First and foremost, our top priority is always going to be sustaining the legacy infrastructure and the trainers that we have in the Fleet. That’s our direct lever arm on Fleet readiness, and readiness is the US Navy’s priority right now,” Captain Tim Hill, Commanding Officer, Naval Air Warfare Center Training Systems Division (NAWCTSD) told the Show Daily.

NAWCTSD (Booths 249 and1439) is the Navy’s principal center for modeling, simulation, and training systems. The command provides training solutions and research for a wide spectrum of projects managed by Program Directors – Aviation, Surface/Undersea, Cross Warfare, and International.

“The next priorities are looking at every way, shape or form possible to increase our speed and increase our agility. Fundamentally, whether we like it or not, we’re a somewhat reactive organization, in that we act in response to Fleet needs. If you take that as a given, then our need is to be agile and to be able to respond to those needs very quickly.”

“Speed is all about getting things to the Fleet as quickly as we can, so we’re putting a big emphasis on prototyping, and getting things out to the field as soon as we can to get feedback from the users so we can make it more useful to them.”

“We’ve always had strong partnerships here at Training Systems Division,” observed Hill. “Since you can’t always be a jack-of-all-trades, the best thing you can do to be more agile is to increase your partnerships, and understand who has what expertise so that when you come to a problem that you can’t solve in-house, you know where to go to solve that quickly.”

Those are two things that we’re trying to do to improve our ability to respond and really impact the readiness equation, and the Navy’s ability to fight the high end fight with near-peer adversaries. We have a due date of 2020 set by the Chief of Naval Operations to be able to have a synthetic live, virtual, constructive (LVC) environment in which we can replicate the high end fight in a persistent manner, on demand for Fleet assets. So, 2020 is going to be a progress check where we’re going to see exactly how well we’ve been able to do that, with the goal being that by 2025 we can do that persistently and at a high quality to mimic the high end fight, in a synthetic environment that blends with the live environment.”

Hill explained that NAWCTSD’s role in the Navy’s Sailor 2025 Ready, Relevant Learning (RRL) initiative has expanded since the last I/ITSEC. “We’re now leading the acquisition effort for all of the content and training specific hardware required for RRL based on the science of learning. The methodology that the Navy is moving towards is to make sure that our Sailors are learning, rather than merely training, so they can achieve true proficiency in a skill set and become more proficient throughout
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**REGISTRATION HOURS**
0730-1800

**EXHIBIT HALL HOURS**
1400-1800

**SIGNATURE/FOCUS EVENTS**
1030-1200  Congressional Modeling and Simulation Event (Room S330BCD)
1600-1730  I/ITSEC Fellows (Room S330A)

**FOCUS EVENTS**
1430-1600  Military Innovation for Learning (Room S320D)

**SERVICE PROGRAM BRIEF/INDUSTRY DAY**
1300-1430  US Army: Synthetic Training Environment Update to Industry (Room S330EF)
1500-1700  US Army: The Persistent Cyber Training Environment (Room S330EF)

**SHOWDAILY**

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John Williams, NTSA, Media Relations, said the addition of the video coverage allowed the simulation and training community to more easily stay engaged with proceedings throughout this year’s iteration of I/ITSEC.

“The video team will be providing coverage of I/ITSEC 2018 to the NTSA Today channel on YouTube, which allows attendees to keep track of all key events but also generates a wider audience and further cements I/ITSEC as the most important and dynamic event of its kind in the world.”

Video coverage is provided by Denver Film Company, including on-screen presenters Andra Dohrn and Kari White (pictured).

I/ITSEC Traditional Bag Stuffing

MORE THAN 100 volunteers from industry, government, academia and research organizations assembled on Sunday morning for the traditional I/ITSEC bag stuffing. Two thousand bags for attendees were stuffed in an effort indicative of the teamwork that makes I/ITSEC such a success each year.

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Navy Seeks Technical Innovation in Learning – continued from page 1

their career. We want Sailors to constantly get better so that they can really achieve their highest performance levels rather than just meeting a minimum proficiency.”

To support this, Hill’s team is “working hard at developing and improving our capability for enterprise data analytics. We have a world class capability, inside of our organic team here in NAWCTSD, and that has largely been due to our human factors/human systems role as it relates to the physiological episodes that have occurred in some Navy aircraft, notably the T-45 and the F/A-18.

We’re trying to take that knowledge about how to harness the power of big data analytics and start applying that to training outcomes because in order to achieve our lifelong learn-

ing goal, we’re going to need back end data that really looks at people on an individual basis while also examining the macro level to understand that we’re really achieving the kind of high end proficiency that we’re looking for.”

NAWCTSD is considering how emerging technologies can achieve the goals of training knowledge and skills more rapidly and effectively. “Things like virtual reality and augmented reality, which have been in the industry for a little bit now, but are still maturing to a point where they might be able to compete with some of our legacy methodologies. Gaming technology is certainly something that is still at the forefront of how we can train Sailors better and faster. We want to look at this tech to understand whether it has a training application.”

He explained how newer technologies, such as augmented reality and virtual reality, can possibly be used to fill training gaps. “For instance, we’ve done some prototypes using virtual reality headsets to potentially deliver training on ships where we haven’t been able to have training systems previously. Headsets offer a small footprint aboard ships. We are exploring use of augmented reality in a job aid scenario for maintenance work. It’s not just about training but it’s also a job aid to reduce errors and increase real time proficiency.”

“These are the things that NAWCTSD is doing to help the Fleet from a readiness perspective, and then to get ahead, to be able to accelerate our capability advancement, and recapitalize towards the high end fight.”

Discussing the trend lines for the Navy’s capability, Hill observed that the near-peers are on a more vertical trend line of capability improvement although the Navy “still enjoys an advantage in many areas, largely less dependent on our technology, and more dependent on our people and their training. Training is all about keeping that edge, and so the more we can pour into training, the better quality we can make the training, the more we’re going to bend the capability improvement curve upward as the CNO has asked us to do.”

Hill believes that LVC and lifelong learning under the auspices of RRL will provide the Navy “the next quantum jump in technology and methodology that is really going to take us into the next generation.”

“There is some training that you can’t do in the airplane, or on the ship, or in the submarine today because it’s too dangerous or we just don’t have the ability to replicate, either in the range space or with the threat itself, what the real world would be like. The fidelity and the capability that’s there in the simulated world, has gotten to a point where we can replicate that kind of environment in a synthetic environment and we can get to a place where we can train better in some cases in the synthetic environment, or a blended environment, than we could in a purely live environment.”

“It’s not to say we can ever get away from driving the ship, or flying the airplane, because there’s always a need to work with the real equipment in the operational environment, but you can certainly replicate enough of that and put people in enough situations to stress them and make them better in the synthetic environment.”

