



# Let's talk about the future of EV and Unmanned Logistics: with LtCol Brandon Newell and Maj Steve Harvey of the SoCal Tech Bridge

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## Transcription

Rob Cranston 0:34

Welcome to the CANA Connection Podcast, Today's exciting day. We've got two of the leadership team members for the Naval X, SoCal Tech Bridge. Brandon Newell, and Steve Harvey thanks for joining, and where are you guys right now? Are you out in San Diego?

Brandon Newell 0:49

Yeah. So, we are at the Marine Corps university on the base of MIRAMAR.

Rob Cranston 0:55

Hey guys, welcome to the CANA Connection Pod cast. This is going to be exciting. You guys, I've been watching, of course the traction inside DoD and innovation, applications and adoption and I gotta tell you, you guys are on the frontier of being on the frontier of just that, creating that environment where innovation, and being visionaries in that can be adopted from really that ground up and really getting advocacy in public private partnership to really building upon where you guys sit at Naval X under the assistant secretary of Navy and Research Development acquisition, which I noted also sponsored by the Office of Naval Research (ONR). So, let's get into the background, how did you guys get to where you are at Naval X, let's take it back just one billet, and then to Naval X, and give us a little bit of perspective. Brandon let's start with you.

Brandon Newell 1:48

Yeah, so a little over a year ago, Naval X which is the innovation arm of the Assistant Secretary of the Navy for Research, Development, Acquisition, they were standing up there tech bridges across the nation and across the Department of Navy, and San Diego was one of the first six and so they did that up, and you know we were very supportive of them doing it, then a year ago they came along and asked us to become the leadership over that, and so I became the director of the So Cal Tech bridge, and it's all about finding pockets of innovation across the department maybe with nontraditional partners and that's what we've been doing for the past four years. And so we had a lot of mature programs and 5g and unmanned logistics and counter intrusion and on and on, that we were able to bring over and really rebrand as Naval X Tech Bridge and installation next on behalf of the Marine Corps.

Rob Cranston 2:47

Steve, what about you?

Steve Harvey 2:48

Well, I met Brandon a few years ago after my time at Naval post grad school I was working on Marine Corps Tactical Systems Support Activity. He pulled me in. And we've worked a few projects over the years together. When I learned that my time in Marine Corps wasn't over. You know that I was faced with potentially going back to being a manpower officer, I felt that was kind of a tragedy, given the, the, invest the Marine Corps had made in me over the last five years of teaching me a new skill set will provide me the latitude to explore new things, and then letting me cultivate those while at Marine Corps Tactical Systems Support Activity at Camp Pendleton. And so instead of going back to, you will certainly have been a very easy last year in the Marine Corps we orchestrated the, the effort to pull me over to the Naval X SoCal Tech Bridge to carry on and what Brandon is built here.

Brandon Newell 3:46

But I'll just highlight this, you know, Steve and his team at MCCDC were partners of ours, doing a number of efforts together, right, we actually partnered to send, maybe the Marine Corps, best, artificial intelligence, machine learning, individual uniform on a fellowship to Amazon here think Diego so that we can incubate opportunity so that's the type of spirit that we had together. And when you go back to January of this year, and I was looking at what was going to happen to this program beyond my time as I come up on retirement. It was uncertain, on what the Marine Corps would do and whether they would rise to the occasion and continue the great work. And so, we actually developed the plan together that would allow Steve to come in and replace me as he was leaving in that position so you know just the spirit of collaboration and the commonality that we had together in our vision of how to change the Marine Corps and incubate a better tomorrow. You know it was a no brainer for us to figure out how Steve comes in and replaces me, you know this summer and so we're really excited about it kind of changed the dynamic and the trajectory of our program. And so I'm stoked up.

Rob Cranston 5:01

Guys, thanks for that. I tell you, we are too. I think the rest of the communities of those innovation companies. The public private partnerships, especially appreciating that, you know you've got, and we have this ability to really showcase as you mentioned, in a collaboration in an environment that really gets this this space of and gets that really the needs bass in that domain of in that ecosystem so I we just can't wait now we reiterate this throughout. To see how this continues the story is unfolding continues to unfold. So, but in the beginning though Brandon when you as you and your vision on creating, and I love in in some of the other podcasts you got I had a chance to listen to some of those which are fantastic and it's fantastic because I love the idea that in the mention that hey, the technology strategy you guys. And with that, so walk us through how that happened. And really the six technical functional areas under the SoCal Tech Bridge.

