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Surface Warfare Center Division

# Program Overview

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ALGL Program Manager

Naval Surface Warfare Center Crane Division

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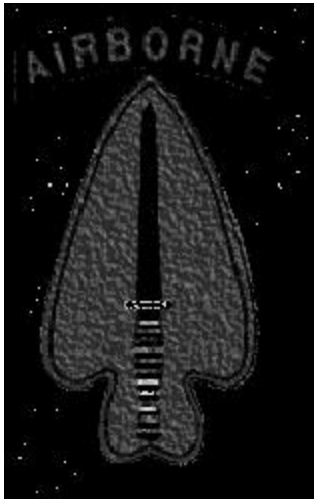



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GENERAL DYNAMICS
Armament Systems

Computing Devices Canada Ltd
A GENERAL DYNAMICS COMPANY

Nammo
NORDIC AMMUNITION COMPANY

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- United States Special Operations Command (SOCOM) Objective
  - Field Improved 40mm Weapon System Meeting Special Operations Forces (SOF) Requirements
- Marine Corps Warfighting Laboratory (MCWL) Objective
  - Concept Based Experimentation Program
- Foreign Comparative Test (FCT) Objective
  - Type Classify / Type Qualify

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- Key Performance Parameters
  - Low System Weight
  - Maximum Effective Range
  - High Probability of Hit
  - Ground and Vehicle Mounted
  - Fire Control Provides Ballistic Solution
  - Enhanced Target Detection and Recognition
  - Uses Standard and Air-Burst Ammunition

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- ALGL System Mobility and Lethality
  - ALGL Weapon role versus MK 19 MOD 3
  - ALGL fire control system capability
  - PPHE ammunition performance

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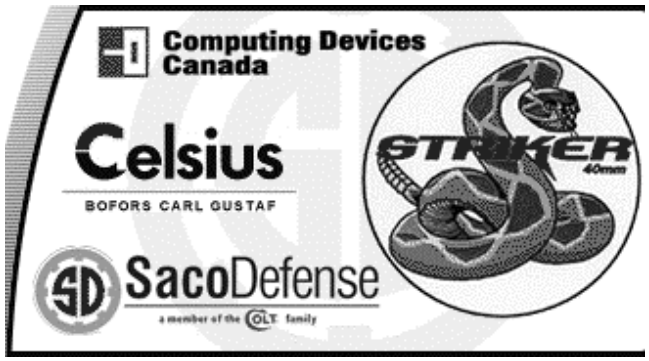
- Early Independent Design Efforts 1988-1991
- Industry Cooperation
  - Development of Alpha Prototype 1990 - 1994
  - Development of Beta Prototype 1994 - 1996
- US State Department approves Industry Team in 1995
- System Integration 1995-1998
  - Weapon and Mountings
  - Fire Control
  - Air-Burst Ammunition