“Perhaps more importantly, something that we’ve always been able to do in a synthetic environment is get ‘reps and sets’ where you stop the training when something goes right, and debrief it, and do it again to emphasize it or stop the training when something goes wrong, and debrief that, and go and change your muscle memory before you learn it the wrong way. Those are certainly strengths that training can bring to the fight.”

“As we go into the more modern technology, more modern computing capability, and a blended LVC environment it is going to make it a lot easier to train some of the leadership positions as well, from a tactical to an operational level. For a long time, we have done fleet synthetic training that is all about training the battle staff on how to make decisions, how to recognize things, how to deploy assets properly for a given situation, but all too often those situations and scenarios have been very scripted. With the advances in technology as we get to an LVC environment, you’re going to bring more of the fog of war, more of the uncertainty, more of the dynamic nature of scenarios, and both the staffs and the tactical units are going to get trained better as a result.”

Hill pointed out that the Navy is already seeing some of these advantages. “For instance, the Naval Aviation Distributed Training Center, on the Pacific coast, is a distributed mission training LVC environment to connect the ships and the maritime air platforms, primarily different H-60 helicopter variants. What they’ve noticed is they can better stress the decision making processes and skills of new mission commanders in that LVC environment than they can in a real world that is subject to the limitations of live flying.”

“Probably the last observation as evidence that we’re moving in the right direction relates to the budgeting process. I think that all of the different stakeholders, at least in the Navy, have now come together, and really understand that we need to be looking at this as a capability that’s across multiple platforms and it has to work in a mission representative environment. You have to be able to do a full mission such as a defensive counter-air mission, not just be content with the fact that platform X, can connect to the network, and consider that good enough. It has to connect to the network, to get to another platform, and then those platforms have to work together, the way they do in a live environment, and I think we’ve come to that realization. We’re working our budget issues in that light now, which is a pretty major success frankly.”
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Robb Sees Increasing Business Tempo

In his welcome to I/ITSEC 2018 attendees, RADM James Robb, USN (Ret.), President, National Training and Simulation Association, highlighted a changing environment over the last 12 months.

Speaking to the I/ITSEC Show Daily, Robb observed that 2018 has witnessed significant business activity, driven in part by increases in defense budgets.

“People are busy and anxiously working to get at the resources that have been brought to bear by the administration,” he said. “There’s a great opportunity there and I think a bit of anxiety in that it’s not going fast enough. But it is a positive time for the industry in terms of getting the vision properly resourced.”

Robb said that the past year has also witnessed increasing emphasis on artificial reality/virtual reality (AR/VR), accompanied by advances in goggle technologies that combine to enable a better user experience.

“We built on a big data theme from last year and have quite a bit of artificial intelligence that has been brought onto the show floor this year as an emphasis,” he added. “I think that there’s a continued effort to emphasize ways to increase human performance at the individual level.”

Referring to this year’s I/ITSEC theme “Launching Innovation in Learning: Ready, Set, Disrupt,” Robb said, a lot of learning technologies and discussions accompanied by “a lot of serious looks at how to improve training and education; sort of the foundation building blocks as well as a lifelong learning concept, which has really been taking root across all the services,” are at I/ITSEC 2018.

“It’s important for the I/ITSEC show floor to be cutting edge, not yesterday’s technology... It needs to be the future, not necessarily today. So we continue to look for ways to make that happen.”

Robb identified a range of positive steps taken “in the science of learning area,” highlighting efforts “to digitize content as well as the way it’s presented, to try to capture the next generation ‘digital native,’ in terms of how to motivate and pull them into STEM fields and then trying to entertain them as future workers.”

He continued, “That workforce piece is getting a lot of attention. This year’s theme certainly circles around learning and I think I/ITSEC is really a positive thing in this regard, because we concentrate on gaming, we concentrate on STEM, we have scholarship programs, and we have teachers and schools here.

“At the top level you see a country at full employment and people are really having to compete for the talent,” he said. “That’s true of the military. It’s true of industry. There are just not enough qualified people. And as the economy grows more and more, this whole thing gets magnified as to where we get the next generation workforce. We hope we’re providing positive input to all of that.”

Against this background, Robb identified efforts to retool training education across the armed services.

“I think that there are a lot of programs now that are actually coming forward as real money, like with Sailor 2025,” he said. “Those kinds of programs of record are starting to mature and I think they present great opportunities for our team.”

In addition to highlighting the technologies on display across the exhibit hall, Robb noted that I/ITSEC 2018 features two format changes that emphasize and support the idea that acquisition needs to go faster.

“The first is representation from the Training and Readiness Accelerator (TReX) Other Transactional Authority (OTA),” he said. “That’s a prototype contracting vehicle that the Army is supporting, but it’s being used by all the services and other entities. It’s an attempt to bring pretty short notice requirements out and then give them to industry and then have prototypes put on contract within 60 to 100 days and then, within a six-month period, be able to have something that you can take to the field and test out with operators. We have to go faster. The whole acquisition system needs to go faster, mainly because the technology is improving so fast that a seven-year cycle of building something just doesn’t work anymore.

“The second piece that is on the floor this year is a special event that we call Launch Pad (Booth 1086), which is our version of an OTA environment. What the Launch Pad team did was put out calls to industry for prototypical demonstrations that industry has funded themselves, but they want to get to the government, they want to get visibility. There are about 20 responses to it. And I think they will all be given time on the show floor to do the demonstration. Some of them are going to be done in public and then others are going to be done privately because of the sensitivity to the technology. We’re not going to have contracts, but we’re bringing those demonstrations to a government place where that technology will get visibility and then possibly taken forward to get funded in some prototypical way,” he explained.

“It’s important for the I/ITSEC show floor to be cutting edge, not yesterday’s technology,” he stressed. “It needs to be the future, not necessarily today. So we continue to look for ways to make that happen.”

Robb went on to spotlight this year’s rich briefing program, the high quality of speakers, and the amazing support received from the lead Sea Services as well as other branches of the military.

“It just keeps getting better,” he concluded. “And it’s impressive to me to watch the whole team cook together.”
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CAE Gets Down to Business at I/ITSEC 2018

As Group President of CAE’s Defence & Security Group (Booth 1734), Gene Colabatistto, is enthusiastic about the company’s presence at I/ITSEC 2018.

Speaking with the Show Daily, Colabatistto began by pointing to global pilot shortages and some of the actions being taken by CAE to address that challenge.

“Clearly it’s a worldwide phenomenon,” he began. “And it’s not just defense or civil aviation. It’s both.”

Highlighting what he termed “a lot of synergy and connections between what goes on in the world of commercial aviation and the military,” he noted, “For example, one of the underlying issues is that the military does not produce pilots at the same order of magnitude that it once did. That puts pressure on the civil aviation community. And, of course, commercial aviation then makes it more attractive to become a commercial pilot. And that puts even more pressure back on the military.”

