



Gen. James Rainey, commander of Army Futures Command, provides an update on Army modernization efforts during AUSA's Global Force Symposium and Exposition. (AUSA PHOTO)

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## New CFT to focus on contested logistics

**A** new cross-functional team focused on contested logistics is being stood up in Huntsville, Alabama, the commander of Army Futures Command announced Wednesday at the Association of the U.S. Army's Global Force Symposium and Exposition.

The team, the Army's ninth, will be "focused on the division and below aspect of all things that have to do with contested logistics," Gen. James Rainey said during his keynote address. Created in partnership with Army Materiel Command, which has its headquarters in Huntsville, the team will address a "critical problem," Rainey said. "We know we've got to get better at this problem."

Army leaders have emphasized the importance of honing the service's

ability to sustain large-scale combat operations in a contested environment, particularly after watching the Russian military struggle in Ukraine.

The new team also proves the success of the cross-functional team concept and the work the existing teams have done to deliver the Army's modernization priorities.

"We are absolutely not backing off that approach and those cross-functional teams," Rainey said. "I'm interested in how do we capitalize on the success of those cross-functional teams. What are the next things we want to load them up with to maintain momentum?"

These efforts are part of Futures Command's ongoing work to transform the Army to ensure "war-win-

ning readiness," Rainey said. "The United States Army is the dominant land force in the world today ... and we want to be that in 2030, we want to be that in 2040, and we want to be that every day between now and then."

The Army has "strong momentum" as it works to deliver the Army of 2030, Rainey said. The Army has fielded eight of its signature efforts, with six more in tests this fiscal year and 10 others in "various types of soldier touch points," Rainey said. "That's a lot of progress ... [and] we're staying laser-focused there," he said. "But what I'm really interested in is how do we translate modernization success into actual capability?"

Because the Army's 2030 efforts  
See **Rainey**, Page 3

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## Army undersecretary lauds modernization successes

**T**he Army has “a pretty good chance and a pretty good track record at success,” Army Undersecretary Gabe Camarillo said in a keynote speech on the opening day of the Association of the U.S. Army’s 2023 Global Force Symposium and Exposition in Huntsville, Alabama.

In an upbeat message Tuesday about the Army’s modernization efforts, Camarillo said that, in fundamental ways, “we reorganized to tackle our system requirements and our ability to experiment with technology in a concerted way.”

“We have stuck with the same priorities in modernization since 2018,” he said, which has “provided stability in planning.” He also described the “reform-minded spirit of risk-taking and failing early” as being a big departure from how the Army once proceeded.

The Army’s transformation vision has survived shifts in leadership and received continued budgetary support, avoiding traps that have haunted the service in the past when there were changes in leadership and shifting budget priorities.

“This is different,” Camarillo said. “The Army has maintained the six same priorities, and that has provided continuity.”

“The advantage of maintaining these six priorities is that they’re the right bets to place,” he said, describing them as being consistent with the National Defense Strategy.

One of the bigger challenges fac-



Army Undersecretary Gabe Camarillo addresses the service’s transformation during AUSA’s Global Force Symposium and Exposition in Huntsville, Alabama. (AUSA PHOTO)

ing the Army is having timely and consistent funding, something the service doesn’t control. Timely appropriations allow sustained investment that “offers stability and predictability to the industrial base,” he said.

“As we’ve seen this past year, the risks imposed by cycles of feast and famine can have some long-range impacts on the resiliency of our industrial base capacity on our critical suppliers,” Camarillo said. “When it is not attended to, it can affect not only current readiness but future readiness.”

Camarillo said he is “very optimistic” about the future. “We will have

technical challenges, to be sure, but nothing is 100% risk-free and easy to do in this business,” he said.

There are big steps ahead in areas like tactical and operational concealment, shooting farther and faster than the enemy and in adapting systems to different terrain and environments.

“We’re a service that has to operate in the Arctic and in the desert, in urban and open terrain, where it’s permissive and highly contested,” Camarillo said. “We need to make sure that our equipment is as effective as it possibly can be in all environments.”

### Rainey

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are on track, Futures Command has been able to “think about what’s next” and look to 2040, Rainey said.

