

Optimizing for Battle

This transcript is made possible through the sponsorship of Schneider Electric

Lt. Gen. David A. Deptula, USAF (Ret.):

Well, thanks very much, Ken. Good afternoon ladies and gentlemen, and thanks very much for joining us for our session today on optimizing our air and space forces for battle. This crowd knows that air power and space power stand as indispensable elements necessary to achieve effective national security options. That's why it's crucial for the Department of Defense and the Congress to empower Airmen and Guardians for success. It's not a question of when the nation is going to ask you all out there to answer the call of duty because you do it every day, and the demands on you are simply getting more challenging. Stack that with our current capacity and capability shortfalls, and it's clear we need to reoptimize our forces. That's why Secretary Kendall's seven operational imperatives are so important. It's also the impetus for the new changes announced yesterday to optimize for Great Power Competition.

To provide us with some insights into the rationale that led to these changes, we have some key players involved in the process. It's a real treat for all of you to get some insight into what happened behind the scenes. The first I'm glad to welcome, Dr. Tim Grayson, Special Assistant to the Secretary of the Air Force for Mission Centered Analysis and Operational Imperatives. Next, Major General Steve Purdy, Military Deputy for the Office of Assistant Secretary of the Air Force for Space Acquisition and Integration. Rounding out our panel is Brigadier General Joe Kunkel, Special Assistant to the Chief of Staff for Operational Imperative Integration. And chief, thanks for being here to put pressure on Solo.

So welcome gentlemen, and let's dive right into the conversation. This first question is for all of you. The secretary first started talking about optimizing for Great Power Competition several months ago, and yesterday we heard him and the Department of the Air Force leadership describe some of the necessary changes. From your perspectives, why did we need to do this, and what do we need to get out of it? Solo, let's start with you first.

Brig. Gen. Joseph D. Kunkel:

I'm happy to start. And Chief, welcome, great to have you in the front row. I'd also like to extend a welcome to all the other warfighters out here. I want to extend a welcome to you because this change is going to be executed by you. I think you may have heard the under say yesterday we had a team of about 1,500 working on this. I tell you, when we start to go into the implementation phase which is happening right now, we're going to need all of you. We're going to need the wisdom of all of you and the inertia of all of you to get this done, so thank you so much for being here and taking an interest in this.

But when it comes to the why, I think the chief said it best this morning. We're the greatest Air Force in the world. And one of the things that makes us the greatest Air Force in the world is our ability to adapt to changes in the strategic environment. And if you go all the way back to the Air Corps tactical school days when they moved to Maxwell in 1931, they were about adapting to changes in the strategic environment. They saw those changes.

There's changes in the strategic environment that we're seeing today. Speed, the enemy, China, where we're going requires a change in what we're doing in our Air Force, and I think that's part of it. The other part of it is this transition from combat success being defined by platform integration, which we've had in this era of dominance for the last 30 years, to a transition to combat success being defined by system integration. And frankly, these changes get us ready for that system integration that's going to be required.



Lt. Gen. David A. Deptula, USAF (Ret.):

Steve or Tim? Either one.

Maj. Gen. Stephen G. Purdy, Jr.:

From a space perspective, let me just roll back to yesterday and yesterday evening when we had a pretty amazing occurrence here on stage. We had the secretary, the under, the CSAF, and the CSO all here on stage, and they had some pretty stark words and a stark message. We can sometimes get lost in the buzzwords of competition and strategic competition and those kinds of things, but they all used the phrase, "We are out of time," and they said it multiple times each. And I thought, "That is simple, easy to understand language," and I really appreciated it, because it really brings home the message, we're out of time. And it's just one data point from the space perspective.

I'll highlight China launches. I'm kind of a launch guy. Last year China had a north of 60 launches. In the launch community, we would've dreamed of 60 launches for decades. We would never be able to achieve that. Now we actually did achieve more launches than that, but the point is if they had north of 60 launches, what were their payloads? Their payloads were a lot of military payloads, a lot of ISR payloads, and a lot of dual use payloads. They're putting up an amazing sensor net over the entire Indo-Pacific. And as that sensor net continues to get deeper and more complex, it forces us to rethink about how we're optimized, how we're structured, and how we can get after that.

