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[00:00:00] **John “Slick” Baum:** Welcome to the Aerospace Advantage Podcast. I'm your host, John Slick Baum. Here on the Aerospace Advantage, we speak with leaders in the DOD, industry, and other subject matter experts who explore the intersection of strategy, operational concepts, technology, and policy when it comes to aerospace power.

[00:00:16] **John “Slick” Baum:** So if you like learning about aerospace power, you are in the right place. To our regular listeners, welcome back and if it's your first time here, thank you so much for joining us. As a reminder, if you like what you're hearing today do us a favor and follow our show. Please give us a like and leave a comment so that we can keep charting the trajectories that matter to you most.

[00:00:36] **John “Slick” Baum:** Well, this week, it is time for The Rendezvous, our monthly installment, where the Mitchell team digs into stories you've seen in the headlines, and to kick it off, I'd like to introduce Mitchell Institute's Dean, Lieutenant General Dave Deptula.

[00:00:48] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Yeah, hey, great to be here, Slick.

[00:00:50] **John “Slick” Baum:** Always great to chat with you. We also have our very own space expert, Charles Galbraith, with us today.

[00:00:56] **Charles Galbreath:** It's great to be back.

[00:00:58] **John “Slick” Baum:** And we've got [00:01:00] Todd "Sledge" Harmer in the studio as well.

[00:01:02] **Todd “Sledge” Harmer:** Great to be back. Thanks for having me.

[00:01:04] **John “Slick” Baum:** Always great having you here, Sledge.

[00:01:06] **John “Slick” Baum:** Now, you know, for those that don't know, Sledge is one of our Washington experts who we have as part of the Rendezvous crew and always brings incredible insights. We also have Major General Larry Stutzriem, our Director of Research.

[00:01:18] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** Thanks, Slick, and I'm ready to go.

[00:01:20] **John “Slick” Baum:** Awesome, Stutz. Again, always having you here.

[00:01:23] **John “Slick” Baum:** So, let's get this thing going. Sledge, I feel like Congress and Defense is a broken record. It's all about moving past this continuing resolution. So, could you please give us an update and where do we stand with the way to securing a real budget?

[00:01:38] **Todd “Sledge” Harmer:** Yeah, absolutely, Slick. But first uh, Mia Culpa you remember the last episode I uh, predicted there'd be a partial government shutdown and that didn't happen, thankfully. I do have to admit where I was wrong on that one, but you're absolutely right.

[00:01:49] **Todd “Sledge” Harmer:** It's, like deja vu all over again. And it's just a reminder where the government is currently funded under another laddered continuing resolution. And really what that means is four [00:02:00] bills funding four agencies of the government are funded through the 1st of March and the remaining eight, including the defense budget go out into the uh, 8th of March.

[00:02:08] **Todd “Sledge” Harmer:** So, that's where we are in the current funding. There is a glimmer of hope that we're actually going to see an appropriations bill this time. Over the weekend, the uh, Appropriations Committee Chair announced that they had reached agreements on what are called the 302Bs. They had previously a top line agreement for the overall appropriations, but what the 302B is, those are the allocations for each of the 12 appropriations subcommittees.

[00:02:34] **Todd “Sledge” Harmer:** So now each of the subcommittee chairs and ranking member have the amount that they can mark their bills to and the staff now are scrambling to write those bills before the March 1st and March 8th deadlines, respectively. And what it means really for this audience is we should see somewhere in the neighborhood of 886 billion for defense.

[00:02:51] **Todd “Sledge” Harmer:** Those are consistent with the numbers that were agreed to during the Fiscal Responsibility Act that raised the debt ceiling last June. And what it [00:03:00] looks like is before the current CR expires, we're going to get the government funded for the rest of the fiscal year 24, probably under two or maybe three mini bus agreements.

[00:03:10] **Todd “Sledge” Harmer:** But things are starting to move forward.

[00:03:13] **John “Slick” Baum:** Well, that's great to hear. And staying on the Washington front, with Donald Trump winning uh, in Iowa and New Hampshire, how do you think this will impact how members of Congress handle defense issues and, you know, seemingly a clear path to the nomination going you know, is that going to impact the debate?

[00:03:30] **Todd “Sledge” Harmer:** Yeah, I mean, look, that's really that's a tough question to answer. I'm not really sure how it's going to affect. I mean, most people, I think, presumed that he would be the Republican nominee. Obviously now it's a lot more or increasingly obvious or more apparent. There are some wild cards out there, as you mentioned in the uh, preamble. He still faces legal jeopardy and that could derail his nomination.