This includes studying what the future battlefield could look like, how the Army can better use emerging technology like artificial intelligence and machine learning, and how the force must adapt to operating under

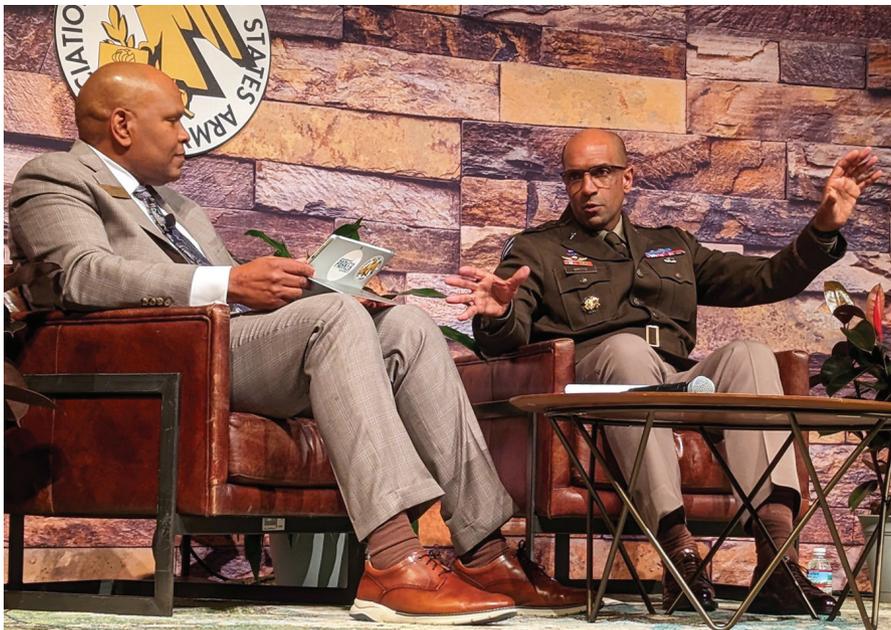
“constant observation and constant contact,” he said.

Ultimately, Futures Command has two main tasks—deliver the Army of 2030 and design the Army of 2040, Rainey said. “We’ve got to modernize the Army, but all of us together as an Army have to work together and take that modernization and transform the Army and translate that into true war-winning capability,”

Rainey said.

The Army also needs a sense of urgency about 2040, he said. “The Army of Desert Storm, that awesome early ‘90s Army, the thinking and experimenting and doctrine writing of that happened in the late ‘70s,” he said. “So, we’re in the early ‘20s, and we’re talking about 2040. Now is the time to be aggressive and work together to solve tough problems.”

## Soldier training, education critical to modernizing the future force



Gen. Gary Brito, right, commander of Army Training and Doctrine Command, discusses synchronizing training with new equipment with retired Lt. Gen. Leslie Smith, AUSA vice president for Leadership and Education, during the association's Global Force Symposium and Exposition in Huntsville, Alabama. (U.S. ARMY PHOTO)

**P**roviding soldiers with the training, education and leader development they need to keep pace with the Army's modernization strategy will be critical through 2030 and beyond, the commander of Army Training and Doctrine Command said.

As the Army marches toward a complex battlefield and the biggest overhaul of its main battle systems in 40 years, soldiers must be trained, ready and enabled to receive and use the modern equipment, Gen. Gary Brito said Tuesday at the 2023 Global Force Symposium and Exposition hosted by the Association of the U.S. Army in Huntsville, Alabama.

The key, he said, is synchronizing Training and Doctrine Command's force generation and training efforts with the modernization priorities being advanced by Army Futures Command, Army Materiel Command and the combatant commands around the world.

"We will have some new equip-

ment, and we'll have some legacy equipment, and specifically within TRADOC, uniquely to TRADOC, is maintaining the capacity to sustain our proficiency and training on legacy equipment as we move into new equipment as well," Brito said.

Brito, who took command of Training and Doctrine Command in September, said his two previous assignments—commander of the Maneuver Center of Excellence at Fort Benning, Georgia, and deputy Army chief of staff for personnel, G-1—prepared him for the job of overseeing the command that recruits and shapes soldiers.

"I gained a great appreciation for the accessions engine for both officer and enlisted and also ... for the assignment processes, timelines and the [chief of staff of the Army's] intent and priority of developing a 21st century talent management system with all the future-focused practices for modernization as well," Brito said.