Dr. Timothy Grayson:

The only thing I'll pile on, I look at a lot of these problems through my experiences with the innovation community and acquisition and capability development. To pile on what both the generals have said through that lens, we have an incredible, incredible innovation base in our Airmen, our Guardians, and our DAF civilians. And often we don't give them the opportunity to bring forward the great ideas and the innovations and turn them into real capabilities. So I think that's a lot of what we've been doing. But a lot of what you're hearing about in these Great Power Competition optimization is how do we harness that? Then to go fast, and then to make sure that we are constantly in a mode of saying, "How do we stay ahead? How are we ready for this prize? How do we execute and exploit the opportunities?"

Lt. Gen. David A. Deptula, USAF (Ret.):

Tim, a bit of a follow on. If we all were to gather here on stage five years from now, how would you define or evaluate what success would look like?

Dr. Timothy Grayson:

I'm going to answer that in two different ways. The first of all is from the perspective... I'm very myopic. I live operational imperatives day in and day out. So let's first talk about the operational environment five plus years from now. We're talking about things that have happened over the last couple of years. If we get an appropriation, and I think we might come back to that, where what our air and space forces look like are going to be radically different than what we see today. We're going to have autonomous CCAs as part of our force. We're going to have a fully functional and well provisioned agile combat employment schema maneuver. We're going to have long range beyond line of sight space-based kill chains and communications that are linking sensors to shooters for not just the Air Force but also the joint force. Thank you Space Force for doing that for us.

How did we get there? A lot of these things that weren't part of the direct glide slope from current programs and the current ways of doing things. As the secretary said yesterday, the OIs were largely a pickup game. I was the only person in the department who was tasked to work OIs full time. Everyone



else had a day job and was doing this as a pickup game. Well, it's awesome where we've gotten, but in that five years from now under this optimization for Great Power Competition, we're seeing the pieces be put in place that allows us as an institution to be able to perpetuate that. So it's not dependent upon personalities. It's not dependent upon heroic actions of individuals. It's something that we can sustain. We're constantly in a posture of saying, what's the next competition that's either going to really challenge us or frankly really create a great opportunity? And then how do we not just turn that from a theoretical concept into something that's actionable in the fields and in the hands of our warfighters?

Lt. Gen. David A. Deptula, USAF (Ret.):

That's pretty exciting. And all of you should be encouraged by that because you got somebody up here who has the perspective and I think the drive to actually make these kinds of significant changes. That's what these changes are all about, to make a difference in five years. Let me stick with you because you gave a little bit of a segue to this next question, and that's how does GPC relate to the operational imperatives? Does it represent a shift in the department of the Air Force priorities?

Dr. Timothy Grayson:

Yeah, thank you for the question because I have to tell you, actually back at the fall AFA when the secretary first announced optimization for Great Power Competition, I kept getting a lot of people come to me, "So what's your next job going to be?" Now that we're not doing OIs anymore, we're focusing on GPC, one, we've got to be ambidextrous. We've got to be able to do multiple things at once. We've got to think about the future while we prepare for today's readiness.

Two, GPC as you've been hearing the last two days is not just about fight tonight readiness. That's a very important piece of it. It's about preparing our Airmen, it's about building the right force structures and means of presenting power that do make us more effective for fight tonight. But GPC is as much about putting the pieces in place to be able to perpetuate what we've done in new capability development such as we've done under the OIs.

So really the way I think about it is the OIs are continuing. We're right in the throes right now of developing our input for PAM 26. And it will continue under the constructs of GPC. This notion of the battle rhythm of looking at what's next and what next field capabilities we're going to field are absolutely part of the capabilities box within GPC. So it's, OIs are the what that we're developing right now; GPC is the how of how we institutionalize that and perpetuate it.

Brig. Gen. Joseph D. Kunkel:

I might add onto that if you don't mind. So Tim, to add onto your point about ad hoc teams and the OIs being ad hoc teams with one full-time person, the GPC frankly doubles down on the operational imperatives. A year and a half ago we were having a conversation about the operational imperatives, and how you turn those from just these modernization things to actual fielded capabilities. What we found out is the way the Air Force does capability development, we assign a lead PEO and we assign a lead MAJCOM, and the PEO and the MAJCOM work together and they field a system. So there's a lead PEO for the F-15 and a lead MAJCOM for the F-15. They work together and sure enough, you get a field at F-15.