Brandon Newell 6:04

Well, four years ago I was sent out here by Lieutenant General Dana, who at the time for Installations and Logistics, it was really this idea of better business models, how could we generate better business models. Unlock the future of technology and capabilities for installation. And so, we were focused at the time on mobility. So, think transportation. But that's what's led us into autonomous vehicles and us standing up autonomous vehicle Proving Grounds, people started working, unmanned logistics systems for the battlefield, both air and ground. And that really incubated an opportunity with Qualcomm who's at right outside the gate. So, we fostered a relationship with Qualcomm, to come and do their own developmental testing our autonomous vehicle Proving Grounds. And what we received in kind support was market forecasting and developmental insights to better understand what the what the commercial industry was doing what they were incubating, and then what was going to be hitting the market in the future so that we would be in a better position on behalf of DoD, to understand what was being solved commercially and what we would have to stall, you know to complement that, to realize on these emerging technologies, both on basis, and the battlefield. Well, that relationship, you know, was around, autonomous vehicles and unmanned logistics, but that's when we started to understand from Qualcomm how 5G was going to be a disruptor for the future. And so, this is 2018. And so we said look,

we know that God is going to be behind the power curve here, and understanding, you know, cellular technology disruption, Internet of Things touching so many markets. And so, we might be the only ones that see this and think we can do something about it. And so, that's when we started our relationship with Verizon around 5G and we came up with a vision in 2018. Turning Miramar into a 5G Living Lab. And so, you see how, you know, we say that we didn't choose the technology, the technology chose us, it became an imperative, on behalf of the Department of Defense that we surge into that space and become thought leaders because we had the right partnership. We had the right mindset, and we can maneuver against the bureaucracy to realize what that vision that look like, you know.

Rob Cranston 6:34

Beautiful, beautiful and that, in that component is to navigate through is, is certainly an art. I know some of the other innovation minds and truly visionaries like you guys we had Howie Marotto on here a week ago, and one of the things we were talking through and I started you guys is just that how you guys leverage the commercial research and investment to set up these conditions for innovation, you know, getting the right group of not just advocates, but also they that are that are committed and committed in a way that's going to be a long term investment for them and for you knowing that that's going to go into these environments within the plan for the platforms and connecting people ideas and best practices. So, I throw that question to you guys. That conditions for innovation, how do you really set that up for the pilots.

Brandon Newell 9:17

Rob is really just about people, you know, I mean it is about relationships. It's about people's personal and organizational interest. And so, these are not just large companies and small companies, but they are people, you know, that are that are they're changing, and leading these companies. And so, we find common ground. What I say is I find the trade space where our interests align. And so, every effort is mutually beneficial. We want to incubate opportunities for these companies, that's going to help them get to market sooner, and if we do that, we know that we're going to learn along the way about the technology, but also about the applications of that technology across the entire defense sector, right. So then, as they hit market, we are in better position to realize those capabilities in the right place across the Department of Defense, and so we really see that as our job in Agile R&D is to better understand what our requirements should be, what our concepts of employment should be for these emerging technologies for the future,

Rob Cranston 10:25

You know, and then that brings up, what I mean so you said I mean people and really got energy and excitement that mindset that bandwidth of innovation and entrepreneurial spirit that can go into you know the, baking, a really awesome part of the tech bridge programs that across the country and I know where you guys in, in our one release and my ones and watching all these other innovation incubators. You guys are in the forefront of doing that. So, people first and then, you know, getting into what you

look as these productive partnerships so kudos to that I'd like to say that in the next question to an Excel rate the dual use solutions sets, really getting those out and those are really for, you know, other federal agencies as well, and local governments. How do you see that work I mean so the, the existing policy. What does that look like, and what would you like to see that look like in the future? And in a follow up to that would be, as well as incubation of the community around that, so the community of San Diego, proper if you will?

Brandon Newell 11:34

Well, I'll use an example, going on three years ago, we were invited to go out to see Customs and Border Protection, on the border, on the southern border, about an hour and a half east of San Diego. They had a new company Anduril industries that does artificial intelligence, machine learning with sensors to do security. And so, this was an In-Q-Tel project right. In-Q-Tel being the venture capital arm of the CIA. And they were really working together, Customs and Border Protection and drill on a work program around them. So, we were invited out to check out the technology that actually led to a relationship with both organizations. We soon signed a memorandum of understanding will work together with Customs Border Protection on security capabilities because they're experts in that space, and we want to leverage their insights into that in the application. On the technology side, we fostered a relationship and what we call now a strategic partnership with Anduril that's carried all the way through these three years, and now we're doing efforts, sponsored by different entities across department of defense in brown perimeter security in counter drone and maritime capital intrusion, all with Anduril. And so, you know, what we show here is that opportunities are local relationships are local, they close local gaps, and they're built on those relationships. And so, it's an example of how this kind of aspirational vision of looking for opportunities to collaborate, to close our gaps of the future. And really, you know, expedite the technology, but more importantly, like how it's related to human potential growth.