# AUSA Extra

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## Hamilton: Data management enables predictive logistics

Just two weeks into command of Army Materiel Command, Gen. Charles Hamilton recognizes he has a big mission that could decide the outcome of future conflicts.

Speaking Thursday at the Association of the U.S. Army's Global Force Symposium and Exposition in Huntsville, Alabama, Hamilton said he follows a "string of superstars" at a critical time when the Army needs a way to provide precision logistics with the ability to predict when and where deliveries and resupplies must be made.

"I want to be very clear about it. Sustainment is about warfighting, period," Hamilton said in a keynote speech. He is optimistic about success, saying, "Our Army has never been as ready, as capable and as powerful as it is today."

Success in his mission "will be bad for the adversaries," he said.

Materiel Command's goal is to prepare and sustain the future Army, which requires a combination of pre-positioned stocks, improved ability to predict what stocks need to be moved to support forces and where, exactly, it needs to be delivered.

Doing this involves lots of predic-



Soldiers assigned to the 101st Airborne Division (Air Assault) offload supplies Jan. 31 to complete a logistics package in Romania. (U.S. ARMY/1ST LT. STACEY SHAW)

tions, based on data collection and artificial intelligence, in an effort to make better decisions about when, where and how to deliver critically needed items by using autonomous systems, Hamilton said. "It is about changing the approach to data across the entire force," he said, describing this as evolutionary change.

"The right data at the right time at the right place will enable faster and

better decisions," he said, predicting that this will enable the U.S. and its allies and partners to "outthink" adversaries.

Data and data management can be thought of as a "new form of ammunition," Hamilton said. "Our future operational environment will be totally different than what we have seen in the past," he said. "We'll send out smaller units. Sometimes they will be dispersed and disconnected, and in potentially austere environments that are very hard to resupply or support. They will not be alone and afraid."

Predictive sustainment will require a network of sensors to monitor every aspect of sustainment, providing data on what is needed and what has been used. Real-time feedback will allow instant reaction. "It allows decision-makers at the strategic and operational levels to use the data that is going to be flowing," Hamilton said. That will create a common picture, so everyone has the same information.

"The way we used to do business just won't stand," Hamilton said. "Everything across the enterprise has to be connected."



Gen. Charles Hamilton, commander of Army Materiel Command, speaks during AUSA's Global Force Symposium and Exposition in Huntsville, Alabama. (AUSA PHOTO)

## Army must move, adapt quickly to modernize the force

Speed, agility and partnerships with industry are critical to the Army's success as it transforms the force for the future, a panel of experts said Tuesday during the Association of the U.S. Army's Global Force Symposium and Exposition in Huntsville, Alabama.

"We have to be able to react at a speed that paces the threat, and that includes in acquisition," said Douglas Bush, assistant Army secretary for acquisition, logistics and technology. Congress has helped, he said, by giving the Army various authorities to "go much more quickly when we need to."

The panel discussion, focused on materiel modernization for the Army of 2040, examined how the service can deliver the leap-ahead capabilities it needs to fight on a complex future battlefield.

The new authorities granted to the Army, as well as Army leaders' focus on the service's modernization priorities, are critical, said Alexis Lasselle Ross, president of Apex Defense Strategies who previously served as deputy assistant Army secretary for strategic acquisition reform.

"I think systemic advancements are always very hard, and you cannot make progress without momentum," she said. "I'm very encouraged to see Army leadership remains committed ... [and] I'm hopeful that the agile acquisition framework and the authorities that are in place will remain there."

One element the Army is working hard on is digital transformation, said Jennifer Swanson, deputy assistant Army secretary for data, engineering and software. "It's important because in order for us to beat near-peer adversaries, we need to be able to quickly deliver capabilities into soldiers' hands, and we need to be able to evolve those capabilities in real-time," she said. "Digital transformation is the method to get after that."



Army leaders and other subject-matter experts discuss acquisition, materiel modernization, partnerships and other critical topics during a forum at AUSA's Global Force Symposium and Exposition in Huntsville, Alabama. (AUSA PHOTO)

This effort includes agile software development, Swanson said. "Almost all of our systems are driven by software, and we're getting after that quickly by pivoting to modern software practices," she said.