What we found in the operational imperatives, as we transitioned from a focus on platforms to a focus on the system is that in order to field these systems, we were marching through multiple PEOs and multiple lead MAJCOMs, and we really didn't have any integrator for that. And so the chief about a year ago, and now I've had the longest duty title in the entirety of the Air Force, Special Assistant to the Chief of Staff of the Air Force for Operational Imperative Operational Integration.



Dr. Timothy Grayson:

Does that make an acronym?

Brig. Gen. Joseph D. Kunkel:

It is. It's something like a C2 something something. But anyway, the whole purpose of that was this recognition that we need to develop the capabilities in an integrated fashion. So I think GPC is a follow on to this realization that the OIs started focusing on system level integration and we needed something in the Air Force that kind of solidified.

Dr. Timothy Grayson:

And I apologize, there are now two people who have the job full time?

Brig. Gen. Joseph D. Kunkel:

Yeah, there's now two.

Dr. Timothy Grayson:

But we had to twist his arm and pull him out of the A8 because he was one of those donors.

Brig. Gen. Joseph D. Kunkel:

That was tough.

Lt. Gen. David A. Deptula, USAF (Ret.):

Steve?

Maj. Gen. Stephen G. Purdy, Jr.:

If I could just add on, so you mentioned a sort of a what and a how, which ties the OIs and the GPC together, but I'll add in a why. There's an underlying reason; producing combat credible air and space forces that are ready, and that is the bottom line purpose of all of that. And so there's a lot of work. The OIs kind of help you to do that, provide the tools, but GPC is really all about providing the structure and the mechanism to get after producing that.

Brig. Gen. Joseph D. Kunkel:

Delivering operational capabilities to the warfighter when they need them.

Lt. Gen. David A. Deptula, USAF (Ret.):

Let me circle back to Tim. Building off some of what you just described, how does some of these new GPC organizations help with accelerating OI like new capabilities into acquisition execution?

Dr. Timothy Grayson:

This actually addresses where I think there's been some fair confusion. I getting a lot of questions before AFA announcements, but a lot of fair questions in the hallways. We've got an integrating capabilities office, an integrated capabilities command, an integrated development organization office. The way those come together is they are trying to recreate institutionally where I would argue the secret sauce came from in the operational imperatives. What made the operational imperatives effective is we built



teams of operators who brought the voice of the warfighter, understood the operational problems, and frankly were also authorized to be [inaudible 00:14:58], and brought them together with capabilities developers who understood the technology, understood acquisition realities, understood how to go get things resourced and build plants. That combination of capabilities and operations was magical for the Ols.

This new construct institutionalizes that. Something like an ICC is now an integrated voice of the warfighter and that requirement sponsor representing the operational side of this puzzle. Something like an IDO and the pieces coming out of an AFMC. And same thing with the Space Force with a Futures and then the systems command represent the operator and the capability developer. So it's creating an integrated set of organizations to mirror what we've done with the OI teams.

And then the ICO piece is only focused on what I call the new new, where we have existing programs, existing requirements, existing doctrine and war fighting concepts. We've already got a construct that now these new organizations will help accelerate, but we've had operators and acquirers coming together, and things like our panel process and how requirement sponsors work with PEOs. What the ICO piece does is allow us to break loose on that new new. Again, it could be something top down, covering from seeing some new competition that we have to address. Or as I mentioned in the opening comments, it could come bottom up where there's some great innovative idea coming out of one of these future constructs, or frankly coming out of an airman at something like a WEPTAC or something of that nature. So the ICO allows us to harness those when there isn't an existing organization or team to go perpetuate those.

Maj. Gen. Stephen G. Purdy, Jr.:

Yeah, just jumping in. I'm a big fan of structural fixes to problems. And so secretary had to put together the OIs, C3BM, these kind of structures because he saw a need, but there wasn't a structure that got after that. As an acquirer and someone that plays on the front end of technology dealing with the labs and universities and what, there's a tremendous amount of good ideas, but there is not a good path. We've tried to get after that with SSC Front Door and other mechanisms. But think of the power of a space future's command where you've got three pieces in there. You've got a concept piece as the front piece where your inputs could be anything and everything; your universities, your lab, your technology, your DARPAs, all of those elements. Then you go through and you evaluate those concepts and you run them through actual war games and exercises. And then you end up into the SWAC, Space Warfighting Analysis Center. This has been doing amazing work at that PhD level that comes out with an actual mission design.

