



## **I/ITSEC 2019: MetaVR demonstrates Joint Fires training scenario with low cost deployable training systems**

*The scenario will run on MetaVR's notional F/A-18 Block III Part Task Mission Trainer cockpit and a Deployable Joint Fires Trainer*

**Brookline, MA, December 2, 2019:** MetaVR will showcase a new Joint Fires training scenario capability at I/ITSEC 2019, using a notional F/A-18 Block III Part Task Mission Trainer (PTMT) physical cockpit networked with its new Deployable Joint Fires Trainer (DJFT).

The scenario will use MetaVR's Virtual Reality Scene Generator (VRSG)-rendered Fallon Range Training Complex (FRTC), for joint air-land training in support of a peer and near-peer armor-against-armor engagement. It will enable Joint Terminal Attack Controllers (JTAC) and Forward Observers (FO) to train with F/A-18 pilots in a quickly evolving scenario that includes enemy and friendly land forces, and enemy force air targets. The near-peer adversary roles will include AI-generated air defense and electronic warfare components designed to mimic a complex adversary.

The F/A-18 Block III PTMT is a prototype to-scale physical cockpit simulator designed and built under an internal MetaVR development program. Designed as a low-cost, portable, quick-deploy training solution, the system uses representative aircraft hardware and can be configured for training on 4.5 generation combat aircraft. It can function as a standalone training solution as part of joint, networked training operations. In addition to VRSG and MetaVR's 3D content, the PTMT will feature Battlespace Simulations' (BSI's) Modern Air Combat Environment (MACE) for scenario generation, constructively generated forces, full spectrum real-time physics calculations, and tactical datalinks integration.

The DJFT, which will be networked with the F/A-18 PTMT, is a newly designed system that provides a quick deploy capability for JTACs and FOs to train alongside fixed- and rotary-wing aircrew within a fully immersive, joint training environment. The modular plug-and-play DJFT is comprised of three or more networked stations – aircrew operator station (AOS), JTAC/FO role player station, and the instructor operator station (IOS) - each fully contained within two-person portable ruggedized cases. The DJFT contains all the hardware required to run dynamic, full-spectrum JTAC/joint fires training scenarios, including laptop, GPS receiver, and communication systems. In addition to VRSG and MetaVR's 3D content, the solution features BSI's MACE for generating air and ground entities, threat planning, and 5-Line, 9-Line, and call-for-fire interfaces including digitally aided close air support (DACAS).

The demo scenario with these two simulation solutions will take place on MetaVR's geospecific 3D terrain of the FRTC. JTACs and FOs will train with F/A-18 pilots (one in the F/A-18 PTMT, the other at the DJFT aircrew station) in a quickly evolving mission.

The scenario will begin with a peer-to-peer or near-peer armored company level operation. The JTAC will pass target information to the F/A-18 pilot via DACAS for neutralization. While the F/A-18 approaches the target a hostile anti-aircraft threat will unmask, entering the scene. At this point the scenario will shift to a Suppression of Enemy Air Defense (SEAD)



operation, with the JTAC calling in surface fires to neutralize the new threat and allow the F/A-18 to prosecute its original target. Active electronic warfare and air defense will be employed by the adversary forces to attempt to thwart the friendly forces.

The pilot in the F/A-18 PTMT will wear the HTC Vive Pro system running VRSG, which will be augmented with Collins Aerospace's Coalescence mixed-reality training system; the pilot will be able to see their own hands and interact with the cockpit controls in the physical environment while immersed in the synthetic environment for the out-the-window view.

The scenario will be facilitated by D3A Defence, a veteran-run privately held company, which with combined experience of over 50 years of military service, brings extensive military knowledge and skillsets to all levels of training and simulation.

"This training capability was developed by a joint fires subject matter expert at MetaVR in response to what we see as a serious gap in the military training market," Garth Smith, President, MetaVR, commented. "The US Navy trains its pilots on the Fallon range, where training operations are carried out against a limited number of 'known' targets. What we are offering here is a geospecific 2 cm per-pixel resolution 3D terrain of the FRTC, with a range of simulated targets inserted into the scenario.

"This provides the ability to train against 'unknown' targets in quickly-evolving scenarios that can shift from JTAC, FO, Joint Fires Observer operations, to SEAD and back again, with all trainees operating within a common, geospecific round-earth terrain."

***MetaVR is exhibiting at I/ITSEC on booth #1348.***

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#### **About MetaVR**

MetaVR, founded in 1997, develops commercial PC-based software for the military simulation and training markets, featuring high-speed 3D visualization content and rapid creation of networked virtual worlds using real-world data. MetaVR's real-time visual systems provide the fidelity of geospecific simulation with game-quality graphics. Users can build (with real-world photographic imagery, elevation data, and feature data) high-fidelity virtual worlds with our terrain generation tools, and render in real time, at 60Hz frame rates, the resulting virtual world with our real-time 3D visualization application, Virtual Reality Scene Generator. MetaVR systems are used for applications such as UAS/RPA trainers, manned flight simulators, mission planning and rehearsal, joint fires and JTAC simulation training, urban operations training, and emergency response management training. For more information visit [www.metavr.com](http://www.metavr.com).

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