



U.S. ARMY M2 MTS

Bradley M2/M3 A2 ODS Maintenance Training System

Kratos performed technology refresh / upgrades to the U.S. Army M2/M3 A1 Hands On Trainers (HOTs) to the M2/M3 A2 Operation Desert Storm (ODS) configuration. Kratos provided engineering, mechanical & electrical design, developed drawing packages, and performed fabrication and assembled 27 Bradley HOTS including all options.

The M2/M3 A2 ODS HOT training system provides training in critical unit level maintenance tasks required for the tactical vehicle. The HOT system provides skill level development for system operation, fault diagnosis, troubleshooting, adjustments, removal/replacement, and servicing repair tasks.

Kratos refurbished the existing trainers, and retrofitted them with modern computers, I/O hardware, and various redesigned components and structural changes as dictated by the enhanced training tasks. The upgraded HOTs incorporated simulated components, cables, connectors

and mounting hardware to reflect the ODS vehicle and remove any non-ODS configuration items. It also was upgraded to add a dynamic visual system to the trainer's Integrated Sight Unit, allowing simulated visuals required by the training tasks, including performance of main gun and TOW bore sighting operations.

Purpose and Capabilities.

The HOTs functions as a physical and operational simulation of the M2/M3 A2 Bradley ODS turret for training maintenance personnel in the organizational maintenance of the tactical turret.

The simulation provides scenarios for system operation, fault diagnostics, troubleshooting, adjustments, removal and installation, and repair tasks at the field maintenance level for the Tube launched Optically tracked Wire guided(TOW) and Integrated Sight Unit (ISU), weapons systems, and drive systems. Simulations of all systems and test equipment, including the Set Communicator (SETCOM), Vehicle Test Meter (VTM), Breakout Box (BOB), Controllable Interface Box (CIB), Gun Simulator (TA 1201), and Grenade Simulator (TA 1202) are provided.

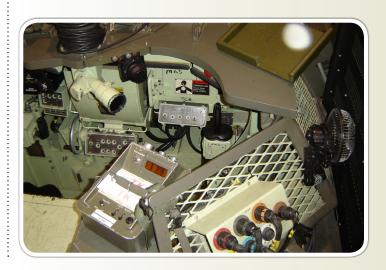
Only one Instructor/Operator is required to operate the system for training and to assist the student while performing troubleshooting exercises. Students can perform the following actions:

- Service ISU using purging techniques.
- Adjust gun elevation drive shift linkage, brake linkage, and brake interlock switch.
- Adjust TOW elevation drive shift linkage, brake linkage, and brake interlock switch.
- Adjust traverse drive shift linkage, brake linkage, and brake interlock switch.
- Adjust the azimuth encoder.
- Boresight the 25-mm gun, TOW, Eye-Safe Laser Rangefinder (ELRF), and night sight under conventional methods.
- Troubleshoot using a simulated Simplified Test Equipment (STE) SETCOM and a digital multimeter.
- Troubleshoot the TOW subsystem using simulated TOW 2 Subsystem Support-Test Set (T2SS-TS) test equipment (optional item).
- Use the tactical troubleshooting tools (TM schematics, multimeter, and Breakout Box (BOB) to perform Alternate Troubleshooting Procedures (ATP).
- Perform organizational level repair of the TOW launcher support and spindle assembly.
- Perform organizational level maintenance on the equilibrator.
- Manually and electrically operate the TOW lift actuator, TOW rotor, and 25-mm gun rotor.
- Manually and electrically operate the turret traversing system.
- View normal and malfunction scenes in the simulated gunner's eyepiece on the ISU.

About Kratos Training Solutions

Kratos Training Solutions specializes in assuring the readiness, reliability and operational effectiveness of Warfighter systems by supplying lifecycle Training Solutions to its defense, government and commercial customers.







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