

CHOAS

Combat Hunter Action and Observation Simulation

2010-2011

The Combat Hunter Action and Observation Simulation (CHAOS) was part of ICT's work on the Future Immersive Training Environment (FITE) Joint Capabilities Technology Demonstration (JCTD) and its goal of developing next-generation training for infantry small units. Located at the Infantry Immersion Trainer (IIT) at Camp Pendleton, CHAOS demonstrates advanced capabilities in immersive training for a mixed reality environment.

CHAOS incorporated mixed reality and immersive techniques, including the ability to interact with virtual characters and use of a storyline to drive participants towards specific choreographed experiences.

ICT developed a multi-room installation for the CHAOS environment that represents a house compound in Helmand Province, Afghanistan. The interior and exterior settings include a mix of real and virtual elements. ICT also developed virtual characters that can interact with the infantry squad and each other in one area of the compound. The virtual characters are part of a scenario that requires the squad to apply the techniques of tactical questioning, information gathering and acute observation in order to be successful in the CHAOS mission.

One of the key issues dealt with is decision-making under stress and chaos on the battlefield, when squads must be prepared for both lethal and non-lethal engagements. Instead of dictating right and wrong times to use lethal vs. non-lethal tactics, techniques and procedures (TTPs), squads are asked to apply good judgment about rules of engagement, escalation of force, and shoot-no shoot choices depending on the situation and the appropriateness. Key to the learning experience is the after action review (AAR) conducted outside of the CHAOS environment. The AAR is designed to help the squads understand their performance and give them confidence for future missions.

ICT collaborated with military subject matter experts, government personnel, training developers, consultants and contractors to develop the FITE scenarios, including the CHAOS scenario, which runs 5-10 minutes in length and is replayable to allow for multiple paths through the scenario. The scenario is designed to be set up in the IIT beforehand and continue in the IIT afterwards, as appropriate.



At the University of Southern California Institute for Creative Technologies leaders in artificial intelligence, graphics, virtual reality and narrative advance low-cost immersive techniques and technologies to solve problems facing service members, students and society.