Dr. John F. Plumb Fire Side Chat - Transcript

Jennifer Reeves: [00:00:00] Good afternoon, ladies and gentlemen. Please continue with your lunch, but I would love to bring your attention to the stage if I could, please. I'm Jennifer Reeves, the new Senior Resident Fellow at the Mitchell Institute's Space Power Advantage Center of Excellence. Thank you so much. And it is, it is day three, day three, and I'm, and I'm feeling pretty good though with Dr. Tournear and his outstanding choice of footwear.

Uh, Mr. Forney and his outstanding choice of footwear, but I promise you, no one has beaten these, these hot pink numbers that I'm wearing today. I feel right at home, ladies and gentlemen, thank you so much. It is my pleasure to welcome you to our lunchtime fireside chat between Kevin Chilton and the Assistant Secretary of Defense for Space Policy, Dr. John Plumb, who is responsible for the overall [00:01:00] supervision of policy for the Department of Defense for Space Warfighting. His policy portfolio encompasses the Department's strategic capabilities for integrated deterrence, including space, nuclear weapons, missile defense, electromagnetic warfare, and countering weapons of mass destruction.

He certainly has his hands full, especially in these interesting times. So it's wonderful that he could come and take some time here to chat with us today. General Chilton, sir, over to you.

Gen Kevin P. Chilton, USAF (Ret.): Can you hear me? Awesome. Thank you, Jen. And welcome aboard. It's great to have you with the Mitchell Institute. How about a round of applause for our newest member here?

Mr. Secretary, it's great to be with you. Thanks for taking time out of your busy schedule. I can, in the policy world, the work never ends. I know that. So we really appreciate you coming over here today. Is there any opening remarks you'd like to make before we get into the Q& A?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Sure, I'll make a couple. So first, thanks.

[00:02:00] Always great to do this. This is a new format for us, uh, and I appreciate it. I hope the food is good. Um, and the other thing is, uh, Jen just introduced this as a fireside chat, uh, based on my pre conversation with the

General. I think it might be more of a Fireside congressional grilling. Uh, so actually to bear with me in an unclassified forum as I try to answer his questions, the best of my ability.

Gen Kevin P. Chilton, USAF (Ret.): Earlier, early in the day before you got here, there was a question ask and it's been in the news and the media about a potential Russian threat, orbital, uh, satellite that could carry a nuclear weapon. And I, this is, um, the idea of a nuclear detonation in low earth orbit is something we're somewhat familiar about in the United States because we did several, uh, back in the sixties, I believe. And the most notable was the Starfish Prime Test. Uh, you can find it on Wikipedia. It's really quite [00:03:00] well documented there, uh, where we, we detonate a 1. 4 megaton warhead in LEO. Learned about the EMP effects of that on the Hawaiian islands.

But more importantly, I think we learned that it. Over time, over a period of a week or two. Uh, the satellites that were operating in the low Earth orbit environment all died. Uh, their electronics died. And so, it begs the question, as we start to populate LEO with some very important capabilities, missile warning, communications capabilities, tracking capabilities, um, are we prepared for this type of threat today, when our satellites are certainly more advanced And hopefully more hardened, but is there anything you could, you could say about this particular potential threat?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): So let me, uh, try to keep, uh, these issues a little bit separate. I'm going to distance myself from your comments [00:04:00] about the Russian counter space threat, which, uh, you know, at, at, for the administration level, we are simply, uh, acknowledging there's a counter space threat of concern that the Russians are, are fielding.

Your separate question related to Starfish Prime and a hypothetical use of a nuclear weapon in space. You say one completely indiscriminate weapon, right? It is not targeting. It is impossible to use that weapon in any hypothetical sense to only target a specific, uh, type of satellite, a specific type of country satellite.

Indiscriminate. Would take out us satellites, Russian satellites, Chinese satellites, Indian satellites, any country operating in space would take out military satellites. It would take out civil satellites. It would take out, commercial. And it would also, as you pointed out from the Starfish Prime pump the Van Allen belts in some way which clearly, you know, we could spend some time on the physics of that, but roughly this, it makes a higher

radioactive environment. [00:05:00] That can cause damage to satellites that aren't caught in an immediate blast over time as well.

And that is really damaging on a global level. I think, you know, when we are having, when I'm having conversations, when you're having conversations, General, we're mostly talking about military and space. But the entire world relies on space every single day. Every single American relies on space every single day, completely separate from any war fighting.

Uh, and so the damage it would do globally is significant. It would also undoubtedly wipe out the ability to put human beings in LEO for quite a long time. So just no nation should be pursuing any type of capability like that. And it's in no space faring nation's interest, or really any nation's interest, for there to be a nuclear detonation in space.

Gen Kevin P. Chilton, USAF (Ret.): Going beyond that, so General Saltzman has asked us to challenge some of his theories today. And so one of his theories of competitive endurance calls for responsible counter [00:06:00] space campaigning. Now, can you, can you comment on the need for this responsible behavior by all parties in the competition and how... you know every every country gets to decide their own national interests. How, are, if we are the only ones being responsible in campaigning how that works with say an adversary like China who might be less concerned about orbital debris and more concerned about winning a terrestrial conflict in the Western Pacific?

