You're a United States Army soldier in Bosnia-Herzegovina, and a Humvee in your platoon has accidentally struck a civilian vehicle and injured a young child.

A soldier stands, awaiting your orders on whether to continue with the mission or call for Medivac assistance.

"Sir, we should secure the assembly area," he says -- a platoon already in position is expecting your arrival as backup.

Along the cobbled streets, a crowd has gathered. A TV crew is now on the scene. A helicopter circles overhead. Tension mounts.

Except it isn't real. None of it is.

It's all part of an elaborate high-tech simulator called Mission Rehearsal Exercise (MRE), being developed by a contractor for the U.S. military to help train soldiers heading for combat, peacekeeping and humanitarian missions.

It reflects a larger Pentagon mandate to use technology to train the video game generation now entering the service.

Developers at the Institute of Creative Technologies (ICT) -- which created MRE -- are working in conjunction with storytellers from the entertainment industry; technologists and educators from the University of Southern California (USC); and Army military strategists. The Los Angeles, California-based ICT was formed in 1999 to research the best types of simulators to be used by the military.

The more compelling the experience for users, the more realistic and memorable the training will be, says Bill Swartout, director of technology at ICT, pointing out the rationale for using Hollywood writers: The emotions expressed by the virtual characters in the simulator can be adjusted with the click of a mouse.

The military is so convinced that technology will enhance its training methods that more than $45 million may be spent on the ICT project between 2000 and 2005.

"Since the end of the Cold War, particularly since September 11, the kinds of operations the military is getting involved in has expanded drastically," says Swartout.

The five-minute scenario is projected onto a 150-degree movie screen, complete with 10.2-channel audio that creates floor-shaking sound effects.

To enhance the sense of reality, smells including burned charcoal can be pumped into the room. Participants can gesture and touch objects and elicit responses in the simulator. The machine also uses voice-recognition technology and different languages to allow participants to converse with the characters they encounter.
Researchers have spent considerable time trying to make this artificial intelligence respond in unpredictable ways so the experience is slightly different each time the system is used.

As a result of its military research, ICT is working on two commercial games, slated for release in the next two years.

No type of simulator or technology is intended to replace real-world training, says Swartout. Instead, the experience is meant to familiarize soldiers with some of the customs, cultural factors and situations they may encounter in another country, many for the first time.

Swartout also notes that as the conflict in Afghanistan shifts to one of peacekeeping or humanitarian efforts, this simulator can act as a teaching tool for disaster aid.

Brig. Gen. Steve Seay, commander general of the Army's Simulation, Training and Information Command unit (STRICOM) says he agrees with Swartout that soldiers are statistically better-prepared for actual encounters on the ground if they've had some kind of high-tech training beforehand.

"It doesn't take the danger away, but it makes them more confident," says Seay.

Although the ICT simulator currently is capable of displaying only the one scenario, Seay says other situations are being developed to train soldiers for circumstances too dangerous for real-life training -- for example, a chemical spill.

"Many of our soldiers are computer literate and grew up with computers," says Seay, referring to the youthful members of the military as the "twitch generation." "We are creating the type of technology that allows us to embed a soldier in any environment."

Seay says that by 2008, the military hopes to take the experience off the movie screen and compress it into a helmet, which users can wear to experience virtual reality anytime, anywhere.

Seay also dismisses the notion that soldiers will become desensitized to real combat if they train through virtual reality and games, saying it's no different from seeing a battle take place on TV.

Independent of the ICT simulator project, the Office of the Joint Chiefs of Staff also has directed the development of strategic games for its military personnel in the past few years, games intended to increase awareness of a team-fighting approach.

One of these games was released in commercial form in late October ("Real War"), and is based on the official version ordered by the Joint Chiefs called "Joint Forces Employment."
The only difference between the two versions is that the official one contains more learning objectives and the player only has a finite number of military resources -- tanks, planes and battleships. Visually, the game-play is nearly identical.

Developed by Rival Interactive Inc. and published by Simon & Schuster, "Real War" is particularly notable for its premise -- a U.S. war against terrorism -- created entirely before September 11.

The aftermath of the attacks on New York and the Pentagon "gave me the willies, to be honest," says Jim Omer, president of Rival Interactive. "It bothered us a little to be associated with those heinous events, but we hope people will take away some positives from it. We never intended in any way to exploit the situation."

In the game, a terrorist cell of the Independent Liberation Army (ILA) has attacked U.S. targets. This prompts a response from the military with obvious parallels to what has happened since September 11.

Players can assume the role of the U.S. military or the ILA. But the ILA has a military strength comparable to that of Washington to make the game fair -- so it isn't completely reflective of the present conflict.

Omer says that although the game's designers labored over whether to continue with an October release date, no changes were made after September 11.

"Everybody took a deep breath, but without any coercion, we all felt the game was very patriotic," says Omer, who lives just a few miles from the Pentagon, one of the targets on September 11. "Initially we were concerned that it might be too patriotic, but that's actually worked out for us. Everyone we've shown it to has no problem."

And Omer says that while he and his associates weighed possible security concerns in releasing the game, none of the information contained in it is classified, and the military has been supportive of the decision.

Omer goes on to say that he has received a lot of positive feedback, especially from users who say they enjoy being able to live vicariously through the game and defeat the terrorists. But several online game reviews of "Real War" have criticized it for not being realistic enough, calling the movements jerky and cartoonish. Omer defends the game, saying it's meant to be a strategy challenge, not an actual simulator. The game is rated "Teen" because of its lack of gore.

"It can't replace any real training," says Omer. "But what it does do is allow the military to prepare and rehearse before they get into any situation."