Machine Gun Operation and MalfunctionTrainer

ACME WORLDWIDE ENTERPRISES
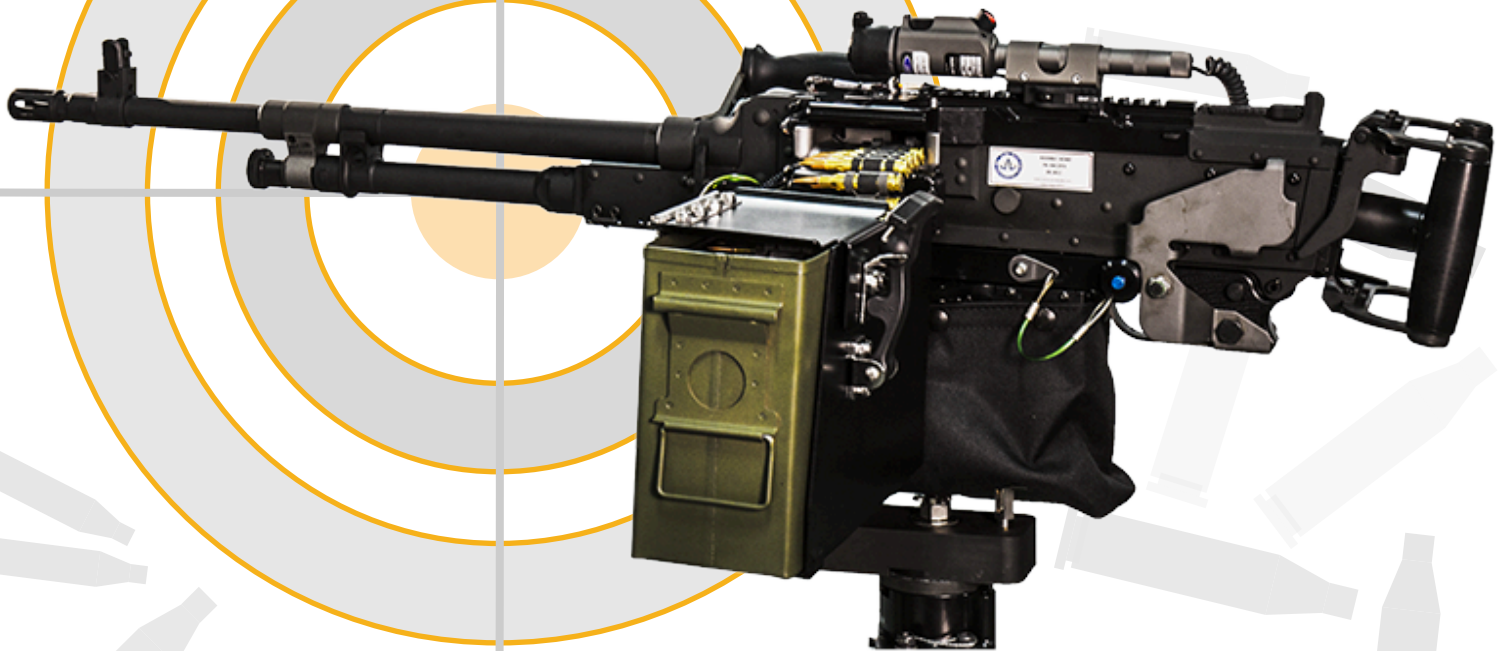
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REPLICA WEAPON TRAINING SYSTEMS
PATENT#: 8690575, 9175922, 9568268, 100013338

Train gunners to recognize, respond and remediate weapon malfunctions, quickly and effectively.

Evaluate and score their performance in real time.

Integrated suite of sensors and software monitors, times, and scores the gunner's performance as they resolve realistic malfunctions. Scoring capability works with <u>any</u> ACME replica weapon system.

REALISTIC REPLICA WEAPON...

REALISTIC MALFUNCTIONS...

REALISTIC TRAINING!

Replica Weapon Training Systems

The Science of Good Gunnery

There is a science to making exceptional machine gunners and it's much more than just putting the sight on the target and pulling the trigger.

Develop, Refine, & Reinforce Skills

ACME can help make great gunners with realistic, high-fidelity, replica machine gun trainers that enable gunners to develop, refine, and reinforce the right skills.

Weapon Handling & Operation Skills

With ACME trainers, gunners learn to safely handle, load, arm, fire, clear, and safe the machine gun *before* the first bullet or belt is issued.

The trainers let gunners learn and practice with the weapon *before* going to the range.

Adapting to recoil forces and effects

ACME's patented full-force recoil systems teach gunners to anticipate and adapt to recoil forces and effects. Gunners learn how to re-engage or adjust their fire to adapt .

Proper rates of fire and bursts

The trainers teach firing techniques and rates for rapid, sustained, and cyclic fire.

Gunners learn to protect themselves and the weapon with the right rate of fire for the situation. They gain muscle memory of the proper burst durations for controlling their ammunition.

Recognizing & resolving malfunctions

Even with the best weapons, ammunition, and training, sometimes malfunctions occur.

ACME trainers teach gunners to recognize, respond and remediate weapons malfunctions, quickly and effectively. Gunners learn how to keep their weapon in the fight.

NAVAL

VEHICLE

INFANTRY

AVIATION

Training for any machine gunner

Weapon Sensors Monitor Gunner Actions

ACME's high-fidelity replica weapons include sensors that detect and report gunner's actions with the weapon. The instructor can monitor the weapon state change based on student actions.

