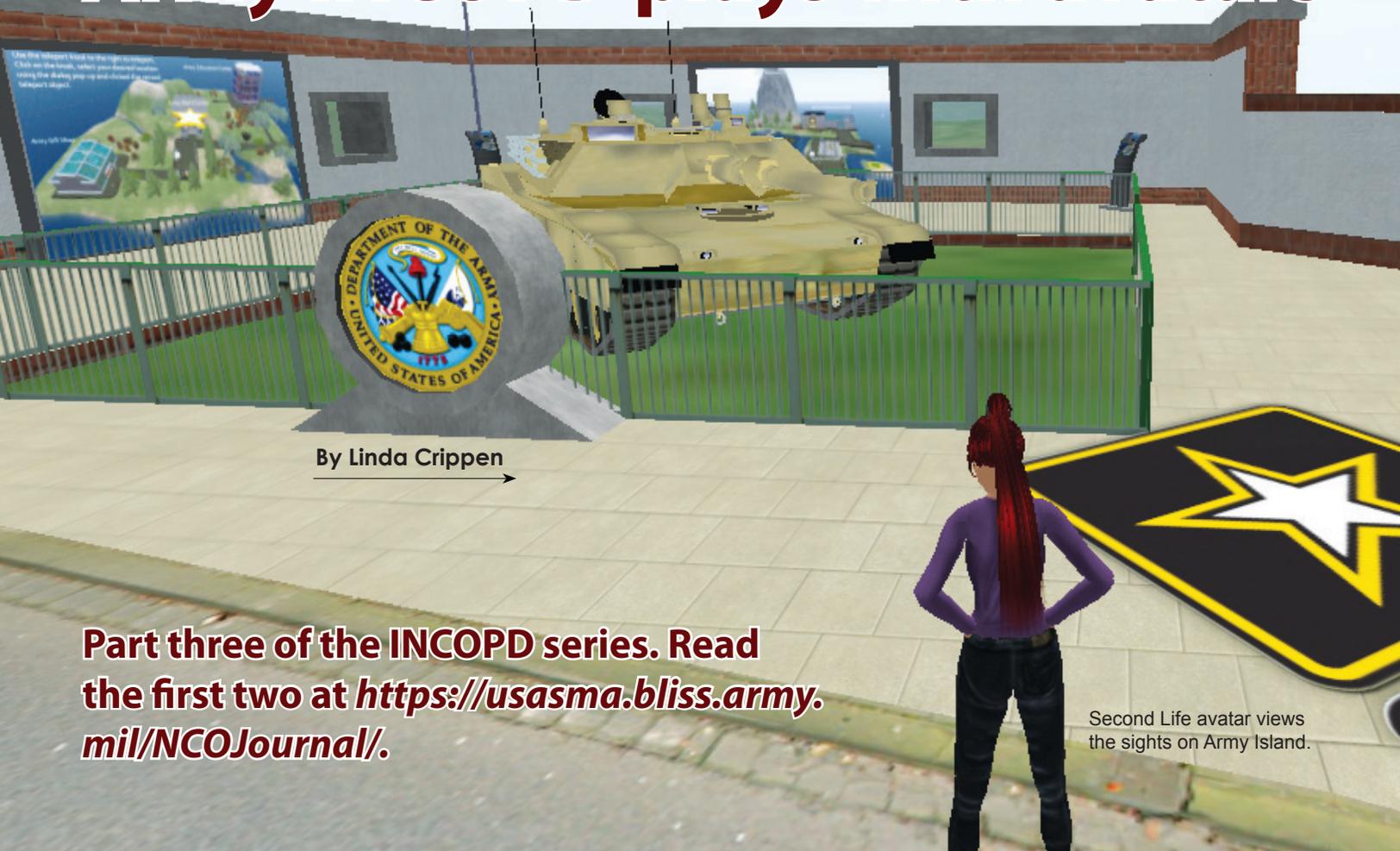


Let the (Virtual) Games Begin!

