



Maj. Gen. Duane A. Gamble, commander of the 21st Theater Sustainment Command, observes a 702nd Ordnance Company (Explosive Ordnance Disposal) Soldier operating a remote-controlled Talon robot during Vanguard Proof at Pocek Range in Postonja, Slovenia, on March 22, 2017. (Photo by Paolo Bovo)

Technology and Army Readiness:

An Interview With Retired Gen. Peter Chiarelli

■ By Arpi Dilanian and Matthew Howard

As the vice chief of staff of the Army, retired Gen. Peter W. Chiarelli oversaw day-to-day operations of the Army's 1.1 million Soldiers. Among other accomplishments, he changed the military's attitude about mental health issues. He now serves as chief executive of a Seattle-based company overseeing science and technology that will not only radically change how brain injuries are treated but could also help the Army build readiness. Here are his impressions of some of the challenges currently facing the Army.

Army Readiness has many components: manning, equipping, training, maintenance, and leader development. Which is most important?

I do not think there is one that is most important. I think they are all very, very important. When I was in the Pentagon, I worked for successful chiefs [of staff of the Army] who really believed it was necessary that we keep everything in balance and that you run into problems if, in fact, you emphasized one component over the other.

I think the components of readiness are all supportive of one another. Good training is good leader development, but it's also absolutely critical that we equip the force with the most modernized equipment available while maintaining the manning levels we need so that we can fight.

I remember the words of a mentor of mine, and it's generally accepted in the Army today: "No Soldier should go into harm's way untrained." That is as true today as it has been throughout the history of the Army.

Do you think the Army is getting the philosophical fundamentals cor-

rect as it shifts from the Army Force Generation (ARFORGEN) model to the Sustainable Readiness Process in order to maintain readiness?

As one who led the Army when it was in the ARFORGEN model, I think the Sustainable Readiness Process is the right way to go. I honestly believe many of us grew up in something that was very close to the Sustainable Readiness Process. Leaders today have been informed by 16 years of combat and are blending lessons learned from those conflicts with the Army's training model. I have great confidence that we are getting the philosophical fundamentals correct because I have great trust in the leadership of the Army today.

How can the Army better maintain readiness in the reserve component to keep the total force ready?

You have to be willing to invest in it. If you don't invest in it, you're not going to get the kind of ready force that we know we need. That was one of the great frustrations to me in my last year and a half as vice [chief of staff of the Army]—the inability to convince everyone that we needed to invest in the reserve component.

I was in the Pentagon on 9/11. In fact, I was the head of the Army Operations Center . . . After the building was hit, we brought in a reserve component military police battalion to help provide force protection. These were individuals who reported to the building with their weapons, but they were not prepared to do the assignment. It was no fault of theirs. They wanted to be well-trained Soldiers, but we had not invested in them prior to 9/11.

Throughout the past 16 years, the Army has made a huge investment, mostly through overseas contingency operations funding, in training the reserve component, and I would hate to see us go backward. I really believe that given the size of the active component force, and the reliance on the reserve component, particularly the sustainment forces, we just can't afford to have them untrained.

I really think we need to make the case for acquiring the resources needed to train them; but, I think we have to take the long view and ensure that no matter the resources we're given, the reserve component gets its fair share. I feel very strongly about that.

What are a few of the most important lessons that the Army learned when it wasn't as ready as it could have been?

I remember as we were getting ready to do the drawdown of the force after the Berlin Wall came down; Chief of Staff of the Army Gen. [Gordon] Sullivan did a video clip. In that clip he reemphasized over and over again, "No more Task Force Smiths."

He was referring to the first ground maneuver unit to enter combat in Korea after the North invaded. That happened not too long after World War II. As the nation normally does, it decided to take its peace dividend, underfunded the Army, and when faced with the crisis in Korea, we found ourselves in a situation where we had to send an untrained force into harm's way.

As I was growing up in the Army during the Cold War, if there was a division that was C-4 [requiring additional resources or training to accomplish the mission], it was front page,

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A former vice chief of staff of the Army discusses readiness and the move to the Sustainable Readiness Process.

above-the-fold news in *The New York Times* and *The Washington Post*.

I remember Gen. [Raymond] Odierno testifying that only about a third of the force was properly trained and could go into combat. I think we have to make sure that we get back to the idea of the absolute criticality of having a well-trained force. I fear somehow we've gotten away from that. It's natural maybe that it occurs. At least it seems to be a historical trait that, over the life of the nation, every time we exit a war we take away the resources necessary to maintain the force and the fighting edge that it has coming out of conflict. That is a great concern to me, and I think it should be a great concern to all Americans.

What advice would you provide commanders and unit leaders on the best ways to ensure their units remain ready?

There is nothing that substitutes for good, well-thought-out training. Commanders have to be good trainers and have to have a willingness to learn their art. That's absolutely essential for leaders at all levels, from platoon all the way up to corps. They need to ensure that they understand Army doctrine, and they need to be able to apply that in their training exercises.