To get there, the Army needs industry's help, from new ideas to best practices, Swanson said. "We are



First Lt. Dan Hernandez, a fire support officer assigned to the 3rd Armored Brigade Combat Team, 4th Infantry Division, uses a lightweight laser designator range finder to process fire missions at Drawsko Pomorskie, Poland. (U.S. ARMY/SGT. ANDREW GREENWOOD)

very serious about digital transformation, but we absolutely cannot do it without you," she said.

While the fiscal 2024 budget preserved the Army's ability to conduct operations, maintain facilities and move ahead on its modernization programs, the service likely will face more budget challenges in the out years, said retired Lt. Gen. Thomas Spoehr, director of the Center for National Defense at the Heritage Foundation.

"The Army has gotten out of the habit of thinking about how do you fund big programs," Spoehr said, adding that the last time it did so was in the 1980s, when items like the Abrams tank were being fielded.

"These new-build acquisition costs are going to be tremendous," Spoehr said, referring to big-ticket items like the Future Long-Range Assault Aircraft. "If the Army continues to receive flat budgets, I'm pessimistic about how that works," he said.

The defense industrial base also will feel the crunch, said John DeFourneaux, chief technical officer of Axient. "The industrial base is going to see a very large push to produce all the things that the Army is working to get to the field to the warfighter of 2030," he said.



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## Balance between soldiers, machines key to future force

**W**hile autonomous capabilities are expected to be ubiquitous in the Army of 2040, it is unlikely that entire formations will be replaced by autonomous systems, Army Futures Command leaders said.

“As we have been studying this and war-gaming this, we believe human-machine integration will be at the core of our formations as we move forward,” Lt. Gen. Scott McKean, director of Army Futures Command’s Futures and Concepts Center, said Tuesday at the Global Force Symposium and Exposition hosted by the Association of the U.S. Army in Huntsville, Alabama.

“Will we have autonomous capability employed autonomously? I think the answer could be yes. It depends on what role and in what parts of the battlefield and for what purpose,” McKean said during a panel discussion on the myriad considerations the Army faces in designing a force for 2040.

Designing the Army of 2040 has been a “joint endeavor from the get-go” that has involved input from multinational partners and intelligence on the future environment, he said, adding that meeting the pacing threat will require balancing mass and precision.

“Over the last two decades, we’ve really been focused on precision as our capabilities that we’ve developed, and now as we look at our peer competitors out there, mass starts becoming more prevalent, so it’s not an either, or thing. It’s a spectrum,” McKean said.

Lt. Gen. Ross Coffman, deputy commander of Futures Command, noted that he envisions humans directing the machines to do what they are designed to do in battle, rather than machines acting completely on their own.

“Just like a working dog that has a human that gets that working dog to the location so that it can do what only that dog can do, I think we’re going to see a flip in 2040, where humans are doing those functions that allow



Soldiers with the 35th Corps Signal Brigade test drone technology to improve their line-of-sight communications at Fort Stewart, Georgia. (U.S. ARMY/SPC. MAXINE BAEN)

the machine to get into a position of relative advantage, not the machine getting humans into a position,” he said. “I don’t want the machine deciding what it does.”

The most likely use of artificial intelligence and autonomy on the battlefield will be in logistics, said Willie Nelson, deputy assistant secretary of the Army for research and technology. But, he cautioned, the Army needs to get into the field and test these systems before planning how they’ll be used.

“I think it’s a little premature to

decide one or the other right this moment,” Nelson said, suggesting that the Army needs to get some of the known autonomous systems “out of the barn.”

“We need to really start getting some mud on the tires, both figuratively and literally, and really see where this is,” he said. “That’s where I think we need to focus our efforts right now. Pick those definable, winnable and solvable kinds of mission sets and let’s just go start flying and let’s go start driving and, again, we’ll learn.”



Lt. Gen. Scott McKean, center, director of Army Futures Command’s Futures and Concepts Center, speaks during a panel on designing the Army of 2040 at AUSA’s Global Force Symposium and Exposition in Huntsville, Alabama. (AUSA PHOTO)

## Agility, adaptation needed for next-generation sustainers

Sustainment soldiers operating on the future battlefield, particularly in a theater as challenging as the Indo-Pacific, will need the ability to move quickly and adapt to ever-changing conditions, a senior logistics officer said.

