



## DIRECTED ENERGY LAB

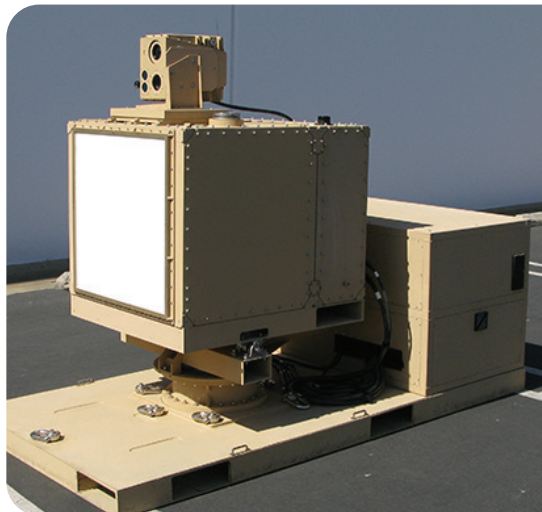
### LABORATORY INFORMATION FACT SHEET

#### CONTACT US:

Technology Transfer Office

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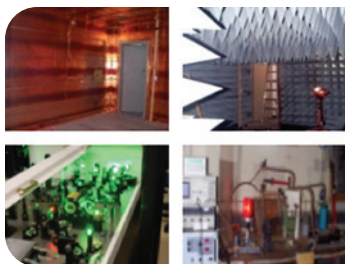
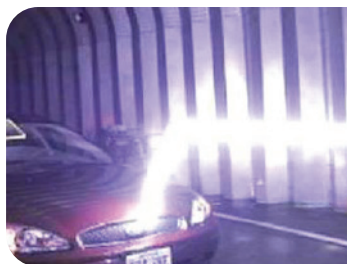


*The Directed Energy (DE) Lab utilizes specialized data acquisition and diagnostic equipment with advanced analysis techniques to evaluate capabilities of high power Radio Frequency (RF) and other Directed Energy systems being developed for the future Warfighter.*

#### TECHNOLOGY/FACILITY DESCRIPTION:

The Directed Energy Lab is supplied with configurable high voltage power to develop and test advanced Directed Energy based systems. This world class high power laboratory is capable of testing high voltage

and high current systems with a grounding grid to discharge up to 1 million amps without damage to equipment, facilities, or infrastructure. There are two shielded rooms and a Gigahertz Transverse Electromagnetic (GTEM) cell within the DE Lab that are capable of shielding against low frequency electric and magnetic fields simultaneously to investigate target vulnerabilities with a suite of data collection and processing equipment. The facility also has two high bay areas that can be configured for multiple purposes to include test and integration. The unique capabilities of this facility are crucial in supporting the development of Directed Energy weapon systems and non-conventional technologies with possible applications in force protection, homeland defense and facility protection systems.



#### EQUIPMENT AND EXPERTISE AVAILABLE:

- Anechoic Chamber (Electromagnetic and Radio Frequency (RF) Shielded)
- Analytical Directed Energy Sensors/Instrumentation
- High-Powered Microwave, RF and W-band Sources
- Ultra Short Pulse Laser Guided Energy Laboratory
- Shielded Room
- Gigahertz Transverse Electromagnetic (GTEM) cell
- Two High Bay Areas with Crane
- Vulnerability assessments (ie. Unmanned Aerial Systems)
- DE Weapon System Experimentation
- Target/threat characterization
- Counter "Improvised Explosive Device" Research
- Short Pulse Laser Systems Development
- Pulse Forming Networks
- High Power Microwave Systems
- Electromagnetic Launch
- Novel Primer Ignition Systems
- Acoustics