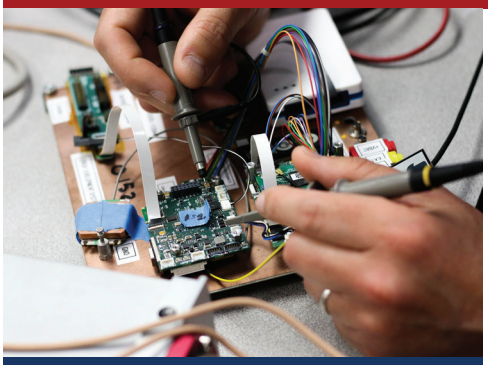


NEVADA NATIONAL NNSS SECURITY SITE

Global Security

Special Technologies Laboratory

An Innovation Incubator

The Nevada National Security Site (NNSS) Special Technologies Laboratory (STL), located in Santa Barbara, California, offers problem-solving in an operational, user-centered technology development space, delivering compelling functional solutions with close-knit teams. STL specializes in the development of custom devices, measurement instruments, and analysis methods tailored to the needs of military and government partners.

STL scientists and engineers are skilled in conducting complex experiments for the laboratory application of measurement and analysis tools for a range of applications such as determining the state of material during an explosive event, or remotely detecting trace materials at multikilometer distances, as well as deploying resources and technology to support global field requirements of agencies across the U.S. government.

Who We Are

STL scientists and engineers are set apart by their highly technical yet flexible skillset. We work with scientists across the Department of Energy (DOE) landscape to transition custom technology from the lab to the field.

STL scientists specialize in:
- Material science
- Physical chemistry
- Optical spectroscopy (the study of how matter interacts with electromagnetic radiation)
- Plasma, radiation, nuclear, and shock physics

STL engineers specialize in:
- Electronics, power and radiofrequency
- Electro-optics, opto-mechanics, fiber systems and lasers
- Mechanical design and packaging
- Cyber and information systems

Analytical capabilities include:
- Geospatial analysis
- Machine learning
- Communications protocol and signal identification

Technical support specialists provide expertise in system fabrication,

STL and Secondary Education

Percentage of our workforce with post-high school education:

Associate's/tech degree: **25%**

Bachelor's degree: **32%**

Master's degree: **15%**

Ph.D.: **28%**

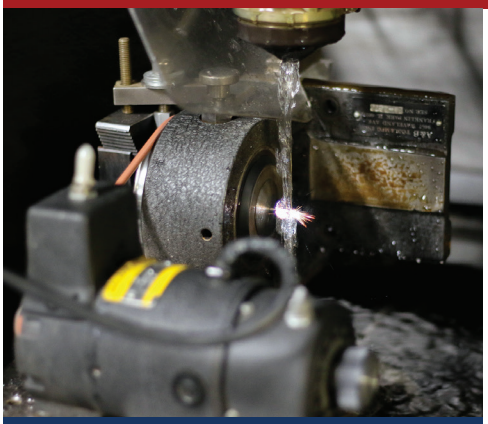
assembly, and testing, as well as explosives handling. The team comprises electronic, field, mechanical and optics/laser technicians.

Engineers and scientists take complex ideas through the design, development and prototyping stages to provide sophisticated yet easy-to-use technical solutions quickly and efficiently. STL organizes innovative, multi-disciplinary teams to support the science programs of the National Laboratories.

We ensure successful measurements by carefully designing and deploying experiments of increasing complexity. We frequently conduct scaled-down experiments to provide proof of concept before a new experimental design is carried out in full scale at test facilities, leading to cutting-edge developments that directly impact NNSS experiments.

An Enduring History

STL was first established in 1959 as Santa Barbara Operations (SBO) in support of the NNSS. SBO focused



on national security challenges, supporting the Weapons Test Program, accelerator development and operations, nuclear detection technology, aerial measurement systems, Navy Nuclear Intelligence, and barrier penetration radar technology. The team at SBO developed a world-class linear accelerator, calibration detectors and systems to determine the explosive yield of nuclear weapons.

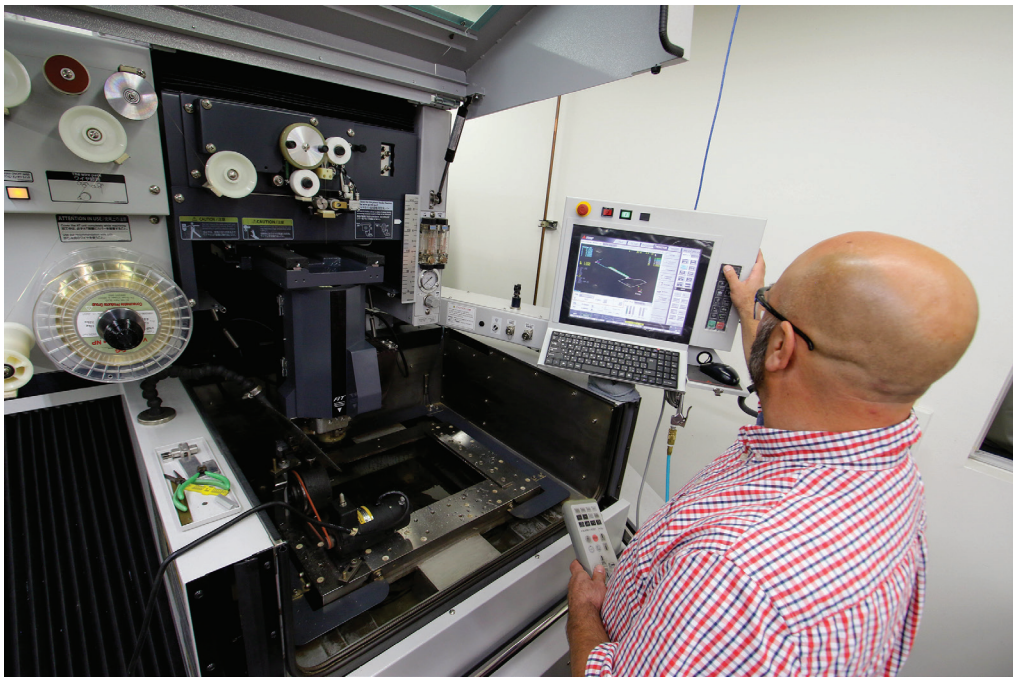
SBO built a reputation for developing and providing rapid technical solutions to emerging problems and for supporting government organizations beyond the DOE. In 1986, STL was created on the foundation of SBO to accelerate the development of nonproliferation technology and in response to requests from across the U.S. government.

From Ideation to Application

Today, as part of the NNSS enterprise, our people bridge the gap between National Laboratory research and development and private industry deployment. We are poised to deliver today's solutions and counter tomorrow's threats to our national security.

Our core competencies are:

- Applied engineering: sensors, communications, software systems, drones
- Integrated device and systems solutions: system integration, rapid development cycles, field support
- Nonproliferation research and development
- Experimental physics: helping the National Laboratories make better measurements
- Electronic and mechanical prototype fabrication



National Nuclear Security Administration

For more information, visit:

www.nnss.gov

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