And so you've actually got a structure almost for the first time that can take ethereal ideas and take them through an entire process into an actual mission design that would then eventually get into a Force design and a PAM. It's pretty powerful and it's pretty exciting to be able to put that in play.

Lt. Gen. David A. Deptula, USAF (Ret.):

Steve, let's stick with you for a second. Space Force had the flexibility to pursue a brand new organizational design with the standup of your new service. Could you speak to how you and your team approach that challenge and how it continues to be refined?

Maj. Gen. Stephen G. Purdy, Jr.:

Sure, absolutely. The Space Force had the benefit that it was born in Great Power Competition. And so to an extent, being only born a few years ago, we were able to put some structures and processes into play that have been pretty cool, and we've been able to get after some really innovative ideas and



concepts, both from a mission perspective and organizational. But you can never get everything right. It was set on stage last night, we're pretty sure this isn't all right, but we're headed in the right direction. And I would argue this is a good example of where, hey, we've developed some suboptimal processes. There are aspects that need to be fixed and adjusted.

And so Great Power Competition has enabled us to go in and look at that and figure out, "Hey, where do we need to continue tweaking and focusing?" And so that allowed us to go look at things like Futures and S&T; allowed us to go look at things like readiness and advanced training, integration among our PEOs and all these different elements. And so across all those specters, that's what we looked at to sort of figure out where can we keep getting a little bit better and a little bit better, which I think kind of shows where GPC will head. We'll go down the line a little bit, and then we're going to figure out they're not quite right and we'll get a little bit better and we'll get a little bit better.

Lt. Gen. David A. Deptula, USAF (Ret.):

Very good. Another one for Joe as well as General Purdy. A lot of the discussion that we've heard relates to material capabilities in fixing acquisition related challenges, but the issue is optimizing for Great Power Competition. So how is this new paradigm going to impact war fighting concepts and improve readiness in the near term?

Brig. Gen. Joseph D. Kunkel:

Maybe you didn't hear the chief, but if you didn't hear the chief, what he said this morning was, actually it was last night, there's going to be some things that are immediate that are going to get us ready for the fight tonight, and then there are going to be some other things that are enduring that get us ready for this enduring competition that we have. I will tell you, the way we project power in our Air Force right now, and I'll stick to the US Air Force, right now we assemble our combat wings at D-Day, and we assemble them in theater and we practice in theaters, certify in theater. And I would suggest that that construct is not going to work for us in Great Power Competition. When I was a AEW commander, I literally met the people in my wing, some of whom are in the room tonight or today, on the airplane over there. You don't get that cohesive team, that unit focused team, when you assemble everyone at the line of scrimmage.

One of the great efforts that we're going after is the combat wing is a unit of action, and a combat wing that is standing and structured and resourced to execute its wartime task and execute as a unit of action. We haven't, since you were deploying in the '90s, had wings that could deploy and act as a unit of action. And I would suggest that when you take a look at the wartime missions that we expect to accomplish in the future, that having wings that can actually execute the seven joint functions, that can actually plan and execute, that have the three layers that we've been discussing, a command and staff layer that's structured and resourced to do wartime functions, a mission layer which provides modularity to do wartime functions, and then finally a sustaining layer, which many of our combat wings do not have, a sustaining layer that helps run a base or conduct base operating support at a deployed location. I can't highlight enough the necessary change that this GPC effort is going to have for how we present forces in the future through this combat wing effort as a unit of action.

Maj. Gen. Stephen G. Purdy, Jr.:

I'd like to jump in there and add some space pieces. We had some unique aspects. We're employed in place, but yet we were also built in a benign domain. And as we continue to work to build into a full combat focused force and build out space superiority concepts and whatnot, both of those elements were incredibly important in Great Power Competition in the readiness front. And so in our world,



defining the combat squadron as the key unit and building those forced elements into a combat squadron. And then getting after readiness assessments; readiness assessments traditionally didn't really get after I stated. But then also getting after those infrastructures. To us, infrastructure is critically important; power, electricity, all of those things, we can't get our job done without that, all of the other base support functions. And so creating a readiness standard and function that gets after documenting all that and accurately describing all that is key. Then you package all that up in a space readiness model, our own Space Force gen aspect, to present to the warfighter.

