LOCUST Laser Weapon System (LWS)
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ATA's LOCUST LWS provides an affordable laser weapon for short range air defense with all the necessary laser beam control, alignment, power, thermal, and safety systems built in. It is self-contained for mobility and quick deployment, and can be easily relocated using basic equipment like forklifts, pickup trucks, or customer-provided platforms while remaining powered by a self-contained power management system.

LOCUST LWS supports ease of sustainment using easy access, modular subassemblies that customers can organically service or replace to support minimal downtime. LOCUST offers a network-based, single operator interface with Xbox gaming controls that are a natural fit to today's warfighter. The system includes an integrated checklist to efficiently guide setup and is operationally weapons “hot” within 15 minutes after powerup.

Features

- Easy to Use, Single-Operator Interface
- Complete Airspace View
- Xbox Gaming Controls
- Network-Based Interface
- Runs on Any PC
- Platform Agnostic

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<th>Feature</th>
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| **Size and Weight** | Laser Weapon: 48’’ W X 86’’ L X 84’’ H  
Weight ~ 3400 lb  
Radar Cueing System: 48’’ W x 78’’ L x 200” H, ~300 lb | - Modular Sidecar Payloads Are Easy to Service  
- COTS Imaging Sensors Are Readily Upgradeable  
- Mounted on Standard Skid for Easy Deployment |
| **Laser Effector** | Scalable Output Power (2-20 kW). Spectrally Beam Combined Laser Off-Axis Beam Director | - Power to Defeat and Damage Range of Threats  
- Graceful Power Degradation If Laser Amplifier Fails |
| **Radar** | Pulse-Doppler, Electronically Scanned Array  
Full-Hemispheric Coverage | - Fully Programmable Scan Patterns  
- Supports Counter-UAV, Air Defense, and Hostile Fire Detection |
| **Beam Control** | HEL to Fine Track  
Auto-Boresighting  
HEL Beam Quality Measurement | - HEL Beam Goes Exactly Where Operator Aims  
- Monitors and Maintains Good HEL Beam Quality Over Temperature Changes |
| **Fine Track Payload** | 3x Zoom SWIR Camera  
500-2500 Hz Frame Rates  
Eyesafe Laser Ranger | - High Bandwidth, Highly Stabilized Tracking That Maintains Lock On The Most Evasive Threats  
- Zoom Optics Handle Variable Object Sizes +Ranges  
- Ranger Maintains Good HEL Spot Focus at Target |
| **Target Illuminator** | Illuminator Spot Size Control  
Eye-Safe Laser | - Full 24/7 Imaging Using Active Laser Illumination  
- Superior Image Quality and Clutter Rejection |
| **Acquisition Sensors** | 120 Hz, 1280 x 720 Full HD Visible and MWIR Sensors  
Zoom Optics | - Simultaneous Wide Field Tracking With Narrow Field SWIR Precision Tracking  
- Unique Long-Range Detection and Multi Target Track Algorithms to Handle Small, Swarm Threats |
| **Power and Thermal** | Integrated Battery/Cooling System  
>100s Continuous Laser  
>25% Duty Cycle | - Battery, Generator, or Shore Power Operations  
- Integrated Battery Re-Charge Capabilities  
- 24-Hour Battery Operations In Tracking and ISR Modes |
| **Gimbal** | Travel: 360 Az, -30 to +90 El  
Agility: 100 Deg/s, 80 deg/s² | - Time Optimal Slew to Cue Logic  
- Gimbal Search and Scan Modes  
- Stabilized, Inertial Pointing |