



U.S. ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND – ARMAMENTS CENTER

**SMALL CALIBER WEAPONS DIVISION
COLLABORATION OPPORTUNITIES**

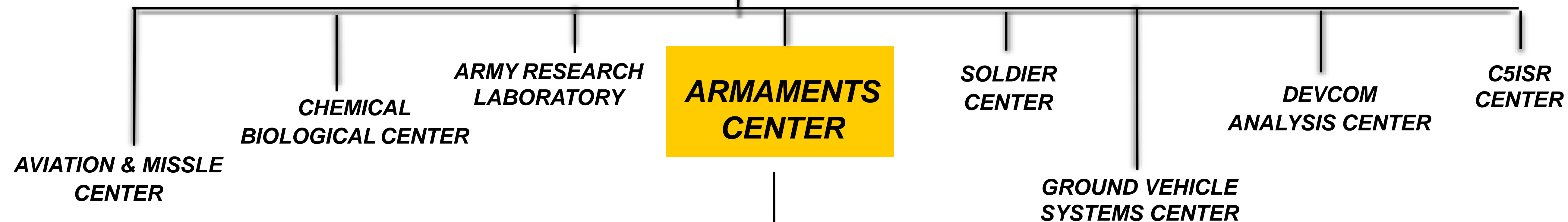
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Presented by: Thomas C. Grego

Individual Weapons Branch Supervisor

AFC DEVCOM Armaments Center

Small Caliber Armaments / FCDD-ACW-WF



Munitions Engineering and Technology Center (METC)

Weapons and Software Engineering Center (WSEC)

Enterprise & Systems Integration Center (ESIC)

Weapon Systems And Technology Directorate (WS&T)



Small Caliber Weapons Division (SCWD)





SMALL CALIBER WEAPONS DIVISION (SCWD)

Army's Lead Technical Organization Providing Life-Cycle Engineering Support for Individual, Crew Served, Non-Standard and Prototype Small Caliber Weapons

Engineering Services:

- Technical Data Packages
- Engineering Change Proposals
- Production Support
- Acquisition Support
- Malfunction Accident Investigations
- Test and Evaluation Services
- Research and Development of Product Improvements
- Weapon and Component Designs and Optimizations
- Weapon and Hardware Prototyping
- Design for Manufacturing
- Foreign and Nonstandard Interactive Electronic Technical Manuals
- Cooperative Research & Development Agreements
- Test/Engineering Services Agreements



Individual Weapons Branch

Grenade Launchers
Grenade Machineguns
Pistols
Shotguns
Rifles/Carbine
Precision weapons

Crew Served Weapons Branch

Squad Automatic Weapons
Medium Machineguns
Heavy Machineguns
Armaments for RWS
Mounts/Tripods
Armaments for UAS

Nonstandard Weapons and Prototyping Branch

Nonstandard & Foreign Weapons
Weapon Prototyping
Armaments Prototyping
Foreign & Nonstandard Interactive Electronic Technical Manuals

Armaments Science & Technology Branch

Weapon and Component Design/Optimization
Modeling and Simulation
Human-in-the-loop testing laboratory that utilizes virtual environments, scenarios, and prototype or concept hardware

FOR FURTHER
INFORMATION:

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ARMAMENTS CENTER:
DEVCOM.ARMY.MIL

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973-724-9059





COLLABORATION OPPORTUNITIES

Collaboration with business, academia, individuals and other U.S. government agencies, and even with foreign governments, is a critical part of how the Combat Capabilities Development Command Armaments Center accomplishes its mission: *Lead innovative research and lifecycle engineering of armaments solutions.*

The Armaments Center collaborates with its partners primarily through the following mechanisms:

- Technology Transfer Process
- DoD Ordnance Technology Consortium/National Armaments Consortium
- Small Business Innovative Research
- Small Business Programs
- International Cooperation
- Contract Opportunities
- Collaboration with operational units, interagency law enforcement and first-responders

Find more detailed information on these collaborative methods, with links to further information and/or contacts, directly below:

<https://ac.ccdc.army.mil/collaborate/>

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COLLABORATION OPPORTUNITIES

Test Services Agreement (TSA) and Engineering Services Agreement (ESA)

Department of Defense laboratories may make available to any person or entity (including universities), on a reimbursable basis, laboratory services for the testing of materials, equipment, models, computer software, and other items.