Is, is there a flaw in this concept of, of responsible counter space campaigning? Or is there a difference between counter space campaigning and counter space warfare when the campaign turns into actual conflict?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): So, first let me just say I really like General Saltzman's term responsible counter space.

I'm beginning to adopt it myself. We had a conversation about it. I think it is the right framing and I think it matches some of the Department's and the Secretary's tenets of responsible space [00:07:00] behavior in a very in a very close way. And I think it's important. Uh, I also think space as a warfighting domain is somewhat of a new concept in the history of the world.

And as we enter that new, era, if you will. You know, things can be more unstable at that beginning piece. And so the idea that some of the more primitive weapons, like a direct sent ASAT that, you know, Russia

demonstrated a couple of years ago or China has in the past. Those are kind of, what would I say?

Ham fisted systems. But it is in no space faring nation's interest to use that type of attack because of the orbital debris problem. And so I think, the right answer is, finding ways to make sure you can achieve your effects in space, counter your adversaries effects in space as you need to in a conflict.

Can you do this in a responsible manner? Uh, and that is a bit of a technical challenge perhaps, but I do think it is entirely possible [00:08:00] and I think that is the direction we need to be headed. And I can give you a whole bunch of science fiction examples if you'd like.

Uh, too late. So there's this book called Seven Eves. Which I was just thinking about because I knew you were going to ask me this. And this is, this is a far future humanity. But literally security forces on space stations in this future world where we occupy space have developed entirely separate types of bullets because you don't want to shoot a bullet at a bad guy on a space station that will then go through the hole and puncture it.

And just the idea that just kind of baked into this is a different environment. How do you operate in this environment in a way that is still responsible?

Gen Kevin P. Chilton, USAF (Ret.): Let me, let me pull it through a little further. Here's my my concern. So we say no responsible spacefaring nation would do kinetic attack and create debris.

I think there's a risk of mirror imaging there. That's us. But if China wants to take Taiwan, I don't think they'll feel constrained to create debris in orbit. When [00:09:00] you have a country that has a 50 year 100 year horizon on what they want to become, that all will be down in 50 or 100 years. And if they, and so is, is this a bit of a danger in this concept? Is that we're going to hold ourselves accountable to responsible behavior, even on the offensive side.

Can we be certain the adversary will? And I would argue no. And so, worst case is, they, they are not constrained, they don't care. They take out all our LEO capability, all our ISR capability. They damage enough of our proliferated constellations, but they lose none of theirs. And now we fight on an uneven playing field.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Well, I mean, that's kind of an academic excursion, no offense, General. But I

think, first of all, deterrence is not domain specific, right? All domains, deterrence, right? That type of open and kind of devastating warfare you're suggesting would certainly take [00:10:00] tremendous amounts of planning and kit. And I, I don't think conflict is inevitable.

I think the whole value of adding space to our kind of lexicon is to strengthen deterrence. Uh, and I believe that that is actually, you know, happening as we speak. Some of these forums actually help contribute to that in a kind of a track two or one point five weird, you know, information pressure way.

So I don't think, I think you have to be careful of going down a massive Pearl Harbor type of attack. If an adversary is absolutely committed to a strategic surprise attack. That is literally what we have nuclear weapons for.

Gen Kevin P. Chilton, USAF (Ret.): Well, I'm glad you brought up deterrence, because that was going to be my next line of questioning. We heard a lot about disaggregation and proliferation of constellations, which is, is a strategy for defense. To make it more difficult to attack our constellations.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): For resilience.

Gen Kevin P. Chilton, USAF (Ret.): Resilience. Yes. Resiliency. [00:11:00] Yeah. And I think it's certainly an important part of the deterrence equation. But in my studies of military history, pure defense has never deterred any adversary. Ultimately, there's never been a castle with walls tall enough or thick enough. And certainly the Maginot Line didn't stop the Germans.

There's time after time, the offense, the threat of offense is essential to a successful deterrence strategy. And we certainly see that in the nuclear world, or else we'd put all our money in missile defense and get rid of all our offensive capability. So, if we're going to treat the space domain like every other warfighting domain, it would logically, my logical conclusion is we need offensive capability. That holds the satellites at risk that China, for example, would use.

I think we heard this morning they have 400, over 400 ISR satellites. That are tied into a sensor shooter kill web to find, fix, and track and kill our carriers [00:12:00] and attack our airfields in the various islands we plan to put them in in the Western Pacific. How do we, it would seem to me we have to hold those at risk to deter, credibly, and um, that we need to let them know that they can't get away with that.

Your thoughts on deterrence and use on the offensive side of deterrence?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): So, first of all, I'm gonna shy away from using the term offensive side. Because I'm talking about defending us men and women in harm's way. All right? And so there are in fact two different parts of this coin, however, which you have pointed out and I will just reiterate there, is how do you make our architectures defendable or more resilient?

And you know, the value of resilience is that you can take a punch and it, you know, maybe degrade gracefully or maybe not even degrade noticeably, right? And so that should devalue the threat of an attack. And really what we're talking about, so, is raising and [00:13:00] raising that threshold for deterrence.

