



PRECISION ARMAMENTS LABORATORY (PAL)

LABORATORY INFORMATION FACT SHEET

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The Precision Armaments Laboratory (PAL) is a dedicated Department of Defense facility established to provide a cost effective means to investigate, experiment and evaluate the life cycle aspects of sensor/seeker devices.

TECHNOLOGY/FACILITY DESCRIPTION:

The PAL consists of a 65m (215 ft) tower equipped with an enclosed laboratory positioned at the top of the tower. Tower accessibility and utility are provided by two special laboratory elevators that are fully

programmable for remote or automated control and capable of making stationary device measurements at any height along the tower or dynamic (descent or ascent) measurements. At the tower's base is an operations and support building containing computer, fabrication, office and laboratory areas. The PAL also provides installed and integrated laboratory standard grade short, mid and long wave infrared instrumentation sensors, fully integrated basic and advanced meteorological instrumentation and a fleet of seven autonomously heat controlled surrogate 2S3 self propelled howitzer targets. In operation, the PAL has the ability to continuously monitor weather conditions with laboratory grade meteorological instrumentation and autonomously collect both weather and sensor performance data when preprogrammed weather conditions of interest are detected. Our geographic location provides ideal weather diversity to support adverse weather investigations.



EQUIPMENT AND EXPERTISE AVAILABLE:

- Any type of sensor to detect targets during any available kind of weather condition
- Real time dynamic GPS hardware in-the-loop simulations
- Data collection for predictive modeling
- Countermeasure effectiveness
- Counter-countermeasure effectiveness
- Surveillance target tracking and locating
- Detection of chemical and biological agents
- Digitized command systems in realistic foliage, terrain and in changing weather
- Collected adverse weather phenomenological data to support computer modeling and simulation, HWIL and Distributed Interactive System (DIS) activities
- Airborne IR and LADAR sensors for targeting and communication links
- Battlefield assessment techniques under various weather conditions