Video Event | Project Convergence: A Conversation with US Army Secretary Ryan McCarthy

TRANSCRIPT

Discussion……………………………………………………………………………………………………………………2

- Bryan Clark, Senior Fellow & Director, Center for Defense Concepts and Technology
- Ryan D. McCarthy, Secretary of the Army

Disclaimer: This transcript is based off of a recorded video conference and breaks in the stream may have resulted in mistranscriptions in the text.

A video of the event is available: https://www.hudson.org/events/1863-video-event-project-convergence-a-conversation-with-us-army-secretary-ryan-mc-carthy-102020

About Hudson Institute: Founded in 1961 by strategist Herman Kahn, Hudson Institute challenges conventional thinking and helps manage strategic transitions to the future through interdisciplinary studies in defense, international relations, economics, health care, technology, culture, and law.

Hudson seeks to guide public policy makers and global leaders in government and business through a vigorous program of publications, conferences, policy briefings, and recommendations.
Welcome to the Hudson Institute. I'm Bryan Clark, a senior fellow at the Institute and our guest today is Ryan McCarthy, who is the Secretary of the Army, having been confirmed last year as the 24th Secretary of the Army. Secretary McCarthy, thank you very much for being here today.

Secretary McCarthy, previous to his current role, was the Undersecretary of the Army, which he held for two years. Prior to that, he was working at Lockheed-Martin, primarily on the JSF, as well as some other programs, and then prior to working at Lockheed-Martin, Secretary McCarthy was a special assistant to Secretary of Defense Robert Gates, as well as the Undersecretary of Defense for acquisition, technology, and logistics.

Prior to that role, he served in government as a staff member of the House Committee on International Relations, as well as some other roles outside the industry. So thank you very much Secretary McCarthy and we appreciate you being here today with us at the Hudson Institute.

Thank you.

The army's undertaking a pretty significant transformation, arguably. Right now, you have six modernization initiatives going on. Looking at a future vertical lift, soldier lethality, vehicles, Maneuver SHORAD, Short-Range Air Defense, as well as looking at changes in how we do long-range fires. So these modernization initiatives are starting to come to fruition.

At the same time, we've got improvements in readiness that have been achieved through new deployment models that are regionally focused, and it's also a shift away from the focus on counterinsurgency and asymmetric warfare that exemplified the army of the last couple of decades. As an example of that, recently, the army announced the dissolution of the Asymmetric Warfare Center as well as the Rapid Equipping Force, which are both elements of that mid-2000s effort to transform the army for those conflicts that we were encountering in Iraq and Afghanistan.

So this transformation that's ongoing, the modernization initiatives are starting to come to fruition, and you're also building the budget for next year under a very uncertain budget condition given the impact that could potentially could come from COVID-19 response, as well as general concern about the deficit. So how is the army doing at its transformation, and what do you see the projections going forward for how it's going to be coming with next year's budget?

So we've been on this journey to transform the army for a little over three years now, and when we started this process, we had two brigade combat teams ready at the highest levels of readiness, really no modernization strategy. The Big Five signature weapon systems of our formation were about 45 plus years old and incrementally improved to the point were you're running out of letters in your upgrade process. So we did a complex restructuring of the entire organization, created a modernization organization called Army Futures Command, where we've got unity of effort, unity of command for the entire modernization effort. All those stakeholders under one roof.

We put particular emphasis on readiness. Today, we have 27 brigade combat teams at the highest levels of readiness and to your points earlier, six investment portfolios that have 31 signature systems that fall underneath those six portfolios, and those'll be replacing the Big Five, which has served our nation well,
but you just can’t engineer another ounce out of those weapon systems to make them relevant in the future. And all of this was moving very well. We had tremendous momentum and we still do.

But December 31st of last year, things really changed. We made the decision to take out Qasem Soleimani, the IRGC Quds force leader in Iran, we went to the brink of a war with Iran, sent about 10000 additional troops to the region. So before dinner, we had 178000 people around the world conducting combat operations in our 19th year in the Middle East but that decision put us on a different trajectory and then you saw this maximum pressure campaign with Iran, and increased sanctions, and really came to the brink.

