

MVRsimulation.com

NEWS

WINTER 2022

Greetings from the team at MVRsimulation,

As we come to the end of a very successful year, we look forward to meeting with friends and colleagues at I/ITSEC in Orlando this week.

You can find us in booth #1187, where we will be demonstrating two fixed-wing [Part Task Mission Trainers](#) (PTMTs) networked with one full [Deployable Joint Fires Trainer](#) (DJFT) simulator (newly Interim Accredited - see below) in mixed reality high-speed flight, JTAC, Close Air Support (CAS), and RPAS operator training scenarios – all supported by geospecific terrain rendered in [Virtual Reality Scene Generator](#) (VRSG).

The DJFT will have a flexible configuration incorporating an Instructor, JTAC Observer, and Role Player MQ-9 Reaper operator providing mission overwatch with a KLV metadata based sensor feed. The two PTMTs will be networked in as CAS Role Players configured as a A-10 and F-18. Full spectrum training scenarios will be running, including exercises such as Digitally Aided CAS (DACAS) in accordance with current joint tactics, techniques and procedures, match sparkle target identification between JTAC and CAS aircraft, and full NVG-supported day/night transitions. All missions will showcase full integration of partner technologies, including the new Varjo XR-3 Focal Edition mixed reality headset, Battlespace Simulation's MACE, Sierra Nevada Corporation's SNC TRAX, and all physical/emulated hardware and software.

Critically, all DJFT and PTMT role players in each scenario will train in a shared virtual, dense urban area within VRSG's high-resolution, round-earth [Hajin, Syria terrain](#) - populated with dense culture.

Our Hajin terrain is built from geospecific high-resolution 50cm imagery from Maxar Technologies compiled with underlying SRTM elevation data at a 30-meter elevation post spacing. The source data is blended to underlying 1-2 meter source imagery of all of Syria. This means VRSG simulates the first-person virtual world for all trainees in the scenario from the same terrain – whether they are a JTAC on the ground looking at the horizon, an A-10 acquiring a ground target at 1,400ft, or an MQ-9 RPAS sensor operator performing overwatch at 50,000ft - and enables all trainees to identify and lock-on to the same 3D target entity for match sparkle training exercises.

Intrigued? Come and see for yourself: find us in booth #1187 all week.

If you won't be attending I/ITSEC, you can still experience our technologies first-hand. We have expanded our physical presence in 2022 to include a live, permanent demo room at our Union Ave, Sudbury, MA site. The demo room can host full, dynamic demonstrations of our simulators and software, and is also equipped to allow you to experience our simulators remotely, in real-time, via secure online meeting software. And for those looking to test out our equipment at their own site or base, we can bring our fully-portable equipment to you - either via SUV, commercial shipping, or in our brand new Mobile Classroom trailer! Full details below.

As always, we welcome comments, feedback and free-of-charge requests for new VRSG terrain, 3D models, or applications for our simulation hardware technologies. Please get in touch at support@mvrsimulation.com.

If we don't see you at I/ITSEC, we'd like to take this opportunity to wish all our friends, partners and colleagues a happy and safe holiday season!

With best wishes,
The MVRsimulation Team.

DJFT achieves Interim Accreditation:

The MVRsimulation mixed reality DJFT has reached a significant milestone: Interim Accreditation has been granted by the Joint Fires Support Executive Steering Committee for the system's first customer, the 4th Combat Training Squadron (CTS), USAFE-AFAFRICA Warfare Center.

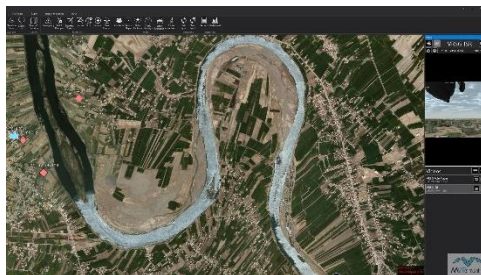
The U.S. Air Force interim accreditation enables the DJFT to replace terminal attack controls as authorized by Table 5.2.4.1 (Certification) and Table 5.2.5.2 (Qualification) of the JTAC MOA. The DJFT enables JTACs to use the simulator to log controls for currency that would normally be required as live events

The DJFT is a joint effort between MVRsimulation and Battlespace Simulations, Inc. and includes a TAA compliant Varjo XR-3 mixed reality headset at the heart of the system. The DJFT as accredited is a portable configuration consisting of a Role Player, Instructor Operator Station, and Observer Station system equipped with mixed reality head mounted display enabling 360 degree FOV; and integrated JTAC equipment (emulated/simulated SOFLAM, LRF, DAGR, IZLID 1000P, NVGs, IR strobe, signal mirror, ROVER/VDL, binoculars, PRC-117G, PRC-152).