Rob Cranston 13:25

That's a great example. It's such a great and I think those are platforms of examples that as you highlight those going forward, inside the tech bridge to So Cal Tech Bridge that can be duplicated or replicated throughout the city proper of San Diego and then perhaps even tech bridges beyond So Cal, is that was that fair to say?

Brandon Newell 13:44

Yeah, absolutely. You know, taking into our local community, just like we have a memorandum of understanding with Customs and Border Protection, we have one with California Energy Commission to work on energy projects together. We have one with the city of San Diego to work on Smart City efforts together. We have one with San Diego Association of Governments to work on transportation efforts together, you know, so, even our Electric Mobility Symposium that we're hosting in, in late June. You know that is tied to the local community, because our community lives in the local community, right, like we are an extension of that. We are a node in this larger community. And so, the transportation, and,

you know, future mobility opportunities that they're realizing on. We have a place and a role to play, and we can be an extension of that so it's a very exciting time to really, you know, tear down the walls and the barriers between this bifurcated world that we've all created, and had to live in and really say how do we come together, how do we really embody this mindset of a collaborative market.

Rob Cranston 14:49

Should be awesome, and this present transition really to, Brandon you just mentioned the SoCal Electric Mobility Symposium on the 24th, and for that the 23rd I know there's a FUELED Ops ULS get together. Let's talk to us. This is exactly this is going to be like the culminating events places where you just mentioned where there's this collaboration consortium of folks, and it's rapidly approaching and we're the theme and events originated it was this something that you and the team I mean, to get to this point.

Brandon Newell 15:22

So, our unmanned logistics work all started with that mindset of having an autonomous vehicle Proving Grounds, you know, three years ago. And then, the opportunities that we were able to incubate around it. So, Office of Secretary Defense really got behind our vision of commercial technology, think Uber Eats, you know, drones delivering your McDonald's, think of FedEx truck driving into your, your community, self-driving to deliver your packages, and so that type of technology, unlock that what's happening in the commercial sector and the implications it would have to the battlefield for us. And so, we built a program concept around that. Two years ago, Office of Secretary of Defense, specifically the Operational Energy Office focused on energy on the battlefield, supported that program and actually funded us and so we've been working together with, with CANA to lead that program, and Robotic Research, who is our prototyping arm. They our strategic partner in unmanned systems. And so, we've spent two years not only doing market forecasting on the commercial sector, projecting those capabilities on the battlefield in modeling itself with Group W, and then actually doing rapid prototypes to some of those technologies. So, we showed off last summer. Our year one prototype, and we got customer feedback from that, and we built that into our year to prototype that type of feedback, so we're very excited to show what that future looks like an electric battlefield of the future. And then how electric and autonomous platforms are to change our entire mindset of how resupplies are done in the logistics mission for the distributed ops. June 23 is the Electric and Unmanned Logistics Demonstration. So, you know, our spirit here is that you're trying to unlock the imagination and let them see the implications for the future of this emerging technology, and then inspire them to go out and help us change the future of the Marine Corps and all the Department of Defense relies on these opportunities. And so, the great example here is that we, we host what we call our collision events. These collision events are not just to show our great work, technology and our prototypes, not just to show the great modeling and then we've done on what the applications and capabilities look like on a battlefield, but it is to bring the collaborative market together. The collision pieces bringing people together, inspiring them, and then letting them walk out the door with the inspiration of what they've seen. And then wherever they go to, wherever they are in the ecosystem and Department of Defense, whether on the industry side, or whether they're in the government themselves, allow them to be out and be free,

apples and that's it for themselves. You know Steve and I've been working hard these last couple of weeks really nailing down the details about how we, how we structure this collision event. You know, we call it acts and scenes. It's really a story. It's really a story about the future that we can bring our participants along for. And so, Steve just any comments about how we piece these together.

