



ARMAMENT TECHNOLOGY FACILITY (ATF)

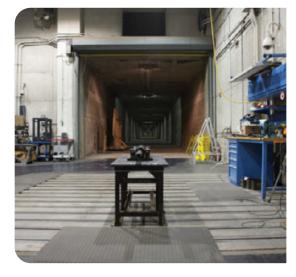
LABORATORY INFORMATION FACT SHEET

CONTACT US:

Technology Transfer Office

Email: usarmy.pica.devcom-ac. mbx.t2@army.mil

v.01



The Armament Technology Facility (ATF), is an 80,000+ square foot full-service ballistic and non-ballistic research, design, development and evaluation lab, with the capability to work with small and medium caliber (up to and including 40 mm) weapons, ammunition and their ancillary equipment.

TECHNOLOGY/FACILITY DESCRIPTION:

The ATF consists of three distinct areas: the Gunsmith Shop, the Ballistic Laboratory and the Powder Loading Room. The Gunsmith Shop

area inspects and tests ammunition/weapons' instrumentation, pressure/load gauges, accelerometers and barrels/ chambers. During testing the shop has the ability to make changes or repairs to weapons or test fixtures' range support. The lab develops one-off prototypes and can modify or fabricate parts and weapons. Lastly, the lab has the ability to produce cutaways of working weapons for training, engineering, instrumentation or inoperative engineering and training aids.

The Ballistic Laboratory performs gel block lethality testing, dispersion testing and anechoic sound testing. The discrete testing environment has a 50 meter indoor range up to .50 cal ball, available video and still photography and a labVIEW® data acquisition system which provides real-time data evaluation. The lab is an ammunition prototype manufacturing and characterization facility with the capability of producing large capacity, customer specific gelatin, available in 20 lbs, 40 lbs and 80 lbs molds at 10% and 20% concentration. The experienced personnel perform gelatin autopsies, analyze physical, photographic and digital samples of target materials and create educational demonstrations about ammunition, lethality and target item materials.

The Powder Loading Room has the capability to design and fabricate mission specific ammunition, load multiple caliber ammunition, evaluate ammunition design and manufacture inert display ammunition. This area of the ATF tests ammunition tension/compression, projectile pull, water immersion and pressure (done via ammunition drill – brass only). Range ammunition testing and development requirements are supported by real-time response data recording/feedback.

EQUIPMENT AND EXPERTISE AVAILABLE:

- 50, 100, and 300 meter indoor ranges
- Two water trap and one snail trap ranges
- Two large environmental test chambers (-65 thru +165 degrees F)
- Small portable environmental test chambers
- On site for testing: weapons, weapon parts, mounts, fixture and support equipment
- Ammunition loading room
- Ammunition and powder storage vaults
- Highly organized secure weapons, weapon parts - with accurate histories storage
- Ammunition prototype manufacturing and characterization
- Full spectrum engineering, test and evaluation services (concept, design, fabrication and evaluation)
- Knowledgeable experts on small and medium caliber ammunition and weapons