And then, about 45 days later, COVID-19. And then we saw the US Army being thrust into the spotlight to establish hospitals in Seattle and New York City, to augment hospital staff in Detroit and set up hospitals in convention centers in Chicago and Dallas, deliver food in the areas of the country, take over nursing homes. We had over 40,000 troops around the country, core of engineers, active guard and reserve, doing all of these things over and above the troops we had deployed overseas deterring near-peer competitors, fighting terrorists. And at the heart of the vaccine development and research is the Army Medical Research and Development Command, and our very own Gus Perna running Operation Warp Speed.

So that wasn’t enough. 60 days later, George Floyd is brutally murdered in Minneapolis, Minnesota and all of that racial tension in the country that had been simmering for decades, exploded, and we put more troops on the street to help support peaceful demonstration and at times, it did get challenging. So a tremendous tension and pressure on the force, yet if you were to look at our readiness, or still 27 brigades and rising at the highest levels of readiness. Modernization, we haven’t lost any schedule. Very blessed that the defense industry really cowboysed up with us and they got people get masks and wash their hands and they went in there and they kept bending metal and we’ve kept schedule on our signature systems.

So as hard as these times are... Hard times don’t last, hard people do. Our men and women have performed remarkably by keeping the COVID contained. When we get clusters, we collapse on it very quickly and contact trace and test and tie it off. People get sick and we’re trying to just muscle through it because there are objectives we have to reach around the world and you can’t telecommute to combat, we gotta get after it. So we’re traveling all over the world and we’re meeting with troops and we’re meeting with industry and we’re meeting with our counterparts to try to deal with it.

But as we turn collective training back on, our numbers have grown. If you look at the entirety of the US Army, Companies 1, 2, and 3, Active Guard and Reserve, contractors, civil servants and families, it’s a population of about three and a half million people. We’re just north of 20,000 that have been infected. So we’re doing the best we can. We’re the size of the city of Chicago but we’re spread all around 140 countries, so it’s tough.

And people are constantly moving. We’re trying to exhibit a lot of discipline, a lot of hard work. So we have a lot of momentum in the midst of tremendous turbulence that we face. And that’s attributed largely because of the experience of our leaders. We have such extraordinary combat experience at every echelon, that our men and women spring into action very quickly, they’re very decisive. We just got to give them the latitude to do what they do best and we’re trying to do that.

We have huge challenges in front of us, to modernize the form, not only the material in the formation but what we have to do is really cross five key variables that we’re exhibiting to our converging all of the capabilities we need to transform the enterprise.
We have to transform first our people. We have to exceed it. We need more data scientists and software engineers organic to the formation. Our weapon systems, those 31 signature systems I mentioned. Command and control architecture that could be compatible across all these new weapon systems, as well as the air force, the navy, the air force and the marines.

Information. Cloud architecture with common data standards and then of course terrain, you have to have the right posture all over the world, because terrain will always matter. Those five key variables are what we put in place for the formula that is Project Convergence. Project Convergence is a series of exercise, similar to what we did in the Louisiana maneuvers back in the 1940s, where we brought in new weapons and people and tested them in a combined arms formation.

We did this a couple of weeks ago out in Arizona. We'll do it again a year from now in 21 and a year again in 22, where we had actually worked with F-35s from marine core, we worked with some other defense agencies and were able to conduct live fire exercises, calling for fire with long-range precision fires, air launch effects from our aviation platforms. What was in particular, was interesting and most effective, we were able to reduce the time span for calling for fire from minutes, down to 45 seconds or less.

So what you see in this exercise, we're fusing information faster, to get it into the hands of a decision maker to pull away and put lead on a target. And when you can become the faster to throw the punch, you're going to win in a fight. I equate these exercises of fusing information between stakeholders to make decisions faster.