Looking out over the next few years, he asserted that the situation “is going to be at least persistent, if not even becoming a little more difficult or more challenging as time goes on.”

Colabatistto asserted that, while CAE is known for producing training systems, the majority of the company’s business is in running training programs.

“We are in the business of producing pilots for our customers. And when there is a shortage it creates an opportunity for us to step up and help increase the training pipeline…”

“In effect, what we really produce today is pilots,” he explained. “We are in the business of producing pilots for our customers. And when there is a shortage it creates an opportunity for us to step up and help increase the training pipeline, to help make the processes and the pipeline more efficient, and ultimately to help military organizations around the world become more efficient at force generation.”

He said that the company has taken a more holistic approach to presenting customer training solutions over the last five or six years, referring to the current approach as the company’s Training Systems Integration, or TSI strategy.

“Overall, the goal is to make training more efficient. So we look for opportunities to employ live virtual, or constructive training and most importantly to integrate those together, not do one or the other, but find ways to make the overall training enterprise more efficient by finding that optimal mix. That’s very much at the core of our business,” he said.

Colabatistto said that the business approach recognizes a training trend: “governments are more apt and they’re more willing to outsource more to industry” and therefore CAE “is increasingly starting to do some of the jobs that were done by the government previously.”

“For example, we made a big move into live flight training a few years ago,” he said. “It’s become a big part of our business and I think it will continue to grow. In fact, it’s the most rapidly growing segment. And when you look at what the U.S. Air Force is doing with ‘adversary air,’ they’re taking a mission that was traditionally executed by the government and they’re outsourcing that to a greater extent.”

Summarizing the approach, he said, “We are trying to bring a holistic approach to training that’s more efficient and we’re taking on more and more of the training burden to release uniformed personnel to go do things that only the government can do, like fly operational missions.”

He added, “The challenge is a global phenomenon and whether we take the whole mission on or we’re just augmenting the military staff, every military organization is going to do business a little differently, and they also are willing to accept technologies at a different rate, whether that’s augmented and virtual reality or whether it’s continuing to increase the fidelity of the simulators to download more tasks to the simulator. But there’s no doubt that the critical low-density resource is people. And because this is a worldwide phenomenon, everybody is responding pretty much the same way.

“If you look back over the last couple of years, we’ve had some very notable and very public successes, like the NFTC (NATO Flying Training in Canada) program, where we’ve been able to increase the throughput by a third. We graduated the largest class in history in March. The program is doing very well and air forces around the world have taken note. And that recognition is encouraging them to be more aggressive where they can by outsourcing,” he said.

In addition to describing several new technologies being unveiled and displayed in the CAE booth at I/ITSEC 2018, Colabatistto highlighted CAE’s recent acquisition of Alpha-Omega Change Engineering (AOCE), emphasizing the importance of their ongoing work with U.S. Air Force Special Operations Command and platforms.

“The acquisition includes over 600 employees, many of them are highly cleared, and the establishment of a separate new business unit (CAE USA Mission Solutions) allows us to do work at higher levels of classification, while getting us into new platforms,” he said. “It really has broadened our horizons.”
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Boeing Global Services Spotlight

The establishment of the Boeing Global Services division (Booth 1000) in July 2017 reflects an increasing focus and emphasis on the sustainment of Boeing systems as well as those from other OEMs.

The new division highlights four broad capability areas: digital innovations; supply chain solutions; engineering maintenance and modifications; and training and professional services.

“We’re excited about the I/ITSEC 2018 conference,” offered Keith Cooper, Vice President of Training & Professional Services at Boeing Global Services. “The team is spun up on it and it’s probably the highlight of the year for what we do across the board.”

Cooper explained that his capability area “truly spans a spectrum of commercial and government activities,” with subsequent company development of “commercial derivatives that can be used on the government side.”

“We have about the best practices in the commercial area,” he asserted. “Now we are looking at how we move those over to the government side and some of the platforms like pilot training, maintenance training, and just general understanding of different aircraft operations.”

“We’re really excited about our show theme,” echoed Greg Krekeler, Director of Training Systems at Boeing Global Services. The 70 x 75 foot exhibit space includes a dozen different technology demonstrations. Reflective of the sea services lead at I/ITSEC 2018, he said that four of the demonstrations are “U.S. Navy specific.”

In addition, several of the exhibits show technologies originally developed on the commercial side and then brought over for government application.

“We also wanted to showcase for this defense related event a couple of displays that have a United States Air Force theme,” Krekeler said. “Of course, we are really excited with the big T-X win and so we have some technologies associated with T-X. And then we have a couple of generic technologies that underlie a number of spaces on both the defense and commercial sides.

“What’s really exciting for us is of the 12 demonstrations, 11 of these are brand new for 2018,” he added. “There’s only one of them that we showcase from last year. So we’re bringing in a lot of new stuff.”

As an example of one of the commercial products on display, he described a tablet-based virtual preflight walk-around.

“It’s an application that gives you a quick preflight walk-around tool that allows users to do training from anywhere, anytime,” he said. “And I think that highlights, from a technology standpoint, where we want to go in terms of going from training to learning and giving every organization the ability to learn and be able to utilize learning tools, interactively and on demand. And we think that has some applicability in the defense world as well.”

Krekeler described another technology on display, called Connected Learner Mobile Framework, as a mobile application that allows organizations to register and keep track of classes and leads the students through their time during a training class.

“This is something we’re developing on the commercial side and we want to preview that to a lot of our defense customers,” he said. He noted that other technologies in the Boeing exhibit range from a portable platform to provide increased proficiency and learning of aircraft systems to a small, inexpensive motion seat for pilot training.

“We’re looking at ways that we can reduce the amount of infrastructure, in terms of the physical size of training solutions, while also providing students access to more learning in a less scripted environment. [The motion seat] is smaller, lighter, cheaper, more mobile and powerful than motion seats that are out there,” he said, noting that the effort has also included participation by Florida’s Full Sail University.

Other demonstrations are based on the integration of virtual reality / augmented reality into immersive environments that can be used collectively in either schoolhouse or deployed scenarios.

“That’s another theme right there,” Krekeler offered. “We are moving training off of the aircraft and out of very expensive devices like full motion simulators or a high cost hardware trainers and bringing it more into an AR/VR world.

“In addition to innovation, there’s just the plain old issue of getting more cost effective,” Cooper concluded. “And that has allowed us to win back our MTS [maintenance training system] contract on the C-17. So it’s a combination of continuing to remain competitive while investing in new technology, to offer even more innovative solutions.”

“Boeing’s theme for our booth this year is ‘The Future of Training is Built Here.’ And we think our display reflects the systems and underlying technologies that are going to be really driving the future of training."

Characterizing the company’s I/ITSEC booth as “pretty exciting from a layout perspective,” he added, “It’s an opportunity to really showcase a lot of the new technologies that we have to offer.”