Army INCOPD plays with avatars



By Linda Crippen

Part three of the INCOPD series. Read the first two at <https://usasma.bliss.army.mil/NCOJournal/>.

Second Life avatar views the sights on Army Island.

Intelligence reports indicate an enemy cell has announced plans to attack a political target within a classified Afghan province. Foot and vehicular traffic must be monitored, and only approved and cleared vehicles may pass through the main thoroughfare downtown. All individuals must be checked before moving through the checkpoint. A roadblock must be constructed to deter insurgents' infiltration within key, friendly locations. Concrete barriers, concertina wire and military vehicles should be arranged in such a way so foot and vehicular traffic cannot pass freely without inspection.

This scenario is all too familiar for many Soldiers who have served in Afghanistan or Iraq, but this hypothetical setting is actually taken from a checkpoint learning exercise located in a virtual world, which simulates a particular environment that is accessible to multiple users via the Internet. These worlds may also be referred to as simulated or digital.

Considering Soldiers' current participation in both real-world locations and their hostile settings, preparing for similar events and circumstances is imperative. But, logistically, it's not always possible to train every single Soldier in a real-life environment before deploying. Part of the Learning Innovations and Initiatives Division staff at the Institute for Noncommissioned Officer Professional Development is evaluating this technology as well as the impact and effect of it on Soldier training and education.

"When I first got here from G-7, I was evaluating regulations and concept papers for their impact on training," said William Grant, LIID training concepts and strategies analyst, explaining that before the Army G-7 group moved to form the INCOPD, some of them had been commissioned by the previous command-

VIRTUAL WORLD PLATFORMS

Both Second Life and Active Worlds are online 3-D virtual worlds that allow users to interact with others in a virtual or computer-simulated setting. Users can create avatars to represent them and build 3-D worlds, games, training scenarios and even collaborate professionally. Although many users log on to interact and play socially, there are a growing number of corporations and universities employing this technology for training and operational purposes.

As Second Life creator Linden Lab's Web site states, the virtual world is "where individuals jointly inhabit a 3-D landscape and build the world around them. Today this experience, known as the Second Life world, has a rapidly growing population of residents from around the globe, who are creating and inhabiting a virtual world of their own design."

Similar to Second Life, Active Worlds boasts not only gaming and socializing opportunities but also worlds dedicated to educational endeavors.

In keeping with demands from academia, Active Worlds launched the Active Worlds Educational Universe. According to its Web site, "AWEDU is a unique educational community that makes the Active Worlds technology available to educational institutions, teachers, students and individual programs in a focused setting. Via this community, educators are able to explore new concepts, learning theories and creative curriculum design, and discover new paradigms in social learning."

On a slightly different note, Teleplace works within virtual world platforms such as Second Life and Active Worlds to allow unique capabilities for file sharing. Teleplace (formerly known as Qwaq) touts its slogan, "Virtual spaces for real work," perhaps alluding to the gaming nature for which many virtual worlds are more popularly known. In a "culture of collaboration," Teleplace users can share files and collaborate in real time, even working



ing general of the U.S. Army Training and Doctrine Command, Gen. William Wallace, to evaluate virtual worlds and their use for the Army. So, for the past two years they have been "playing" in Second Life, Active Worlds and Teleplace.