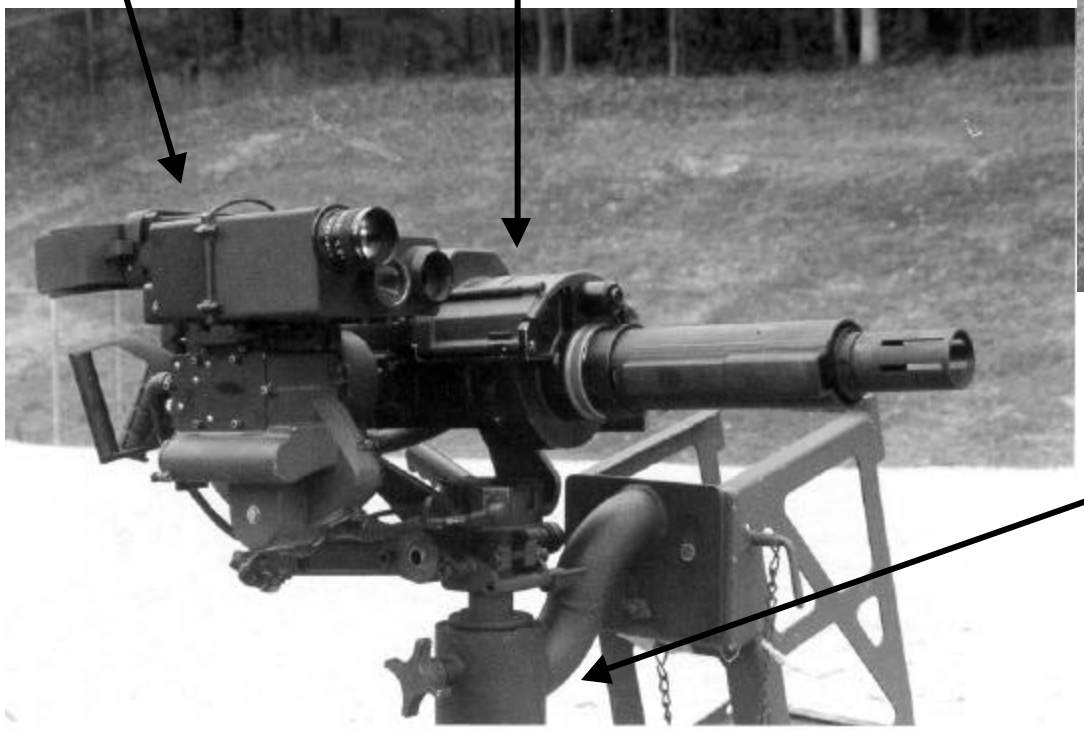



- Crane Division Conducts ALGL Reliability Tests, 1999

Lightweight Weapon

Fire Control

Mount



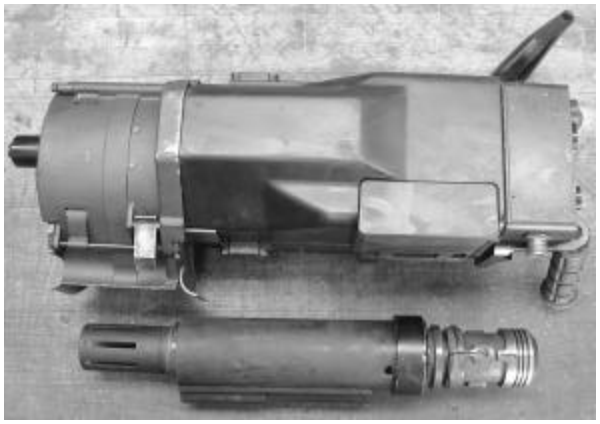
Ground Tripod

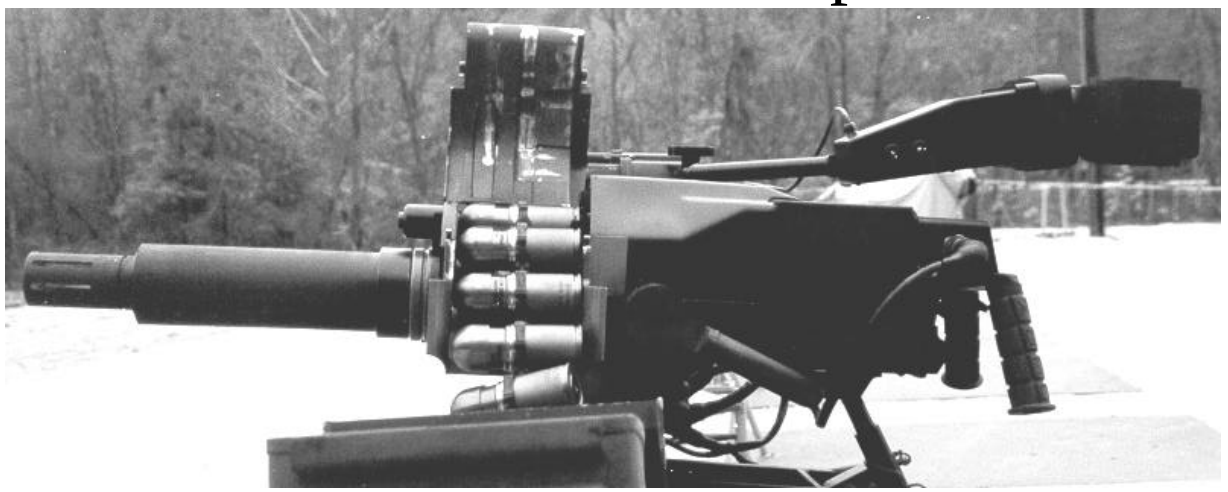
Vehicle Adapter

PPHE Air-burst Ammunition

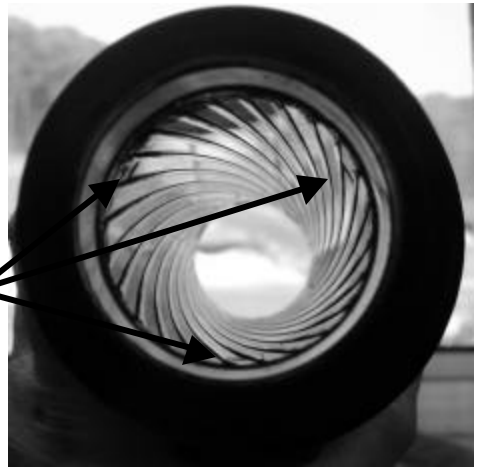

Standard Ammunition

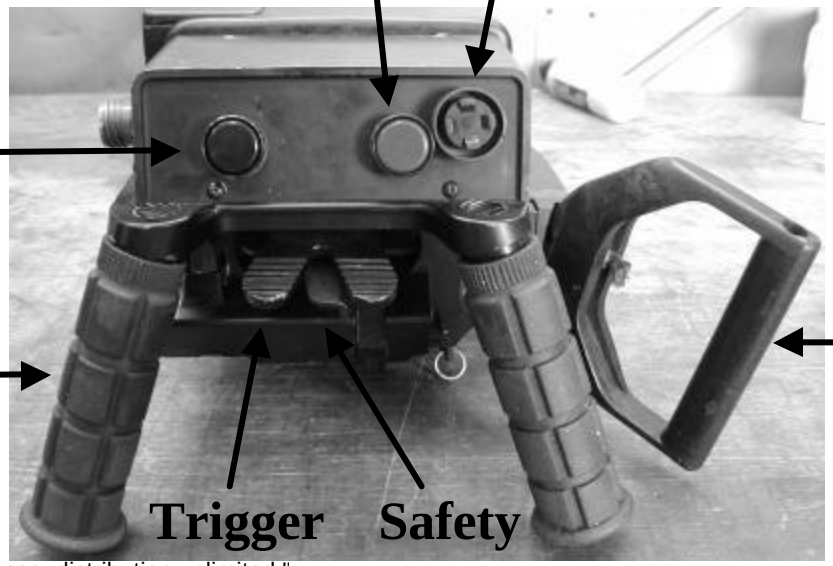
- ALGL Weapon
  - weapon weight 38 pounds
