ have are just phenomenal, and are making just amazing progress and making architecture more resilient. So thank you. Our job is tough, and I want to touch upon the really great comments the Under and Andrew made about integration. Space is the great enabler for the joint force. So we get to play two hats. It's not enough that we deliver our programs on cost and schedule as acquisition and program managers, we have to all be system engineers. We have to make sure that our programs that we're doing tie in and integrate with other space programs that are going on, other ground programs going on, and then other programs throughout the Air Force, and potentially even the Navy and the Army. So we have to play an integration role and a system engineering role on top of our action role. And so far that's been going great, but we need to continue to focus on that as well.

**Kirk Rieckhoff:**

Well, thank you all very much. Have a great conference.

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