Constellations Podcast

Episode 83 – The Space Force, Commercial Technology and Ground Digitization

Guest: Doug Lamborn, U.S. Congressman, 5th District, Colorado – 25 minutes

John Gilroy: Welcome to Constellations, the podcast from Kratos. My name is John Gilroy, and I'll be your moderator. Our guest today is Congressman Doug Lamborn. Mr. Lamborn is a US Congressman representing the fifth district in Colorado. The space domain is not something the average citizen thinks about regularly. However, life would be vastly different without the influence of space and satellites. This is especially true for defense, which depends on satellites to assist the war fighter. Satellites are used for communication, position, navigation and timing. The space domain supports a network enabled war fighter and the connectivity that weapons systems and platforms demand. Congressman Lamborn, please share with our listeners how long you have served the people of Colorado's fifth congressional district.

Doug Lamborn: Well, John, thanks for having me on your program today. I have had the honor of representing Colorado Springs for almost 14 years. And for most of that time, John, I have been on the Armed Services committee. As you know, it's the largest committee in Congress with 62 members on it. And it's fairly bi-partisan, which is excellent because that's needed for our national security. I've been on some committees that are polarized, we don't agree on everything, but this one has a lot of great cooperation. And assuming that we can pass the fiscal year '21 National Defense Authorization Act, which is pending right now in the house and senate, and making good progress, that will be the 60th year in a row that we have done that. And specifically, John, on the Armed Services committee, I'm the ranking member on the readiness subcommittee, which has to do with military readiness, training, logistics and maintenance, military construction, the organic industrial base, the civilian and contract workforce, the environment, military installations, and on and on and on.

Doug Lamborn: It's the largest portfolio of any subcommittee in terms of dollars. And also as, not a ranking member, but just a member, I'm on the Tactical Air and Land Forces subcommittee. And I'm a non-voting member of the Strategic Forces subcommittee, which I've been on as a voting member for the previous 10 years. So I've got a great set of assignments on that committee, John, and that's what I've had the honor of doing as I represent Colorado Springs, which is a very military intensive district.

John Gilroy: Well, you're the perfect guest because this podcast talks about space and satellite news for both commercial and defense markets. Can you describe some of your committee assignments? We've gotten a few of them, but what would some of our listeners be interested in your committees you serve in so far?

Doug Lamborn: Well, by representing Colorado, it really fits well. You may not know this, John, but Colorado has the second largest concentration of aerospace and defense jobs in the country. In absolute terms and in relative terms, per capita, it's the number one largest concentration of such jobs. So it's a great center of excellence for all of these efforts going on, for commercial, civil and national defense space. And it's really good because, John, in Congress, there's a real renaissance of defense space. President Trump has required the standing up of the Space Force Congress with a lot of debate going into it. We've hit upon a way going forward and that's a great thing that we're working on. There's a lot of details that are being ironed out when it comes to the actual nuts and bolts of how that's going to happen. But Congress, with some fits and starts, really agreed with the administration that space has become such a priority.

Doug Lamborn: And unfortunately, there's been some bureaucratic inertia and other things that were bogging down the development of our space assets and the protection of them that we just decided with the administration, that it needed to be a separate space force. So it's relationship like the Marine Corps to the Navy, the Space Force to the Air Force.,And I think this is going to be really good. So I appreciate what the president has done. The vice president, Mike Pence, he's been real involved with all aspects of space from the very beginning of his services administration. So it's an exciting time in our nation's history when it comes to space in every aspect.

John Gilroy: I guess, we can call Colorado Springs maybe a strategic hub. That'd be a fair statement, I think. And so how are you working with all these industry people in the overall space industry? How's your relationship with them? How are you working with them?

Doug Lamborn: I feel it's a very good relationship. Of course, we have oversight. We want to make sure that when companies come on board with contracts, that they fulfill the terms of the contract, that they deliver the best product at the agreed upon price, and that the quality of the product is superlative because nothing less would work or be appropriate for our men and women in uniform, for our war fighters. But John, this is a good time we could talk about commercial contributions in particular, if that's what you're wanting to dwell on.

John Gilroy: Yeah. Just a couple of specifics for our audiences. We have all kinds of listeners.

Doug Lamborn: Yeah. In general, there is a lot of capability that commercial companies bring, whether it's in intelligence surveillance and reconnaissance areas. And our Intelligence Community and Department of Defense have been utilizing a lot of these capabilities on a shared basis, on a contractual basis for many years. I think this is a good thing because it reduces the risk to the taxpayer. If a commercial company puts up a satellite and the missile doesn't get into orbit properly and the satellites destroyed, well, that's their risk, it's not the tax

payer's risk, or the cost of operations so that they can sell some of their product to telecom industry or to other kinds of users and they make money, but they also sell some of their products to the government. And so we have the initial capability.