So your example before of all out, thousands of weapons flying. That's, that is above any deterrence threshold. Like that's a committed adversary that you cannot dissuade, frankly, at that point. Hopefully that's a hypothetical thing that we never should deal with. In theory, nobody wants to deal with that level of conflict.

But. If we can have resilient architectures, it makes it harder and harder to stop our men and women from getting the space services they need. And make no mistake, rely on space services to fight. Frankly, we rely on space services in the military every single day, whether it's peacetime or conflict.

And the adversary knows we need these to fight, and so of course they're seeking to look at how they might disrupt that. Different side of the coin, is the find, fix, and track or kill, portion of the equation that the adversary might use against our forces. No amount of U. S. resilience in space, solves that side of the coin. And so, I guess I'll say at this level, we have [00:14:00] options across all domains to neutralize the adversary threat to our forces that may be through or from space.

Gen Kevin P. Chilton, USAF (Ret.): My history, uh, which is old, now I'm an old, retired guy, was that words like space superiority, warfare in space, weapons in space, weapons to attack adversary satellites in space or infrastructure, uh, that supports that was verboten. Are we past that now?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): I don't think I said any of those things.

Gen Kevin P. Chilton, USAF (Ret.): So we're not past that?

So we can't, we really can't treat space like air, land, and sea. Where offense and defense, and we talk openly about warfare and holding adversary assets at risk. We still can't do that?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): I feel like I'm toeing up against the line here, uh, but yeah, we will hold things at risk. We will, I mean, look, here is, here is I think the easiest way to answer [00:15:00] this. The Department of Defense's sacred duty is to defend our, you know, protect our men and women and frankly protect the United States citizens. And if those threats are being delivered through space, then we will defend against that as well.

Gen Kevin P. Chilton, USAF (Ret.): Let me switch gears here. Maybe this is a little more.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Thank you, Congressman.

Gen Kevin P. Chilton, USAF (Ret.): A little more, uh, um, Is the bar open?

We really do like each other, believe it or not. Over classification. Okay, this is a big shift in gears here, is something I hear over and over again as an issue. Whether it's from industry, from our allied partners, even within the departments, the various departments of the Department of Defense, various services.

Um, any comments on that and efforts we might be taking to adjust policy on classification? And you and I were laughing beforehand, your read ahead book, which has the [00:16:00] same notes as mine.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): My read ahead book says CUI on it, so even this is over classified.

Gen Kevin P. Chilton, USAF (Ret.): So stop the cameras.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): You're not allowed to look in there, yeah.

Gen Kevin P. Chilton, USAF (Ret.): No, please.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Uh, so, first of all, thank you for this opening and this shift. Let me just say, uh, I, I

could have said this at the top, but I thought the Congressional grilling analogy was more apt. Which is, you know, I've been in this job about two years, just a little over two years, and really since the day I got there, I've been hammering away on space control, space cooperation, and space classification. And making the point how they are all deeply intertwined. And in many cases, the over classification of some of our space systems is the LIMFAC.

That is the limiting factor that prevents us from being able to use things more effectively to talk and coordinate with allies more effectively. To talk among ourselves more effectively. To coordinate technology solutions between, you know, even within a particular prime, let alone across industry more effectively. To talk within the building more [00:17:00] effectively.

It's bonkers, right? We just have a tremendous number of things in SAP level, right? Above top secret specific compartments. That were probably there for a good reason 20 years ago when space was more or less still the purview of a few powerful nations, but makes very little sense now. And as Space has become more and more important to the warfighter and the realization of that has become more and more obvious. Especially I would say with the Ukraine conflict, which is laid bare the value of space in a cup. How can we make sure that if we did have to go to war with one of our near peer adversaries, right Russia or China?

Make sure that the warfighter has what they need and make sure they can use things to battlefield advantage. It can't be done in little secret squirrel stovepipes. And so, what my driving kind of motivation has [00:18:00] been is how do we get to the warfighter? Warfighter doesn't need things to be unclassified.

They need things to frankly be at the top secret of the secret level. Because then you can connect. And that is the fundamental piece. And so what we did in my office, and I am deeply proud of my team for this, is we took a classification memo on related to space and exquisite space things, and we took a classification memo on related to space and exquisite space things. That really had its roots in 2001 and possibly before.

Ancient. We had a space shuttle. There was no SpaceX, right? There were certainly no Space Force.

Gen Kevin P. Chilton, USAF (Ret.): Now you're making me feel old.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Yeah, yeah, yeah. Right, you were a colonel. So anyway, I think, um, maybe. It needed to be rewritten and it was limiting all sorts of things and it also turns out in the Pentagon, those of you that are in or will be in or have been in. You know, if there's an easy way to say, oh, this is classified X, then you will take it.

And we had this memo that was kind of buried under several piles of rocks in a little locked box guarded [00:19:00] by a panther, that no one could read. You couldn't even read it, right? So now it starts to become hearsay in mythology, it's absurd. So what we have done is we've eliminated that memo. We have rewritten a memo at the top secret level, which now.

Anybody in the Pentagon that does space can read, which totally changes the game. And what we've set is minimum, we've set minimum classification levels for all sorts of things. So, uh, I don't have my notes in front of me, so I have to be careful. So, for instance, some things will now have a minimum classification level of unclassified, some might be secret, some might be top secret.