Very similar to what the transformation Wall Street went through in the last 15 years of algorithmic trading. Where they can move information faster into the hands of a decision maker, get a strike price and buy a barrel of oil or a stock. And you even see it where they're getting closer to the edge. So Southern Manhattan, people are fighting over real estate. Who's going to get the closest to the exchange because that millisecond could be the difference between making a trade.

You see that in combat. Out in the desert for Project Convergence in Yuma, Arizona, we had engineers, we had scientists alongside active units, where they were writing code with the edge. How do we get the algorithm written? How do we go faster? We've identified a target through [inaudible 00:11:11], through airplanes, through helicopters. Fuse it, move it quickly, get it in the hands of the fire direction center. Fire. Fire for effect and it was incredibly successful. It beat any expectation that we could have had.

But what's exciting about it is it's helping us look at all of these factors, these five key factors, people, weapon systems, command and control, information and terrain. And you're going to hear the army talk about that consistently. And you're going to hear the Air Force talk about it, you're going to hear the Navy talking about because we're doing all of this together, over time. General McConville started talks last week before last General CQ Brown. Last time he had Army Air Force talks, was in the 1970s and 80s, when we develop their land battle and did some remarkably transformational things for both of our services. We're going through that again and very good start in the discussions, but a lot of work to do. This is a great opportunity for me to catch up with you all about what we're doing as an institution. As Jack can tell you, we're pretty busy but we have a lot of energy, and a lot of focus on these key capabilities that we have to change. So I'll be happy to take your questions Bryan.

Bryan Clark:

Oh, thank you very much. That was a great rundown of what's happening right now in the army and it's impressive the way that the modernization initiatives are starting to come together into Project
Convergence. So one question that comes out of the discussion we just had is, on people, you mentioned the need to have people out at the edge doing coding, to enable networks to operate, to enable interoperability. So what do you think that implies about how the Army’s personnel management and the recruiting efforts going to need to change to bring in that right set of skills to enable this kind of highly networked, rapid decision centric warfare?

Ryan McCarthy:

So really, first and foremost, you got to be able to see yourself, we have a tremendous amount of talent under our own roof. Prime example is we’ve created a series of curriculum for software engineering, data scientists, starting with a software factory down in the University of Texas. Where we’re working with not only the Texas community, Austin Community College, University Texas, where we’re going to be able to develop software developers, create them 50, 60 at a time in a class. We have a two year master’s degree program at Carnegie Mellon for artificial intelligence in them. So you see a curriculum ranging from just simple software developers to a much more of a sophisticated, intense curriculum. Where we’re generating more of these people organically for our institution, because the points I made about project convergence, we’re going to need software developers at the edge, they’re going to need to be in battalions or brigade headquarters, working with fire direction, because maybe they have to change the software code at the edge. We’ve learned that out in the field, because we’ve had them out there, and it speeds up the process. So we know that we’re going to have to create a lot more of these men and women, we just don’t know how many yet. So we’re trying to shape that program or record but for now, we’re trying to make them as fast as we can and put them, not only on the institutional side who are going to develop the weapon systems, but down at the street level, 82nd airborne first to ID, they’re going to have to be in operational headquarters, helping commanders make decisions for firing solutions to putting effects on target. So we are definitely trying to transform our people because you’re going to need more of them on the edge.

Bryan Clark:

Another question that comes out of Project Convergence is related to operating inside of contested environments. Clearly one of the applications of this kind of network fires capability would be dealing with anti access environments, where your army is going to probably be in some cases, the first responder that part of forces that’s able to get in under somebody else’s anti access network. So how is the army dealing with the challenges posed by contested communications or contested electromagnetic environments?