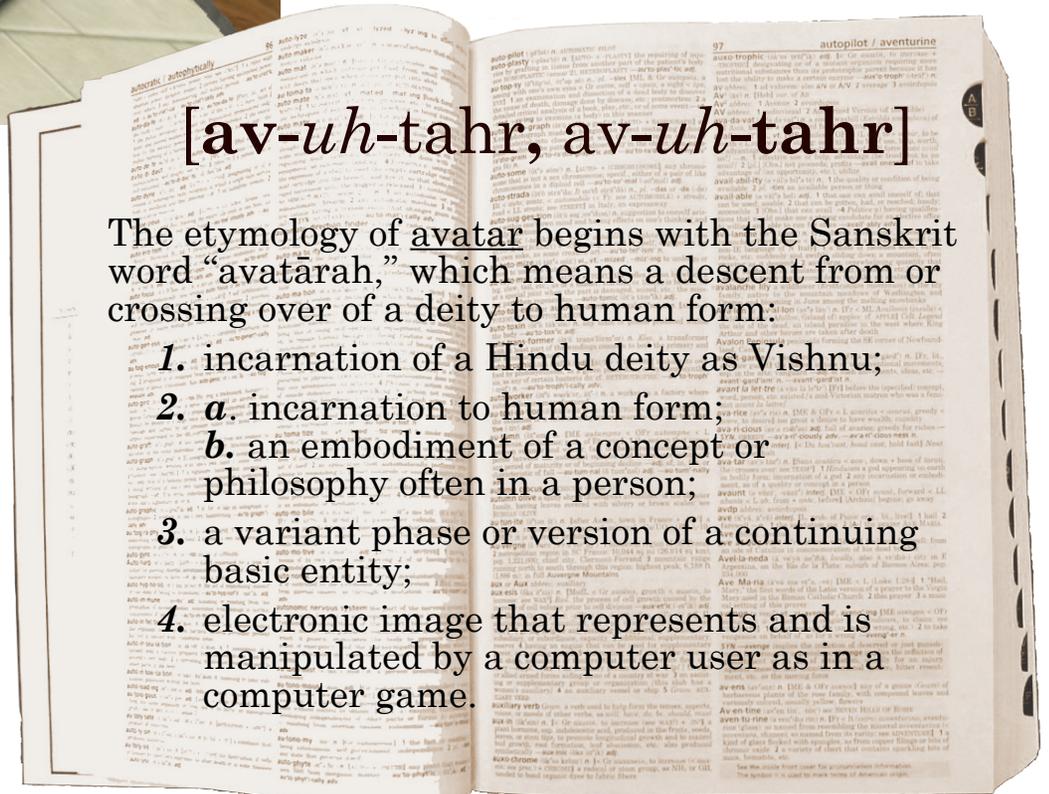
Grant and Linda Wahlman, concepts and strategies analyst and action officer for both Active Worlds and Teleplace, have helped develop much of the work space in all three virtual worlds.

"We couldn't even spell 'avatar' at the time," Grant joked, explaining that they've learned a lot since the beginning of the project.

[av-uh-tahr, av-uh-tahr]

The etymology of avatar begins with the Sanskrit word "avatārah," which means a descent from or crossing over of a deity to human form:

1. incarnation of a Hindu deity as Vishnu;
2. *a.* incarnation to human form;
b. an embodiment of a concept or philosophy often in a person;
3. a variant phase or version of a continuing basic entity;
4. electronic image that represents and is manipulated by a computer user as in a computer game.





Army Island in Second Life sports a gift shop where users can buy Army clothing and accessories through points earned from various tasks.

within the same document simultaneously. Additionally, users aren't required to have the specific software installed on their computer in order to work in the project document.

Teleplace's vice president, Remy Malan, explained that the company is focused on providing collaboration in a virtual-world context. "While there are a number of different kinds of virtual worlds, Teleplace itself is very much focused on collaboration around people, documents and applications. It allows users to manipulate things, run applications together or manage documents while interacting with people having a voice-, Web- or text-style conversation," he said.

Perhaps the biggest obstacle in using these venues is the current connectivity issue in accessing social media Web sites from government computers. None of the virtual worlds listed can be accessed by a computer running on the government network. Information assurance needs to be maintained; however, many virtual worlds can be run behind firewalls.

With an updated directive memorandum regarding responsible and effective use of Internet capabilities, released Feb. 25, the hope is that these virtual world and social networking sites will soon be accessible on the Non-Classified Internet Protocol Router Network, better known as NIPRNET.

SECOND LIFE

The Second Life Army Information Center can be accessed at the following short uniform resource locator (sURL): <http://slurl.com/secondlife/Army%20Information%20Center/128/92/30>, accessible to any user with a Second Life account. New accounts are free to open, and avatars are easy to create with step-by-step instructions. Users wanting to build properties and sell items can subscribe to a paid, premium membership.