  - quick detach barrel
  - closed bolt operation
  - rate of fire 250-300 rounds per minute





- ALGL Weapon
  - Ergonomic Improvements
  - Contacts in Chamber Set Air-burst Fuze
  - Operator Controls





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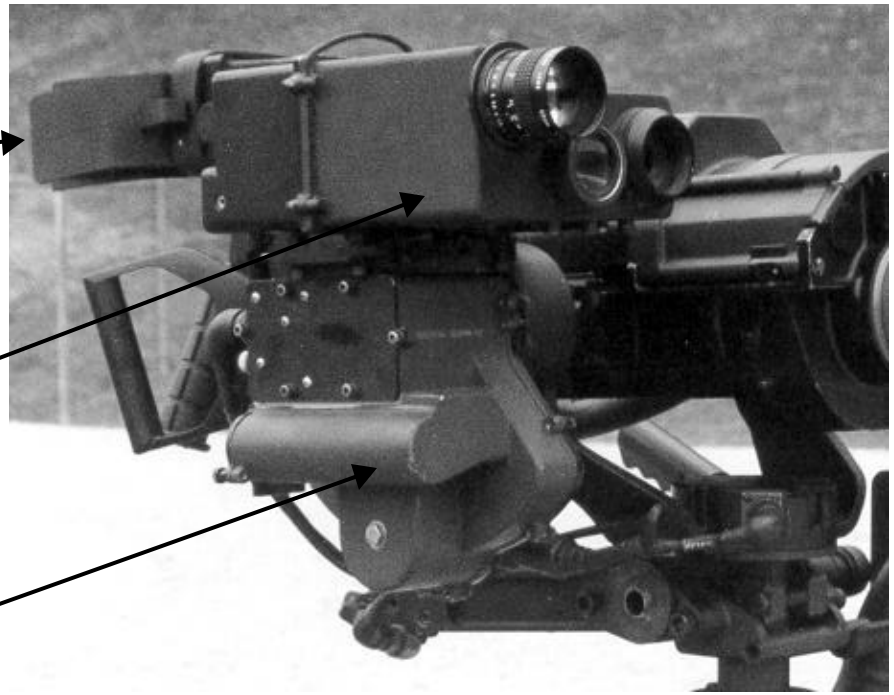
- Mount
  - interface for weapon, fire control, platforms
  - quick slew traverse and elevation controls