Steve Harvey 18:58

Yeah, I mean so through a series of design workshops you know using iterative design starting with an idea, aspirational vision. Walking the ground through the event putting ourselves in the shoes of the folks that we know we'll be participating in these events. And then, you know, trying to determine how we want folks leaving right so a lot of the individuals that were, want to come to these two separate events. We want them to go leave these events, Hate to use the word preaching, but you know, preaching evangelizing why electromobility for the future is important. And so, if that's, that's moving a piece of equipment left to right, you know, six inches to really get them understanding how these, these, these technologies on the battlefield can be used for less what takes right. And so, you know we're we expect that there are going to be people arriving at the event that are skeptics that we want to leave. You know, not being so anymore. Folks that, That, that need to see what the future can look like. Because they're not getting that normal day right so we're excited to invite folks in who may not be necessarily part of that collaborative market to become part of that collaborative market to go out and help us to spread the word about what future the battlefield looks like.

Brandon Newell 20:27

Yeah, I'm looking at our dry erase board right now where we were, you know, working through what is this visitor look like when they come, when they show up at this event, so the unmanned logistics event. So we are, we're looking for that, that participant to show up open and eager. Well, that means that we're sharing some of the great work we've been doing to date. And this is, this is where the relationship with Kane is so critical. How we shaped those visitors to understand the maturity and the excitement about what they are going to come and see. Right, so they show up, open and eager, but then we bring them through a whole demonstration about the electric battlefield of the future, how it's connected through cellular and 5g. And then we show them what unmanned logistics looks like self-driving and how logistics concepts of employment start to be disrupted. And so as we bring them through the demonstration, what's our objective with them. Well, now they're inspired right we're trying to touch them emotionally about the future, we're trying to get their juices flowing about what this future looks like, because that's how you, you know, evoke change, but then it's not enough to just have an emotion we now need to back it up with the knowledge with the, with the information with the insights that we've been able to develop over these two years with CANA and Group W. And so then we bring them into the afternoon session, and now we're trying to equip them, they're now equipped and informed to go out and evangelize this future, and shape it from wherever again they sit, and so you see, you know, just, I think Monday morning I was pinching myself because somehow Steve and I have now created a world where not only do we get to design, but we get to turn that design into creation, whether it's in an event, whether it's how we're engaging the ecosystem, whether it's how we prototype with our partners. It's an awesome world to be at and. And we're both very grateful to have been.

Koa Beam 22:30

So, you guys have mentioned in Robin mentioned that. So, like the So Cal Tech bridge is just one of the tech bridges misses So Cal Tech bridge the first one.

Brandon Newell 22:37

So, in September of 2019. Navel X stood up six tech bridges to start so cow was one of the first six. Then we grew to 12. And then six months ago we grew to 15 and we became international as we added in London, and I can say I saw London on there. Yeah, and then actually I just heard this week that we've now added Japan. And adding one more. And so, I believe we're at 17 so you know this is a team of teams, it's a federated group but it's not a homogenous group, right, so we're all pockets of it. You know innovation across the Department of Navy, and that have healthy ecosystems around them, and replace the national line to the existing sector, the Navy level, and kind of given a similar brand, a shared brown brand in some ways, but it's, it's right in our mindset which is centralized intent with decentralized execution. And so, you see our ability to surge into opportunities that we have here specifically and so cow, there's a lot of freedom in that. And so, it very much aligned with our philosophy of this program. And so, it's been a great, you know, kind of relationship with naval X. This past year.

Koa Beam 24:09

Do you guys all have your own specific focus areas as well.

Brandon Newell 24:13

Yes, we were all allowed to focus on the you know the areas that were healthy as far as right so, because we were doing, unmanned logistics already, because we were doing 5G already, and energy resilience, you know, the, the six technologies that we have are incubated before we were a tech group. And so, every tech bridge was afforded that opportunity as they were stood up is to really focus on the greatest opportunities on behalf of the department.

Koa Beam 24:46

Cherish I can see you have a hand raised.

Cherish Joostberns 24:48

I was just curious if you could speak a little on the reception of some of these initiatives, I think I'd seen something about the ollie, and Henderson Hall. Some of those autonomous vehicles obviously in a more



public space, and what the what the reception is either from the you know the personnel on base or from the leadership, and just your thoughts on that as possible.