Second Life guests can explore the entire area,

22 islands in all, owned by the Department of Defense. When entering "in-world," as users say, you'll be greeted by the staff duty officer, Lt. Molino, an interactive robot (or bot for short), who can ask and answer questions as well as give tours of the island. Bots like Lt. Molino are designed to run automated tasks at a much faster rate than humans. But, Lt. Molino doesn't like being referred to as a bot and will correct users if referred to as such: "I'm a virtual Soldier and the best staff duty officer around here." Essentially,

bots like Lt. Molino can help users navigate the land and provide information when requested.

Once in-world, visitors can visit the welcome center, which helps orient newcomers. They can drive Humvees, learn and conduct land navigation, view a dignified transfer in the Chaplain's Center, walk through C-17 and C-130 aircraft, perform a tie-down exercise on aircraft, fly an Apache helicopter, parachute jump, learn about Somali pirates, or retrieve family readiness information. Users can also take quizzes to earn spendable points for accessory items like hats, backpacks and uniforms. A library offers a plethora of resources on almost any topic, and there's even a coffee shop.



Second Life users can parachute around the island and earn spendable points when they land on designated targets. The island offers numerous exercises to earn points.

The area hosts an education center as well as an entire island devoted to education. Several permanent resident colleges have tents set up on the island: Saint Leo University, Fla.; Penn State; Mercyhurst College, Pa.; Coastline Community College, Calif.; Dallas Community College, Texas; among others. Most of the schools have in-world campuses and teleports linked directly to their school Web sites.

A conference center is located on the main island, but this access is by invitation only. In addition, there are several classrooms and meeting rooms. Grant explained that if groups want to reserve a room for meeting space or have questions about the virtual world activity in general, they should contact him at INCOPD at (757) 788-5357 or e-mail wt.grant@us.army.mil. Alternatively, each of the islands has a TRADOC stand so users can contact INCOPD through those as well.

Grant said Second Life is the most populated virtual world out there, and it was initially selected as a public outreach mission. “Our public outreach kind of died off with recruiting command not wanting to participate with Sodom and Gomorrah,” the term Grant uses to refer to some of the adult or mature content areas of virtual worlds and social networking.

“We don’t do any direct recruiting. [However], the day we opened to the public, a female avatar dressed in an evening gown with jewelry asked if I could help her; she was interested in becoming an Army nurse. It’s going to happen whether we want it to or not,” he said, alluding to the Army’s overall acceptance of the technology.

ACTIVE WORLDS

The activities located in Active Worlds are slightly different from those in Second Life. First of all, getting into Active Worlds can only happen by invitation. Secondly, the exercises and atmo-

