Solid State Active Denial Technology (SS-ADT)



Cold

ON EVERY MISSION

Hot

FACT SHEET:



Prototype Demonstrator

KEY FACTS:

- Intermediate Force Capability
- Transmits a focused beam of Directed Energy (DE)
- Causes skin heating sensation
- Repels individuals and/or groups with minimal risk of injury
- Power source for remote recharging (power beaming)
- Remote personnel scanning

Current Status & Plan

- Relocatable fixed-site prototype demonstrator exists (repel effect)
- **Development focus:**

Size, Weight, Power and Cost (SWAP-C) reduction

Improved transmitter duty cycle for deeper "magazine", power beaming, and scanning

Targeting manned and unmanned vehicle implementations

Additional Applications



Concealed Weapon Detection

Characteristics:

Power Beaming

- Aimable, high power millimeter wave (95 GHz)
- Energy is absorbed in top 1/64th inch of skin, producing intolerable burning sensation in seconds
- Burning effect stops when adversary leaves beam
- **Operationally Relevant Ranges**

Capabilities:

- Preserve freedom of maneuver amid noncombatants & urban populations
- Establish security standoff distances, nonlethal crowd control
- UAV mid-air recharging on the move
- Stand-Off concealed weapon detection

Stakeholders:

- Joint Intermediate Force Capabilities Office (JIFCO)
- United States Army Military Police School (USAMPS)

Industry Partners:

- Raytheon Intelligence and Space, El Segundo CA
- Raytheon Missiles and Defense, Andover MA

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