And then the final piece, which is really key that sometimes really isn't realized, it was a pretty huge invention in our world, Space Operations Command used to be the command that did organized training, equip, and the war fighting piece. We have broken that out and we've created Space Force spaces. They're the ones that are offering the combat forces to the joint environment. That allows for the first time space operators under SpOC, soon to be named Combat Forces Command, to get after advanced training.

And so holding some forces back and personnel back and get after advanced training, which also helps back to the question on acquisition. When you want to bring in modernization elements, one of the traditional rubs and points of conflict is, do you have time? Are you spending time doing operations or bringing on new capability? Now we've blocked that time in to be able to get after that, which is going to enable them to be even better.

Lt. Gen. David A. Deptula, USAF (Ret.):

Very good. Here's another one for all of you. We now have seven operational imperatives, three crosscutting operational imperatives, new structures to deal with Great Power Competition, as well as some new war fighting concepts. This sounds like it could be really complicated to execute. How are we going to make sure that we maintain a war fighting edge against the backdrop of the complexity and the challenges of all of these changes?

Brig. Gen. Joseph D. Kunkel:

I'll go ahead and go first. I've mentioned it in my initial comments, that we're going to need everyone, frankly. We're going to need everyone in this room. We need everyone to step into the arena. One thing we know, we don't have it all right. There's going to be some detailed planning that's occurring right now. As we implement, we know we're going to have to learn from what we've done, and then there will probably be some further changes.

But what I'd ask is for those of you in the room and those of you in leadership positions, get behind it, get on board, get in the arena with us, help us make this change. I think that's going to be the key to success for us. Part of this is cultural, and I think we can win that cultural battle.

Dr. Timothy Grayson:

What I'll pile on there is a couple of the people here who were involved in some of the early optimized for great power discussions, I'm a huge fan on flexibility. So I was pushing models and I still am. Ad hoc, virtual, federated, and just like the description that you gave, Dave, these are complicated models, but they give us incredible capability from it. They give us resilience, whether we're talking capability development or operations.

So yeah, it's hard. But fighting a war against a great power is hard. We don't just say because something's hard that we don't do it. So a big part of this, it's why we have people as one of the key elements of GPC. We've got to make sure we're constantly developing the right skill sets, the right mindsets, the right traits and attributes of people who can handle this kind of complexity. I forget which



of the leaders said it yesterday; maybe all of them. Yes, change is hard. I will add to that, the constructs we're trying to create are hard. Losing is unacceptable.

Maj. Gen. Stephen G. Purdy, Jr.:

I think I would add, the concepts sound complicated, but the reality is is they're broken out into different areas. And so not any one person, except Solo over here and you, are doing it all. But we go after it in pieces in the different orgs.

But I think what's more important is, let's step back to the comment I made earlier. It's a cultural change. And so we had all four leaders up here expressing that we're out of time and expressing the threat and expressing that they're serious about getting after it. There should be no debate within the services or secretariat that there's an issue and we need to get after it. That gives license all the way down to the most junior forces. And so the question that everyone should ask yourselves is, in the most junior individual in the junior organization, am I ready to go fight? Am I helping? Is our organization ready to go present a combat credible force? Am I ready for the fight? Are we ready for the fight?

If you're not, all four of our leaders have just stated that we are changing massive amounts of structures to make it so that we are ready. And so we should feel the license to be able to raise our hand up and say that, "Hey, I think something's not quite right." And that allows the unit to then have an honest conversation to get after whatever that is that's inhibiting us.

Lt. Gen. David A. Deptula, USAF (Ret.):

Very good.

Brig. Gen. Joseph D. Kunkel:

Take initiative. That's what we need folks to do. We need them to take initiative. I think in the last 30 years perhaps we have not been able to take initiative to the degree and the Airmen haven't been able to take initiative to the degree that's actually going to be needed to execute in this area of Great Power Competition. So excellent points.

Lt. Gen. David A. Deptula, USAF (Ret.):

All of you, all of us have been talking about Great Power Competition in the context of the Department of the Air Force. How does this new construct relate to joint force operations and our coalition partners? Do you think it will make combined and joint force operations more integrated? For example, helping in getting CJADC2 implemented quicker? It's just I'd throw that out as an example, but comments?