Full spectrum Joint Fires and CAS training at I/ITSEC 2022 in booth #1187:

MVRsimulation is exhibiting at I/ITSEC 2022 in booth #1187, running networked demonstrations of the DJFT and two PTMTs. Both systems will be integrated with the Varjo XR-3 Focal Edition headset, allowing visitors to experience the future of military mixed-reality training, including real-time eye-tracking.



[Digitally Aided CAS](#)

Datalink messaging to enable Link 16 and VMF DACAS in accordance with current joint tactics, techniques, and procedures



[Match sparkle](#)

Day/night match sparkle training exercise between the Observer with IZLID and NVGs, and networked A-10 pilot Role Player



Fully networked

Add multiple additional Role Players, including MVRsimulation's Part Task Mission Trainer and the U.S. Air Force's MALET-JSIL Aircrew Trainer (MJAT), in networked and distributed training scenarios



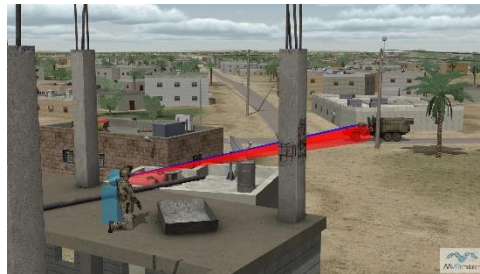
Emulated/simulated hardware

Integrated emulated/simulated hardware includes SOFLAM laser range finder, DAGR, IZLID, NVGs, IR strobe, signal mirror, ROVER/VDL, binoculars, PRC-117G and PRC-152 radios



3D terrain and models

VRSG provides geospecific terrain and 3D models, including 95% of the USAF's mandatory CAF DMO models list



Eye gaze visualization

VRSG and the XR-3 enable eye-gaze visualization, providing quantitative data for informed After Action Review

See VRSG demonstrations in partner booths:

MVRsimulation's VRSG will be providing high-resolution, geospecific terrain, and 3D models and culture for simulators and demonstrators in a number of partner booths at I/ITSEC, including:

- **ZedaSoft (#1473)** VRSG is providing visuals for four systems: the MILToC Role Player station, a Mockingbird UAS/RPA simulator, an Apache Mixed Reality Simulator, and new ZedaVR tool.
- **Battlespace Simulations (#1037):** VRSG is providing visuals and overlay for an ISR operator training system.
- **TRU Simulation + Training (#1201):** Experience the future of attack reconnaissance by flying the Bell Invictus 360 simulator, built by TRU in collaboration with Bell. Featuring VRSG visuals and 3D content.

- [Radiance Technologies](#) (on the BSI booth #1037): VRSG is providing visuals for an FMV, EO/IR sensor payload.

Recent sales:

VRSG remains a vital capability for our customers, with software maintenance renewals totaling more than 2,200 during 2022. These licenses will see VRSG continue to provide high-resolution, geospecific terrain, and 3D models and culture for long-time users, including the U.S. Air Force, the Air National Guard, U.S. Air Force Reserve Command, multiple European militaries, and U.S. research and development programs.

All users on active software maintenance benefit from newly added VRSG features and improvements, access to all real-time models library (which includes 95% of the U.S. Air Force's mandatory CAF DMO list), and new terrain datasets as soon as they are available for download.



110 new VRSG licenses have been delivered for F-16 Block 30 Mission Tactics Trainers at Lackland AFB and Tucson, AZ, ANGB during 2022.

[See More](#)



VRSG continues to provide visuals for the U.S. Air Force A-10 Aircrew Training System, with 392 software license maintenance renewals during 2022.

[See More](#)



A total of 548 VRSG software licenses were renewed in 2022 in support of U.S. Air Force MQ-9 Reaper training on the MALET-JSIL Aircrew Trainer (MJAT).