[00:03:51] **Todd “Sledge” Harmer:** I mean, there are a lot of things that could happen. I think it's fair to say that he's already affecting policy. I think there's no better example than the border security [00:04:00] bill that's being negotiated in the Senate right now. The former president has come out on record and is I think steeled the resolve of some of the House Republicans that it's a bad piece of legislation and it's going to be very difficult to pass.

[00:04:12] **Todd “Sledge” Harmer:** In fact Speaker Johnson recently indicated that the Senate version of the bill was done on arrival when it got to the House. As far as his effect on defense or spending priorities in FY 24, and as we move into the 25 cycle, I really don't see that much direct impact on that. It could have some influence on any of the emergency or supplemental bills that are being proposed and, you know, for example, the Ukraine aid, the aid for Israel and the aid to Taiwan. I think specifically to Ukraine, which had been tied directly to the border security bill, I don't see that happening as part of the FY 24 appropriations process, but we'll see. I think there's still is general support for Ukraine.

[00:04:53] **Todd “Sledge” Harmer:** There certainly is support for Israel and Taiwan. You know, never underestimate the creativity of the leadership in [00:05:00] Congress to get something across the finish line. But I think real impact or the real impact politically is going to be international rather than domestic. It's going to be curious to see how the international community reacts to the reality of a possible DJT 47.

[00:05:21] **John “Slick” Baum:** Got it. And Sledge, what's your estimate on when we'll see the fiscal year 25 budget request head to the Hill?

[00:05:27] **Todd “Sledge” Harmer:** Well, I'm hearing from sources in the Office of Management and Budget that they've got the 25 budget in the can ready to go and then it'll probably be, well, it will certainly not be before the State of the Union address, which is currently scheduled for the 7th of March.

[00:05:41] **Todd “Sledge” Harmer:** I would say sometime a week or 2 after the appropriations bills or the State of the Union, whichever occurs later we'll see the F. Y. 25 requests. So that would put it somewhere in mid March. I will caveat that though, with there's really no way that the executive branch and O. M. B. in particular can [00:06:00] turn all of the inputs from the FY 24 Appropriations Bill and get a full 25 budget request out. So, whatever goes to the Hill immediately is probably going to be what we refer to as a skinny budget. So, it just has the top line numbers and general policy priorities and then, I would say 8 to 10 weeks after that, you're going to see the justification books and the supporting documentation.

[00:06:21] **Todd “Sledge” Harmer:** So, we should have everything I would say by the middle of May, which is really late in the cycle and it's going to make it very problematic for Congress to pass the National Defense Authorization Act or any of the appropriations bills before the end of FY 24 on the 30th of September.

[00:06:38] **John “Slick” Baum:** We will be watching for those dates for sure. Charles uh, one of our final 2023 podcast episodes focused on the sunset of the J-STARs and this mission is moving to space. So do you want to bring us up to speed on that and what are the key thoughts we should have in mind as we consider the domain migration?

[00:06:57] **Charles Galbreath:** Yeah, thanks, Slick. So it was announced that the Space [00:07:00] Force is moving forward with a GMTI constellation and they're actually using the NRO, National Reconnaissance Office, as the acquisition organization for it. Don't get confused, this is not going to be an ISR asset in terms of intelligence for Title 50.

[00:07:15] **Charles Galbreath:** It is an operational surveillance and reconnaissance system that's going to be for operational targeting and it needs to be able to provide timely and target quality information to the end shooters. And so this is uh, an area that is an expansion of where the Space Force was when they initially stood up, so it's a new mission area.

[00:07:35] **Charles Galbreath:** That will require some growth. But it's also an area that we need to make sure that we don't lose track of in the transition. We need to make sure that the capabilities that we have stay in place until we can bring on the new capabilities from, on orbit.

[00:07:50] **Charles Galbreath:** Additionally, we need to make sure that as those capabilities reach low Earth orbit, that we're protecting those assets from the growing threats. We don't want to replace one set of vulnerabilities [00:08:00] for another, or maybe even with a higher level of vulnerability. So we need to make sure that those assets are secured, that it is clear that they can continue to do the mission to the same or even a higher level of, capability than was previously accomplished and everybody needs to make sure that they understand that this is indeed an operational military requirement, not an intelligence asset. So, the COCOM and the operational commanders will have priority over the tasking and the receipt of the data to make sure that they have, again, target quality, timely information to prosecute targets as necessary.