Ryan McCarthy:

So first thing is you got to be, to your point earlier about A2/AD, it is terrain. And we have to work with our partners to shape our relationships of, do we have the right capabilities and forces arrayed around the world in the right places? And then with respect to contested environments, we can bring those same effects. We have the same capabilities, electronic warfare and cyber, so we’ve been reshaping units to create multi-domain task forces. At the center of a multi-domain Task Force is that information, it’s cyber and electronic warfare capabilities, but you got to have those forward stage, you have to be able to bring those effects at relevance or they’re going to have the upper hand. So we see it as having those capabilities in the right places around the world can have the reverse effects to an eight to an A2/AD environment.
Bryan Clark:

So the challenge will be as we move into this transformation, as this transformation continues, these modernization initiatives are all coming to fruition and starting to yield products now with the prototypes that are being advanced in places with future vertical lift, with what’s going on in maneuver SHORAD, some of the soldier lethality improvements. That’s a lot of investment that’s going to be necessary and at the same time, you want to maintain your readiness at the level where it is today. So there may not be a lot of give there. How are you going to balance those investments, especially now that you’re doing the end game of the FY22 Budget of how is the army handling that or addressing it?

Ryan McCarthy:

Well, every investment program has divestiture and as you know, for the last three years, our Night Court program, the Army Staff has a sense of humor and it shows its age by talking about sitcoms from the 80s, right? But I think we are going to have to continue to start first with divestiture. We’ve done a lot and I think the challenges that will be in front of us will be... You’re going to looking at weapon systems that might be in the MTOW and these will be tougher cuts. At times borderline contentious, because they’ve been around for a while, so you have to start there. You can do anything, you can’t do everything. So we have to divest on those key platforms and then you have to look at how ready you have to be. I mean, 27 brigades the highest level of readiness is remarkable.

Do you have the right balance between the two? We’ve been at war for 19 years, we’re dealing with COVID, not just at home wiping down milk cartons and keeping your family healthy, we’re out there in the streets, we’re helping American citizens, we’re everywhere. We’re building vaccines, we’re building the hospitals. I mean, this institution is pressed. At 8000 rpm and as for the last 19 years, our people are tired. So we need to find the right balance between the two there is opportunity there. So when you look at the comprehensive look of the balance sheet, it’s tweaks. Now, when you see three or four trillion going into the system from recovery, you see shadows of the BCA and that whole experience in 2012 to 16 and there’s no doubt that that could potentially be off the coast coming towards us.

How do we manage it as a country, the fundamentals of the economy are pretty sound but it’s tremendous amount of debt that we've incurred to deal with COVID and it was necessary, but how do we deal with this going forward? We’re looking very hard at that, we’re talking to economists, talked to a lot of people to help us look through these assumptions. But if you have a flat fiscal environment, there’s nowhere else to go but to cut internally and we’re going to continue to look at that and hit even harder.

Bryan Clark:

It seems like its readiness, as you mentioned, might be one area where adjustments could be made. As you move towards this more regionally focused deployment model, obviously, there's demands at home that have put a lot of stress on the Army, more stress on top of an already stressed army. Are there going to be opportunities you think, as you look at different regions of the world, to tailor forces for those regions that might offer some opportunities to reduce the investment in some kit or investment in the type of readiness that you maintain? Or are we going to look at trying to continue to have an army that’s basically ready to globally deploy, when they come out of the MTC and are certified?

Ryan McCarthy:

The rearm model that you addressed earlier is going to try to help us bring predictability to the system, because we’re bringing on all these weapons systems and they’re already starting to land into our formations. And to help us get some predictability, you’re going to outfit first Calvary Division next
spring. If we don't put this in place, we're just going to say, "who's available?" And you get it. So there'll be no logic behind it and so we had to go to this model, it changes a cultural dynamic in the Pentagon because the army... We're always there, right? We're in Detroit, we're in Baghdad, we were everywhere.

Now we're trying to put some left and right limits to that, because we have to bring in all these new weapon systems. We make $40 billion of investments a year, we have to make sure we get maximum yield of these dollars and so bringing that forward does helps us from a monetization standpoint, it helps us with predictability in deployments. What it does also for combatant commander, it helps us with just communicating with them. Here's what we have available, now you have a crisis, we'll break something and we'll help you but only in a crisis. So it helps everybody get more of a sense to forecast appropriately. It helps us do some institutional things and still meet national objectives outside the continental borders.