- Lightweight Ground Mount Tripod

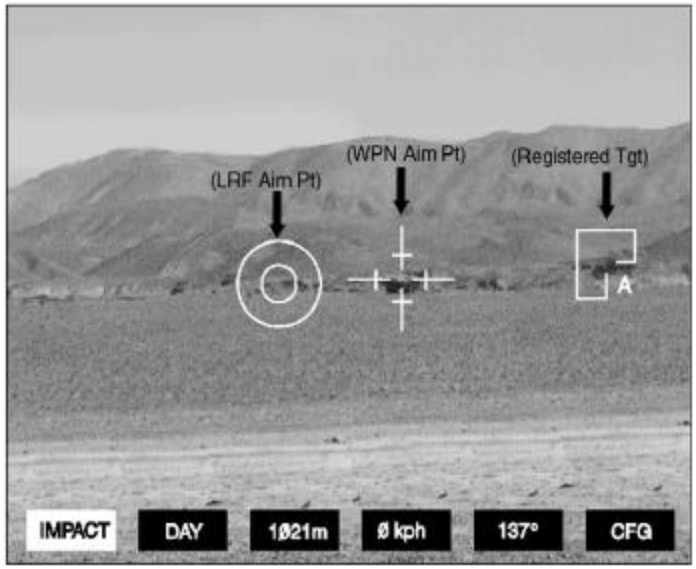
- Vehicle Adapter Kit

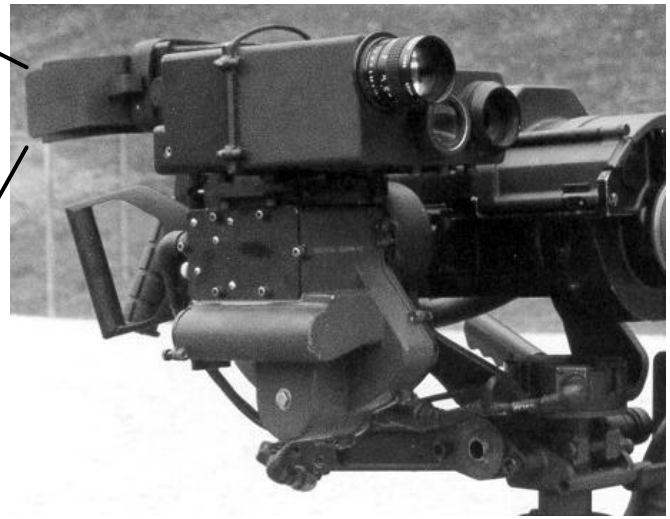
- ALGL Fire Control



- Fire Control Display

  Aiming Reticles for Laser and Weapon

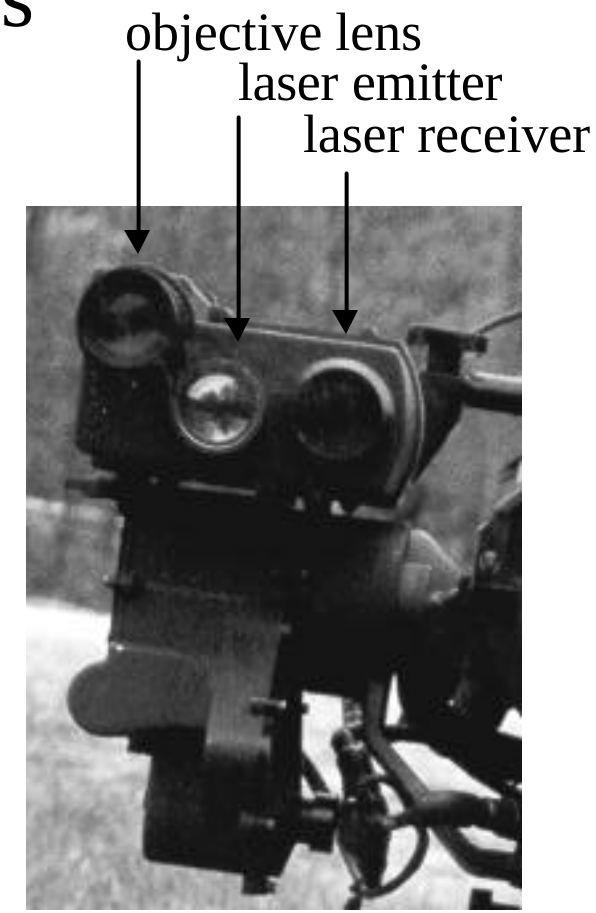


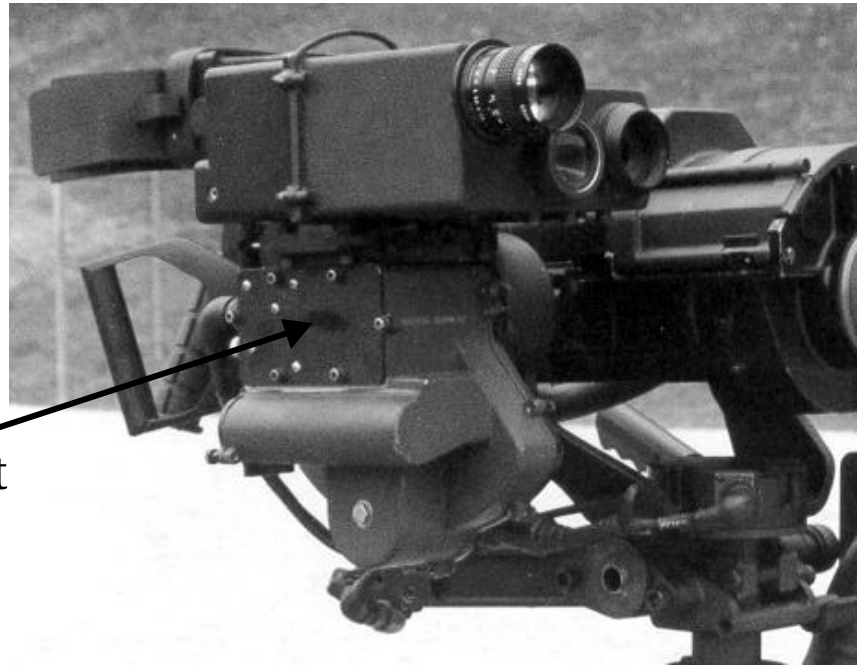
  Graphical User Interface

  operator adjustments, pre-designated targets, electronic range card

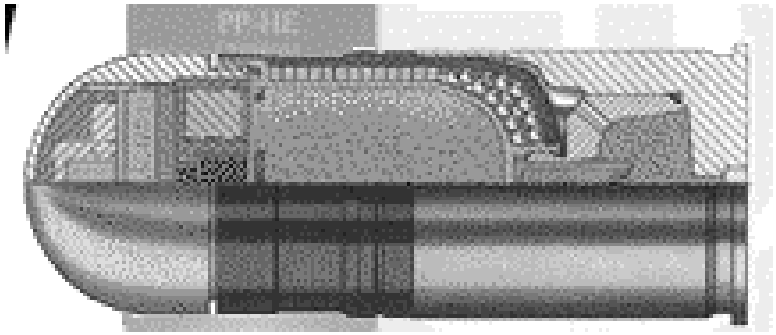
- Fire Control Imaging/Ballistics
  - Laser Range Finder
  - Video Image Processing
  - Night Vision
  - Ballistic Computer
  - Sets PPHE Air-burst Fuze