That doesn't say if you have a thing right now, an existing system, that you've currently classified at some, you know, SAP ridiculous level. That doesn't mean, it doesn't, first of all, the memo doesn't declassify anything. The services have to bring those down. It doesn't mean you have to bring something down to unclassified.

It just means you can. And so what has the most value to the warfighter and how do you bring this down? This is a very powerful thing. Uh, the Navy is actually leading the way, go Navy. The Air Force, I think, and [00:20:00] Space Force is not far behind. My concern is these processes to take things out of SAP, not to the unclassified level, but even to the top secret level, take time and effort and muscle.

There will be resistance in some pockets where people haven't gotten the message, and it's going to take, and it's more than me. So really everybody in this building, you come from all parts of the space national security space enterprise. Help. Help us do this. We will be stronger.

Gen Kevin P. Chilton, USAF (Ret.): Great. And, and, you know, I'm, I reflect back on General Willie Shelton when he pressed really hard to have GSAP declassified.

So there's two sides of this, the way I see it. I know most operational commanders, COCOMS, you know, at the most tense moment someone walks in their office either the balloons gone up or you know you're on the verge of warfare. And they walk in and they pull out this folder and say "we've got this super duper secret SAP program." That you've never exercised you've never integrated into your war plan.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Exactly.

Gen Kevin P. Chilton, USAF (Ret.): And they'll say get out of the office. That's one side of it.

The other side is showing a little bit [00:21:00] of that like we did with GSAP by being transparent, adds to deterrence.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Yeah, so let me, well, I know we were going to get to that, so that's fine, but just on the first part. I talked about connecting things for the war fight, but it is also being able to drive these things into the plan.

And we need the COCOMs to be able to plan realistically and not imaginarily, right? So anybody that's been in the military, you have seen these drills where there's somebody in the white car, like, Oh, this thing just happened. Like, really? Did that really work that great? So who knows? Or did you really have that many of these things?

Well, sure. This is the old joke about, well, I fired a hundred missiles. I fight a hundred imaginary missiles at you. You're like, well, great, I just shot you down with a hundred imaginary missile defense interceptors, it's all good, we win, right? How do you actually plan for the things you actually have? And we got to get that into the plans.

And so this is, those are on a two year cycle at a minimum, so that is going to take some time too, but I think super powerful. On the issue that you and I continue to dance around on, reveal, conceal, [00:22:00] I will just kind of leave you in the same, I will, I have not changed my thinking on this, which is there is value in ambiguity.

And just because we don't talk about something at the unclassified level inside the 495 Beltway doesn't mean the Chinese don't have some concerns or the Russians don't have concerns. Uh, this is how the way of the world, right? And I

think the fundamental thing to remember here is we don't want to give the adversary an engineering problem that they will then solve.

So, there is ambiguity value. So, GSAP's an interesting thing. Obviously, it's observable. Obviously, it's dynamic. And so of course we should acknowledge something, and you know, General Shelton was of course correct on that. So, there are certain pieces, but those I think are still in the etches.

Gen Kevin P. Chilton, USAF (Ret.): Yeah, I don't mean to suggest that everything should be revealed, but I agree with you completely.

There is value in ambiguity, showing a little capability and letting them, let their minds run wild about what we can really, might do, can do, and might do. Which I think always adds to deterrence as well. But I'm also reminded of the [00:23:00] closing scenes of Dr. Strangelove, uh, where, you know.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Why?

Gen Kevin P. Chilton, USAF (Ret.): There's a great, you should watch the movie if you haven't seen a great scene at the end where the, the Russian ambassador, you know, when the nuke goes off after Slim Pickens rides it into the target, he says, "this is terrible news, Mr. President." And President says, "Of course it is. You're even been trying to. Prevent this from happening. I've been working with him." He said, "no, no, no, no, no, not the bomb. It's it's the doomsday weapon that we have that launches everything in the Soviet Union if a nuclear weapon goes off on our territory." And the President turns to him and says, "you know, Yuri that does you no good if you don't tell us you have that," "You can't deter us."

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): It's a good setup, thank you.

Gen Kevin P. Chilton, USAF (Ret.): It's a great ending a great end. i'm convinced the the writers read Schelling and Kahn. Let's, let's talk, let's switch to, uh, commercial capabilities and the importance of the commercial provider to our defense and the commercial industries that, you know, they're classically selling to me at home, my kids. But [00:24:00] now they've got a capability like Starling that, uh, can actually be used in a military fashion.

One, how important it is? How you bring them in? Two. And three, responsibilities we have to defend them if we get in conflict or not?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Okay, so first ,we are getting an endgame for rolling out a commercial space integration strategy. Uh, not today, but soon. And I will just say that the Department is seized with, really, we can see the value of trying to harness commercial innovation, which happens at speed. Often it's happening at scale.

Two things that hasn't really been our forte for space. Now you had Derek here earlier and I think, you know, he is kind of the leading edge of that and that is great. Um, but part of what he's doing is how do you bring some of these commercial pieces in and how do you not set requirements for 20 years from the future? Because it's going to take you 10 years to build a thing and then it's going to live for 20 years.