Bryan Clark:

So one of the things that we've been looking at in our research has been this idea of decision centric warfare, which you raised earlier and one thing I wanted to ask about was, to what degree do you see the army being to transform its doctrine and the way it fights, and therefore the way prepares for conflict, to deal with kinds of confrontations where the ability to get a decision making advantage is going to be the difference between success and failure and that might mean a very different way of fighting against the Russians for example, as what you might use against the PLA over in the western Pacific? Is the army looking at changing kind of going back and looking at how doctrine might need to evolve to take advantage of what you're learning in Project Convergence and then how that might be applied in specific war fighting situation? So you end up with some differences in how you train and how you doctrine different parts of the force.

Ryan McCarthy:

Yeah, so the decision centric, it strikes to the heart of three of the five variables of Project Convergence. Information has to be in a cloud environment, so it's easily transferable. The data standards have to be acceptable, so that if a soldier sees it or satellite sees or helicopter sees it, that you can have it communicated across several mediums in seconds, because maybe an F-35 should take that shot, maybe an attack helicopter should take the shot, maybe an artillery battery and you have to be able to crunch the data and put it in front of a decision maker in a couple of seconds. Today, it takes minutes then it takes minutes to clear it and then takes minutes to shoot it and get it on target. We're dead in a near-peer environment.

Luck follows speed, we got to get faster and we are and it's remarkable what we did a couple weeks ago but now it's how do you do that and continue to scale it across a million person organization, across the US Air Force with hundreds of airplanes to... They get it to an agent Strike Group that can put effects with tomahawks off the coast. This is bringing all this together in a matter of seconds and we're getting there. So I think decision centric, it strikes to the heart of Project Convergence, because it is information, it is command and control and it's a person that can do that at the edge. That's how all these pieces come together.

So we got to get you guys out there, next fall to come see it, we'll invite several opinion leaders from our think tanks. But then I'll give you the appreciation, but you just got to promise me when you're in the room, where we settle it up, you'll have eight or 10 people around horseshoe and they're basically the men and women in the fire direction center in a commander control node. And then up on the screens, you'll see how they're looking to find targets and then we'll actually have the video cameras so you can watch stuff explode but you got to promise me not to be totally focused on looking at things explode,
you get to see the work being done and you see how much faster it's getting. So that strikes to the heart of what we're doing and we should we showed very, very positive results a couple weeks ago.

**Bryan Clark:**

You bet, I was very impressed with the results out of it and I would love to go see it. The work we've done at Hudson to support DARPA, on mosaic warfare relates directly to this idea of how do you structure a force that can compose itself in situ and recompose itself to be able to deal with new situations as they emerge.

**Ryan McCarthy:**

[crosstalk 00:26:29] System Denver of 2021 is the next Project Convergence and it'll be about 110 in the shade, so we're [crosstalk 00:26:39] Okay.

**Bryan Clark:**

Awesome. I'm looking forward to it. One question that comes out of Project Convergence is, are you going to use the insights from that to then guide requirements development and drive the next round of innovation, because clearly you're going to learn things in Project Convergence that would have implications for the next generation of program. So for trying to build networks, to follow on from our current legacy networks. Are we looking to try to use Project Convergence as an engine to help identify what those networks should look like, and what their characteristics should be, how should they interoperate with those of the other services? What kind of decision support tools do we need? That kind of stuff.

**Ryan McCarthy:**

I would say not only requirements but investments. So first on the requirement front, this is where you see all the services faces, when you bring on new technology and new capability, how does it communicate with the other platform share targeting data, that gets back to the desperate need for more software, engineering, developing types in your formation. Organic men and women that have CAD cards that are in our folks. So it's a people issue, it's a requirements issue but then it's also investments because they're what we call our pegs, of how we put the buckets of money between training and manning and equipment, that you'll see investments that have to be made, that gets that material bended and you get that extended range can. But how do you get the right people to man the crew? And then what is the military construction requirements? What are the range requirements, all of the pieces to enable that weapon system to outfit it, train it, man it, deploy it? So we're going to be able to do much more because of this experiment in a combined arms format. We all learn it, and we all see it together at the same time, so it helps us to cross multiple lines of effort.