I remember what UCOFT [unit conduct of fire trainer] did to the armor force; it revolutionized the way we trained. I think it's time the Army break out of the program of record when it comes to training devices and look at some of the things that can be found commercially that have great applicability to training Soldiers.

I am absolutely intrigued with virtual reality and where the civilian commercial world is going with its use. I think there is an opportunity for the Army to have state-of-the-art trainers if it would look outside of programs of record that take eight to 10 years to develop and that deliver eight-to-10-year-old technology. In contrast, some of the things [capabilities] we're seeing in virtual reality today are changing every other year,

if not every year. These are huge advancements that I only wish that I had while I was training my force.

Today, I work with individuals with post-traumatic stress and traumatic brain injury, and one of the things that is being used is something called prolonged exposure therapy. You recreate for the individual what brought about the change in their amygdala that caused post-traumatic stress. Watching how civilian advancements in virtual reality transport individuals back to whatever caused them to have the problem that they're having today, and the ability to use that in evidence-based therapy, is absolutely amazing. I think there is tremendous applicability for the Army.

Good commanders will need to understand the combination of live and virtual training and how they complement each other. You can, in fact, get a much better-trained force if you use those in the right combination. And it would be a less costly training bill, both in terms of time—which is really a trainer's most precious asset—and money.

Are there other futuristic concepts and advancements that will change how the Army fights and remains ready?

I think virtual reality in all its different variations and where it's going will give us a capability we've never had before. When we first had the UCOFT, it was a big box that was delivered to the battalion area with a huge operations and maintenance bill that went along with it, and Soldiers had to leave wherever they lived to come train. Today, we have the ability to almost do that [training] off of an iPhone 7.

I can see the Army moving away from some of the elaborate training centers built on posts, camps, and stations and going to relatively inexpensive virtual reality environments that can be much more realistic. I remember at the start of the Iraq War, I visited a center at the 101st [Airborne Division] where Gen. [David] Petrae-



Retired Gen. Peter W. Chiarelli

us had established an amazing course for his medics and combat lifesavers to train on triage and treating the combat wounded. We can do that in virtual reality today for a fraction of the cost of what it took to do the same back then.

I don't want to be misunderstood to say that live training isn't absolutely critical. It is absolutely critical. But good trainers are going to find ways to use these kind of tools to get their Soldiers to a higher level of training before they spend precious resources in the most expensive form of training, which of course is live training with all its pieces. I believe that when you marry these together, you're going to get a much better-trained force.

What about robotics?

I think we have finally turned the corner on robotics and should really look at how robotics can help us on the battlefield. I was in Pittsburgh recently, and I noticed as I drove into town that the vehicle in front of me had a spinning dome on top of it. It was a driverless vehicle. Uber is testing its ability to put driverless vehicles on the road in a very difficult city to navigate. Requirements today mandate that a driverless vehicle have a human driver in the seat, but they seem to be the most bored people in the world. It's because the technology is so good.

Now think of the people we could have kept off the road in the sustain-

ment forces, moving supplies from Kuwait and other locations in and around Iraq and Afghanistan. The Army needs to be looking at those kinds of technologies.

What can the Army, as part of the joint force, do better to enhance its combined readiness with the other services?

We always have to be reaching out and looking for ways to train together. That's true for not only the joint force but allies too. We need the opportunity to work together. I would hope that we are doing better with standardization of equipment and not creating conditions that make it difficult for us to maintain jointness as a result of having separate acquisition programs and requirements processes.

I really believe that engagement and working together are absolutely critical elements as we try to enhance our combined readiness. Without them, I think we will have some real issues in fighting together when we meet on the battlefield.

Can you elaborate on how important the Army's allied partnerships are to its readiness strategy?

We can be better allies by engaging at all possible opportunities. Granted, it was very, very expensive to have the forces that we had in Europe during the Cold War, but we had a level of engagement with our allied forces that was unprecedented.

That does a whole lot of things. It ensures that you understand where you have interoperability and where you don't, which is absolutely critical. And it ensures that you train together and understand the different combat formations. Leaders begin to understand leaders.

It also created an opportunity for many of us to meet people as captains who would go on to lead armies. They would come to our schools; some of us would go to their schools.

You can't expect to meet on the battlefield for the first time and have

success. You will, in fact, guarantee that your casualties will be much higher, and it will take you longer to do what you have to do if you don't train together and engage together.

What do you think the Army should be ready for?

I think it's a hybrid threat. I don't think it's going to be purely nonlinear like we fought before nor is it going to be totally linear and kinetic. I think it's going to be a combination of both. Electronic and cyber warfare are going to be part of any conflict.

The work we began many, many years ago to digitize the Army and to provide situational awareness up and down the chain of command is critical in today's world. We need champions who will look at the network, understand it, and dig into it because I think it's absolutely critical to our success on future battlefields.

How would you balance modernization against current readiness requirements?

Every year for the four years that I was the vice chief of staff, I went up and testified to Congress as we saw our budgets decrease. We talked about balance; we did not want either one of those things [modernization or readiness] to get priority over the other. I know that's easier said than done, but I think we have to be one voice—both in the active and retired force—encouraging balance when we talk about people, equipment, and training.

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