But how do you, can you kind of do evolutionary, you know, what's my best thing I have right now? Let's fly that. What's my best thing [00:25:00] I have in three years? Let's fly that. I think that's part of it, uh, and a really important part. But there are all sorts of commercial services out there that may be able to do things a little bit better than we're doing them.

And are there ways to deeply integrate them into our systems to really raise their deterrence, uh, across the board? There are, of course, differences between what the military requires and what a truly commercial space company might provide. Because a commercial space company needs to make a buck, right? Which is hard to do. Right?

And so, you know, how cyber hard is your constellation? Is a concern I have because what we need is not a thing that just works in peacetime, which is nice. What the Department needs is things that also work in wartime. And we have to know that it'll be available in wartime, and we have to know that it'll not just be available through some contractual or other mechanism, but also that it will actually still be around 15 seconds after the balloon goes up. Because it isn't, it's at least hardened enough against some type of adversary attack.

So that's the thing we're working [00:26:00] on. I will say on protecting and defending, this gets kicked around a lot. I think what we've uncovered, we've, my team has actually held several workshops on this with a number of industry partners. Is that some of the baseline ways to do protect and defend, share threat information.

Set norms and standards, be the responsible partner. I missed my opportunity earlier in our conversation. To say the world needs a responsible leader for space. And I think the United States is that is that country. And so how do you

set these norms and standards and bring the world along? Um, and then the third thing, of course, is this issue of financial protection mechanisms.

And we have been looking at, you know. First of all, there's simple contracts, and there are some mechanisms we use for logistics in the Air Force, right? The Transportation Command, I mean, uses, CRAF, for example, and that's a, it's a, it's not a perfect analogy, but what has become very interesting to me, I had a long discussion with the, I think an O-6 that [00:27:00] kind of actually runs the program. And those, kind of protections, government backed insurance, if we call you into CRAF mission.

Don't trigger just because you're in a CRAF mission. They only trigger in very specific instances the government agrees to. So there's actually a lot of, I wouldn't say misinformation. There's a lot of, not a lot of information out there. And this is one of the things we're going to try to bring forward in the strategy is these different mechanisms and how helpful they can be.

Great. Well,

Gen Kevin P. Chilton, USAF (Ret.): I know in the past, a lot of the satellite, we'll just use satellite communications, for example. Companies have wanted to establish a CRAF type relationship, essentially beyond retainer and, and commit to providing a certain number of transponders in crisis. But we never would do that in the past because they had so much excess capacity, we would just risk buying it on the spot market when we needed it.

And we were always able to do it. When Discus was overloaded, we went to commercial SATCOM to support our operations in the Middle East. So going forward, um, this sounds like a strategy or an approach policy to [00:28:00] start actually locking in a commitment of availability.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Yeah, I'm not, so first of all, uh, for everyone here and everyone on camera, I have no acquisition authority.

So, so I can speak freely with no information. I think, I am aware of that kind of previous ideas. But look, we use commercial SATCOM for all sorts of things. And I think the question is, how do you build into a contract that this will still be here in conflict? That's actually not that hard. I think most space companies understand it's a global service. Department of Defense, the big bill payer.

Okay. I don't have a good answer on surge capacity exactly, outside of there may be contractual mechanisms, uh, you would want in place in very specific. Specifically triggered instances that says, "okay, we may be the, you know, we may be one of the prime customers." It doesn't mean everybody is kicked off, but if, you know, and this is a SATCOM problem, this is not a problem I can solve here, but there are things we're looking [00:29:00] at for these types of mechanisms, like what should be done.

And the other thing you should know is, these strategies are coming out. Space Force had a strategy coming out as well, right? We've been working very closely with them. But the fact is, it's not like people are waiting for these strategies to hit to start doing things. We're already kind of moving forward.

What we're trying to do is kind of put some overpressure and some clear direction that says "yes." Yes, go in this direction. Keep doing this. I think we are just getting started and I think it could be pretty exciting.

Gen Kevin P. Chilton, USAF (Ret.): Let's talk about another commercial capability that didn't exist when I was on active duty.

And that's imagery from space. So, the companies that can now do signals collection, SIGINT, ELINT, electro optical imagery, radar imagery. All these things were classified and only done by the National Intelligence Agency. They weren't done by the military. They were done by National Intelligence, NGA, NSA, were the requirements setters, NRO was the executors.

Now it's not classified that you can [00:30:00] get a picture from Maxar from space. And it turns out lower resolution, more frequent visits is more than adequate to give operational commanders the battlefield picture they need to conduct warfares effectively. Tactical is harder, but eventually we'll have enough capability and the links to even get down to the tactical level I envision, not too far down the road.

But today it seems like all these commercial assets filter right to the NGA. And the U. S. National Intelligence Agency is exquisite. I love what they do. They should keep doing what they're doing, which is national intelligence. But that's not what the INDOPACOM commander needs. That's not what the EUCOM commander needs. They need real time. They need real time tasking authority of the sensor and they need real time downlink. And they have their own J2 shops to analyze what that data means to their [00:31:00] warfighting plan. But I don't see it happening.