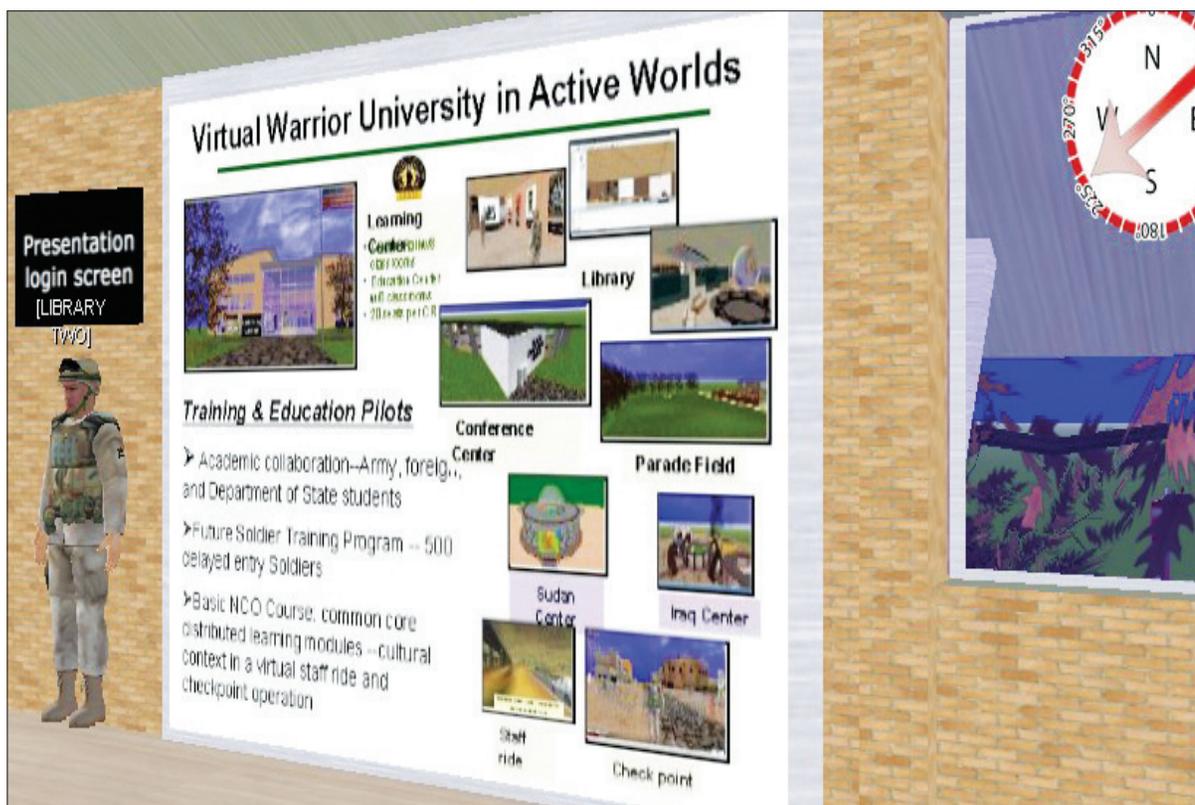
sphere, in general, seem a bit more serious. Education seems to be the focal point in Active Worlds.

Grant and Wahlman explained that one of the most recent activities they’ve implemented is a staff ride. Staff rides give Soldiers an opportunity to study an event that took place, evaluate the actions and strategies used, and review lessons learned. A favorite location for real-life staff rides is Gettysburg, Pa., for example. Logistically, however, the Army is unable to send all Soldiers on a staff ride, even when a course is supposed to include one, such as the Advanced Leader Course.

Perhaps the *pièce de résistance* is the virtual staff ride based on the 2005 Traffic Control Point 541 incident. The highly publicized incident involved an Italian journalist who had been kidnapped, recovered and was being transported by Italian secret agents. The Soldiers at the checkpoint did not have information about the operations or movement of the Italian agents, and vice versa. Furthermore, the checkpoint had initially been setup to facilitate an ambassador’s travel, unrelated to the shooting incident. The virtual staff ride based on the incident explores how the events unfolded and the Soldiers’ use of escalation of force. A copy of the U.S. incident investigation for CP 541 may be found on wikisource.org, as well as other Internet Web sites.

Grant and Wahlman said that the scenario is a great example of the way things are today, because at CP 541 was a specialist who had to make decisions that had global impacts. “He did everything right, and it was good. It’s a really good lesson for Soldiers because they see that he followed his instructions. The Soldiers did what they were supposed to out there, and they acted appropriately,” Grant said. The sequence of events demonstrates how Soldiers can do everything right according to their training, yet outside influences can send the momentum off track.

“People who have seen CP 541 have checked our work,”



Active Worlds is available by invitation only. TRADOC’s Active Worlds provides a host of educational resources: a virtual library, study rooms, a conference center and meeting spaces. There are several virtual exercises that users can try, like driving Humvees and constructing a checkpoint. After each exercise, users will receive feedback regarding their performance.



Beginning screen for Control Point 541 virtual ride in Active Worlds, which is based on events that occurred on Route Irish in Baghdad, Iraq.