Doug Lamborn: Now, there are some things, John, that only the government can really do, some super-secret, highly black type of operations that can't be handed off. But we can share the information. I think it's great to have this reserve of these very capable commercial companies all throughout Colorado, all throughout the United States.

John Gilroy: Well, let's go from local to a national question here. The National Defense Authorization Act, NDAA, is the name for the series of US laws specifying the budget for the US Department of Defense. Every year, the act goes through multiple revisions as both the senate and house make changes to the bills. In this year's house version of the NDA, there appears to be significant emphasis on satellite ground. Can you talk about why the satellite ground is being emphasized?

Doug Lamborn: That's a great question, John, and I was really involved in that. We have been putting up so many satellites that the ground system that we have now, antennas and processing and communication, has not kept up. The infrastructure is starting to fall behind. So the Air Force has been working on what I'll call the AFSCN, the Air Force Satellite Control Network, and they're estimating that they're going to need up to 100 additional antennas by 2024 to support all of these planned spacecraft operations. So this brings in the FCC, Federal Communications Commission, the ITU for International Telecommunications Union to make sure that the frequency bands are protected, that people are operating within their frequencies that they go through the proper licensing and technical aspects to make sure that they're not interfering with other users.

Doug Lamborn: And because we have a need in this, I was happy to introduce an amendment that got into the NDAA in its current form, as it's going through, which would require the streamlining of procedures regarding the licensing and the creation of more commercial industry antennas to support the existing network capacity. So secretary of the Air Force in coordination with the new chief of space operations are going to work together to make sure that the details are streamlined in such a way that we can add this additional, let's say up to 100 antennas to process all the additional signals that are going to be coming from space and to do it in a way that keeps everything flowing seamlessly and smoothly. So it's an exciting time and that's one of the things that we're working on in the NDAA.

John Gilroy: Good. Congressman, in your role as a member of the House Armed Services committee, specifically regarding space, so what are your priorities here? We talked about a lot of different topics, and what are you most proud of being included in the act out of all these different priorities and situations? What are you most proud of?

Doug Lamborn: Well, first of all, I'm just glad that the Space Force is being set up. And I'm also really happy that the Department of Defense and the Intelligence Community, I'll call it the IC, are now really working together more than ever before to address the potential threats of near peer adversaries might pose to our assets in space. Some of them are very capable, but very vulnerable, very expensive and very vulnerable. And there's a number of ways of addressing them and they're working together. They're working together right there in my backyard in Schriever Air Force Base in Colorado Springs. They are setting up the combined space operations facility, a standalone $150 million facility that will make this happen and it will be a building built from the ground up starting after the first of the year.

Doug Lamborn: They're using an adapted existing facility right now, which is great. The NDSC, I think it's National Defense Space Center, get my acronym correct there. So they're doing this right now, but that whole working together is something that I've just been really excited about and been working on from the very beginning.

John Gilroy: Earlier in the interview, you talked about hundreds of antennas and you just mentioned 150 million. I've got to ask the money question here. And we know the Space Force is established and Congress has directed it to designate a lead person for space acquisition, but the department has not implemented anything yet. So what are your thoughts on where the Space Force needs to be in terms of space acquisition authorities?

Doug Lamborn: Okay. And before I answer that, let me finish a couple more thoughts on your last question just to flush that out. I'm also really working on directed energy. I started a caucus in Congress. My good friend across the aisle, Jim Langevin of Rhode Island, is really involved in this as a co-chairman also. And we do things like making sure that the US and Israel are working together, making sure that there's enough research and engineering money to make those programs go forward. There's not just potential now, but there's actual operation capability for what directed energy can do for all of the services, different things for the different services. So I wanted to include that as well.

John Gilroy: Space Force, directed energy, it does sound like Star Wars, doesn't it?

Doug Lamborn: Well, yeah. But it's really exciting, and I'm glad you're doing these programs so people understand. It's not about sending people up in space. There's a civilian

NASA program for any of that, but this is defending our assets that our economy relies on, that our war fighters rely on, that telecommunications rely on, GPS, timing and arrogation rely on. There's so much that we have at stake. And so Space Force is to protect all of that going forward. Now, you were asking, John, about the acquisition authority a minute ago, and that is a critical issue. And that actually is one of the reasons why Space Force was stood up in the first place. Congress saw that there were some really good streamlined procedures that let's say some of the three lettered agencies, National Reconnaissance Office, were using that they had great success with.

