SP-AGT Single Position-Aerial Gunner Trainer for Realistic Training Experience

The SP-AGT trainer is a cost-effective aerial gunnery training system that is utilized to safely train aerial gunners. It provides the look, feel, motion, tactics, targets and realism for aerial gunnery training for rotary wing aircrew. The SP-AGT offers initial and refresher training in Virtual Aerial Gunnery Training on UH-1 and H-60 Platforms with virtual threat capability, weapons emergency procedures training, rounds fired and rounds-on-target scoring, as well as Crew Coordination training.

The system is re-configurable to either a UH-1 or H-60 aircraft and can also be configured for various crew served weapons systems featuring recoil and simulated wind loading. Ballistics and flight effects on bullet trajectories are accurately modeled for precision aerial gunnery simulation in a rotary wing platform.

Multiple Training Scenarios

Specific training scenarios can be created by the instructor from a full library of aircraft, surface vessels, ground vehicles, personnel and weapons to allow training in a broad span of missions to meet training needs. Targets presented during training are dynamic and return fire with multiple threat types to include small arms and guided and unguided munitions impacts. Mission scenarios can be recorded, and debriefed with the aircrew to optimize each training session. Recorded student mission scenarios can be saved and exported as required.

Features include a virtual reality (VR) image generator with a dynamic student viewpoint generated from precision head tracking, 2-way communications headset and an immersive high resolution Helmet Mounted Display (HMD). The HMD provides dual channel stereoscopic viewing for enhanced close and medium range depth perception. These enhanced visual cues together with realistic vestibular stimulation through our six (6) degree of freedom motion system ensures a truly immersive training experience.
During training the SP-AGT provides:

- Realistic virtual interior and Out The Window (OTW) environment for day and night operation with simulated Night Vision Goggle (NVG) settings.

- Multiple unclassified worldwide visual databases both unique and geotypical imagery.

- Scenario generator to manage path and behavior of simultaneous entities to include own ship, coupled wingman, aggressor aircraft, vehicle and personnel entities and incoming fire.

- Manual instructor control of own ship, wingman and aggressor entities.

- Fully immersive 360 degree visual field of regard from dynamic viewpoints both inside and outside the aircraft cabin.

- Actual exterior wind generator correlated to aircraft airspeed.

- Adjustable environmental control such as cold and hot conditions.

- Olfactory generator providing simulated environmental, aircraft and weapon smells such as: cordite, ocean, dirt, pine, hydraulic, fuel, etc.

- Integrated inter-communications for aircrew coordination.

- Modular dual position Instructor Operator Station (IOS) station for scenario control and mission monitoring with simultaneous coupled student view and controllable stealth view.

- Video monitoring through dual high resolution video cameras displaying at IOS.

- Integrated and off-line mission recording for crew de-brief providing recorded student view, stealth view, mission parameters and student evaluation.

- Recordable parametric based student scoring for evaluation exercises.

- High fidelity audio effects representing own ship functions, alarms, own ship weapons and incoming fire.

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.