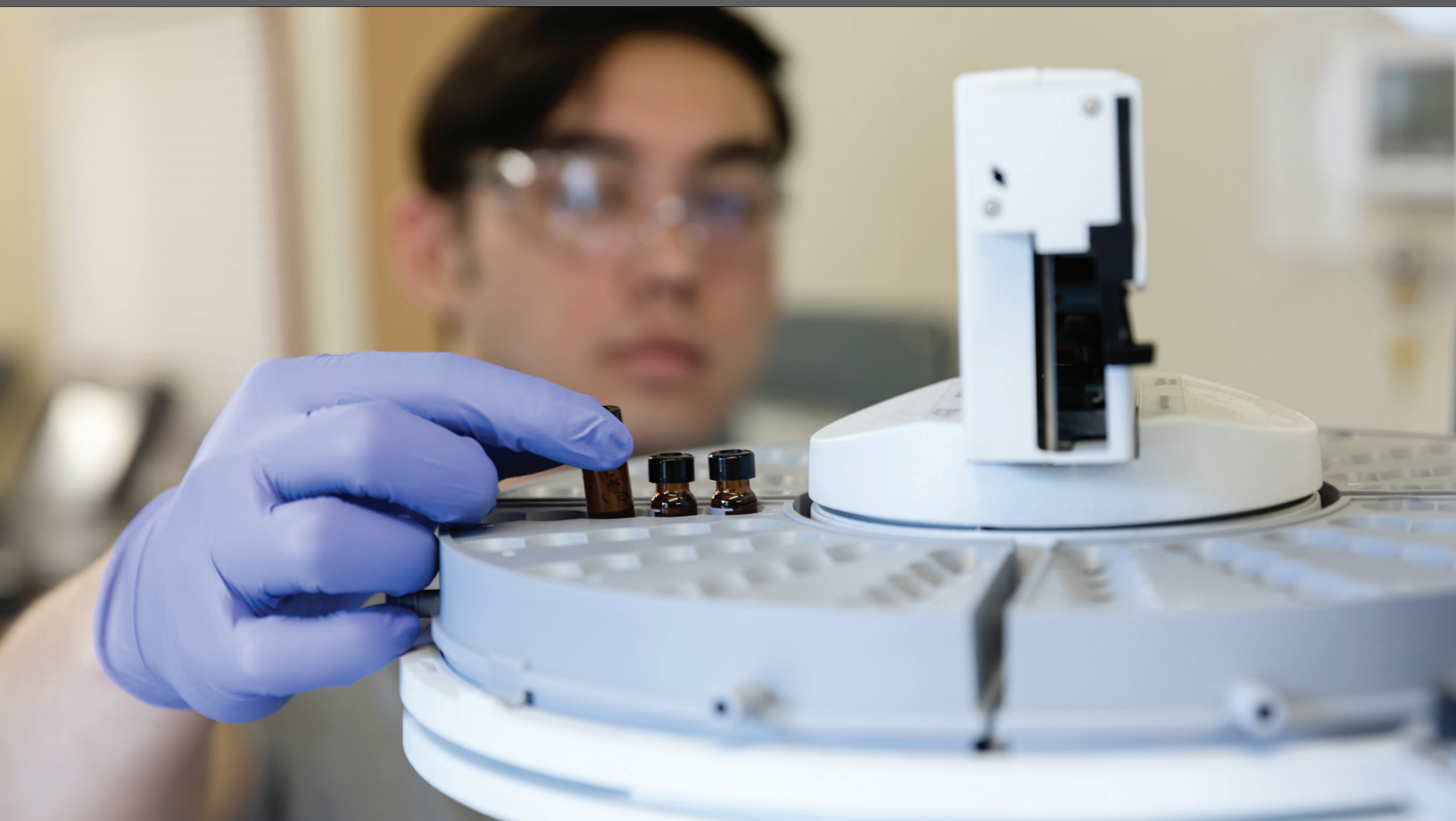# BATTELLE AVIATION SECURITY

The standard in security is set here.

