

I GSL GEOTECHNICAL & STRUCTURES LABORATORY

MISSION:

GSL's mission is to create innovative solutions to support our Nation's defense, security, public safety and infrastructure.

VISION:

The GSL vision is to be a world-class research and development organization that **DISCOVERS, DEVELOPS and DELIVERS** solutions to make the world safer and better!

GOALS:

- ▶ Provide high quality, value-added products on time and on budget
- ▶ Use state-of-the-art engineering and business practices
- ▶ Apply cutting-edge technologies to provide innovation to customers
- ▶ Provide global Warfighter assistance through reach-back engineering technologies
- ▶ Maintain a culture of high-impact tech transfer
- ▶ Connect to strengthen the enterprise

WHAT we do:

GSL's strength is found in our people, who solve problems and initiate scientific discovery through a multi-faceted approach that includes field and laboratory data collection and instrumentation development, computational science and data analytics. We use these techniques to develop innovative solutions in the following areas:

- ▶ Force projection and maneuver support
- ▶ Force protection and weapons effects
- ▶ Civil works and infrastructure
- ▶ Operational support and technology transfer

The researchers collaborating on these multi-faceted problems have strengths that directly support five of USACE's Top 10 R&D Priorities:

- ▶ Mitigate and Adapt to Climate Change
- ▶ Win Future Wars
- ▶ Modernize our Nation's Infrastructure
- ▶ Revolutionize and Accelerate Decision Making
- ▶ Improve Cyber and Physical Security



WHY we do it:

GSL's research team develops innovative solutions to complex geotechnical engineering challenges that address some of the world's toughest Civil Works and Military Engineering challenges. GSL collaborates across the ERDC and the USACE, as well as other government agencies, industry and academic partners to deliver world-class products in the research areas of:

- ▶ Airfields and Pavements
- ▶ Concrete and Materials
- ▶ Geotechnical Engineering and Geosciences
- ▶ Impact and Explosion Effects
- ▶ Mobility Systems
- ▶ Structural Engineering
- ▶ Structural Mechanics
- ▶ Survivability Engineering

WHO we are:

GSL's primary support to Army S&T includes core competencies of Blast and Weapons Effects on Structures and Geo-Materials, Civil and Military Engineering and Battlespace Terrain Mapping and Characterization.

With more than two-thirds of the laboratory's engineers and scientists holding advanced degrees, our multi-disciplinary team of more than 440 engineers, scientists, technicians and administrative professionals contributes to the production of successful military engineering and civil works solutions.



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