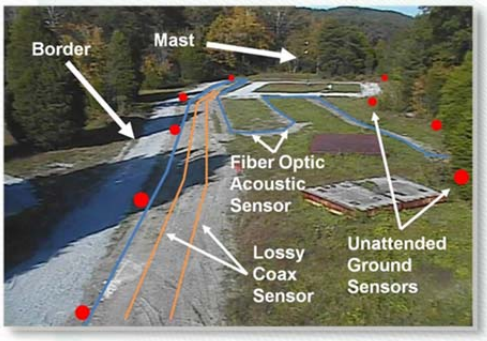
# Security Sciences Field Laboratory

## Description

The Security Sciences Field Laboratory (SSFL) is designed to support testing and evaluation of a wide range of intrusion detection, assessment, surveillance, and peripheral physical security equipment including sensors, cameras, power generation, access control, remote communication, unmanned aerial, and activated delay systems. At the heart of SSFL is a simulated border region of varied terrain including open grassy fields, hilly wooded areas, sand pits, and lakes and streams which approximate the actual challenges of border and facility applications. A critical facet of this outdoor testing facility is the ability to test systems year-round under the seasonal variations and climatic swings prevalent in East Tennessee. SSFL frequently experiences extreme environmental conditions, including heavy rains, high winds, heavy fog, high humidity, high temperatures, and snow/ice accumulation and can provide realistic evaluations of a system's interaction with the environment and integration of performance testing data under these varied conditions.




SSFL comprises interior laboratory facilities in addition to the outdoor testing facilities. A baseline equipment set is maintained which represents an industry cross section of detection, assessment, surveillance, infrastructure, and situational awareness equipment. This baseline equipment enables SSFL staff to work on far-reaching projects related to surveillance and security including hands-on training, data fusion algorithm development, situational awareness enhancement, and computer model verification.

## Applications

- Long-term outdoor performance testing and analysis
- Hands-on training courses focused on security technology, testing and evaluation, and sustainability
- Sensor development
- Unmanned aerial surveillance research
- Data fusion and system integration

*"Commercial off-the-shelf components, even proven technologies, cannot be integrated 'right out of the box' in the field without interface design, thorough testing, and integration in the laboratory"*
*-Jayson Ahern, Deputy Commissioner*
*U.S. Customs and Border Protection*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