“They’re going to have to be able to move fast, be able to disperse, to dig deep when they’re static, stay connected and start with sufficient stocks of critical materiel,” Maj. Gen. Mark Simerly, commander of the Army Combined Arms Support Command, the Sustainment Center of Excellence and Fort Lee, Virginia, said Wednesday at the Global Force Symposium and Exposition hosted by the Association of the U.S. Army in Huntsville, Alabama.

As the Army designs the force it needs for 2030 and 2040, it will need to move away from the standardized formations that served their purpose over the past two decades and move toward formations that are “tailored for purpose and environment,” Simerly said during a panel discussion on sustaining the Army of 2040.

“As we look at the requirements of a [theater support command] that operates in Europe versus one that operates in the Pacific, there’s no reason why we should expect them to be



Soldiers assigned to the 2nd Infantry Division Sustainment Brigade cross a pontoon bridge March 15 during training at the Imjin River in South Korea. (U.S. ARMY/CHIN-U PAK)

identical as they are today,” Simerly said.

The certainty of contested logistics during large-scale combat operations prompted the Army to create a new cross-functional team focused on the problem. This ninth Army cross-functional team was announced during the Global Force meeting.

The Army also added a section to Field Manual 3-0: Operations, released last fall, on the importance of boosting the service’s watercraft

fleet, particularly for operations in the vast Indo-Pacific.

Current watercraft formations will need to be modified to support operations, Simerly said. “Just functional companies are not going to be adequate, and we’re going to have to look at how we’re going to apply leadership to those operations in support of maneuvering in different ways,” Simerly said, positing that the sustainment enterprise will have to bring on new capabilities for light and heavy watercraft.

Soldiers in sustainment formations will also have to train differently and more realistically, and be able to understand the contested logistics environment, Simerly said, explaining that they’ll be performing under constant observation and in constant contact. They also will need to be trained to incorporate the Army’s autonomous capabilities and account for the speed, complexity and intensity of conflict, he said.

“That means we have to continue to develop leaders who can think critically, communicate effectively and develop creative solutions to operate under conditions of uncertainty,” Simerly said.



Soldiers with the 3rd Infantry Division Sustainment Brigade set up a fuel system supply point during a field training exercise at Fort Stewart, Georgia. (U.S. ARMY/SGT. ELORINA CHARLES)

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## New recruiting programs gaining ‘traction, momentum’

People are the centerpiece to building the Army of 2040, and the service is going to have to “recruit differently” to meet the most challenging recruiting environment in decades, senior leaders said.

In the coming years, there will be an intense focus on building the Army of 2040, “but we’re going to have to come back to reality of what it is today,” said Lt. Gen. Maria Gervais, deputy commander and chief of staff for Army Training and Doctrine Command. “We’ve had the toughest recruiting environment since the inception of the all-volunteer force.”

Pointing to fiscal 2022, when the Army missed its recruiting goal by about 15,000 people, Gervais said, “You would look at it and say, ‘That’s just a recruiting mission.’ But ladies and gentlemen, that translates into readiness. That translates into lost capability for our Army going forward this year.”

Gervais made her remarks Thursday during a panel discussion about manning the Army of 2040 at the Global Force Symposium and Exposi-



Students from local high schools attend a community event March 24 at Fort Huachuca, Arizona, designed to introduce the Army to young people. (U.S. ARMY/SGT. 1ST CLASS KELVIN RINGOLD)

tion hosted by the Association of the U.S. Army in Huntsville, Alabama.

With several initiatives in place, such as the Future Soldier Preparatory Course, monetary and recognition incentives for soldiers who refer new recruits and signing bonuses

for certain MOSs, Gervais said the Army is “gaining momentum, we are gaining traction.”

But the challenges of tapping into what will motivate the next generations are stubborn. “How much velocity can we get in a short period of time to overcome some of the deficits that we have?” Gervais said.

The company commanders of 2040, she and other panelists noted, are in sixth grade today, and the privates of today will be the command sergeants major of tomorrow.