Grant explained. “We had the people at the Combined Studies Institute, Fort Leavenworth, Kan., provide us their computer pictures that they had for this staff ride; although, theirs was not as interactive.”

CSI helped Grant and Wahlman develop an interactive checkpoint exercise, also based on CP 541 — the scenario at the beginning of the article is based on this exercise. They enlisted the help of Soldiers who recently returned from the area to design the look and the feel of the buildings to make them right.

“It’s close enough that you can see what it’s like,” Grant said. The group is now working on implementing maps and terrain features to duplicate visual effects of the environment. “If we can translate that into a virtual world, that’s saying we can take this staff ride that we’ve got and tomorrow we can say we’ll start mapping the terrain at Gettysburg and setup that staff ride. We could do Normandy, just about any place. So, I can take somebody out in California, who has never been out of the state, and show them Gettysburg and walk them through the battlefield. The point is that you can impress that upon somebody.”

TELEPLACE

Teleplace offers some unique utilities that are not in other virtual world settings. Avatars can be used to signal, gesture, wave, point (an indicative laser will shoot out from the avatar to the object) and move. So, one of the nice capabilities in this environment is that users can use non-verbal cues as ways of communicating. They can point to something and say, “Hey, what do you think of that,” or point to a document or something happening to get another user’s attention. Malan explained, “When I say ‘that’ while I’m pointing, the context of what ‘that’ is becomes pretty clear.”

Likewise, users have the ability to use Web cameras to view other users or show or demonstrate something by camera, which is another powerful way to

do things rather than just relying on verbal communication alone.

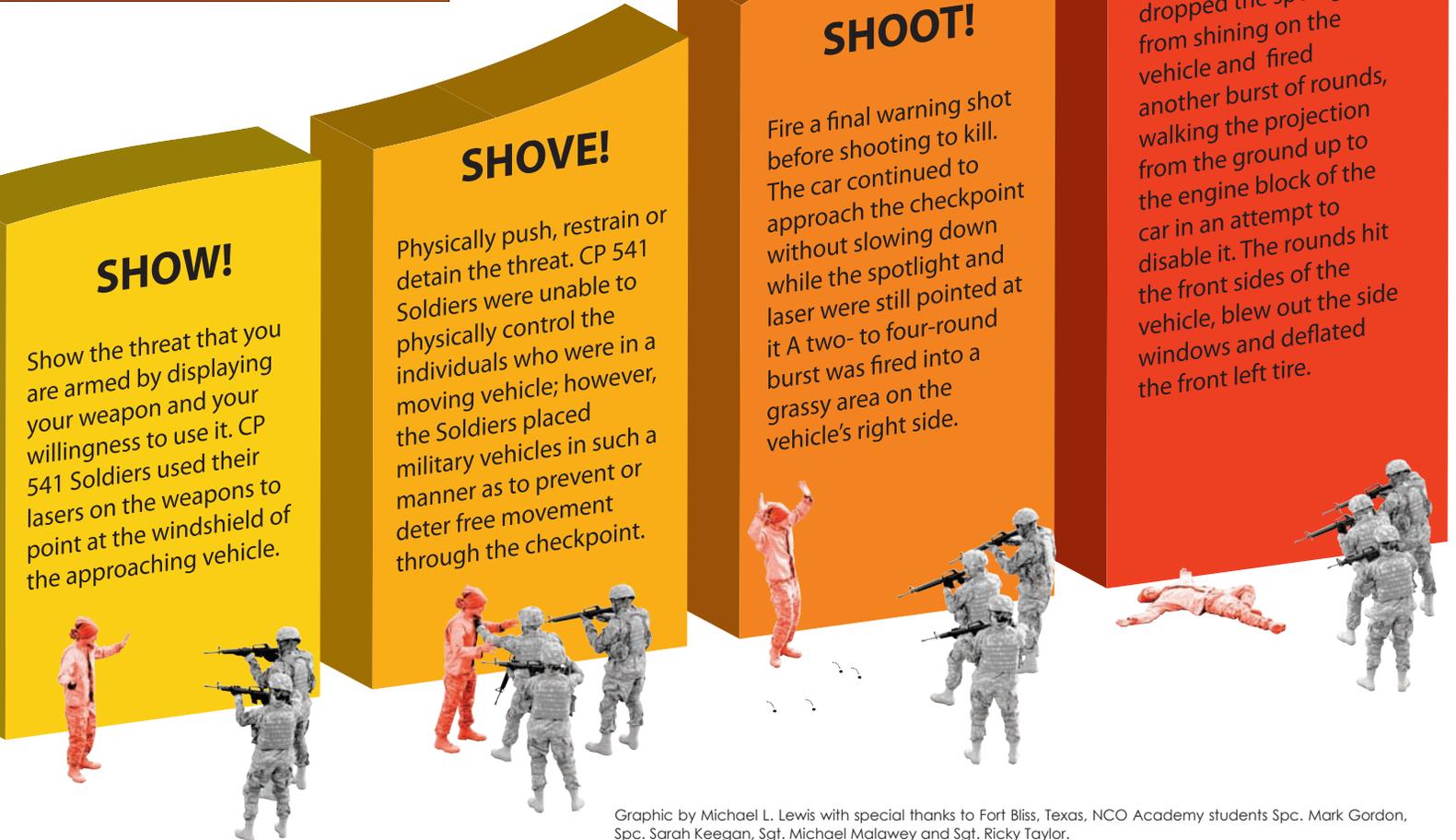
“The main idea behind Teleplace is it allows us to drag and drop applications and documents into the environment. We can also do things like bring people along to places,” Malan said. “If I wanted to show you something or there was a large group of people and I didn’t want to get into the classic herding cats, having people wander off, I could do something like lead the meeting.” The meeting leader can control the other members in the group so they stay in lockstep. Essentially, whatever action I do, you’ll notice the other avatar follows right along.”