[00:08:35] **John “Slick” Baum:** Well, General Deptula, I know you have some strong opinions on that one. You mind to share with us?

[00:08:40] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Yeah, sure Slick. GMTI is a tool of modern warfare and as Charles said, it's an absolute necessity to get GMTI information directly to the appropriate warfighters as soon as that information is available.

[00:08:58] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** So, the point I want to [00:09:00] emphasize is that Title 10 warfighting components need to control this entire mission. Just because the sensor is moving to space does not make it a national intelligence tool or mission. Now, battle managers support mission requirements at the edge of the battle space.

[00:09:22] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** They're focused on empowering the team in minutes and seconds. That's a fundamentally different mission than what intelligence professionals execute, especially intelligence professionals at a national level. I've been fortunate to have the experience that few other senior officers have had, and that's to hold leadership experience in both these disciplines, operations and intelligence.

[00:09:51] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** And this is an extraordinarily important point if we're going to succeed in our future fights. We have to pipe the data [00:10:00] directly to the war fighters, not some intelligence committee to determine who it goes to or process. So we need to be very careful that we don't repeat the mistakes of the past with respect to information coming from space.

[00:10:17] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** You know, it seems like just yesterday, even though it's been over 33 years now, but during Desert Storm, I set up a battle damage assessment process to rapidly assess what happened initially during our first 24 hours of operations. I'll cut to the chase, we received zero information from the intelligence community and space based assets about effects 24 hour set of targets.

[00:10:43] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Ten years later, as the Combined Air and Space Operations Center commander during the opening stages of Operation Enduring Freedom, while some processes were improved, we still could not rely on timely information from space because of the [00:11:00] cumbersome processes that were in place regarding intelligence from our space based satellite and that has to change as we move forward. And quite frankly, that's one of the reasons that the Space Force was set up, and we're looking forward to incorporating that service into the entire warfighting architecture, so we don't get encumbered and hindered by the, you know, territorial rights over information coming from space.

[00:11:29] **John “Slick” Baum:** Copy that, sir, appreciate that insight. And Charles some other major news from this past month was the Space Development Agency's announcement regarding their tranche two efforts. So why is this a big deal and who are the players?

[00:11:42] **Charles Galbreath:** Yeah. So the Space Development Agency is really moving out on not just tranche zero tranche one, but now tranche two. They've awarded two and a half billion,

[00:11:51] **Charles Galbreath:** that is with a B to three different prime companies, L3 Harris, Lockheed Martin, and Sierra Space, and they're going to be developing 54 [00:12:00] different missile warning and missile tracking satellites in addition to six satellites that will be able to actually close the fire control for uh, ballistic missiles as well as hypersonic missiles so that working with the Missile Defense Agency, they'll be able to cue the assets necessary to take those threats out.

[00:12:16] **Charles Galbreath:** So, this is a huge step forward, and I think it, it highlights the capability that we're beginning to transition to space and that we can leverage from low Earth orbit, and this goes back to what we were just talking about with GMTI. In many ways, we'll be proving out some of the, these concepts with the Space Development Agency's tranche 2 transport layer as well as their tracking layer.

[00:12:38] **Charles Galbreath:** And another element that's I think very interesting about the S. D. A approach here is the breadth of the industrial base that they're tapping into with these awards. It's not a two and a half billion to a single prime, it's the three different sets and each one of those has subordinate organizations helping them, like General Atomics, for example, supporting [00:13:00] Lockheed Martin's efforts. So that's what the Space Development Agency is really doing is ensuring that there is a robust interoperable industrial base supporting this critical mission set.

[00:13:12] **John “Slick” Baum:** Well, Charles, while we have you here, anything else we should be tracking when it comes to space power?

[00:13:16] **Charles Galbreath:** Well, there's a couple things I wanted to highlight. First of all you know, we finally got the uh, general officer confirmations and we've done those promotion ceremonies. So, uh, again, congratulations to General Whiting and General Guetlein for getting the fourth star, and for those that are counting at home that's three Space Force, four stars for the first time ever and it may be for a while. In addition, with those promotions, we've got the folks in place. So we now have General Whiting as the commander of U. S. Space Command, and we've got General Miller at SPOC, and we've got now General Garrant at Space Systems Command, which allows General Guetlein to come back to D C and be the Vice Chief of Space Operations. So we've got the right leaders promoted to the right ranks, and now in the [00:14:00] right positions, so that's a huge step forward.