Lt. Gen. Douglas Stitt, deputy Army chief of staff for personnel, G-1, said the Army has an “incredible track record of being able to really crystallize and see the future and identify it” and achieve outcomes. “There’s no right or wrong answer as we look at this,” he said.

But, he cautioned, “the future is rapidly upon us, even though we kind of look at a calendar and say we have time to plan and prepare,” Stitt said. “We can build and mass produce equipment, but we cannot build and mass produce humans overnight.”



Sgt. Nicholas Ross of the Oregon Army National Guard instructs a junior ROTC cadet in the operation of the M249 Squad Automatic Weapon during an event for potential recruits at Camp Rilea, Oregon. (NATIONAL GUARD/SPC. FRANK RITCHEY)

## Installations upgrades aim to sustain critical infrastructure

**W**ork is underway to harden Army installations and facilities against enemy attack or natural disasters, a panel of experts said.

“One of our challenges as we move forward is we will no longer be uncontested; therefore, we have to put systems in place now,” Paul Schaefer, deputy director of facilities, logistics and environmental management at Army Materiel Command, said about the Army’s installations.

Speaking Thursday alongside two colleagues at the Association of the U.S. Army’s Global Force Symposium and Exposition in Huntsville, Alabama, Schaefer said Army installations need “assured access to energy and water,” and infrastructure to store and distribute commodities “in order to maintain our independence from the grid as we go forth.”

“We need to ensure we’re sustaining our critical infrastructure and putting



Soldiers with the 80th Training Command conduct water purification training at Fort Dix, New Jersey. (U.S. ARMY/KEVIN MCDEVITT)

our ... money where we need it the most,” Schaefer said.

To meet its goals, the Army has a “robust plan” over the next five years that includes exercises, tests, equipment upgrades and more, Schaefer said. “We’re on a journey right now so we can absolutely see our vulnerabilities,” he said.

Among the top priorities for installation resilience is microgrids, Schaefer

said. This includes partnering with local governments. Schaefer cited as an example an installation that is installing a microgrid that will be shared with a local hospital.

Having uninterrupted access to water is another priority for the Army. “We’re realizing that water systems really haven’t been developed to be resilient,” said Paul Roeger, senior energy adviser at Army Materiel Command. “They leak, they’re not maintained, pipes are old, [there’s] no instrumentation.”

To address those challenges, the Army is upgrading some of its distribution systems and installing instrumentation, Roeger said. It’s also getting backup power for facilities like water pumps and treatment systems, he said.

“That’s part of the resilience planning,” Roeger said. “It’s energy and water, it’s an integrated thing. Over time, hopefully we can come up with better ways to source water.”

## Navigation challenges may require multiple solutions

**P**ositioning, navigation and timing will be a critical capability in future wars, but the Army won’t be able to spend a lot of money to widely distribute new gear, experts said Tuesday at a Warriors Corner presentation during the Association of the U.S. Army’s 2023 Global Force Symposium and Exposition.

Michael Monteleone, director of the cross-functional team working on the task, said the Army needs to be prepared by 2030 to operate in an environment in which GPS will be blocked or degraded by adversaries. “Adversaries, as we know, are moving fast—very, very fast—to try to degrade and deny us,” he said. “That’s a huge problem.”

The Army needs alternative technology to provide troops with critically needed information, Monteleone said. The fix may not be one system but could be several different sys-

tems, he said. It would be wise, he said, if the system or systems that are put in place are easily duplicated and upgraded. They also must be affordable so the technology can be widely available, he said.

“We have to keep pace,” Monteleone said, noting that his cross-functional team “has a great record of getting things done.” He described the effort as one of “continuous experimentation and prototyping,” adding that it is important to get prototypes into the hands of soldiers.

Maj. Gen. Jeth Rey, director of the Network Cross-Functional Team, said there doesn’t need to be one answer to the problem. There can be several answers involving a combination of military and contractor solutions, he said, and the Army will require several methods of moving data, each needing to be hardened from penetration.



An Advanced Individual Training soldier at Fort Sill, Oklahoma, demonstrates a soldier-worn GPS device. (U.S. ARMY PHOTO)

There is a big opportunity for industry and government to work together on the solution or solutions, said Mark Kitz, program executive officer for intelligence, electronic warfare and sensors. Limited user tests show possible solutions with handheld devices that might replace larger vehicle-mounted systems or be available in addition to mounted systems.

