# CAE's Gun Trainer Solutions

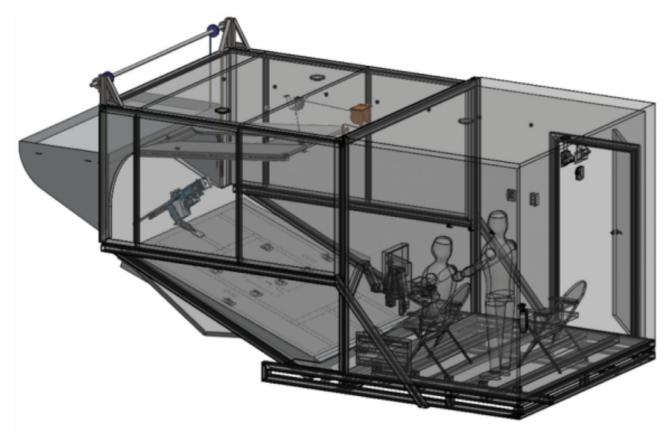
CAE supports a range of solutions to meet gun training needs for both land and air. Specifically, our door gunner solutions provide comprehensive weapon system training that uses visual, aural, and tactile cues to immerse trainees in a gunnery environment.

CAE's door gunner solutions include a reconfigurable gunnery trainer designed specifically for training the gunner. Its innovative, reconfigurable fuselage provides both window and ramp gunnery positions with a single display system, and without moving the trainer assembly. For a more integrated approach to crew training, CAE also provides a gunner training capability as part of its integrated rear crew trainer.

Both solutions provide direct transferable training for the aerial gunner/scanner crew positions to support aircraft gunnery, scanning, and crew coordination training. The integrated gunnery trainers provide, in real-time, designated normal aircraft scanning and gunnery procedures.

## **Reconfigurable Gunnery Trainer**

The gunnery trainer features a reconfigurable aircraft cabin fuselage that can emulate the rear and right or left window gun stations. The reconfigurable fuselage is mounted atop a steel-tube base frame. The cabin base frame assembly is located at the center of a dome screen display system coving a FOV of  $\pm$ 90°H x +35° to -60°V.



Gunnery Trainer (Visual System not Shown)



## Reconfiguration

Reconfiguration is the key to this trainer's versatility. Trainer technicians can easily reconfigure the trainer using sliding, folding, and locking panels all built into the fuselage cabin and dismounting and remounting the weapons. Transforming the gunnery position is accomplished from within the trainer and requires no ladders or special tools. The ramp gunnery position is the basic configuration that can be adapted to left or right side specific positions. Reconfiguration can be accomplished in less than two hours.

## **Integrated Rear Crew Trainer**

Gunnery training in an integrated rear crew trainer (iRCT) benefits from the interation with the other rear crew members, making this a true team training environment. The objective of the iRCT is to provide a complete rear crew training experience such that key priorities, including gunnery training and crew resource management, can be accomplished more effectively.

Each gun position (see the following figure for an example of an iRCT layout) can be mounted with a simulated weapon to practice gunnery in an immersive environment. The instructor is able to configure and assign malfunctions to each gun individually, and the simulation will take into account wind, drag, and limited ammunition feed in providing an accurate gunnery simulation.



## **Trainer Modes**

Both solutions – the reconfigurable gunner trainer, and the integrated rear crew trainer – offer exceptional training versatility as a standalone trainer or as a component in an integrated aircraft trainer when operating in unison with a CAE front cockpit simulator.

- Standalone Configuration The trainer will have the capability to operate independently from any other device and can be flown by the instructor, given a route as with any other computer-generated forces, or given one of the pre-defined patterns.
- **Coupled Configuration** The gunner trainer will have the capability to operate in unison with CAE's front cockpit simulators to function as a single aircraft, which will provide realistic human performance in military aviation (HPMA) crew training during manoeuvres.



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