Brandon Newell 25:11

Yeah, so a couple years ago we partnered with the Army because there was a target of opportunity for us in Northern Virginia,

Brandon Newell 25:18

To bring low speed autonomous shuttles onto the base there in Arlington at Joint Base Myer Anderson Hall. And so, we partnered with the army, and we actually won an industry led competition to have shuttles on the base, and an army lab was actually doing the analysis on it. We were looking at the concept of employment right like how important or what role would autonomous shuttles have in the future of transportation of our basis. And so, we believe that we can only realize that future. If we get our hands dirty, if we figure out the pros and cons and the complexities, but also the opportunities that these emerging technologies. And so, we use our basis to incubate them just like that. And so that was a great, you know opportunity for us a great opportunity that we collaborated with the army on. We learned much more about the state of the art in the industry at that time. And then you fast forward, and there was another competition in Southern California. By Local Motors, the owner of the ollie autonomous shuttle. And so, we actually competed for that opportunity as well and we were selected. So here, at Marine Corps Air Station Miramar. And so, you know, we've been very excited to have the, the, all the autonomous shuttle on the base. And so, it's current pilot right now.

Steve Harvey 26:46

Yeah. And so now, as we get closer to wrapping up a 90 day pilot with to Olli shuttles here, require air station Miramar, we're learning what it means to you know, transport people in packages using autonomous shuttles, the base commander was very excited about learning how the ollie will interact with regular vehicles that are not connected and not autonomous, how we can gain efficiencies in moving people and goods around the installation and really I mean one of the major things that we're learning here is, you know just how, you know, individuals can start to trust that an autonomous shuttle is going to behave the way that we expected and have programmed it to behave. So, it's been a really good positive experience with reality here on Miramar. You know, I think when, when the pilot initially started we intended to move people, Marines from the barracks the flight line to alleviate some of the, you know, the mile and a half walk for some of those, those Marines, but then COVID it and we had to, you know shift over to delivering packages for our distribution management office and, and they have been extremely excited about the prospect of having an autonomous shuttle deliver their packages can free up Marines to do things that only humans can do. Right.

Brandon Newell 28:07

Yeah, and this is the beauty of this program. The fact that we can be so agile and in really two different applications, but it also shows the diversity of applications of this technology in the future. And so, we say every pilot that we do here has to do at least two things it has to one close our knowledge gaps on the technology itself, but to maybe more importantly is to refine our understanding of the right applications, what we would call a concept of employment of that capability, both on a base, and on the battlefield. And so, the Olli pilot is a great example of that here we have an electric autonomous shuttle. That is not just purpose built, but it's dynamic in nature to, to, you know, address multiple needs movement of people and movement of goods, and so our ability to project forward with that, you know, how critical that will be to our future. Not only that, we've tied it into the 5G living lab as well. So, we're actually doing the data migration from the vehicle itself to the cloud, each day through the 5g network. So, what does that do for us, it helps us understand how critical, you know, cellular technology and specifically 5G is to these applications in the future. And so, not only then did we determine the concepts of employment for autonomous shuttle, determining concepts of employment of our cellular networks. Here on the base, and on the battlefield, and so we have partners that are focused on 5g core expertise expeditionary advanced basing on the battlefield, dark concept and report concept of the future. And so, how are they going to design those networks, what are those networks do. This is what can we help you know the entire ecosystem across duty. Understand, learn from develop requirements around and really build market momentum to realize when that future, you know, very soon.

Koa Beam 30:08

That's awesome and the that autonomous vehicle that you guys were talking about I got, obviously I've been privy to watching some of the videos and getting to see some of the stuff as we were preparing for the events on the CANA side, and everything but it's really slick, so I think that some people be really interested in finding out that the you know, there are military bases that are incorporating this type of stuff, nobody would even think that most places were doing that kind of stuff so it's awesome.

Norm Reitter 30:34

Yeah, So Brandon Steve, We know that we have the electric mobility symposium coming up on June 24. And it's been, you know the result of a lot of these technologies and the relationships that you've established over the last few years. So, what is your expectations for this upcoming event.

Brandon Newell 30:53

Right, so June 24 the Electric Mobility Symposium is really the unlock for us. We, we've done work in energy resilience with micro grid and renewable energy and energy storage across the base, we've done work with 5G and how infrastructure and transportation is connected to it. And we've done work in electric and autonomous platforms and even Evie charging electric vehicle charging. So, what we are seeing through the market, they're kind of commercial market is that this electrification, you know revolution, what I call the, The EV revolution is not only unlocking electric vehicles, but it's unlocking and linking ecosystems to the Internet of Things, smart transportation and energy resilience. And so, our role

here is to be thought leaders in that space, and bring the crowd together to see what that future looks like. And so, we have industry partners that are helping us demonstrate. We have stakeholders across government from federal to state to local all, you know, sharing their insights as to what this future looks like. And we believe together represents a collaborative market that we can realize upon soon. And so, we're here to feel the gap of leadership, into this space. And so, seeing that the energy market doesn't stop at the port, or the charger. Seeing that the transportation market doesn't just begin at the charger, but it goes into the energy resilience as well so linking all that together, and showing how transportation, energy, and cellular infrastructure is all a key to our future, what actually presents great opportunity, whenever you can, you know, expand your mind as to what it means and what opportunities or technologies, it's unlocking.

