MVRsimulation’s next generation Deployable Joint Fires Trainer (DJFT) supports datalink messaging to execute Link 16 and VMF Digitally Aided Close Air Support (DACAS) in accordance with current joint tactics, techniques, and procedures. This mixed-reality system is designed to provide a quick deploy capability for Joint Terminal Attack Controllers (JTACs) and Forward Observers (FOs) to train alongside fixed-wing, rotary-wing and RPAS aircrew within a fully immersive, joint training environment.

The internally designed modular plug-and-play system is comprised of three or more stations fully contained within two-man portable welded aluminium cases. Integrated with the Varjo XR-3 mixed-reality headset, the DJFT contains all the hardware required to run dynamic, full-spectrum JTAC/Joint Fires training scenarios, including all computers, MVRsimulation’s round-earth terrain server, emulated physical SOFLAM and IZLID, and simulated GPS receiver and communication devices.

Scenarios are run on Battlespace Simulations’ Modern Air Combat Environment (MACE) and MVRsimulation’s Virtual Reality Scene Generator (VRSG®). With the fully immersive environment the DJFT is designed to meet the U.S. Joint Fires Support Executive Steering Committee (JFS ESC) Memorandum of Agreement (MOA) accreditation for types 1, 2, 3, day, night, and laser controls.

**DACAS Capable**

MACE supports DACAS IAW as described in JFIRE Appendix E using real world datalink messages to execute both the Link16/SAWL message flow and the VMF message flow. Using MACE’s built in JREAP-C server or the raw VMF gateway, the DJFT can be integrated with live training scenarios. VRSG’s video datalink contains KLV Metadata compliant with the STANAG 4609 or MISB 0601 standard, enabling embedded sensor-points-of-interest and host platform track data within the video stream.

**Modular, reconfigurable, and transportable**

- Self-contained in two-man portable welded aluminium cases
- Train anywhere from a classroom, to a forward operating base or hotel room at short notice
- Windows 10-based high-end gaming systems comprised of COTS components and designed to be upgradable as technology advances
- Single-source power control for simple start-up.
- Can be run on 120-240 volt power outlets. Power cord can be updated for geospecific outlets
- Stations are networked via dual internal 10-Gigabit Ethernet switches. External network connections also provided.
- Case dimensions: 21” x 21.5” x 33.75”
- No lithium-ion batteries for air freight transportability
- No Wi-fi or Bluetooth for use in secure environments

**Designed to meet accreditation standards**

- 360 degree FOV throughout the entire mission including during the terminal phase of the control to assess the aircraft attack geometry
- Integrated form-fit-function laser target designator for laser accreditation
- Environmental sound and headset radios for communications
- Observer can read and write without needing to remove HMD
- Swappable hard drives for different classification zones
- MACE’s datalink capabilities along with VRSG’s KLV metadata permit the seamless integration of the DJFT with real world targeting software suites like ATAK/WinTAK and datalink message middleware like TRAX/ATRAX
**Observer Station**
- Integrated Varjo XR-3 head mounted display allows the user to be fully immersed in the virtual world while interacting with emulated physical SOFLAM and IZLID in the real world
  - Ultra-low latency, dual 12-megapixel video pass-through allows the user to be able to read and write without having to remove the headset
  - VRSG tracks the observer's head position and pupil location. Eye-track is exported via DIS and can be seen in real-time and saved to a PDU log for after action review (AAR).
  - Provides 360 x 360 FOV displays, enabling a fully immersive training environment to conduct Type 1 controls
- Form-fit-function emulated equipment:
  - PEQ-1B SOFLAM LTD
  - IZLID 1000P
- Notional emulated equipment:
  - PRC-117G or PRC-152 radio
  - Advanced GPS Receiver (C-EAGR)
- Communicate with all players as Observer via simulated radios

**Role Player Station**
- Dedicated to controlling fixed-wing, rotary-wing, and RPAS assets in the mission
- Fully interoperable with US Air Force MALET-JSIL Aircrew Trainer (MJAT)
- Trainee is immersed in the training scenario via the Thrustmaster HOTAS
- Communicate with all players as aircrew via simulated radios
- Control assets manually with HOTAS controls or by using 9 lines and 5 lines
- Control targeting pod, enabling video downlink for student to conduct sensor pod talk-ons
- MVRsimulation’s fixed-wing Part Task Mission Trainer (PTMT) can join the scenario as an additional aircrew role player (available separately).

**Instructor Operator Station**
- Provides full dynamic control of the scenario
- Has controls for UAS pod, 9 lines, 5 lines and Call For Fire
- Includes a terrain server that holds MVRsimulation’s round-earth VRSG terrain
  - Includes 2 swappable drive sets to support multiple classification environments
- Communicate to all players via simulated radios
- Control surface-to-surface fires, fixed- and rotary-wing assets
- Record current scenario to play back for after-action review (AAR)
- Interoperability networking for additional stations and external LVC training

**Low-cost commercial-off-the-shelf system**
- Inclusive of all costs within the continental USA:
  - US $375,000
- Delivered with Observer, Role Player, and Instructor Operator stations with all software licenses on pallets; cost includes two days of onsite training
- Shipping to, and training for, other locations provided upon request
- Individual station pricing:
  - Observer Station: US $145,000
  - Role Player Station: US $115,000
  - Instructor Operator Station: US $125,000

Pricing current as of May 2022, subject to change. Please send a request for quote to sales@mvrsimulation.com.