Sensors include:

- Top Cover Position
- Charging Handle Position
- Trigger Position
- Ammunition Present
- Safety Position
- Feed Tray Position
- Replica Bolt Position

The sensor suite feeds software logic in the system electronics that contain the proper procedures and sequences for loading, arming, safing, and firing the replica weapon.

Measure and Score Gunner's Performance

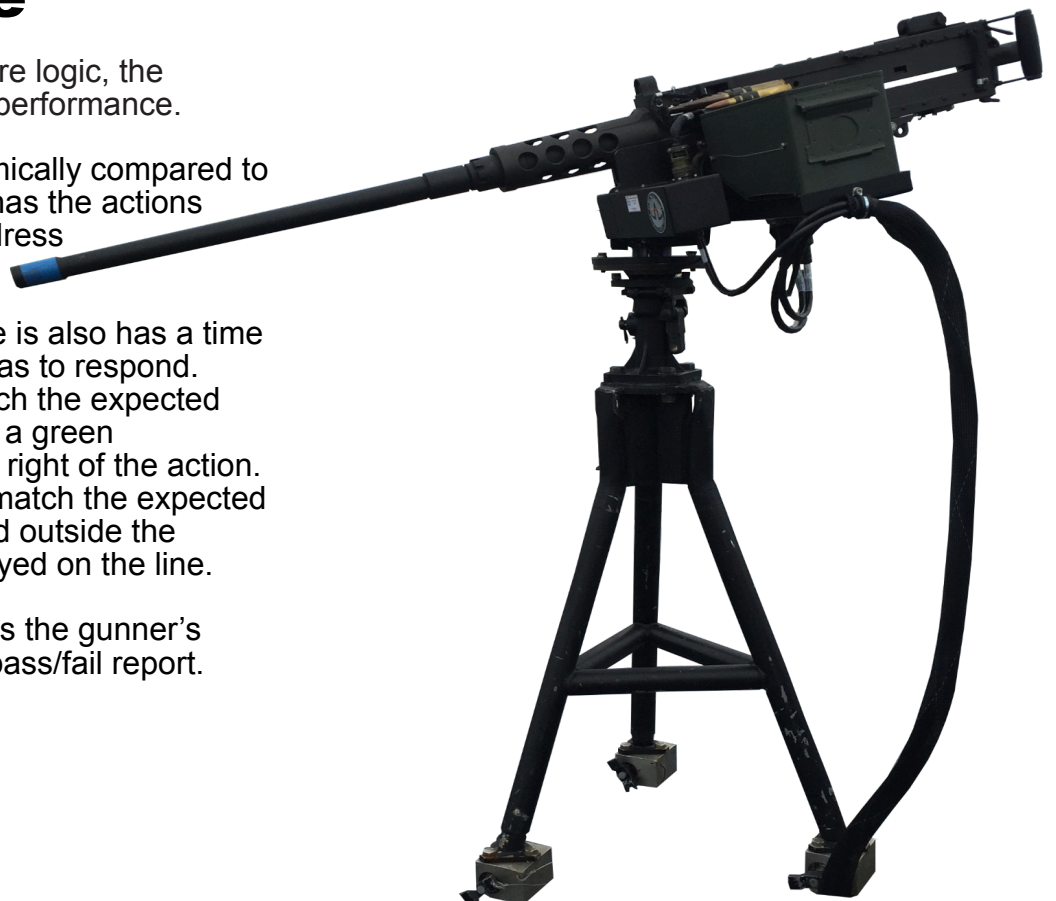Using the sensors and software logic, the system evaluates a gunner's performance.

The trainee actions are dynamically compared to an expected event list which has the actions necessary to successfully address the event.

The expected event sequence is also has a time window in which the trainee has to respond. When the trainee actions match the expected events on a line by line basis, a green checkmark is displayed to the right of the action. If the trainee actions doesn't match the expected events or a step was executed outside the allotted time, a red X is displayed on the line.

The system instantly evaluates the gunner's performance and provides a pass/fail report.

Train These Malfunctions

- **Cook-Off –** Unfired weapon ammunition exploding prematurely due to heat in the surrounding environment such as from a hot barrel.

- **Hang-Fire –** The noticeable delay between the impact of the hammer or firing pin on the primer and the actual discharge of the firearm.

- **Mechanical Jam –** The weapon ceases to fire due to a problem with a round remaining in the chamber.

- **Mechanical Failure –** The weapon ceases to fire – the malfunction cannot be remediated.

- **Misfire –** The complete failure of a cartridge to fire when the trigger is pulled and the hammer or firing pin falls.

- **Runaway –** The weapon continues to fire after the trigger is released.

- **Sluggish Fire –** The weapon cycles at a rate slower than normal.

The GAR® Manager Application
Malfunction Manager/Scoring Console

ACME GAR®
Scoring Console

Trainee Identification

Active Trainee: A1C J. Smith

Detailed Report Section

Event Control Section

Select to start/cancel scenario

Override pass/fail for whole scenario

Powerful. Simple. Intuitive. Push-Button. Complete.

The GAR® manager gives the instructor complete visibility and control of the replica weapon system. With this simple powerful system the instructor controls recoil rate, ammunition availability and amount, and inserts or removes any of the malfunctions. The instructor can see and override any of the sensors.

In addition the GAR® Manager includes the scoring console that evaluates and scores the gunner's performance remediating malfunctions.

Multiple tabs keep the selected information right in front and everything else just a touch away.

It's complete control in one place with simple, easy-to-understand graphic formats and push-button actions.

Banner

Tab Bar

Control Icons and Status Data

Tab Page Display Area

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Contact ACME for details and demonstrations