Koa Beam 32:44

Speaking of opportunities, Steve, you're taking over for Brandon as he retires, your time to take over the reins for the So Cal Tech Bridge area and the efforts they're going on, just wondering what your feelings are on it and if you're psyched for it or not?

Steve Harvey 32:58

Okay well psyched doesn't quite capture how I feel about you know coming into this, this killer job. I am, you know, I'm not sure that there are words to describe it is very exciting. I count myself along among the luckiest wearing the uniform, what Brandon has already built here. You know, when we talked about this is it's akin to a mesh network right. I don't have to drive everything. Every day there are, there's a massive collaborative market out there for partners who all are trying to push forward the same goal right we start with the aspirational vision. We've worked together along three separate avenues to get there, you know, using our partnership with CANA to help us figure out who those stakeholders are that care about things we're working on. Using NIWC Pacific as our, our next step program principal investigators to make sense of the stuff that we're piloting and then our next source program, you know, using etc and others as our, you know, emerging technology portfolio management. So I don't have to do everything I don't feel like there's this massive weight on my shoulders. I don't even feel like, you know it's brand new shoes I'm filling this is a whole new set of shoes that I you know I'm bringing into the program, and it's either going to be, you know, slightly different flavor, or you know, a little bit of the same but, you know, different. I don't anticipate, you know anything slowing down. I don't think that. I do think you will see some, you know, at least, a major and a couple minor, you know, efforts. The next year so yeah,

Koa Beam 34:44

Yeah, that's great.

Brandon Newell 34:46

You know, so that makes me very excited to hear Steve say that because that was our goal all along right that this is not a prescriptive program. It is not a prescriptive process it is about people driving to where they know what they know right to be in the future, and treating people well, collaborating well. And so, you know what we've tried to foster here is relationships and collaboration partnerships that are all aligned in their intent. Their intent is to expedite both commercial and defense markets, to the benefit of all of us. And so, we think we do that, you know, together by just aligning our skill sets in our in our interest and so you know what we've encouraged this is as Steve comes in, you know this is a great incredible platform to him for him to design off of with the team. They're not designed anything specific that he and the team have to execute on. They start the design, you know, is continuously iterative design in the process. Now that's perfect.

Koa Beam 35:52

That's awesome to hear, I guess, that about wraps up all the questions we kind of had going into this and answered some questions that I didn't even know I had going into this, but Brandon, I guess my last question is for you. You're handing it off to Steve and he's going to be running with it and helping to, you know coordinate everything and everything going. My question to you is, do you plan on staying involved in this kind of stuff, and this realm of technology and innovation and everything after you get out?

Brandon Newell 36:26

Well, I know my passion and my purpose is helping people, unlock the future. You know I think it's a matter of human potential. I believe it's collaborative markets is a belief system that I have. And so I naturally just find ways to embody that. And so I'll continue to focus on from the outside, how I can help the ecosystems of technology on emerging technology, unlock commercial markets that glue provide benefit to the defense sector. I think it's a matter of national security, that we've remained the most entrepreneurial, you know, free market type of country on the planet. And I believe that's what our competitive advantages. I believe it's national security that 330 million of us are striving to our own betterment and our family's betterment and taking risks and being able to realize the rewards upon wise risks. And so whether you're in the government, or you're outside the government I think it's critical to our place in the world for this nation. And so that's my belief. And that's what I will continue to strive for, you know, even as I take the uniform off.

Koa Beam 37:38

That is awesome, great to hear. And I want to thank you both for joining us today on the CANA Connection Podcast. A big thanks also goes out to our hosts Rob Cranston and the rest of the CANA Connection Podcast crew. If you would like to hear more of the cannon connection, head on over to our website at [Canaanadvisors.com](http://Canaanadvisors.com) While you're there you can also sign up for our newsletter or join our community forums. This is Koa Beam signing off for the CANA Connection reminding you all to Analyze, Assess, and Execute, and we'll catch you next time.