## Realistic virtual systems could change how soldiers train

**M**odernized synthetic training environments will help soldiers sharpen their skills all the way up to the division and corps levels of the Army, leaders said.

In a Warriors Corner presentation Wednesday at the Association of the U.S. Army's Global Force Symposium and Exposition in Huntsville, Alabama, leaders with the Army's Synthetic Training Environment Cross-Functional Team discussed the advancements being made to replace 1990s simulation training technology with cutting-edge synthetic trainers.

"Our adversaries have been watching what we've been doing, and they have been making their own strides and their own improvements, so with that, we need to make sure that we kind of double down to ensure that we continue to provide the best-trained soldiers for our nation's defense," said Brig. Gen. William Glaser, director of the Synthetic Training Environment Cross-Functional Team.

For example, the Engagement Skills Trainer fielded in 2000, with one up-

grade since, will be replaced by the Soldier Virtual Trainer "so that our soldiers can maintain their weapons proficiency with more repetition, and it's more accessible instead of having to draw weapons, draw live ammo and go to the range all the time and compete with those resources," said Col. Scott Woodward, deputy commander of the Combined Arms Center-Training.

Two more components, the Call for Fire Trainer and the Joint Fires Trainer, will be rolled into the Soldier Virtual Trainer, Woodward said, adding that another new system, the Squad Integrated Virtual Trainer, will be an immersive training environment for squads of dismounted soldiers.

Also coming are reconfigurable combat vehicle training platforms for mounted crewmen and aviators, he said, pointing out that soldiers have been training on Close Combat Tactical Trainer simulators for Bradley Fighting Vehicles and Abrams tanks that were first fielded in 1996.



Col. Scott Woodward, deputy commander of the Combined Arms Center-Training, examines the features of the Reconfigurable Virtual Collective Trainer-Aviation for the Army's Apache helicopter platform in Orlando, Florida. (U.S. ARMY/DONNIE RYAN)

"It is a shame that we have collective trainers in the United States Army that are that old, and they don't talk to anything else," Woodward said. "The synthetic training environment will allow us to maintain that proficiency through repetition with affordable, scalable and accessible simulators and simulations."

## Army seeks better ways to deliver blood to the front lines

**G**etting blood to the front lines of future battles is a critical survival factor for injured troops and a challenge for Army medical personnel.

The Iraq and Afghanistan wars proved the value of having blood available as close as possible to the front lines, Brig. Gen. Mark Thompson, Army Medical Command's deputy chief of staff for support, said Wednesday during a Warriors Corner presentation at the Association of the U.S. Army's Global Force Symposium and Exposition in Huntsville, Alabama.

In large-scale, high-casualty wars, having blood as close as possible to injured soldiers is a lifesaver, he said. However, getting blood supplies closer to the front than a military hospital is a challenge. It is important to main-



A 75th Ranger Regiment medic trains to deliver blood on the battlefield. (U.S. ARMY PHOTO)

tain the proper temperature, avoid breakage of containers and prevent theft by adversaries who'd also like to get their hands on fresh blood supplies, Thompson said.

To succeed, the Army requires special containers for shipping that are low on energy use, said Col. Ryan Eckmeier, Army Medical Command's director of logistics. Plans are being developed for storage and distribution of blood "to the point of need," he said, which means as close to the front line as possible.

This has been a problem in Ukraine, where defensive units in the fight with Russians don't have blood supplies available to treat casualties until they reach a hospital behind the lines.

An alternative to frozen blood could be dried plasma, which could be available in a few years, Eckmeier said. Dried plasma would pose a reduced challenge to transport because it has a smaller requirement to be kept cold and is easier to carry.

# Scenes from Global Force 2023



Attendees at AUSA's Global Force Symposium and Exposition, including soldiers, defense industry representatives, AUSA members and more, gather at the Army booth in the exhibit hall. (AUSA PHOTO)



AUSA mascot Sgt. R. Hero interacts with attendees at the association's Global Force Symposium and Exposition in Huntsville, Alabama. (AUSA PHOTO)



Soldiers and civilians discuss new technology on the exhibit floor during AUSA's Global Force Symposium and Exposition. (AUSA PHOTO)

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