Doug Lamborn: That they had a flatter, not as top heavy of a hierarchy that they had to work through. And so they took advantage of that and were able to turn things around quickly and efficiently and successfully. So to learn from that, Space Force is going to have a flatter and less hierarchical process for getting projects approved, because you can analyze and study things so long that by the time it gets up into orbit, it's time for the new one to take its place and the cost will balloon in the process. So acquisition has been a key element of what we wanted to see reformed with Space Force. And they're still working out all of the details as we speak. The Space Development Agency, SDA, is going to be probably the lead organization, sort of a follow on to the SDC, Space Defense Center in Los Angeles.

Doug Lamborn: Now, where it's located and some of those details are yet to be figured out, but the role that it will have will be to have a consolidated and streamlined acquisition process.

John Gilroy: Congressman, thousands of people from all over the world have listened to this podcast. If you're listening now, go to Google and type in Constellations podcast to get to our show notes page here. You can get transcripts for this interview and all 80 of our previous interviews. Also, you can sign up for free email notifications for future podcasts. So people can get a transcript of all this great information you're giving us here. Congressman, your committee is emphasizing the commercial, digital ground capabilities to leverage investment already made by commercial industry. That way, they avoid investing in terminals, hardware and satellites. Does the committee see renewed pressure on defense budgets in the horizon as we saw in the sequestration days?

Doug Lamborn: Well, there is going to be pressure. As you know, we have this pandemic with the coronavirus, which is requiring relief packages amounting to, I believe so far, $3 trillion, and there's a one hospital, $1 trillion follow on to that that the house and senator White House are talking about. Now, whether that comes to fruition or not is yet to be determined. Things could fall apart there. And I for one, want to see money that already been appropriated, but not used first before we borrow anymore as a country. We are going too deep into debt, in my opinion, and we have to be very careful about that. But what it's going to do,

John, is put pressure on future budgets. We've had this two year deal with a good top line that has helped us really catch up. After some lean years in the previous administration, we've caught up with getting training and maintenance and operation money so that training is going better for our men and women in uniform.

Doug Lamborn: We're not having as many of the training mishaps as we used to be having. So we're on a good trajectory, but the burn that we're doing is going to put pressure on future budgets. So by partnering with commercial providers and the government relying on them to take some of the risks and off of the shoulders of the taxpayer, that is a win, win situation. They have a secured funding stream that makes sure that their operations stay in the black. We have capability that comes to us without having to have all of the investment of the launches and everything else that goes with the orbiting capability, and it's a great win, win situation. So yes, let's leverage existing commercial capabilities as much as we can. I think the entire committee believes in that concept and we're doing that as we go forward.

John Gilroy: Your committee has stated that it supports the DOD demonstrating commercially available technologies and services to augment military capabilities, just talked about that. And the defense department has actually incorporated that tenant into its space policy. The committee said it understands a common digital ground infrastructure is important to unify commercial and military satellite communications capabilities seamlessly. It also wants accelerated and fully defined acquisition strategy related to this ground digitization effort by next March. How is the committee expecting the department to leverage commercial technology to support this digital ground infrastructure in what seems to be just around the corner, next March?

Doug Lamborn: John, that's a great question. Part of it, I addressed earlier when I said that they are studying the required language that I and others supported. I put in, other supported. They're required to come up with that plan by 2024 to have up to 100 new antennas. The ground digitization is going to be, I think part of that overall process. There is going to have to be money that goes into it. There's going to have to be some additional investment for broadening the infrastructure that right now will not be able to keep up with the projected satellites and amount of capability that we'll have up in space. So ground digitalization, whether that's fiber optic connections or additional antennas or all the things that go with that are something we're going to have to be investing in. I think that the committee is going to agree with that as a consensus. I feel good about the fact that we want to do that.

Doug Lamborn: Also, there is going to be an ongoing discussion, John, about how much of the capability is exclusively to the Department of Defense and how much of it is to the Intelligence Community. And so by them working together, one thing I hope

we avoid is needless duplication, but we don't want to stove pipe things where there's good results coming from both sides, but it's kind of the same. We want them to work together. And we want to use, as we've talked about several times already, commercial space capabilities from private companies so they could add things so the taxpayer and the DOD and the IC aren't putting all of their dollars into things, but we're partnering with those commercial companies. So by next March, I think that we will be making some real good progress. I think that we have a consensus in committee on that.