[00:14:02] **Charles Galbreath:** Additionally you know, a couple of weeks ago, my cislunar paper came out and I think the timing is pretty appropriate because about that same time, we had a couple missions headed to the moon and I just wanted to highlight those real quick. So, Japan became the fifth nation to land successfully on the moon. There was a power issue with their lander that hopefully will resolve by the time the spacecraft is next in in sun view. Uh, And then there was also uh, the Astrobotics Corporation here in the United States that was attempting a landing on the moon.

[00:14:31] **Charles Galbreath:** Of course, that ran into some difficulties and had to ultimately re into the Earth's atmosphere, but I do want to applaud Astrobotics not just on their effort, but on their communications aspect, and their transparency with the identification of the problem, the steps they were taking and what it meant going forward.

[00:14:47] **Charles Galbreath:** So, they should really be applauded for that tremendous amount of communications. And both of those efforts, while not entirely successful really highlight the difficulties that we're facing in the cislunar mission and [00:15:00] why it's so important to get after it now to make sure that we have the capabilities when we need them.

[00:15:05] **John “Slick” Baum:** Yeah, I cannot agree more on, you know, bottom line there is space is hard. It's really tough, and we're going to see a lot of failure, but that's, what's going to make it good. So, all right, Stutz headlines were pretty busy last week, covering the Sentinels programs uh, Nunn McCurdy breach. So can you walk us through what you learned on that one?

[00:15:21] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** Well, let me start by saying, I have a particular respect for the men and women in Global Strike Command, especially the missileers and the maintainers and their security forces. For keeping this mission 1st and, you know, defense arsenal readiness. Too bad it's not been a modernization priority until recently, but it is and that's great. We have to keep it there. So, 1st off this mission of the Sentinel program is a no fail mission. If we think Sentinel is expensive, try existing as a superpower in this world today without it. But the scope of the project, it's around 100 [00:16:00] billion dollars, it's very complex, and we need to watch that in a Nunn McCurdy review, which must result in an uninterrupted program, we need to watch that common sense rules when this review is done. You know, people don't realize how many parts are in this program. Usually they're focused just on the ICBM missile, which they call the Sentinel, not the overall Sentinel program, but just the missile. And of course, the missile just at a recent engine test and it was successful. The missiles looking great. But the program covers not just the missile, but the silos and the launch facilities the command and control network, vehicles, transporter vehicles, consoles, a lot more to include thousands of miles of cabling between these facilities.

[00:16:51] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** It's an immense program. So Nunn McCurdy needs to go through its machinations, but it should understand there was [00:17:00] unavoidable uncertainty in the scoping of this enormous project. Last week I was asked if the Air Force's cost estimates were optimistic and I, you know, no, they were not. There was simply uncertainty you would expect in a program of this size.

[00:17:17] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** The real issue in this cost increase lies with the physical infrastructure of the silos and the launch facilities. They were built in the 1950s and 60s and upkeep was deferred for too long, you know, just outprioritized in the budget, and now it's time for reset and they're in bad shape.

[00:17:37] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** They're far worse than people assessed at the beginning of this program. So it makes sense that they're in the middle of this discovery, they're looking at it, and they find out that some factors have changed, because as they get into examining this system, they see that some things need to change.

[00:17:59] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** And one of them, I'll just [00:18:00] give an example, you know, the program was doing a good work for the taxpayer by believing it could reuse some of the cabling. And then they found the cabling is in worse condition than their initial analysis. And so you have a price increase there, a cost increase there.

[00:18:16] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** So you know, it's interesting to think through this in terms of big complex program, yes, a significant increase in the costing. But if you look at it for about 160 million, you're getting the entire Sentinel complex, you know, the missile, the silo, command and control, everything else that allows that missile to work. And it's designed to last till 2075, you know, 50 years ahead.

[00:18:47] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** That's a pretty good deal and when you think about what that ICBM is for, that is deterring a growing axis of, adversaries who are pursuing, they [00:19:00] possess, and they're expanding their nuclear capabilities. When you look at that, consider some of the other costs in defense right now that are on the table like investing in single use long range conventional missiles.

[00:19:14] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** They've got a small boom in the warhead. Conventional. They're not deterrent. And they cost about 50 million dollars a copy. So, so there's a pretty good deal here and shouldn't be surprised at what the cost of 1 of these facilities or 1 of these Sentinel setups really cost.