**Bryan Clark:**

That raises an interesting point. So all of these changes in doctrine, new investments are going to require a training infrastructure or training efforts to be able to incorporate them into the force. One thing we're finding on the electronic warfare world, electromagnetic spectrum operations is the challenge of finding ranges where you can actually practice these kinds of activities because either the effects are generating are so large that they're now starting to encroach on the neighboring communities or you're concerned about operational security because someone might be watching you from a satellite while you're doing your training. So are you looking also at ways of taking what you're learning in Project Convergence and virtualizing that so you can get your soldiers more reps and certs on
the same kind of tactics and doctrine without having to bring everybody out to EMO for a few weeks of training.

**Ryan McCarthy:**

No, Synthetic Training Environment is, I guess I should have said it on the front end of this, is six plus two. We have six investment portfolios. But we also have two cross cutting efforts, Synthetic Training Environment and Advanced Position Navigation and Timing. And the reason why they aren't their own standalone portfolios because they affect everybody. So we affectionately refer to it as six plus two. On the synthetic training we're using a lot on virtual simulation, because to your point, hundreds if not thousands of additional repetitions and it also helps you with the requirements process and to be able to quantify large enough sample sizes to truly understand the effects you're trying to achieve and then make those appropriate tweaks. We're also looking at other areas of not only the United States, but overseas with our partners to get more range capability, talking with the Australians, looking at Alaska. So there's a lot of other locations that have not been as heavily utilized that we are looking at, and we'll make these adjustments.

**Bryan Clark:**

And we just have a few minutes left, I think. I did want to ask, so you talked a little bit about COVID-19 and its impact on the force and how that's been a driver of redeployments and bringing people out to do either security force operations or also just consuming a lot of effort in terms of helping to develop vaccine, which are extremely important efforts right now. How is COVID-19 shaping your plans going forward? When you think about trying to maintain readiness or do regionally focused deployments or how the budget for next year is going to be shaped a little bit by COVID-19 and the need to respond to it or the need to pay for certain investments that you didn't plan to before? What are some of the impact that COVID-19 has made to the Army's plans and budgets?

**Ryan McCarthy:**

So I guess on the front end, it's a last fall, we started the conversation of changing the business model of Medical Research and Development Command, the US Army. So you look at this extraordinary institution that served their country for decades, helping co-develop the vaccine for Ebola and Zika. They were involved with SARS, these amazingly challenging problems, and our scientists were center of it. But the business model was a reimbursable model. So the CDC or World Health Organization would come in, Hey, I got a problem. Can you help me? I mean, here's a bag of money, can you study this for me? It's remarkable how successful they've been with a model like that.

So we started looking at changing the model. So we need direct appropriation and a strategy and all this stuff and then nothing like a global pandemic, to help you pick up the pace on that effort. But now we're going to lay in a FYDP, I mean, historically, they had not had a business model or budget like this. Now, we had already started the process, so that's why we're moving faster than... We're moving very quickly, but that they're going to have a whole future year's defense plan as a result of all of the infectious diseases they're going to go after, because it's more than just COVID. And so there'll be far greater resources and focus to an institution that has some amazing people. I mean, Dr. Kayvon Modjarrad in particular, he's up there. He's one of two people in the world that had published on COVID before this particular COVID. I think it was this and as well as Zika.

I mean, he is just a world renowned talent that we have, who serves in our on our Medical Research Development Command. Dr. Nelson Michael, all of his work on Ebola and AIDS, these are amazing people and we just got to keep pushing the resources to them and that's why we're going to beat this
and we're on track to beat it. So that's on the front end of the process. With respect to how COVID effects our line units, that are making the deployments worldwide, we put bubbles around our men and women, we practice social distancing, we're very conscious of our hygiene and wearing masks. But when we get them into training environments, we put bubbles around them [inaudible 00:34:27] protective of how we move resources and how to support them when they're training. And then when we get them off, to deploy, we do everything we can to keep them safe. But when we put them in environments where they're going to deploy to Africa or the Middle East, the risk is high. It's a risk we're taking on and we're trying to manage the best we can but we know that we got to go outside the wire every day and we got to support national objectives.