Is there any policy constraints in DoD that would prevent the Space Force from contracting with commercial companies? To do what I just described. Or for that matter, acquiring their own constellation of ISR satellites beyond GMTI, which they're going to have so that they can as their number one priority, support the regional combatant commanders and share the data with national? Not the other way around.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): So, I mean, obviously one limitation or anything is money.

So just leaving that aside though, I think this, you know, I was working in the U S Senate as a staffer when the ORS. Conversation slash fight was happening about who will actually control this one satellites ability to do imagery. And remember how that was messy still messy, right? So I [00:32:00] am not tracking the issue on the imagery as much. I do think it's very clear that the COCOM. At the COCOM level, the regional fights, folks are going to need to be able to use space to their battlefield advantage at the speeds they need to deliver effects.

And I'm not sure that we have all of our systems built that way right now. I will say there is another limiting factor, which is incredibly frustrating. I think probably to everyone at this point. Which is we have another legacy classification problem. Which is that depending on whether the IC flies a satellite or the Department of Defense flies a satellite. The data that comes off that very same satellite may be classified differently.

That is absurd. And it, it needs to change. And that of course requires tight partnership between both the IC and DOD. But these are the things you start to uncover when you start to get out of the way and say, "Okay, what makes things go faster? What makes things go faster?" Not everything's in DOD's control.

[00:33:00] But also a lot of these policies made sense when the only reason for space was intel, right? And things moved at the speed of, here is a finished paper product that I can then hand to folks or hand to allies. This is also a limiting factor with allies, like sharing classified information from space.

And we do have this kind of classification problem that almost belies common sense in an era when, as you said, you can now get commercial ELINT, commercial SAR. I mean, it's, this is a whole new world. Uh, and we are kind of stuck in policies, of the past.

Gen Kevin P. Chilton, USAF (Ret.): Well, you brought up allies. I'm glad you did. Cause I was going to be where I was going next.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): It's great. We're really in sync now.

Gen Kevin P. Chilton, USAF (Ret.): We can go back and talk about offensive space if you like?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): We're good.

Gen Kevin P. Chilton, USAF (Ret.): I think that horse is pretty dead. Um, That's a great strength though. One of our greatest strengths is our alliances without a doubt and it's domain independent, air, land, sea, space. So, [00:34:00] can you talk a little bit about any policy constraints to work him more closely with our allies?

I mean obviously the classification one is an issue still. That you said you want to address and you are addressing, but, uh, other things that are on your mind about how we can strengthen deterrence. By teaming with our allies in this domain.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Yeah. So, first of all, I just would foot stomp what you said, I mean, our partners and allies that alliance or network that we have is just unmatched.

And I say this all the time in my congressional testimony in particular, which is, China and Russia. couldn't even hope to match it, right? We have willing allies and partners. That is a different thing, and that in itself, uh, massive deterrence value. As far as, uh, limitations to sharing. Look, the classification piece has been a very large one, and will continue to be.

I don't want you to think that because we wrote a classification policy that we've [00:35:00] solved this problem, but stuff has to get down to a level where you can actually share it. But then you also need an IT infrastructure to do a lot of share it. How do you push information back and forth? I think, uh, there is to my knowledge, no, you know, we are just starting to really work on how do you do combined space operations with allies. And that really means how can you, you know, combine effects, mass effects, how can you do these things? It's hard. Doug Chess, right there, is one of our point men on this, uh, he got

promoted to, uh, Lieutenant General at our combined space operations initiative in Germany last December.

Which was pretty cool. Uh, and he is in charge of, can I say this out loud? Operation Olympic Defender. So we are trying to work to get allies together and how can we do this together? And you're right. We do this and we do this. At sea, we do this under sea, we do this in the air, we do this on land.

Clearly we can do it in space, the classification piece really restricts the ability to flow information around, and then that restricts, of [00:36:00] course, warfighting, so that's the issue.

Gen Kevin P. Chilton, USAF (Ret.): Great. Well thanks, I've got more questions, but I want to open up the remainder of our time, yeah. Yeah, Jen gave me the eye sign.

One of these days I'm gonna get a watch, Jen, and I'll be able to know when to break. So, we'll turn this over to the audience, and, uh, if you have a question, raise your hand, and we'll get a microphone to you. I see one here.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Meatballs only, meatballs only.

Question 1: Uh, thank you for participating in this. Uh, Mike Seneci, Gabriel Chapter, AFA. You talk about China and Russia and the United States being responsible enough to see the deterrence in space of launching a kinetic event or an EMP event. What about, not now, but in the next five or so years, a country like North Korea? Which has no, real deterrence to doing anything.

What about if they happen to do or get the capability to affect the [00:37:00] LEO and MEO orbits of satellites? Thank you.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Uh, so your question is North Korea and other non, kind of, near peer adversaries. I mean, I will remind you that North Korea does have nuclear weapons, so that does put them in a slightly different, bucket, I suppose. But North Korea also has space ambitions, right? We, they launch something to space and of course there's United Nations Security Council... but all that aside.

Any nation trying to play on the world stage or, or show that they are technologically advanced also has space ambitions. So I would argue that even

North Korea, is not interested in completely fouling the low Earth orbit domain because they also want to be able to operate there as a point of pride.