[00:19:33] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** So, the program's got to stay course, and we would hope that determination, it really highlights things that happen in the delay of modernization, which we're seeing across the Air Force in many programs.

[00:19:46] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** And, the other things too, is the crews these airmen and missileers who are in these silos as they exist today, these things were built in the 1960s and the noise, the air quality, potential [00:20:00] toxins, we didn't understand in that era, but we certainly do now, this program must stay the course and we'll be watching it carefully from our vantage here at Mitchell Institute.

[00:20:10] **John “Slick” Baum:** Okay. General Duptula, Lockheed Martin leadership just announced that they expect to begin resuming F-35 deliveries in the third quarter of 2024, so clearly the delay is not good. So what's your take on this?

[00:20:23] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Well, Slick, we need these jets yesterday. The Air Force is in a combat aircraft Cape capacity nosedive and as it continues to retire combat aircraft faster than it's replacing them there are now major gaps developing in the force that need to be addressed and need to be addressed fast.

[00:20:47] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Now all that said, we do need jets that work as advertised. TR 3 Block 4 is an incredibly significant capability upgrade over previous versions. It's [00:21:00] literally one of the largest software development efforts in DOD history. It involves installing a new central processor in the aircraft to run the new software. The end result is it's going to be phenomenal in terms of the capability that it provides our airmen to fight and win in the air wars of the future.

[00:21:20] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Now the root of the issue is that the vendor providing the central processor was late by over a year and of course, that delayed testing. On top of that, how the software behaves in a ground based simulation environment turns out to be different than what pilots are actually experiencing in the air.

[00:21:41] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** And because the software demands a new central processing computer, there are only a handful of jets at Edwards that can fly the missions. And remember that most of the F-35s in tests are older aircraft or older versions of the F-35 so, there's a bottleneck. Now, with [00:22:00] any defense program, this turbulence will pass.

[00:22:04] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** We understand that there's general agreement between Lockheed and the government regarding the third quarter target. When that happens, you'll see a large number of F-35s deployed to their units. Unfortunately, there's going to be some on Capitol Hill who say that we should pull back on buying large quantities of the F-35.

[00:22:25] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** We would tell you this is exactly the wrong response. Aircraft currently in production were procured with money that Congress authorized and appropriated several years ago. And there's a lag in the system. So cutting funds now would impact F-35s two to three years from now, just when the program will be doing well and making up for these past issues.

[00:22:50] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** So this is not the time to inhibit the F-35 program when the capacity of the Air Force is in such a nosedive. [00:23:00] Instability would also prove catastrophic to the supplier base. Remember how fragile and small a lot of the second and third tier vendors are. We just can't jerk them around without breaking glass.

[00:23:14] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Plus the aerospace market is really hot, both in civilian and defense. That if we see demand for raw materials and those supplies are going to instantly be vacuumed up by someone else, and that will further impede F-35 production. So the only way to build the force is steady, high rate procurement.

[00:23:38] **John “Slick” Baum:** Yes, sir. Cannot agree anymore. Anybody else have thoughts that they want to hop in on?

[00:23:41] **Todd “Sledge” Harmer:** No, I just have one comment I'd like to make and reinforce what General Deptula said. You know, we cannot overestimate the impact that delay in procurement has on the second and third level tier suppliers. I mean, it's just devastating. And so much thought and so many resources are going into [00:24:00] rebuilding the defense industrial base. This is a simple way to keep it healthy.

[00:24:05] **Charles Galbreath:** And I'll just pile on Slick with the thought that this is not just an air issue, right? This is emblematic of a larger industrial base issue that's going to impact the space side as well. And as we prepare for the enduring competition with China that we're facing, we need to make sure that we're there for the long haul.

[00:24:23] **Charles Galbreath:** That includes capabilities, that includes resources, that includes resupply, and critical supply chain elements as well. And so let's learn from the F-35 and make sure that we set up ourselves on the space side to address issues like this and ultimately prepare for the long enduring competition.

[00:24:45] **John “Slick” Baum:** All right now for a long time Mitchell has really championed the notion that it's a mistake to size the Air and Space Forces as services only to be able to support one major regional war at a time, which is the current defense strategy. So air [00:25:00] power and space power is required in multiple theaters around the globe, often in high numbers, and that breaks the one major regional conflict model. With war and Ukraine instability in the Middle East, China, the Pacific plus Iran, North Korea, continuing to press aggressively, what does everyone think about how the Air Force and the Space Force is sized?