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Pentagon Briefs Industry on Cyber Requirements

The Pentagon is using industry’s presence at I/ITEC 2018 to brief on its plans to develop a Persistent Cyber Training Environment (PCTE).

PEO STRI is hosting an industry day on the first day of I/ITEC (1500-1700 in Room S330EF) to provide an overview of PCTE, which is a cloud-based training platform that allows cyber mission forces (CMF) to train in emulated network environments utilizing current cyber tool suites.

A formal RFP the cyber training system is expected to be released in 2019, has an award potentially worth up to $750 million expected to be issued the following year.

“The US faces threats from cyber warfare, and needs a realistic, persistent training platform that enables personnel to develop the required skills to execute mission,” PEO STRI outlined in a statement of work document.

“The purpose of PCTE is to enable the CMF to conduct joint training, exercises, mission rehearsals, experimentation, certification, re-certification, and assessments of cyber capabilities in support of the National Security Strategy (NSS).”

Unlike the current stove-piped and manpower/time intensive training environments, PCTE will provide the CMF a standardized platform with an “ecosystem of capabilities” that will enable individuals/units to access capabilities and participate in distributed training.

PEO STRI was emphatic that PCTE is not a cyber range and was instead every aspect of a training exercise that would take place in a range. In what is described as “an oversimplified analogy”, PEO STRI compared PCTE to an individual and team/unit collective training event on a marksmanship range.

“Using this analogy, PCTE must build virtual firing positions, targets, obstacles, range towers, etc. It must also build the tools necessary to efficiently and effectively execute a range training exercise, such as command and control, boundaries, after action review, instructors, threat/opposing forces, other role players, etc. (event management).

“Unlike a physical marksmanship range, however, PCTE must also virtually build every aspect of the range to provide a realistic landscape like the dirt, bushes, wind, rain, buildings, personnel traffic, etc. (environment). It must also connect geographically displaced CMF personnel so that individuals/units can access and participate in training (connectivity). In short, PCTE is not a cyber range. It is every aspect of a training exercise that would take place on a range.”

PEO STRI stated that the development activities for PCTE included integrating hardware and software into a training platform that orchestrated “event planning, training resources, and after action review into a cohesive and networked training event.

To help fuel the PCTE requirement, a Cyber Innovation Challenge 2 (CIC 2) was launched to study prototype solutions in the area of “an order portal and content repository” to consider the technical feasibility of integrating these capabilities into a PCTE baseline training solution. In July it was announced that the PCTE CIC-2 prototype project had been awarded to Boston-based SimSpace.

Given the scope of the wider PCTE requirements and the level of commercial cyber capabilities acquired by various defence prime contractors in recent years, the main PCTE integration contract is likely to garner much interest.

One company making distributed cyber training a central part of its I/ITSEC presence is Raytheon (Booth 1036), which has been vocal in its pursuit of PCTE.

“We’re going have a big demo to show our ability to distribute cyber training. And that’s quite frankly in line with Raytheon’s effort to go after the Persistent Cyber Training Environment,” Bob Williams, Vice President of Global Training Solutions for Raytheon Intelligence, Information and Services, told the Show Daily.

“The cool part of that is how we’re going to conduct red team versus blue team cyber scenarios between the show floor and our cyber facility in Dulles, Virginia. We’re actually going to do it live, which is a major part of the government’s effort as they move forward in defining the requirements for PCTE. So, we’re actually going to show distributed cyber training at I/ITSEC, and we’re looking forward to that.”

Don Bray, director of cyber training at Raytheon’s Global Training Solutions unit, outlined the challenges to the cyber force when the technologies, threats and adversarial TTPs can so rapidly evolve.

“It’s a real challenge to keep up with all the adversaries, the new TTPs, as well as having environments that are built for the cyber forces to train in versus environments that are built for the conventional force and the cyber force is just participating as an enabler to that training event. That’s the overall gap that PCTE is trying to fill - having that purpose-built environment tailored to the training of the cyber mission force,” he explained.

“It’s clear from what we’ve seen and what the government requirements are that the cyber warriors can’t afford to wait years for updates to their training environments, they can’t afford to wait years to have a suitable training environment for them to train as they fight.

“PCTE will have to be agile enough to keep pace with the commercial best practices and the changes in the cyber environment and whoever can deliver that agile environment also has to be able to integrate other capabilities at the same time and have an operational understanding of the training requirements that the cyber mission force would need.”
FREEDOM TO TRAIN ANYWHERE

At I/ITSEC 2018, see the cutting-edge technology suite BISim has developed for the U.S. Army's Synthetic Training Environment (STE) @ Booth #2235.

BISim is demonstrating a new cloud-enabled, virtual world training capability uniquely suited to meeting future military simulation requirements. The new technology suite from BISim includes a cutting-edge, military-specific whole-earth game engine, deterministic AI, an efficient geospatial terrain server and component-based development technology.

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Rockwell Collins Launches New Visual System

Rockwell Collins (Booth 2201) is using I/ITSEC to launch its new Griffin-2 360-degree visual system for military fast-jet simulated training.

Building on the company’s earlier Griffin rear-projected display, the new system features a non-faceted, smooth-surfaced visual dome, based on an open architecture that allows the use of multiple projector types.

Nicholas Scarnato, Director of Strategy Development for Rockwell Collins Government Systems simulation and training solutions portfolio, told the Show Daily this approach meant that ultra-high definition COTS technology could be utilized for optimal fidelity, resolution, and lower acquisition and life-cycle costs.

“The original Griffin system was developed with the fifth-generation fighter solution driving the requirements. Basically, when you’re there you’re immersed as if you were right in the canopy of your fast jet fighter and you have a full 360-degree field of view. Now it’s on the F-35, it’s in use on some of the fourth generation fighters like the F-16, it’s on the M-346 and also the Typhoon,” Scarnato explained.

“What we’ve done with the new Griffin-2 solution is to rearchitect the projection solution, so it allows us to take advantage of a big driving trend in the fast jet market, which is the 4K and 8K projector resolution offerings that are in the market space. In the virtual simulation and training market at large, training realism and realism of the scene is very, very important and a driving trend that’s been picking up even more steam than it has in the past.”

Additionally, Scarnato noted that the modular design of the Griffin-2 makes it adaptable for any fast-jet aircraft type, including new and emerging aircraft platforms.

“So that ability to take advantage of 4K and 8K and having, if you will, the ability to do that with multiple projector solutions so you’re not wedded to one solution – you could fit this with multiple choices available, which also is important to our customers because projector technology is changing pretty rapidly and the ability to take advantage of commercial off the shelf is a huge benefit.”

While unable to go into specifics, Scarnato also noted that the company had “greatly reduced” the number of projectors required by the earlier Griffin system, which employed 25 projectors, providing further life cycle cost savings.