Question 2: Hi, David Winks with AccuSight. [00:38:00] It seems that a lot of our sensing layer data is brought back into commercial cloud environments over commercial telecom circuits on the ground. Uh, once it gets to the ground, of course. But these seem to be unhardened against things like electromagnetic pulse or RF weapons.

Is there any thought to add that as a requirement going forward to harden those facilities that would handle mission data?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): So I am also luckily not in charge of military requirements for the type of thing, but clearly the idea of a nuclear conflict, which is what I think you're suggesting. Cause a nuclear weapon can create an EMP is the, as the general pointed out. Is an issue we're going to have to wrestle with and like hardening costs money, right?

And let's just be totally honest. If a nuclear weapon is going off, that is an entirely different level of conflict than the ones we're hoping to constrain ourselves to.

Gen Kevin P. Chilton, USAF (Ret.): Yeah. And I'd just comment, you know, being old STRATCOM [00:39:00] guy. That was a requirement to build our NC three must survive that environment.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): We call it the thin line, right?

Gen Kevin P. Chilton, USAF (Ret.): Yeah. The thin line has to survive that environment. And it can. I think your question is broader though, because it's not just a thin line now. It's other intelligence assets, information flowing through these networks, and it's a, it's a fair question. But, but I'd agree, it's, you take it to a different level when an adversary starts talking about that, and, and how we might respond.

Which again, gets back to deterrence, gets back to rhetoric, it gets back to declaratory policy statements, and like the nuclear posture review, these are all very, that's why these documents are so important, and words matter. How we signal in my view.

Question 3: Paul Remick, Amazon Web Services. My question from a policy perspective, generative AI. As I'm sure you know, Space Force issued a ban back last in September. I don't believe, although I could be corrected, that the band's [00:40:00] been lifted on Gen AI within the Space Force. I'm just interested in your thoughts.

Thank you.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Generative AI is a thing that isn't going away and we're gonna have to figure out how to use it responsibly and make sure that whatever, that... we need to have humans in the loop at the right place. To make sure that we are making decisions we want to be making. But I don't, I'm unfamiliar with the specific piece you're talking about.

Uh, you know, the Department probably does not embrace software as fast or as comfortably as it embraces hardware. Uh, but we're under no illusions. It's not going away. We need to understand how to use it.

Question 4: Captain Fernandez from Space Operations Command. So with last year, General Lauterbach talked about the Air Force retiring about 250 plus aircraft out of the inventory, a lot of those being ISR platforms. Can you talk about a little bit how the Space Force is planning to basically take over that [00:41:00] mission and how that game plan looks like from the policy perspective?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): So I'm not sure what you mean from a policy perspective. The data needs to be passed. If the smartest way to do that is through space or the most survival way to do that is through space or the most effective way, then that's the way we should do it. I mean, to the warfighter, the ideal situation is the warfighter does not care.

The warfighter gets the data they need and then can fight with it. So I'm, I'm not, if there's some policy piece to it outside of this kind of ongoing issue about, the GMT. I'm not tracking, I'm sorry, what, what you're asking. But you know, the COCOM orders affects. The military needs, you know, if the data is part of what we need to establish the effects the data needs to flow.

Gen Kevin P. Chilton, USAF (Ret.): Every commander, whether it's air, land, or sea, controls their own ISR to meet their battle rhythm. And if we're moving all our ISR out of the air domain to the [00:42:00] space, it makes logical sense

to me that the commanders will control the tasking of those sensors, will immediately the data, which should be shared across the national intelligence community, everybody that's qualified to get it.

But I think you're hit on a point and there's a fight brewing I predict between the Title 50 folks and the Title 10 folks here. And the Title 10 folks are right, because Title 50 has never been able to provide a product fast enough from space to affect a battle rhythm of an operational commander in the field. That needs that data immediately, not analyzed, but needs it immediately and needs to be able to task the sensor where to look.

National by definition. Although they do their best to support the COCOM has other has other priorities tugging at them that they have to meet. They have to rack and stack. We need a dedicated force in my view that doesn't have any other priority but to support the COCOM.[00:43:00]

But what do I know?

Question 5: General Frank(Inaudible), with IntelSat. Thank you both for your service. General Chilton, um, looks like we need to revive not just a reading list, suggest a reading list, but a suggested movie list as well. Um, my question, uh, for you, sir, is in regards to this commercial space policy, and I might be out of the loop here. How, did we pressure test that with industry in draft form?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Absolutely.

Question 5: Okay.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): It has been widely widely socialized. We've held multiple open forums, discussions, uh, tabletop exercises massively. And if you weren't part of that apologies, but I will say... this is not something being generated in a small office with a few people that haven't worked in the industry.

This is [00:44:00] collaborative.

Question 5: So with that, can you expand maybe on, you know, I know General Saltzman has a version of it, and it was not well received in its first iteration, his particular end of it. What was the one major fix that will bridge the divide between we've been hearing repeatedly throughout the room, funding, you know, contracts, the technology is often not the hard part, right?

So what, what if you can expand maybe here, what was the number one fix when that document went back?