[00:25:21] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Well, Slick this is a complex issue and it's one that people, even in your description, you said, well, we have a one MRC force sizing strategy. Well, that's not declared. You have to interpolate that. Let me provide a bit of background: following the end of the Cold War. U. S. military forces were sized to be able to fight and win two overlapping major regional conflicts or MRCs.

[00:25:51] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** The logic being that sizing the U. S. military to be able to fight no more than one MRC at a time could tempt an [00:26:00] adversary, another adversary, to act aggressively in one region. If the U. S. forces were already committed to a different reason. And guess what? That's still good logic. In subsequent years, you know, the early 2000s, the U. S. force planning standard was reduced to what was referred to as a win hold standard, meaning an ability to fight and win one MRC while conducting a holding action in a second MRC. So in this construct so the theory goes after winning the first MRC, we redeploy forces from the first MRC to augment those already involved in the second MRC.

[00:26:43] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Now today you know, as you intimated, we have a de facto one MRC force. Some would even say it's less than that, depending upon the threat involved. But the fact of the matter is we have no force sizing construct at [00:27:00] all. This is the result of pressures on the defense budget, not any considered assessment of potential defense strategies to meet the threat facing the United States.

[00:27:14] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** We fell into this situation, and the bottom line is that today's declared defense strategy does not drive our force structure. The defense budgets planned by the political administration in power and then issued by Congress is what really drives our force structures. And just to remind our audience, over the next two years, the Department of Defense budget is on track to be dramatically cut for a variety of reasons and actions.

[00:27:48] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** So with that brief background, let me make this simple. Today we have less than half the combat air forces that we fought in one, the First Gulf [00:28:00] War, Operation Desert Storm. In 1991, we had just witnessed the collapse of the Soviet Union, China had an antiquated and marginal military, North Korea had no nuclear weapons, Iran was a backward and struggling theocracy with little military capability, and certainly was not even thought about in any way, shape, or form as a potential nuclear threat.

[00:28:32] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** So what's the situation today? China is now a peer threat with an exploding nuclear arsenal, space weapons, a Navy larger than ours, and a panoply of weapons that outmatch ours to include hypersonics. Russia has launched a major land war in Europe and threatens to actually use low yield nuclear weapons if they deem them appropriate. North Korea is now a nuclear [00:29:00] power with dozens of nuclear warheads, if not hundreds, Iran is exporting drones to Russia and manipulating client terrorist organizations throughout the middle East to do their bidding without attribution.

[00:29:13] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Just look what happened last night: three Americans killed over 32 seriously injured. And Iran says, "Hey, we didn't have anything to do with it." So not only is it reasonable that we should move back to a two major regional conflict, force sizing construct, that should be a minimum. The threat lay down facing the United States today demands a two MRC plus force sizing construct, the ability to fight and win two MRCs plus a smaller scale contingency simultaneously.

[00:29:49] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** That's the only way the United States will regain the deterrent capability that it once had 30 years ago to be able to [00:30:00] assure peace and stability around the world. Unfortunately, with current defense plans, the Air Force will continue to decline in combat capacity, capability, and readiness to new historic lows.

[00:30:16] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Without a for sizing construct to guide weapon system planning and procurement, there's no mechanism, process, or logic to halt the shrinking of our Air Force and the same can be said to a degree of the other services.

[00:30:32] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** So, today we have a defense in decline with threats on an ascent. The only other thing I'd add is for a more detailed treatment. I'd encourage our listeners to read our Mitchell Institute report that's titled "The Force We Need: Key Factors for Shaping the Air Force of the Future." It's on our website, and there you'll find some recommended desired capacity numbers for the different Air Force mission areas [00:31:00] that are required to actually meet the challenges of the multitude of threats that we face today.

[00:31:06] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** Yeah Slick, so let me put some size on the deficiencies. Yes, there is not a big enough Air Force to meet the defense of our nation's interests. That's a fact. The Air Force doesn't have the resources to fight even a single major regional conflict. So let me tease this out a bit. First, the Air Force's fighter forces, half the size it was during Cold War. Half!

[00:31:33] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** And let me take one piece of that fighter force, uh, to, to description the F-22. Now this aircraft is our nation's most capable air superiority fighter. It enables all other military services because air superiority is essential. If you don't have it, you're in a stalemated slog like we see in Ukraine today.