Keith Morlock, the Product Line Lead for the Griffin solution at Rockwell Collins and himself a former U.S. Air Force fighter pilot, said the new projectors provided “eye-limiting resolution,” effectively matching what trainee pilots would see in the real world.

“By being able to go, for instance, through the 4K pixel shifted or 8K projector, we can make the image better than 20/20 - you’re eye limited,” Morlock said.

“So that allows you to pick up targets much better on the ground, and it allows you to keep focus on the orientation of an air-to-air target like smearing. It helps almost eliminate those and provides a much more realistic environment. And that’s an advantage to the new projectors, allowing us to run at 120Hz and the new PC technology and our software allowing us to drive them 120Hz.”

Morlock also highlighted the life cycle cost advantages that the company had looked to build into the new iteration of the system from the beginning.

“One more thing on the Griffin-2 that we really designed into this based on experience in the past is ease of maintenance. We didn’t want to forget the maintainer, the guy that has to keep the trainer running. Everything is on the floor level and it’ll allow for a very quick and easy maintenance as opposed to many other systems out there.”

The company is also using I/ITSEC 2018 to launch the SecureOne User-defined Cross Domain Guard, which is designed to enable flexible, scalable and secure information exchange between national and multinational entities.

“The SecureOne User-defined Cross Domain Guard provides a modular design that lets customers use units individually or collectively to meet these requirements,” said Troy.
Brunk, vice president and general manager of Communication, Navigation & Electronic Warfare Solutions for Rockwell Collins.

When coupled with Rockwell Collins’ SecureOne MILS Encryptor, it enables the use of unclassified networks for data flows between secure, distributed locations. In addition, integrators and end users can rapidly change rulesets as security policies evolve.

In a further announcement timed for this year’s event, Rockwell Collins disclosed that it had been selected by Aero Simulation to provide modifications to the B-1 Lancer training system for the U.S. Air Force.

The company will provide concurrency, obsolescence, and cybersecurity upgrades to the five current training systems, including the Weapon Systems Trainer, Mission Trainer, Cockpit Procedures Trainer and two maintenance trainers.

The company is also highlighting its ongoing progress on the U.S. Navy Tactical Combat Training System Increment II (TCTS Inc. II) program.

In June, Rockwell Collins announced it had successfully completed the Preliminary Design Review (PDR) of TCTS Inc. II with the U.S. Navy and had been approved to begin detailed design work.

The initial $142 million award for TCTS Inc. II was announced in 2017, with Rockwell Collins being selected as the prime contractor and systems integrator for the next-generation air combat training system, along with support from Leonardo DRS.

The companies are working to develop an airborne, ground and ship-based encrypted training capability that will be integrated with other fielded equipment and combat systems to support training for U.S. Navy and Marine Corps aviation personnel.

The system will also provide the first certified, Multi-Level Security (MLS) training equipment packaged in both airborne and ground equipment, allowing for tethered and autonomous operations.

“MLS provides secure interoperability between combinations of 5th-generation and 4th-generation aircraft, to deliver significant training benefits to all participants in a simulated, high-threat combat environment. It has five times more network capacity than current air combat training systems and uses the existing training range frequency spectrum for enhanced live player training fidelity and to increase the number of players participating in Live, Virtual and Constructive (LVC) training,” according to Rockwell Collins.

Scarnato said that while this capability would not be demonstrated as part of a networked exercise such as Operation Blended Warrior (OBW) as in previous years, it would play a significant part of the company’s presence at I/ITSEC.

“We’ll have elements of the TCTS II solution there. You’ll get to see the actual pod; we’ll have that displayed at the booth, the Cross Domain guards will be used. Although we won’t be networked in an OBW exercise, we’ll be using a network solution within our own booth this year and you’ll get to see a mix of different technologies that we’re bringing forward. “Quite honestly, the objective is to trigger the thought about what is in the realm of possibility? So, we’ll be using mixed reality, augmented reality solutions in our booth, tied into a local network of devices using the Cross Domain as well.”
Conference Chair Perspective

In her role as Conference Chair at I/ITSEC ‘18, Elizabeth ‘Beth’ Biddle, Ph.D., sees herself as “a real advocate for the conference.”

A Boeing Technical Fellow in Human Performance Engineering with 14 years’ service with The Boeing Company, Biddle spoke with the I/ITSEC Show Daily about her role.

Calling herself a “conference advocate,” Biddle pointed to “the amazing efforts” of a volunteer committee of more than 300 individuals supporting the presentation of papers, subcommittees, operations committee, full conference committee, STEM activities, student tours, future leaders program, America’s teachers, scholarship program, special events, tutorials, professional development, as well as adjuncts like the Serious Games Showcase and Challenge.

“The volunteers coordinate with all of that to make everything happen at the conference,” she said. “So we have a lot of great content.”

Biddle was also quick to highlight the efforts of Bob Kleinhample, Program Chair for I/ITSEC ‘18, offering, “He really has the charge this year of making sure that we have all the program content together, making sure that we stand by our theme of “Launching Innovations in Learning: Ready Set Disrupt.”

Additionally, she praised the support that the conference has received from lead service executives and principals, noting that changes of command in both Navy and Marine Corps have done nothing to slow or diminish those service efforts.

“The team is very passionate and enthusiastic,” she summarized. “In our reviews people come prepared, ready to work. And in between our meetings I see the daily activities of people working throughout the year.”

While official planning for I/ITSEC ‘18 began the Friday after I/ITSEC’17, Biddle said that work with the lead service actually began almost a year before that, with the development of themes and logos.

“I really want I/ITSEC attendees to take away ‘the tagline’ from our theme; to be ready, to get set and really disrupt,” she concluded. “I hope that they have an open mind and really listen to the different concepts that are being discussed in our presentations or special events, and things that they’re seeing on the show floor, especially if they see things that might be different than the way they’re continuously approaching problems. Keeping an open mind and trying to think how to incorporate these new ideas into our thinking, or at least considering them as different alternatives, is how we can work to make this community continue to grow.”

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07 December 2018
Introducing the 2018 Serious Games Showcase & Challenge Finalists

The organizers of the 2018 Serious Games Showcase & Challenge (SGS&C) are pleased to announce the 23 finalists who will be showcased at I/ITSEC 2018 in Booth 2481. The winners will be recognized on Nov. 29 during a special SGS&C awards presentation.

The 15 finalists in the business category are: AppClinic – Saving Lives! by Adtalem Global Education and Filament Games; Code of Aegis by the University of Houston & Ti-tronix Software; Glidin2 by Soar Technology, Inc; Fireworks, The Entrepreneurship Game by E. I. Games LLC; Gloob Rescue by Design Interactive, Inc; HoloLAB Champions by Schell Games; Incident Commander 2 by BreakAway Games; Joko’s World: Pocket Planet by Cultural Infusion; SimInClass by Simsoft Technologies; SimScientists Ecosystems Games by WestEd and Intelligent Automation, Inc; SimuSurg by Cmee4 Productions; Spark City by Gronstedt Group and Walmart; Vital Signs by Classroom, Inc; Vital Signs Nursing by BreakAway Games; and Voters Ed by Second Avenue Learning.