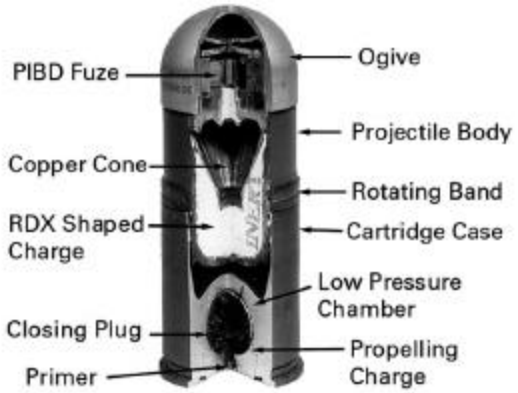
- Fire Control Brake/Super-Elevation
  - Used to Implement Ballistics Solution
  - Links Weapon and Fire Control Together



- PPHE ammunition
  - air burst capability



- Standard 40mm ammunition
  - M430 HEDP
  - M383 HE
  - M918 TP
  - M385 TP

- Key Technology
  - Bofors 2P Fuze
  - Diehl Pre-Fragmented Warhead
  - Nico Low Dispersion Propulsion System

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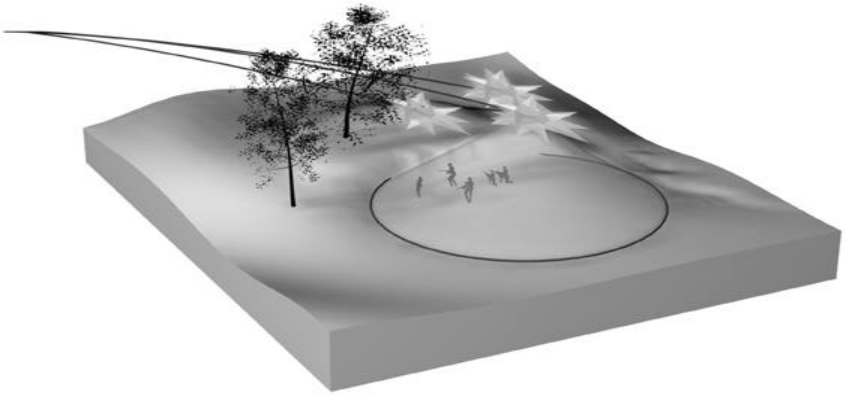
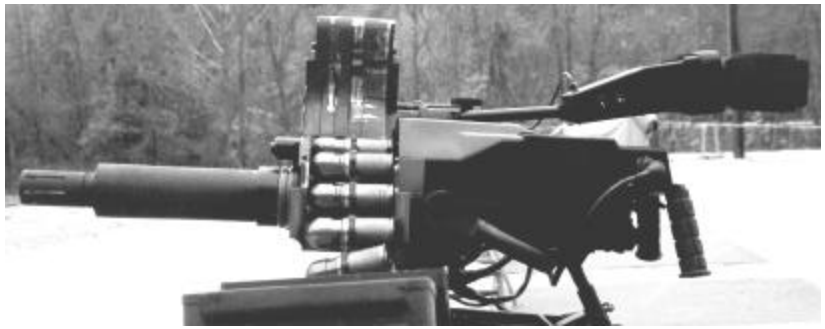
- Programmable Fuze
- Point detonation
- Self-destruct
- Mechanical Safe & Arm
- Ballistics
- Lethality

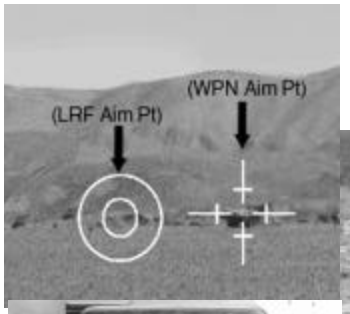
- Emplace
- Load
- Aim
- Fire

- Emplace
  - Install Mount on Ground or Vehicle Platform
  - Install Weapon and Fire Control in Mount
  - Weapon and Fire Control Retain Bore Sight



- Load the Weapon
  - Insert the Proper Ammunition
  - Input the Selection to the Fire Control

- Aim
  - Select Target
  - Range
  - Solve
  - Elevate
- Fire
  - Press Trigger




- PPHE Air-bursting Ammunition