[00:31:57] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** So the Air Force has approximately [00:32:00] 190 F-22s, but that doesn't mean it has 190 to fly and fight tonight when you subtract all the aircraft not operationally available, those used for, you know, training, uh, test and so forth. And then you factor in the ones that are waiting on parts and maintenance because that's a fact of life with, uh, aircraft.

[00:32:23] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** If you do all that, the Air Force has only about a hundred tails to fly and fight on any given day. But that's not a hundred combat air patrols because to cover an assigned area, you need three aircraft. One's on station, one's taking off to relieve the one on station, and one is headed home to refuel and rearm itself.

[00:32:46] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** That leaves a mere thirty three combat patrols for the entire air superiority needs of the United States across the globe. Wow! But wait, that's not all. Operationally, [00:33:00] our tactics involve two F-22s on station in the same assigned lane, that is the assigned geography. So the United States can only muster and sustain about 15 combat air patrols to service our needs 24 7 across the planet.

[00:33:19] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** This is not even enough for one conflict, like a dust up with China. But now let's talk about airbases being under attack with these F-22s. And in the Cold War, we used a planning factor of about 50%. We wanted to try to fight still 50 percent of our sorties, even if we were under attack. I would like to make note that our bases are not configured to fight under attack right now but we'll lay that aside for a second.

[00:33:46] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** So let's talk about airlift. On a daily basis, the Air Force airlift is, in peacetime, pretty much tapped out. There's not a lot of surge capacity. So when you talk about conflict, where [00:34:00] airlift is needed to envelop the immediate needs of operations, well, the fleet's not sized for great power conflict. And when you add in concepts like Agile Combat Employment, where we have a lot of airplanes moving around in small numbers in a lot of places, where does all that added airlift requirement come from? How's it filled?

[00:34:25] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** Okay, so let me, let me jump to America's bomber force and this should be a shocker for everybody. It is one third the size it was in the Cold War. And one element of it, and everybody knows the word stealth, right? One element is the Air Force's ability to project power and penetrate adversary air defenses. That's the mission of our stealth bombers. Well, we have one model, the B2 Spirit. How many tails do we have?

[00:34:56] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** 19 that we can bring to bear. But that's an old [00:35:00] fleet of airplanes, as awesome as they are. And using today's current level of mission capability, when you talk about the ranges they have to fly, when you talk about their supportability, when you talk about a lot of factors involved in getting where they need to go, you might get five sorties a day.

[00:35:19] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** Can you imagine that the United States of America can only generate maybe five or six stealthy sorties a day? It's a shocking reality. It's not a secret by the way, but it does seem quite ignored. Now, there's other things that constrain the force, uh, you know, the Air Force itself is, is reducing its capacity to take that money and finance modernization that will be obtained out there in the future somewhere.

[00:35:47] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** For example, General Deptula was talking about GMTI, but there's also the elimination of battle management aircraft and there's the elimination of airborne early warning aircraft, and there's a [00:36:00] promise to replace these capabilities in the next, you know, decade or so. But will the airmen that have been developed and trained across a career, will they stay?

[00:36:10] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** Will they wait? I doubt it. Because we have other examples where this scheme resulted in a flush of human resource. And that human resource, the knowledge of battle management, and, and other, other types of skill sets that took decades to develop. So that's a big problem.

[00:36:30] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** Finally, let me get back to the air and missile defense of our bases, I was talking about earlier. Uh, this is another obvious fact. We don't have that game on. We know air bases will be under attack by China or Russia, and everybody has seen just recently Iran. seems to have quite the desire to successfully target U. S. forces, air bases a couple years ago, they're gonna be shut [00:37:00] down and you better believe China or Russia in a high end fight is gonna very much focus on that.

[00:37:08] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** So unlike the Cold War where we had structured ourselves to fight under attack, even though at a reduced level, like I said, about maybe 50 to 60 percent are the planning factors we talked about there could be a complete shutdown of operations today. So the bottom line is we don't even have enough force in the U.

[00:37:28] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** S. Air Force to fight one major regional conflict. And the force we have is at risk. It's a stunning reality. It's not a secret. Our adversaries know it. And Slick, that is dangerous.

[00:37:42] **John “Slick” Baum:** Charles or Sledge, you want to hop in on any of this?