The Armaments Center's engineering expertise, and laboratory and testing facilities, are available to help both our nation's military industrial base and the private sector supporting our nation's economy. Government laboratories may make available to any person or entity, at a prescribed fee, the services of the government facility for the testing of materials, equipment, models, computer and the facilities, services, and equipment of the government laboratory, if the facilities, services, and equipment provided will not be in direct competition with the domestic private sector (Engineering Service Agreement). A TSA should be used if the service is to be provided by the laboratory with no technical collaboration by the partner. Under a TSA, the services performed must legitimately be the testing of materials, equipment, models, computer software, or other items. A TSA is not appropriate for research studies or investigations, nor does it authorize the sale of products, only services. The only limitation on participants for TSAs and ESAs is that they may not be agencies of foreign governments. (10 U.S.C. § 2539b)

Educational Partnership Agreements

EPAs are formal agreements between a DoD Laboratory and an educational institution or any other nonprofit institutions dedicated to improving science, mathematics, business, law, technology transfer or transition and engineering education, to transfer and/or enhance technology applications and provide technology assistance for all levels of education. Through the EPA, the laboratory can loan equipment, declare as surplus and transfer (donate) equipment, make laboratory personnel available to teach or assist in developing courses, involve faculty and students in research, etc. (10 U.S.C. § 2194)

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COLLABORATION OPPORTUNITIES

Cooperative Research and Development Agreement (CRADA)

A Cooperative Research and Development Agreement (CRADA) establishes a cooperative relationship between one or more federal laboratories and its collaborator(s) (non-federal parties) for the purpose of advancing research and development and generating new intellectual property (IP).

CRADA projects include access to personnel, facilities, services, equipment, intellectual property, data or other resources as part of collaborative research and development between federal and non-federal partners to develop and commercialize technologies. Under a CRADA, federal laboratories can receive funds from their collaborator(s), but the laboratory cannot provide any funds to its collaboration partner(s). CRADAs protect each party's intellectual property. Each party retains all intellectual property it has developed while jointly developing new intellectual property.

Unsolicited Proposal

An unsolicited proposal is defined in FAR 2.101 as "a written proposal for a new or innovative idea that is submitted to an agency on the initiative of the offeror for the purpose of obtaining a contract with the government, and that is not in response to a request for proposals, Broad Agency Announcement, Small Business Innovation Research topic, Small Business Technology Transfer Research topic, Program Research and Development Announcement, or any other government-initiated solicitation or program." Advertising material, commercial item offers, or contributions, as defined in 15.601, or routine correspondence on technical issues, are not unsolicited proposals.

To submit unsolicited proposals, please e-mail: usarmy.pica.ccdc-ac.mbx.tilo@mail.mil

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SMALL CALIBER ARMAMENT FACILITIES

DEVCOM AC has over 110 specialized facilities across its locations specializing in Weapons, Fire Control, and Munitions.

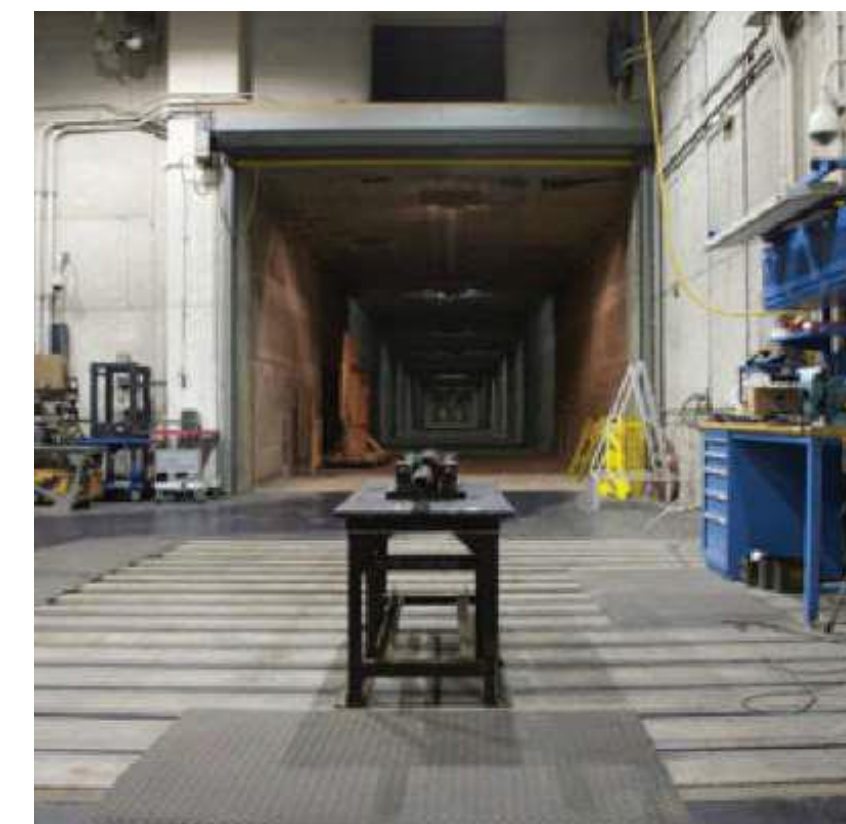
For a complete list of DEVCOM AC's facilities, please visit: https://ac.ccdc.army.mil/collaborate/techtransfer/our_facilities.aspx