The seven finalists in the student category are: A Mirror’s Tale by the University of Geneva; Dental Madness by Full Sail University; Prism by Carnegie Mellon University Entertainment Technology Center; Tablecraft by the UCF Florida Interactive Entertainment Academy (FIEA); Thin Line by Carnegie Mellon University Entertainment Technology Center; Unboxed by DePaul University/Studio Fire; and You Busy? by DePaul University/Studio Fire.

The one finalist in the government category is: Difficult Airway Algorithm and Rescue Cricothyrotomy (DAARC) by Veterans Health Administration Employment Education System-eLearning.

SGS&C is fortunate to have supportive corporate sponsors that provide special awards and recognition for the finalists, as well as helping promote the challenge. The 2018 sponsors are: TechWise; Bohemia Interactive Simulations; Nvidia; Virtual Heroes Division of Applied Research Associates; Epic Games; Engineering and Computer Simulations (ECS); Trideum; Virginia Serious Game Institute (VSGI); HP, Inc; Full Sail University; and Box. For more information, please visit www.SGSChallenge.com.

Every I/ITSEC attendee has the chance to vote on the coveted People’s Choice Award, so be sure to visit the SGS&C in Booth 2481 to play the games and use the ballot in your badge packet to cast your vote.

Ballot boxes are in the SGS&C booth and voting ends Wednesday, Nov. 28 at 6 p.m. Find out which games are winners at the Awards Ceremony on Thursday, Nov. 29 at 1:30 p.m. in the Innovation Showcase (Booth 2288).
Elbit Offers Train As You Fight Solutions

Elbit Systems (Booth 2000) is highlighting its ‘Train as you Fight’ concepts at I/ITSEC 2018 with demonstrations of operational training and simulation solutions for air and land applications.

The Skybreaker Mission Training Center (MTC) is a networked multi-cockpit, mission oriented training center that provides realistic simulated battlefield training using all aircraft systems and mission scenarios to enhance individual pilot and squadron level training. The Israeli Air Force (IAF) has used an Elbit-supplied MTC since December 2013 to train its F-15 and F-16 crews, and in late 2017 Elbit completed delivery of an MTC to the Colombian Air Force, the first export customer for the system.

Elbit’s Land MTC is designed to provide robust tactical and operational training, offering complete mission rehearsals across varying combat scenarios for a complete brigade, with training tools based on advanced computer generated scenarios, in a fully integrated military setting. A Land MTC is operational with an undisclosed customer.

To shorten the training leap between trainer and fighter aircraft, Elbit is promoting the Targo helmet mounted display (HMD) system and EVA (Embedded Virtual Avionics) suite. EVA enables student pilot flying trainers to operate advanced systems such as virtual radar, optical sensors and electronic warfare systems, as well as virtual air-to-air and air-to-ground weapons while the Targo enables pilots to enhance their training using their personal helmets. The IAF uses the Targo HMD with its recently delivered Alenia Aermacchi M-346 advanced trainers which ensures a smooth transition as pilots progress to operational flying on the F-35 which is equipped with the F-35 HMD, produced by Elbit in partnership with Rockwell Collins, instead of a head up display.

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Last week, Elbit announced that, together with Leonardo’s Aircraft Division, it had completed delivery of M-346 Full Mission Simulators and Flight Training Devices to the Polish Air Force (PLAF). Derived from the simulation technology, including the Targo, at the core of the IAF’s M-346 training center, the interconnected simulators feature a 360° display system which provides a high fidelity air-to-air and air-to-ground mission training experience.
The Italian Air Force was the first to acquire the Targo for use with its M-346 trainers.

Elbit’s ARTIST (Augmented Reality Integrated Training System) is an embedded live and virtual training suite to train commanders, gunners, forward observers and other sensor operators who crew armored fighting vehicles including main battle tanks. The system combines live, embedded and augmented reality technologies to provide an advanced and effective training system that features terrain analysis, communication, data-link and control, most suited for crew and formation level training.

The company will also be presenting its Live Combat Training System (LCTS), a fully integrated training system that includes laser suites for armored vehicles and dismounted infantry, as well as broadband communication and control center capabilities. The LCTS can be scaled to enable thousands of participants and supports a wide range of simulated weapons, including direct fire weapons such as small, area weapons like hand grenades and land mines, indirect fire weapons including mortars and artillery, as well as chemical attacks.

First Time Exhibitor Cervus Presents HIVE

BRITISH FIRM CERVUS DEFENCE, attending I/ITSEC for the first time, is presenting its HIVE Training Data Exploitation (TDx) system at booth 865.

HIVE has been specifically developed to allow military users to make better use of the vast amounts of data derived from training activity and is already in service with the British Army, providing automated intelligent capture, storage, analysis and presentation of training datasets in near real-time. According to Cervus, HIVE can be used across live, virtual and constructive environments to “transform the training support process from one of primarily reactive, subjective observation to one of proactive, objective mentorship.”

The Royal Netherlands Army (RNLA) asked Cervus to demonstrate HIVE at its Exercise FALCON AUTUMN 18 from 14 October-1 November to better understand the benefits of using a TDx system. A small team of Cervus technical and training experts integrated HIVE into the Tactical Analysis facility at the Mobile Combat Tactical Centre and also work alongside RNLA exercise control staff and technicians from Saab, which supplies the army with its tactical engagement simulation system.

“Thereir flexibility, mentality and operational background make Cervus an excellent partner to work with,” said Captain Sander Cruiming, Staff Officer, Knowledge, Innovation and Policy in the RNLA Simulation Center, who is attending I/ITSEC. “Their expertise and data analysis capability provided the RNLA with new insights into its conduct, provided our observer/trainers with improved feedback and enhanced the quality of our training.”
ECS and HaptX Explore Haptic Technology for Medical Training

Engineering & Computer Simulations (Booth 491) is partnering with HaptX, a Seattle-based innovator in haptic products, to explore opportunities for enhancing military medical training.

ECS will use its Tactical Combat Casualty Care Simulation (TC3Sim) medical trainer to incorporate training scenarios using the newly released HaptX Gloves Development Kit, an industrial-grade product for advanced simulation in virtual reality (VR).

The HaptX Gloves Development Kit, unveiled in October, includes two gloves, each featuring 130 tactile actuators that provide realistic touch across the hand and fingertips, enabling users to experience virtual simulations with realistic touch feedback and natural interaction for the first time. Built with HaptX’s microfluidic technology, HaptX Gloves also deliver powerful force feedback and motion tracking with sub-millimeter precision. The gloves are usually combined with a VR headset to provide a complete training experience.