Additionally, document sharing can be as fluid as a conversation between collaborators, as Malan and Wahlman demonstrated with a walk-through of Teleplace. “If I want to take over from [my partner], all I have to do is click in the document, and I become the person who’s got control of



TRADOC’s Teleplace audio visual project room contains different types of educational materials, including high-quality video as well as file sharing and simultaneous document manipulation.

ESCLATION OF FORCE AND CP 541



Graphic by Michael L. Lewis with special thanks to Fort Bliss, Texas, NCO Academy students Spc. Mark Gordon, Spc. Sarah Keegan, Sgt. Michael Malawey and Sgt. Ricky Taylor.

the application. [My partner] can take control back from me by just clicking in the document. It's a very powerful, very fluid kind of metaphor for allowing people to be able to share whether it's information or an application," Malan said.

Wahlman explained that placing resources into this environment is as easy as dragging and dropping files. "Simply zip the files, place them on the bookshelf, and the Teleplace reps will convert the files into the correct format for us. Everything is just a drag and drop from your computer. You can place them anywhere you want. You can make as many as you want," she said.

The collaborative versatility of Teleplace is unprecedented. Malan explained that the organization is very active in the government sector. "Along with TRADOC, we also have work that's underway with the Air Force Air Education Training Command, at Randolph Air Force Base near San Antonio, Texas."

Other Teleplace projects include the Department of Veteran Affairs, which involves helping veterans acclimate back into civilian society using virtual world capabilities. The Navy also has projects in Teleplace, including combat submarine training with the Naval Undersea Warfare Center, headquartered in Rhode Island.

Although INCOPD's continued efforts within virtual worlds remain unsure at this point, the hope is that interest and utilization of this technology grow, especially its use in supporting and enhancing Soldier training and education. For questions or information about Teleplace and Active Worlds, contact Linda Wahlman at linda.wahlman@us.army.mil. 

This article is third in a series on INCOPD. Future articles will detail the mission of the other divisions within the INCOPD. E-mail Linda Crippen at linda.crippen@us.army.mil.