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Yeah, those are different documents and I'm not going to speak to General Saltzman's document. I'm sorry. I'm working, the OSD level. Secretary of Defense signed out document. The service will have its own direction.

The service chief will have his own direction to his force. This is a direction to the entire Department that I'm working on. If you ask me what's one of the, you know, there's a few main takeaways from it. One is integration, means [00:45:00] working together in peacetime, or as we like to call it now competition, right?

So that you're there in conflict. We don't want to have a system where. Here's a thing that's on the side and then if suddenly a balloon goes up and we need you in conflict, come in. We're talking about even possibly, you know, how can we work to make sure that some commercial operators are even in our TTXs to make sure if we are relying on those services, they know what we would need from them in a conflict.

That is a very different approach in my opinion.

Gen Kevin P. Chilton, USAF (Ret.): Let me jump in while the mics moving around. I think we have another question over here, sir, in the back. But since we're talking about commercial, let me talk and just ask the question on industrial base for a minute. If we're in an extended competition with China and Russia in this domain. You know, we had we had time to build up our industrial base in World War Two.

Took a year over a year. Uh, we don't have that luxury now, one. Two, if it's going to be going on, this competition, non conflict competition, and we're going to keep deterrence in place, it would suggest that our industrial base [00:46:00] has to be strong over a long period of time. Any thoughts on what government can do from a policy perspective to help strengthen the industrial base and make it one that is, that is sustained, creative, and out front technologically vis a vis our adversaries.

Not between now and 2027, which seems to be the short sighted vision, but for the next multiple decades as we go.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Yeah. So first of all, let me just clarify, uh, what's a commercial space integration is not defense industrial base integration. I'm glad you're bracing that distinction because I think sometimes that is being missed. But for the defense industrial base, again, not my portfolio, but, I think the Ukraine conflict has actually helped energize and recognize that we do not have a, uh, a system that has been as responsive as we need it to be. And World War II is often raised as an analogy. I don't know if it's fair. That was a all of nation effort, but we need to be more responsive.

And I think you'll see, right, we're producing, this is not [00:47:00] space related, more one five, five more javelins. It turns out having some of these lower end, uh, pieces at scale turns out to, you know have some serious quality to it. And so, but being able to produce that and being able to flex is a hard problem.

And I think the Department is pushing, and that's really through an ANS piece, but they are working hard on that. And I think we are starting to see some of that show and the important point will be to keep that going.

Gen Kevin P. Chilton, USAF (Ret.): Yeah, and I'm encouraged by Derek Torunear's vision of just this industry keeps going and going for the space domain.

I think we have a question back here.

Question 6: Hi, this is Ella Hirsch from Aurea Space. So, in order to achieve the speeds that you need to get the data and to provide that proliferation, you're gonna need more and more autonomy. What are your thoughts on building the trust in autonomous operations and allow and teaching people to lose total control, [00:48:00] um, from the people and allowing the assets to make the decisions.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): So, let's just treat that as a machine learning question instead of as an AI question. Clearly, we need machine learning to be able to help, you know, we suck in tons of data, and how do you know what to actually look at, and how do you know what to classify? So, massively useful if we can get things to do that.

If you could have assets that do that for you, and just send that specific information back, that would probably be a pretty smart thing to do. Right? Uh, I think I'll leave it at that. These are all going to have to be built in. Those are

going to change some of the legacy practices that have existed through our, you know, certainly since World War II. That basically make, data has to come back, be reviewed, classified, analyzed there.

If all of that can be pushed out, and maybe things that are uncertain come back, that would also be a fine thing. We have to adapt to the new environment and the new value of computing power.

[00:49:00] I

Gen Kevin P. Chilton, USAF (Ret.): think that the part about trust is important, but you know, you write the algorithms, right? I think we've already experimented and I think this is where the the US National Intelligence Agency and our own folks have done some great work of cross queuing automatically. So you can imagine a world where you get a SIGINT hit and rather than looking at it and analyzing it, and saying, "well, maybe we should take a picture of that coordinate?" It automatically takes, uh, it automatically cross cues so...

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Same for missile defense, right?

Gen Kevin P. Chilton, USAF (Ret.): Exactly. Automatically cross cues the sensor to take a picture. Because the COCOM has said he's interested in it, it's in his priority list, or her priority list, and it comes down immediately. And, and there's an example of using, Software machine learning called AI. I don't know what you call it. I don't know how sophisticated it is.

But it gives you a real advantage in a fight to be able to quickly target, find, fix, target, and track an adversary, ship at sea. Whatever it is you're trying to keep track of.

Well, Secretary Plumb, we've run out of time. Thanks for coming over and sitting through this [00:50:00] congressional hearing. That's, that's one thing you'll never hear from Congress.

But yeah, round of applause. This, this gentleman has a really tough job. Everybody goes policy, yeah, that's just, you know, that's people sitting around in cardigans smoking pipes. No, it's hard work. This is really hard work that he does, and we're lucky to have him in that position. Thanks a lot, John, for being here.

Dr. John F. Plumb, Assistant Secretary of Defense for Space Policy (2): Well, thank you. It's been super fun as always. I appreciate it. Thanks, everybody.