Shane Taber, ECS Vice President of Operations, said: “Previously, VR training has focused on learning through visual and auditory cues. The missing element has been touch. A medic can bandage a wound or administer CPR but, even though these are highly tactile procedures, there is no tactile learning. The medic can’t feel how deeply to push during chest compressions or how much pressure to apply to a wound.”

Using HaptX’s gloves will “improve the quality of training, and allow trainees to learn more quickly and effectively with the addition of touch.”

At the end of its research, ECS will propose a relevant, innovative, and fully-supported approach to the US Army Research Lab that furthers the understanding of the perception of touch as a component of virtual training. It will also demonstrate the capabilities of haptic technology to fill existing gaps in skills and training.

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<td>$5,000 in annual dues</td>
<td>$1,250 to $2,500 in dues (depending on # of employees involved in training and/or MSS)</td>
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<td>Second round of booth space selection (in early to mid-February)</td>
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Visit us at Booth 2281 on the floor, www.trainingsystems.org/membership, or contact Patrick Rowe at prowe@ndia.org.
Doron Receives USAF Driver Simulation Contract

The US Air Force has ordered 10 common driver trainers from Doron Precision Systems (Booth 706) to support training at bases around the country.

The order was announced as Doron was nearing completion of its largest military order to date, to provide the US Army Reserve with 39,660Truckplus interactive driving simulators. These are being used to train drivers on the USAR's most commonly used vehicles, including the M915 tractor trailer, M970-7.5k and M9784A-5k POL (Petroleum, Oils and Lubricants) units, an 80-passenger bus and the new Joint Light Tactical Vehicle.

The last simulator for the USAR will be delivered by the end of January 2019 and the contract requires Doron to provide installation, training, and maintenance support through 2023.

Although no additional firm orders have been received to date, Doron is working closely with the USAR on the need for providing additional variants of the 660Truckplus.

Doron will supply the Air Force with 660Fireplus and the 550Truckplus simulators which will be used for tactical and remedial training for Aircraft Rescue and Fire Fighting (ARFF) Vehicles. A simulator for Altus Air Force Base, OK will be delivered in December 2018.

Doron is working with the USAF to determine additional needs for ARFF simulators in 2019.

All Doron simulators include fully operational gauges and instrumentation, motion base integration, and capabilities for multiple customized variants as well as a proven curriculum to meet customer training needs based on the company's extensive experience in the commercial truck driving simulator market.

The 550Truckplus features upgraded scene-management and software-renderings that ensure quality graphics in conjunction with enhanced vehicle dynamics.

The 660Truckplus includes a fully operational dashboard, automatic and manual transmission assemblies, multiple variants, a fabricated cab enclosure and an instructor/operator station to create and manage scenario generation.
“Globally, the scope and pace of malicious cyber activity continue to rise,” warns the 2018 Department of Defense Cyber Strategy. “The United States’ growing dependence on the cyberspace domain for nearly every essential civilian and military function makes this an urgent and unacceptable risk to the Nation.”

The only constant in cybersecurity is change. Cyber operators need to consistently develop skills to keep pace with evolving threats and clever hackers. Unfortunately, that reality is far-fetched with traditional training courses that disengage learners and drain budgets. Modernized training can help counter this rapidly evolving threat. During I/ITSEC 2018, conference attendees have an opportunity to train and test their cybersecurity skills by joining the Sparta Cyber Throwdown Hackathon. From “mini games” to “battle rooms,” and industry-specific mission scenarios, each day will show off the power of gamified cyber range training with a focus on a specific concept, skill or theme.

This hackathon event is hosted by the US Army’s Program Executive Office for Simulation, Training and Instrumentation (Booth 1433 and 439) and powered by Circadence (Booth 1079). PEO STRI (Booth 1433) is showcasing the Sparta cyber training tables for Army Defensive Cyber. Circadence is a leader in next-generation cybersecurity education and training providing a fully immersive, AI-powered cybersecurity training and assessment platform for government and enterprise organizations.

Three independent hacking events will be taking place in Room 230D:
• Monday, 1300-1500: Freeplay
• Wednesday, 0930-1130: Digital Forensics
• Thursday, 0930-1130: Network Analyst

Those interested in participating should register at https://bit.ly/2yJsc2v and show up with a WiFi-capable laptop.

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CMSP Applicants may opt to take either the CMSP Technical/Developer or the CMSP Manager/User Exam.
I/ITSEC 2018 and NTSA Welcomes New Exhibitors

A warm welcome to exhibitors who are new to I/ITSEC this year or are returning after a hiatus.

AMD (Booth 561)
Archarithms Inc (Booth 250)
Aries Security (Booth 2277)
Athena-Tek (Booth 636)
CAE Healthcare (Booth 421)
CALIBRE Systems Inc (Booth 387)
Capewell Aerial Systems (Booth 424)
CATI Training Systems (Booth 1958)
Clinkenbeard (Booth 323)
Corvalent (Booth 2710)
Davidson Technologies Inc (Booth 457)
Defense Threat Reduction Agency (DTRA J9-CB) (Booth 986)
Dell (Booth 663)
Dimension Works LLC (Booth 1073)
Double Shoot (Booth 1612)
ELB US Inc (Booth 656)
Electronics and Telecommunications Research Institute (Booth 2765)
FAA COE TTHP (Booth 420)
FARO Technologies Inc (Booth 660)
FermiTron Inc (Booth 2762)
FRONTIS Corporation (Booth 307)
GCI DISTRIBUTION (Booth 554)
Global Knowledge (Booth 882)
H2 IT Solutions (Booth 471)
HP (Booth 1932)
Immersive Wisdom Inc (Booth 513)
Improbable (Booth 1170)
Industrial Training International (ITI) (Booth 2183)
Innovative Tactical Training Solutions (Booth 781)
IQ tech LV (Booth 2584)
(ISC)2 (Booth 2786)
ISimulate (Booth 2479)
ITS (Booth 2714)
JANUS Research Group Inc (Booth 771)
Launch Pad (Booth 1086)
LGS Innovations (Booth 455)
Medvision (Booth 2580)
MEI Technologies Inc (Booth 883)
MSI Computer Corp (Booth 2661)
NAVAIR CREATIVE Lab (Booth 556)
Navy STEM (Booth 2785)
Newton Design LLC (Booth 256)
Norxe (Booth 2729)
NSTXL (Booth 533)
Operative Experience Inc (Booth 453)
ORBIT Electronics Group (Booth 2021)
Pae (Booth 171)
Paramount Panels Inc (Booth 552)
Pennant International Ltd (Booth 325)
Perspecta (Booth 1234)
Potawatomi Business Development Corp - Federal Group (Booth 254)
Pratt & Whitney (Booth 657)
Precision Flight Controls Inc (Booth 1278)
Prevalence Inc (Booth 773)
Quantified Design Solutions LLC (Booth 258)
Quantum Improvements Consulting (Booth 692)
Rigil Corporation (Booth 260)
Rite in the Rain (Booth 451)
SimX (Booth 2485)
Spectrum Industries Inc (Booth 652)
STEAM Box (Booth 2788)
STS International Inc (Booth 2712)
SUCCESS - Students from Community Colleges gaining skills in STEM (Booth 2793)
Team Defence Australia (Booth 2619)
Technical Systems Integrators Inc (Booth 529)
USAF Expeditionary Operations School (Booth 558)
Vanguard LED Displays Inc (Booth 2773)
VATC - Visual Awareness Technologies & Consulting (Booth 520)
VectorZero Inc (Booth 515)
Veloxiti (Booth 2276)
Virtual Flight Academy (Booth 553)
Vricon (Booth 681)

SoarTech's Gldin2: From Navy Training To An Arcade Near You!