Bryan Clark:

Yeah, absolutely. So Project Convergence with the demonstrations you've been doing or the exercises you've been doing those who have been able to proceed, it seems without too much of an impact from COVID-19 and it does seem like those are going to be essential to be able to bring these modernization initiatives together into an operational capability. So you don't see this as being something that would impact Project Convergence going into 2021?

Ryan McCarthy:

We plowed right through it a couple weeks ago, and we intend to do it again but we'll have a vaccine by next September, so we'll be fine. Talking about it, I try to talk about it as simply as I can in metaphors but I think nothing is better than getting out there to see the operators, engineers, scientists, and to have them put lead on a target and you see him doing it in a very, very compressed time span. So it's exciting but it's still more work to do and once you'll see next year, at division headquarters, more F-35s, probably have an AWACS and have other assets that will participate. Where they're sharing targeting data, they're putting lead on a target, F-35 with its Electro-Optical Targeting Sensor, passes it to an artillery battery and that prosecutes the target. You're going to see that and it'll happen like speed and it'll be very exciting.

Bryan Clark:

So when they're doing that, how did they get through the interoperability challenges of having, MADL talk to SADL talk to AFATDS.

Ryan McCarthy:

We had initially planned for F-35s to be in the 21 but because you're at Yuma the moment they're airborne, they're over top of you. I mean, they're across the street, literally, the Marine Squadron. So they wanted to talk to these guys that were out there for weeks and they talked about and they said, Sure, we'll play. And when you have all of your scientists and your engineers and your position navigation and timing team out there, your network team out there, they work through all the problems in real time. And an F-35 flew out, saw a target and passed it to one of our long range precision fires assets. They work the problem together and by having all the technical expertise on the ground work through the problem in real time, as opposed to get an AR and email it to somebody and then book a conference room and months pass by... You got to bring all of these stakeholders together and that fusion of all of the skill sets, put all the energy against the problem and they solved it. So we're going to have much more complex problem set for them to deal with next year, they have plenty of time to get ready but we'll do it in a very joint fashion. We're very encouraged by the Marine participation, we got commitment from the Navy and the Air Force next year. So we're very excited.
Bryan Clark:

It's incredible. It's not the sexiest part of it but I think it's the most incredible part of Project Convergence, is this ability to work through the network interoperability issues, which have always kind of played when we do either, even inside of a service, but certainly between services try to do these kind of rapid, quick turn calls for fires and immediate responses. So it's really impressive that you've been able to do that, thanks to having data engineers and you've got coders working on the front lines to be able to [crosstalk 00:38:47]

Ryan McCarthy:

They were the heroes of this effort and we learned a lot too, inbound changes we'll have to make with the network but the great thing is just tested in real time. Everybody saw what they had to do. It's the inherent value of that type of doing the experiment together and they talked it through and they can work a solution or work towards a solution because a lot of this is physics. They'll take time to go back to the labs and make these changes.

Bryan Clark:

Right. Well, that's very impressive and yeah, I would love to come out and see it and I think that's going to be the future of warfare in a lot of ways because it is going to depend on decision making, speed of decision making and quality of decision making. And I think unless you get out there and experimented within real time, you're just never going to get that level of interoperability and level of speed of information sharing.

[crosstalk 00:39:46] Thank you very much.

Ryan McCarthy:

Yeah, humans can't crunch data as fast as a machine, but humans are always in the loop to make those decisions, to put steel on something. Okay, at least in the US Army it will be.

Bryan Clark:

That's right. Well, thank you very much Mr. Secretary, it's been great having this conversation with you about Project Convergence and COVID and how the Army is dealing with challenges of modernization and transformation while we're undergoing a pandemic and a challenging budget environment going forward. We appreciate taking the time today, we also appreciate all of you watching today at the Hudson Institute and we look forward to seeing you again soon. Thank you Mr. Secretary.

Ryan McCarthy:

Thank you very much.