[00:37:45] **Charles Galbreath:** Yeah. So I'll pile on from a space perspective. I mean, what General Deptula outlined is absolutely correct. And those threats to space not just by China, but by others is growing. And at a time when we see the Space Force [00:38:00] needing to grow to address those threats and new mission areas, like we talked about earlier between Cislunar and GMTI, the thought that the budgets might actually level off or even decrease is really kind of crazy.

[00:38:13] **Charles Galbreath:** So we need to continue to see growth in the Space Force, not just in terms of dollars, but also personnel to get after these missions. Last week's podcast we had an in depth discussion on the need to grow the personnel end strength for the Space Force. And if you missed that please go take a look at that really in depth discussion with General Chilton Tav Taverny Stu Pettis and myself.

[00:38:38] **Charles Galbreath:** But I think there's additional aspects that we need to consider here. What we're trying to do with enduring competition and with the capabilities we're fielding in space is deter conflict. And if we can't have a credible force with the capacity to address the growing threats, that deterrent stance, that deterrent posture [00:39:00] is weakened and the possibility of conflict is increased.

[00:39:03] **Charles Galbreath:** And so when we talk about increases in, in personnel and capabilities, and people will say, well, that's going to cost us a lot of money. Well, it's going to cost us a lot more if we have to apply those funds and recruit personnel in an emergency situation because deterrence had failed.

[00:39:20] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Yeah, let me just jump in there, Charles, and reiterate and remind everyone that it has been the perspective of the Mitchell Institute since the standup of the Space Force that it's under resourced, it's under manned and it needs to have the consolidation of the different DOD space organizations underneath the Space Force to allow it to provide a unity of effort, which ostensibly was why it was stood up for in the first place. And we'll continue to make that case because you're [00:40:00] spot on. We need those capabilities in both air and space to be able to regain back the deterrent capability that we once had.

[00:40:12] **John “Slick” Baum:** Well, Sledge, I'm going to put you on the spot here. So how do we convey this to Congress? I mean, continuing resolutions just make all this worse, right?

[00:40:21] **Todd “Sledge” Harmer:** Yeah, I think we still, we just have to keep banging our spoon on the high chair, but it has to be an objective argument, has to be based in logic, in fact, and tied back to the National Security Strategy and the corresponding National Defense Strategy. I just, I wanted to circle back to one of the things that Gen Deptula said earlier there.

[00:40:39] **Todd “Sledge” Harmer:** You know, in addition to the great publications out of the Mitchell Institute uh, Heritage Foundation just published their recent index of military power and it was a very scathing report on the status of the United States Air Force. When you're rated very weak and you're considered the premier air force in the world, there's a disconnect between uh, theory and reality.

[00:40:58] **Todd “Sledge” Harmer:** And I think the [00:41:00] bottom line there is we just need to articulate, keep talking about the resources that are needed to support the strategy and not a strategy for the available resources. And then specifically to working with Congress, it's really tying it back to them. Not only national security, but the what's in it for them. It's got to be about jobs, and national security.

[00:41:21] **John “Slick” Baum:** That definitely makes sense. And I just have to say thank you to everybody for your time today. General Deptula, Stutz, Charles, and Sledge. It's been awesome catching up. We've got a big year ahead of us and just appreciate you guys taking your time out of your busy schedules to share your thoughts on the Aerospace Advantage.

[00:41:35] **Lt Gen David "Zatar" Deptula, USAF (Ret.):** Hey, thanks, Slick. Have a great day.

[00:41:37] **Maj Gen Larry "Stutz" Stutzriem, USAF (Ret.):** Hey, thanks, Slick. I so appreciate the work you do. It is superb. I'll see you soon.

[00:41:43] **Charles Galbreath:** Thank you, Slick.

[00:41:44] **Todd “Sledge” Harmer:** Thanks for having me. Take care.

[00:41:47] **John “Slick” Baum:** With that, I'd like to extend a big thank you to our guests for joining in today's discussion. I'd also like to extend a big thank you to our listeners for your continued support and for tuning into today's show.

[00:41:58] **John “Slick” Baum:** If you like what you've heard today, [00:42:00] don't forget to hit that like button and follow or subscribe to the Aerospace Advantage. You can also leave a comment to let us know what you think about our show or areas you think we should explore further. As always, you can join in on the conversation by following the Mitchell Institute on Twitter, Instagram, Facebook, or LinkedIn.

[00:42:17] **John “Slick” Baum:** And you can always find us at mitchellaerospacepower.org. Thanks again for joining us and we'll see you next time. Stay safe and check six.