Under a Phase II SBIR effort, SoarTech is developing and testing a replacement training system for US Navy Parachute Descent Procedures (PDP). PDP training helps Naval aircrew learn and refresh their skills properly maneuvering a parachute in situations where they have been ejected from their aircraft.

SoarTech adapted the configuration of the SkyFall system to develop a multiplayer arcade game known as Gldin2. In this game, players are suspended in a hang glider canopy and use hand controls to navigate a powered paraglider through various fictional levels and environments, collecting coins and racing through a sequence of in-air checkpoints.

Gldin2 is a finalist in the Serious Games Showcase and Challenge, booth (#2481). The multiplayer version of Gldin2 will be featured at SoarTech’s booth (#339), where I/ITSEC attendees can compete for daily top-score prizes!
Light Attack, CDT in TRU’s Sights

As TRU Simulation (Booth 1201) exhibits at this year’s I/ITSEC, the company has its eyes on two significant prizes.

With the US Air Force searching for a new light attack aircraft, and an associated training package, and the US Army in the process of procuring a Common Driver Trainer (CDT), TRU Simulation is positioning itself for both opportunities.

John Hayward, Senior VP and General Manager of TRU’s Military and Business Simulation division, said the firm was working closely with sister company Textron Aviation to manage the training element of the AT-6 Wolverine, which is up against the Sierra Nevada/Embraer A-29 Super Tucano for the US Army opportunity.

“As a Textron company, we’re on the Textron team, even though that’s not a surprise to you, but we’re responsible for the training system piece of the light attack aircraft. The AT-6 is essentially a new aircraft, so it’s a new weapons system and it’s an entirely new training system to include simulators, courseware, instruction, sustainment of the training system and long-term engineering support for the system. “

With a final RFP expected to land by the end of the year and a contract award in September 2019, the potentially 300 aircraft, $2.5 billion program looms large for the training provider.

“This is a very low risk solution for the Air Force and we think the AT-6 is the superior platform as the service goes and makes their selection,” Hayward said.

“We have specific T-6 experience and we also have experience delivering very high-fidelity training systems and the total training systems package to include that courseware instruction support and ongoing sustainment engineering that we talked about. As a sister company in the Textron family, we have no risks around data access to the OEM: we’ve got an easy path there.”

He also highlighted the fact the Beechcraft T-6 Texan II was in service around the world – Argentina recently received a further two aircraft in June 2018 while the aircraft is used as a trainer in various countries including Canada, Israel, New Zealand and the UK – as well as the fact the company’s offering would decrease the time it takes to train each student.

“We believe our offering will decrease the time to train a student to produce mission-ready pilots and it really helps solve a multitudes of complex training challenges,” Hayward explained.

“If you look at the US Air Force and its Pilot Training Next methodology that they’ve laid out for industry – a key part of our solution is what I would describe as a very low cost, less than $200,000 cost, of a mission trainer – these are low cost enough that we believe we will be able to place multiple simulators in a training center and allow the students to fly these essentially on their own time, which will allow them to quickly build up the skill sets around flying the AT-6.

“So that’s really our big pitch. We’re going to offer a Pilot Training Next-based solution. That solution is actually going to be in the I/ITSEC booth and people will be able to come by and see it.”

Meanwhile, after an RFP was published in September for the Common Driver Trainer (CDT) Tactical Wheeled Variant (TWV) program for the US Army and Marine Corps, TRU Simulation is also bullish about the opportunity.

The CDT simulator fills a need for wheeled, tracked and specialty vehicle driver training, with a contract expected to be awarded in mid-2019.

“The system provides capabilities that allow operators to become familiar with a realistic arrangement and operation of the vehicle, including starting and stopping procedures, monitoring instruments and familiarization with procedures employed while driving under various terrain, environmental, visibility and vehicle dynamics simulations,” the RFP stated.

The CDT will replicate situations which should not be attempted in actual live vehicles due to the high level of risk associated with such emergency procedures.

“The CDT TWV allows for training in all identified driving tasks as required for each variant, including individual and collective tasks,” the RFP stated.

The CDT common components include the motion platform, Instructor Operator Station (IOS), After Action Review (AAR), visual system, and host system.

The Pentagon has stated it intends to award a single ID/IQ contract with an estimated ceiling of $110 million over five years.

One significant challenge is the program’s requirement to include a standard hardware configuration and variant specific software for a wide variety of vehicle types, including HMMWV, MTVR, JLTV, MRAP, M-ATV, LVSR and UTV vehicles.

“Their goal really thoughtout is to maintain 80 percent commonality between the different variants. So, the simulator itself, between a Humvee and an Abrams tank, will have 80 percent commonality and then the specific, what I’ll call the cabs of the vehicles, will be unique. The Humvees, obviously, are very different inside than say an MRAP,” Hayward said.

“We really are taking a single software baseline approach. So essentially you plug in the hardware end, and it determines whether it’s a Humvee or an engineering vehicle and the simulator boots up in the right configuration.

“So, each of those cabs will be able to be replaced or new components will be able to be placed into the cab to make them essentially convertible between those different platforms. But the large bulk of the simulator has that 80 percent commonality, and I think we’re actually above that goal in our solution.”
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As a globally recognized training systems integrator, we are proud to support the training and readiness of military aircrews around the world.

Learn more about CAE Rise by joining us at our booth (#1734) to attend one of the scheduled demonstrations or receive a personal demonstration during I/ITSEC in Orlando, Florida from November 26-29, 2018.

Scheduled launch & demonstrations:

**Monday, November 26**
15:00 — 15:30
Official launch and demo

**Tuesday, November 27**
13:00 — 13:30
15:00 — 15:30

**Wednesday, November 28**
10:00 — 10:30
11:30 — 12:00
13:00 — 13:30
15:00 — 15:30

**Thursday, November 29**
10:00 — 10:30

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