Maj. Gen. Stephen G. Purdy, Jr.:

I'll start real quick. There's some interesting data on the Space Force. 60% of our budget is actually aligned toward the joint force support. We're a supporting function essentially, and so we already start from that place. And so the changes that we've made, some of the changes are directly applicable to that. So we've stood up, as I mentioned, the Space Force spaces, which is all about presenting the forces forward. We've stood up components, space components to multiple different combatant commands. So INDOPACOM, Korea, CENTCOM, EUCOM, AFRICOM, and we're working on the other ones. And, we're working on increasing the amount of presence in each one of those areas. That's something that we didn't have before. That is all about being able to take our combat capability and present those to the different commands. GPC is sort of helping us change the structures and abilities to be able to provide that joint force support.



Brig. Gen. Joseph D. Kunkel:

I would say that question is about war fighting and how do we war fight better. I would think that the GPC changes that we're making are going to help us in two areas that I can think of off the top of my head. One is this thought of having component commanders or air component commanders that are supremely focused on generating the readiness for their combatant command. Right now, some of our top level commands that are functional air component commanders also have other roles with generating the future and understanding what the future looks like. In addition to that, focus on current operations and current readiness for the combatant commanders. So I think that component command is going to be very helpful for us.

I also think at the wing level, one of the things that we've been talking about, I don't know if it's decades, but for a long time is this thought of multi-domain operations and multi-domain command and control, and having entities that can actually execute authorities in multiple domains. I think when you take a look at the unit of action that we're providing and the modularity that we propose that perhaps one day, maybe not in the near future, but perhaps in the future, one of those modular packages in that mission layer could be something from a joint service. So I think that we're building the framework that might get us to that point sometime in the future.

Dr. Timothy Grayson:

And I'll pile on from a capabilities perspective. I'll use first of all an example that we've experienced already from the operational imperatives. Our team that's been working long range kill chains. And again, virtual ad hoc, flexible, federated. They realized they couldn't do long range kill chains just as the Department of Air Force, even combining Air and Space. That wasn't enough. Right off the bat, there were Navy partners who were very key elements of a long range kill chain who were both consumers of it as well as having elements to offer into it. One of our officers, Colonel Perschbacher, who was the operations lead on that, took it on his own initiative under the operational imperatives to work with his Navy counterpart to form something called the Joint Long Range Kill Chain Organization. For those of you who have been around for a while, you've heard of things like JADO that were tactical missile defense. That was the kind of initiative that comes out of these kinds of teams. That has immediately been adopted. That has had all kinds of joint level support, more organizations of joint interagency OSD combatant commands led by that initiative that came from this kind of team. We can do more of that. The constructs we're putting together under Great Power Competition are going to enable more of that.

And then the other big example I'll give is in the creation of the PEO for C3 Battle Management, we've been calling that the integrating PEO for C3 Battle Management. For those of you who have been doing CJADC2 for a long time, everyone's always been waiting for the magic global standard that's going to come in and allow all the joint forces and the coalition partners to magically snap together, and we never get there. Well, what having an integrating PEO has done is bring enough technical expertise to meet people where they are. Create system of systems and create interoperable capabilities without waiting until there's a magical common architecture. With the new systems commands that are being developed, particularly the information dominant system command, we're going to be able to up the scale on that, get to bigger activities faster and with more elements. So I think that's going to create huge opportunities for joint and coalition.

Lt. Gen. David A. Deptula, USAF (Ret.):

Industry has obviously been extraordinarily interested in these upcoming changes, and their navigating Air Force and DOD procedures and organizational structure has been a consistent challenge, especially



for smaller startups. How will the reorganization impact the relationship between the Department of the Air Force and industry? Tim, why don't you kick this one off?

Dr. Timothy Grayson:

Yeah, so two pieces of that that I'll toss out. First is, from the small business, and I'll call it the innovation community perspective, one of the things we've been able to do under the operational imperatives is use that operator coming together with a capability developer to provide a more crisp definition of what we need in terms of new capabilities, be able to define what the actual problem is without creating an over specified list of requirements that tends to stifle innovation out of a small business or out of an AFWERX or out of an AFRL.

So we've been able to give them a focus to make sure it stays relevant, and frankly provide through essentially a product team a pathway to go directly into a program of record and directly into operational use without squelching the innovation that happens in small businesses and the lab and these innovation environments. So I think we can do more of that through these GPC constructs.