[See More](#)

New VRSG terrain:

A number of new terrain datasets have been added to VRSG - all built at no charge to end users and available for download by users on active software maintenance at no additional cost. As always, we welcome your feedback and requests for new terrain features and model - our user community helps us shape our technology development here at MVRsimulation, so please get in touch with any comments or new terrain/model requests at support@mvrsimulation.com.



New geospecific 3D terrain database of the country of Yemen, including, an inset of the Port City of Aden, added to Asia & Middle East Continent database.

[See More](#)



New 3D terrain dataset of Tonopah, Nevada, with .30 mpp resolution imagery from Maxar blended to the underlying 1 mpp CONUS++ imagery.

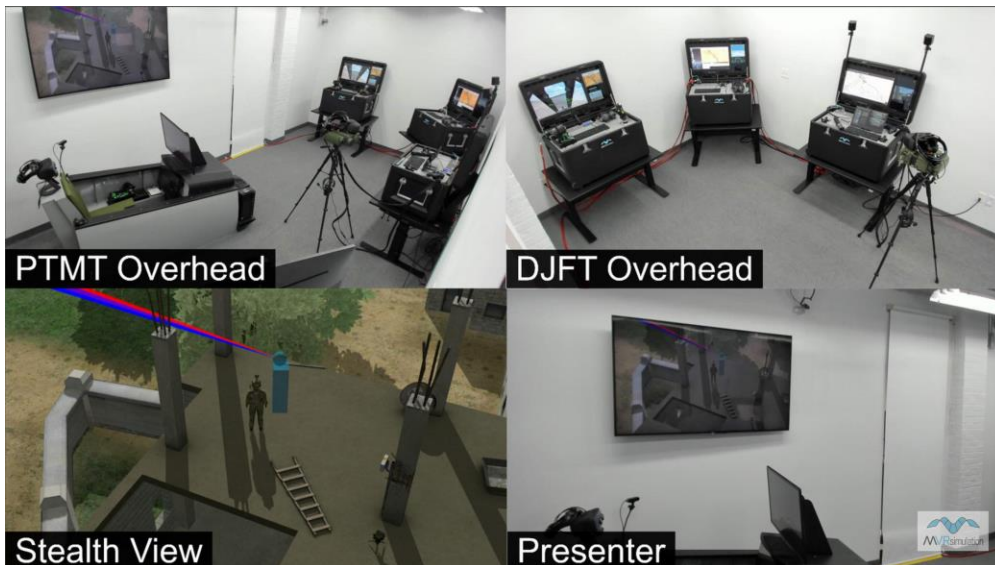
[See More](#)



New geospecific 3D terrain of Latvia, with 0.25 mpp resolution open-source imagery and a digital terrain model compiled at 10m covering the entire country.

[See More](#)

Introducing new virtual/live demonstrations:



We now offer users the ability to experience our simulators in real-time via secure online meeting software, Webex. Our Union Ave. facility in Sudbury, MA, is fully equipped to provide interactive remote demonstrations of the DJFT and PTMT, including live transmission of the Varjo Base (the view the wearer sees inside the XR-3 headset), the virtual world provided by VRSG, the full functionality of emulated and physical hardware and software systems, and remote simulator instruction capabilities.

Wherever your team is located – even if spread over the globe – our engineers will meet you in a single, virtual demo room to guide you through interactive mixed-reality demonstrations of all system capabilities. Depending

on requirements, we can also port-in our SMEs, and experts from Battlespace Simulations to provide instruction in a shared, collaborative virtual demonstration space.

We also have options for you to experience the simulators in person at our Sudbury site, or our team will travel to you. The DJFT is fully portable, and can be packed into a single SUV or shipped via commercial freight to your site. Just gather all your sim operators, instructors, and end-users to experience the power of mixed reality military training at your site of choice and our team will meet you there.

To arrange a remote demo, email us at demos@mvrsimulation.com

... and the new MVRsimulation Mobile Classroom trailer:

MVRsimulation now offers a fully-equipped [Mobile Classroom trailer](#), which contains both the DJFT and PTMT to provide a shared, collaborative virtual training space. The 8.5' x 20' enclosed v-nose trailer can support on-site training as a self-contained networked simulation environment. In addition to the DJFT and PTMT products, the classroom contains a stealth view for real-time eye gaze tracking, a tech storage closet, and three tables to support the DJFT cases.



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