



DEVCOM
ARMAMENTS
CENTER

RADIOGRAPHIC LABORATORY

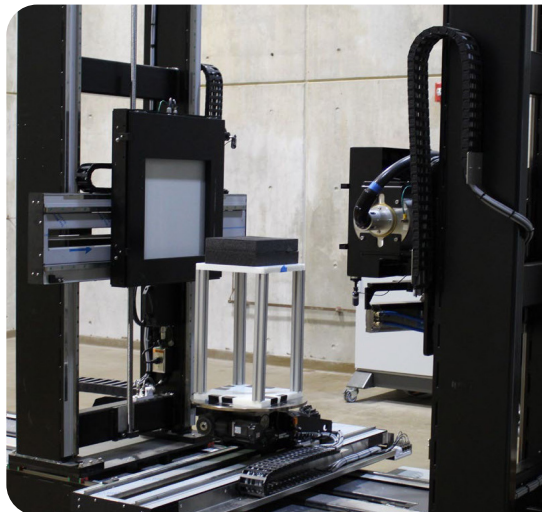
LABORATORY INFORMATION FACT SHEET

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The DEVCOM AC Radiographic Laboratory is primarily used for non-destructive imaging and analysis of items. These items may be energetic in nature, require quality control, need examination prior to and after destructive testing, or are of an unknown configuration.

TECHNOLOGY/FACILITY DESCRIPTION:

The radiographic lab contains an array of different X-Ray capabilities. The lab inspects a variety of items, such as explosives, propellants, electronics, fuses, flares, rocket

motors, mortar cartridges, tank rounds, artillery projectiles, welds, layered armor plating, and other sub-assemblies or weapons systems used by the Department of Defense. These inspections can be used to detect critical defects that might affect the safety or function of a given item, for reassurance of assembly prior to functioning, or during the developmental process of a new composition or component.

This facility is certified for energetics inspections, with an allowance for munitions and other energetic items containing a net explosive weight of more than 2400 pounds of 1.1D equivalent. There are also lifting devices rated up to 25 tons, and loading docks for easy transport of large or heavy test pieces into the building.

The NAS 410 certified non-destructive testing (NDT) personnel on staff also provide program support and oversight for various groups and products in all branches of the military. These services range from providing recommendations during the acquisition of NDT and radiographic equipment, to audits and qualifications of production operations (GOGO, GOCO, or COCO) to verify inspections meet contractual requirements.

The DEVCOM AC Radiographic Laboratory is also one of the few facilities developing new technology for implementation in state of the art NDT systems. The majority of this technology is currently geared towards advanced digital radiographic systems, high energy computed tomography (CT), in situ CT, automatic defect recognition (ADR), and neutron radiography. Future fields of examination are expected to include dual energy studies, neutron activation detection, neutron interrogation of IED's, and neutron diffraction applications.

EQUIPMENT AND EXPERTISE AVAILABLE:

- An array of different detector capabilities, including digital detector arrays (DDA's), four capable 3-D CT systems, one of which is for High Energy CT, and computed radiography (CR)
- X-ray sources range from 5keV (thousand electron-Volts) to 3 MeV (million eV), suitable for items that are thousandths of an inch to thick up to inches of steel
- Testing and analysis of equipment and inspection processes to Mil specifications and standards
- Expertise in industry standards and best practices (ASTM, ASME, etc)
- Expertise in certification programs (NAS 410, CP189, SNT-TC-1A)
- Level 3 support in determining the optimum inspection method to meet customer requirements
- Expertise in inspection processes, process controls, and implementation
- Research & development of radiographic technologies
- Engineering support in Production
- Radiographic evaluation of R&D Components
- Documentation development for inspection requirements
- Off-site Engineering oversight
- Can handle classified work
- Inspection technique development