Small Caliber Armament Facilities

SMALL CALIBER ARMAMENT FACILITIES

(<https://ac.ccdc.army.mil/collaborate/techtransfer/PDFs/23-A-ArmamentTechnologyFacility-PIC.pdf>)

- 80,000+ square foot full-service terminal 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.
- Gunsmith Shop, Terminal Ballistic Laboratory, and the Powder Load Room
- 50, 100, and 300 meter indoor ranges
- Water trap and snail trap ranges
- Large environmental test chambers (-65 thru +165 degrees F)



SMALL ARMS FIRE CONTROL SYSTEMS INTEGRATION LAB

(<https://ac.ccdc.army.mil/collaborate/techtransfer/PDFs/23-A-SmallArmsFireControlSystemsIntegrationLab-PIC.pdf>)

- The Small Arms Fire Control Systems Integration Lab (SAFC SIL) is an integration facility for optics, mechanical components, electronics and software



SMALL CALIBER ARMAMENT FACILITIES

SMALL ARMS SIMULATION LAB

(<https://ac.ccdc.army.mil/collaborate/techtransfer/PDFs/23-A-SmallArmsSimulator-PIC.pdf>)

- The Simulated Weapon Environment Testbed (SWEET) Lab allows the Warfighter to utilize emerging technologies before they are fully developed, providing essential data and User feedback. This human-in-the-loop simulator emerges the User in a virtual environment, giving them the ability to test and evaluate weapon or prototype armaments without having to fire live ammunition.



WEAPONS TECHNICAL SUPPORT LAB

(<https://ac.ccdc.army.mil/collaborate/techtransfer/PDFs/23-A-WeaponsTechnicalSupportLab-PIC.pdf>)

- Weapons Technical Support branch B-67's capabilities include rapid weapons prototype or proof of concept and precision weapons optimization capability. Other mission supported include delivering nonstandard weapons prototypes or proof of concept.
- Multiple Mills, Lathes, Presses, and Inspection/Programming equipment



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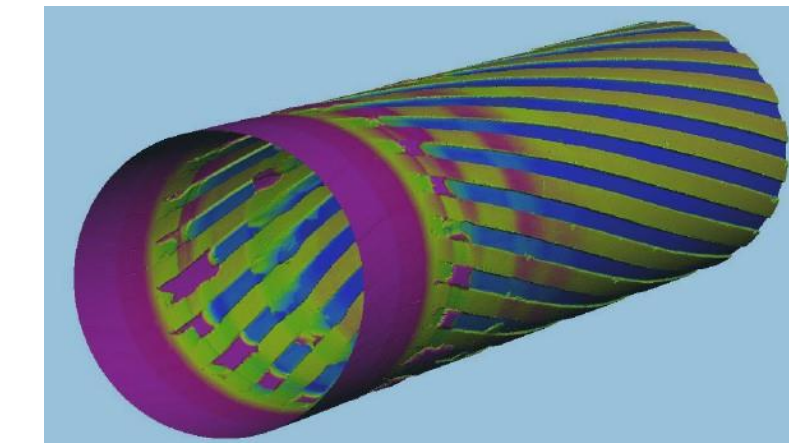




SMALL CALIBER ARMAMENT FACILITIES

SMALL ARMS LASER BORE SCANNING AND BORESCOPE LABORATORY

- The Laser Bore Scanning and Borescope laboratory is utilized to evaluate weapon/EPVAT/velocity/accuracy barrel rifling wear on small caliber and 40mm weapon systems.
- Utilizes Bore Erosion Measurement Inspection System for non-contact high-resolution 3-dimensional barrel bore scans. Calibers 5.56mm, 7.62mm, 6.8mm, 9mm, 40mm, 12.7mm with additional calibers being added.



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QUESTIONS?

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