

STINGER TROOP PROFICIENCY TRAINER (STPT) (IMPROVED)



Functional Description:

There are 2 main components of the STPT's hardware, an Instructor Station and a Student Station. The Instructor Station is a ruggedized personal computer, running on Windows 2000 that drives the student station. The Student Station hardware replicates Stinger weapon with a simulated terrain scene that reacts to the operation and orientation of the launch tube.

Instructor Station: During exercise sessions, various combinations of targets are presented that follow pre-set routes across the terrain. The gunner observes and tracks the targets through the Sight Assembly and performs a variety of tasks to engage those targets, as determined by the particular requirements of each exercise. The system evaluates the trainee throughout the whole firing procedure. The Instructor Station automatically scores certain aspects of gunner performance (tracking score, hit/miss, etc.), while the instructor scores other aspects manually (scanning the sector, target prioritization, etc.). As part of the after action report, the computer will note incorrect actions performed by the trainee, so examples are: fired at a friendly target; failed to properly super elevate; failed to hold fire trigger for 3 seconds; failed to remove the BCU after firing; failed to IFF target before engagement.

Student Station: The size, weight and feel of the STPT system is closely replicated with the real Stinger missile system. The system is designed to be disassembled for ease of storage without the need of hand tools (See Figure 6). The STPT housing is made primarily out of aluminum and was designed to withstand the hazards of frequent transport and field use.

The display used to represent the terrain scene is a high-resolution color LCD display in a ruggedized custom enclosure. The virtual horizon is an actual photograph of real locations utilizing stereoscopic imaging to create depth perception while maintaining real-time feedback to the gunner's inputs from his position in the battlefield. The operator can traverse 180 degrees, viewing the virtual battlefield.

Purpose of Trainer:

The Stinger Troop Proficiency Trainer (STPT) is an engagement skills trainer for the US man-portable, shoulder-fired infrared radiation (IR), home (heat seeking), and guided missile systems known as MANPADS. The legacy system can be found under NSN 6920-01-283-5015. Utilizing the latest commercially available hardware and software, the STPT provides a state of the art, reliable, effective, low cost training solution for

DVC 44-052A

Purpose of Trainer:

Stinger firing procedures under battle conditions. Providing interactive three-dimensional (3D) simulations of tactical engagement sequences, the device delivers the gunners with the basic technical skills required to successfully engage targets with the Stinger weapon system.

Physical Information:

Instructor Station: 16" W, 11" H, 9" D, 40 lbs

Student Station: 64" W, 14" H, 22.5" D, 38 lbs

Transit Case (Instructor): 25" W, 19" H, 17" D 50lbs

Transit Case (Student): 52" W, 28" H, 24" D, 93 lbs

Equipment Required, Not Supplied:

None

Special Installation Requirements:

None

Power Requirements:

115vac, 50/60 Hz

220vac, 50/60 Hz

Training Category/Level Utilized:

Air Defense/Level 3

Training Requirements Supported:

MOSC 16S

Applicable Publications:

Stinger Instructor/Operator Manual TD 44-6920-702-10

System Maintenance Manual TD 44-6920-703

Reference Publications:

FM 44-18-1

Source and Method of Obtaining:

Available through local TSC

Logistic Responsible Command, Service, or Agency:

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