For the rest of industry, not just small businesses and VC funded places, one of the big things we've seen is the notion solving problems, even within the OI teams themselves. We do have a cultural mindset that wants to respond to requirements. And a big part of what we've been trying to drive home under the operational imperatives is let's actually understand what the problem is and focus on solving the problem. That's what we're trying to instill to industry. We'd love to get industry, big and small, more focused on solving problems. And no offense, because at the end of the day you got to make money. But it's not about just figure out a best way to sell us a product. See how you can use your own expertise, your own IP, your own skills to help solve the problems. And then what we owe you is to do a good job of explaining those problems to you. We're still working on that. We got a lot of work to do, and GPC might help with that. But then also to be good customers for that.

Lt. Gen. David A. Deptula, USAF (Ret.):

Very good. We're getting close to our end game here. General Kunkel, let me offer you the last question. One of the major challenges affecting the department has been a shortfall of operational experience. Not only do we need the experience out in the field, but we also need it at every level of the various different staffs. We've had a significant pilot shortfall for several years. How do the latest changes that we've discussed deal with this particular challenge?

Brig. Gen. Joseph D. Kunkel:

I think part of this is the teams that Tim's talking about for ICO and how you bring in operational expertise that perhaps is not stationed at the Pentagon or wherever ICO is, but is out in the field. How do you bring in a team of operators as well as acquisition folks to solve problems? I think that is part of it.

The other part of this is when you think about an integrated capabilities command and the demand for operational expertise, we know that we're going to have to go out into the field to get that operational expertise. It's not going to all reside at the headquarters level. And so I think what you'll see from us is this attempt to use everybody on the team, extract the wisdom of the entirety of the team, whether they're sitting in the headquarters level or they're sitting down at the unit level. The Air Warfare Center, right now they're taking a large role in helping us out and defining these concepts, and I think they'll continue to do that.

Maj. Gen. Stephen G. Purdy, Jr.:



I think I'd like to add two space elements to that too, because I would agree with those. And then additionally, in space, setting up a officer training course for officers to sort of baseline all the Guardians together on operational principles and concept is a key element. But then I think as you get later into the career, these integrated mission deltas that we've stood up in the Space Force are huge. They're an experiment activity, and we've got two set up right now; one for PNT, positioning, navigation, and timing, one for electronic warfare, and they have matching system deltas, acquisition deltas that map to them. But the IMDs are made up of acquirers and operators, and kind of the sustainment side on the acquirer side, operators. But then very interestingly, for one of our acquisition programs for OCX, we brought that over and put that in the IMD as it starts to near. And we've seen amazing benefits from that already because the operators have been able to get with the acquirers as we do in this last testing. And so it's bringing that operational influence, and that insight toward the end game is where we try to deliver the capability. So we're not just tossing things over the fence, but we're gliding it in to a ready and willing and receiving operator force who can then use it and run with it.

Brig. Gen. Joseph D. Kunkel:

Can I hijack about 30 seconds here before we close?

Lt. Gen. David A. Deptula, USAF (Ret.):

We've got 50 seconds left.

Brig. Gen. Joseph D. Kunkel:

50 seconds, all right. Hey, I'm going to go off script just a little bit and do a special presentation. So 25 years ago, a very young Captain Kunkel was on his second deployment. We were deployed at Incirlik Airbase in Turkey and we were deployed for Operation Northern Watch. Many of us were getting our first combat drops in the mighty F-15E. We'd come back to the base after a mission. There was this one star commander of the entirety of Operation Northern Watch. And every single time we landed from these missions, this one star commander would come up to the airplane and he would present us with a coin and say, "Hey, thank you for what you're doing." And this one star commander was a 1H Brigadier General Dave Deptula. And so by the time I left Northern Watch, I had a stack of what the squadron had termed or coined the phrase, no pun intended, the Deptula warfighter coin. And I promised myself if I was ever in a position to hand out some Solo warfighter coins I would. And sure enough, when I was a AEW commander, I was able to hand out a bunch of Solo warfighter coins. So what I'd like to do is I'd like to give you 1H Solo warfighter coin. Thank you for all you've done for our Air Force over the years.

Lt. Gen. David A. Deptula, USAF (Ret.):

Appreciate it. Well, I appreciate that. And what it demonstrates to you is that lieutenants sometimes listen. And then they grow up to be general officers. You're one of the Air Force's best, so thank you very much. Keep up with the great work. And ladies and gentlemen, please join me in thanking our panel. Have a great Air and Space power kind of day.

This transcript is made possible through the sponsorship of Schneider Electric