John Gilroy: Congressman, when you talk about Colorado, you got to talk about mountains. And when you talk about Federal Information Technology, you got to talk about cybersecurity. And so it's an ever present continuously evolving concerns around cybersecurity. So what is your sense of the ability of commercial technology and services to contribute to a secure and resilient communication capability across the national security space?

Doug Lamborn: Well, not all companies are created equal. Some companies are able to handle their own cybersecurity. They have the means and the resources to do that. There are some who may be smaller that are farther down the supply chain, who unfortunately might be more vulnerable to bad malign cyber activity. And sometimes there are companies that just specialize in providing the security for cyber and they're available on a contractual basis to protect cyber communications and storage. So I think that the Pentagon still needs to finish creating a consistent and verifiable standard that companies must meet because of these different places that they're coming from. The DOD and the IC must have clear standards in place and also sound metrics to measure those standards. And so far as the capabilities of cyber services goes, there is room for the commercial sector to participate, but it's got to be in coordination with the cyber command and the NSA, because this can be very complex in the end.

Doug Lamborn: If there's a mistake, the consequences are too serious. So I think that's where we stand right now.

John Gilroy: Congressman, earlier in the interview, you mentioned the SDA, the Space Development Agency. And the way I understand it, the SDA is developing a missile tracking layer that will essentially be a large constellation of LEO satellites. They'll communicate with each other and detect and track enemy weapons. Okay, we know that. At the same time and a parallel, the Missile Defense Agency, the MDA is developing a program called the Hypersonic and Ballistic Tracking Space Sensor, or HBTSS, that's being developed to provide global sensor coverage to detect, track and target ballistic and hypersonic missiles. There's been a lot of back and forth between the DOD and Congress about the roles and responsibilities of SDA versus MDA. So what are your thoughts on these two and what are the roles and responsibilities for HBTSS and the tracking layer? Are these competing programs?

Doug Lamborn: Great question, John. I don't see them as competing. The way I understand it is that they are both addressing similar but different needs and they need to work together, but I think that they're both critical. Now, HBTSS to detect things like hypersonic weapons using low earth orbiting satellites, LEO satellites, we know that our near peer potential adversaries, Russia and China, are working diligently, and they might even be ahead of us, I'm not sure. But they're working diligently to promote their own hypersonic glide vehicles with offensive capabilities. And these are things that travel at high speeds and they're maneuverable. So they're different from a ballistic missile. So being able to track them is something that's becoming more critical every day, and that's what the HBTSS program is. The MDA program to have a space base sensor layer, an architecture that will detect launches and flight paths of potentially deadly ballistic missile attacks on our homelands, or on allies even is something that could be done with, I think, different architecture.

Doug Lamborn: In both cases, they have to be able to give fire quality data to the shooters, to the people that will send up the interceptors. So I'm seeing these as different programs and which one comes first, if there's a money shortage, I hope that that doesn't become an issue because that'll be a difficult debate. But I think that we can and must and should do both.

John Gilroy: You're in a very, very difficult position. You sit on a lot of closed committee hearings, where you privy to some dangers that we might not be aware of and you have to be very careful about what you say in an interview like this to balance both aspects of it. So we really appreciate the time you're taking here to just sit down with us and answer some of these questions and just share what you can about some of these threats that we may or may not perceive. You're at the point where you can see threats that the common citizen may not even know exist.

Doug Lamborn: Well, that's exactly right, John. It's kind of sobering. But at the same time, we have great creativity and ingenuity and hard work in our economy. I think as a country, we have the best defense that there is out there in the whole world, but we can't let our guard down. We have to be vigilant to keep up, if not exceed what others are doing. And they're looking for things that we've neglected or they're looking for the scenes and where are things fit together, and they want to exploit those scenes. For instance, we all know this from open records, but Vladimir Putin has come out and said he wants to have cruise missiles that can circle the earth, they're nuclear powered and maybe they could come in and attack the US from our Southern border where we hardly have any of those types of ballistic missile defenses.

Doug Lamborn: They haven't really been needed. So he's looking for vulnerabilities to exploit, and China is the same way. So that's why we have to constantly be on our guard

and it's an honor to be on the Armed Services committee where I'm helping make sure that we make that happen.

John Gilroy: Congressman, all of our listeners, thank you for taking your time, your busy schedule to update us on satellites and communication systems. I would like to thank our guest, Congressman Doug Lamborn, US Congressman representing the fifth district in Colorado. Thank you again, Congressman.

Doug Lamborn: Thank you, John.