MetaVR Virtual Reality Scene Generator Selected for U.S. Air Force JTC TRS Close Air Support Simulator

Brookline, MA, February 22, 2016 - MetaVR announces that it was selected as the 3D real time visualization provider in the award of the Joint Terminal Control Training and Rehearsal System (JTC TRS) contract to QuantaDyn Corporation by Department of the U.S. Air Force – Air Force Material Command. This award supersedes a limited contract for the JTC TRS program that the U.S. Air Force awarded to Fidelity Technologies in February 2009.

This partial dome simulator, which uses MetaVR visual channels, geospecific 3D terrain, and culture and entity models, immerses the joint terminal attack controller (JTAC) or forward air controller (FAC) trainee in a 3D real-time virtual battlefield. These close air support simulators can be connected to the U.S. Air Force A-10 Full Mission Trainers (FMT) which are already standardized on MetaVR 3D visuals.

QuantaDyn's JTC TRS solution under contract is comprised of commercial off-the-shelf (COTS) components including QuantaDyn's DIScover, Immersive Display Solutions' immersive dome display system, Battlespace Simulations' (BSI's) Modern Air Combat Environment (MACE), and MetaVR's Virtual Reality Scene Generator™ (VRSG™) which provides the out-the-window and sensor visuals for the dome display, a ROVER device, and emulated military equipment.

The system uses BSI's MACE for the instructor-operator and role-player stations, as well as BSI's Viper DIS Radio for all simulated radio. MACE provides computer-generated/semi-automated forces with call-for-fire, 5-line, and 9-line interfaces. VRSG, when coupled with MACE, differs from game-based training systems in that it can simulate highly contested/degraded battlespaces including environments with radar, GPS and communications jamming, sophisticated Integrated Air Defense Systems (IADS), and adversaries with peer or near-peer capabilities in expansive, round-earth, geospecific virtual worlds.

The awarded system was evaluated during the acquisition process. The system evaluation involved tests in the form of four operational training scenarios designed to ensure that each system requirement was met. The scenarios used geospecific terrain built by MetaVR. All major aspects of the simulator were assessed simultaneously, running as they would be during real-world training events.

JTC TRS requirements include scenarios that take place on geospecific synthetic terrain of Afghanistan in the southern region of the Kabul province. To fulfill this requirement, MetaVR modeled villages to build up culture and roads to align with terrain imagery at the required coordinates. Culture includes over 2,000 structures instanced from over 160 newly built Afghan building models and over 11,000 instances of tree models. These models feature multiple damage states in support of the newest U.S. Joint Fire Support Executive Steering Committee (JFS ESC) Memorandum of Agreement (MOA). The resulting built-up area was compiled into MetaVR's whole-country Afghanistan virtual terrain.

JTC TRS requirements call for 495 models of specific domestic and international military vehicles and munitions. Over 1,000 models from MetaVR's 3D model libraries met those requirements; many new models were built specifically to meet the requirements. All terrain and 3D models MetaVR built to fulfill the requirements for the JTC TRS competitive evaluation will be available in the forthcoming release of VRSG version 5.11.

The JTC TRS is designed to support JTAC trainees in the performance of Terminal Control, Terminal Guidance, Close Air Support and Joint Fires operations training for the Combat Air Force (CAF), Special Operations Command (SOCOM), Air Force Special Operations Command (AFSOC) and Tactical Air Control Party (TACP). Under the contract, QuantaDyn will initially install and support two JTC TRS devices in 2016, with additional options for 30 more devices.

MetaVR VRSG is used in multiple accredited training systems to simulate the functionality needed for U.S. and NATO JTAC/FAC warfighter training in joint fires close air support exercises ranging from desktop systems to dome systems.

For more information, see: http://www.metavr.com/casestudies/jtac.html.