BATTELLE

PROTECTING TRAVELERS, AIRLINES AND AIRPORT PERSONNEL FROM EMERGING SECURITY THREATS REQUIRES ROBUST, ADAPTIVE AND INNOVATIVE SOLUTIONS.

How can you be sure that your security systems are up to the task? Battelle can help. The dramatic growth of commercial air travel worldwide combined with recent increases in the severity and frequency of terrorist incidents has created a need for airport security based on ever more sophisticated technology and complex system designs. National governments and airport operators face the daunting challenge of selecting the right security technologies, products and integrated systems and implementing them efficiently and effectively.

Battelle is an internationally respected technical organization with a long tradition and deep commitment to helping government and airport clients select and implement the best security solutions to meet their needs. We provide objective, independent, technically based analysis and advice as well as reliable test and evaluation services to ensure that you are acquiring the right technologies to address your security challenges and that you are implementing them correctly. We also provide specialized hardware and software solutions to address unique security challenges.

For more than twenty years Battelle has supported the development, testing and characterization of aviation security technology on behalf of the U.S. Government. In fact, many of the security systems and operational procedures used across the world today were developed, tested or validated by Battelle. Our continuous role serving the U.S. Department of Homeland Security and the U.S. Transportation Security Administration in this capacity since their formation is a tribute to our technical expertise, innovation, reliability and integrity.

Today, we are offering our expertise, technical services and unique solutions to the international aviation community to help governments and airport operators address their security challenges and to harmonize these solutions worldwide. We do this through a combination of technical services and specialized hardware and software solutions.

Battelle Technical Services

At the national and regional government level we support security regulators in assessing and characterizing security technologies for approved use and we help them develop standards, protocols and test articles for evaluating and accepting them. For airport operators we assess their operations, security threats and risks and recommend appropriate technologies and systems to address their needs, and we provide third-party evaluation of proposed security system designs. We also support airport operators in their security system acquisition programs by developing appropriate performance requirements and acceptance criteria and by conducting third-party, independent acceptance testing of products and systems.

As an ISO 9001:2008 certified organization, all of our equipment testing and evaluation processes have been thoroughly validated to ensure that results are reliable. And our specialized testing tools ensure accurate and repeatable test results. Battelle's technical services are available as discrete activities or as a comprehensive package of design and acquisition support.

Testing, Evaluation and Validation Services

- Developmental, operational and acceptance testing
- Unit-level and integrated, system-level testing
- Human factors studies and evaluation
- Explosives characterization, modeling and simulation, including for homemade explosives (HMEs)
- Canine testing and evaluation

Expert Advisory Services

- Operational, threat and risk assessments
- Technology assessments
- Requirements and concept of operations development
- Independent security system design evaluation
- Systems optimization and integration
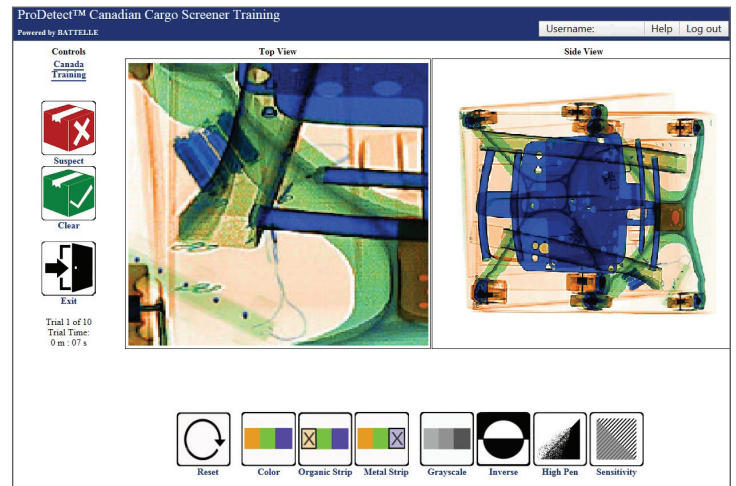- Product and system acquisition support

Battelle Hardware and Software Solutions

In addition to our security technical services, Battelle offers unique hardware and software products to support our technical services work, which is also supported by specialized research, development, testing and evaluation capabilities and facilities.
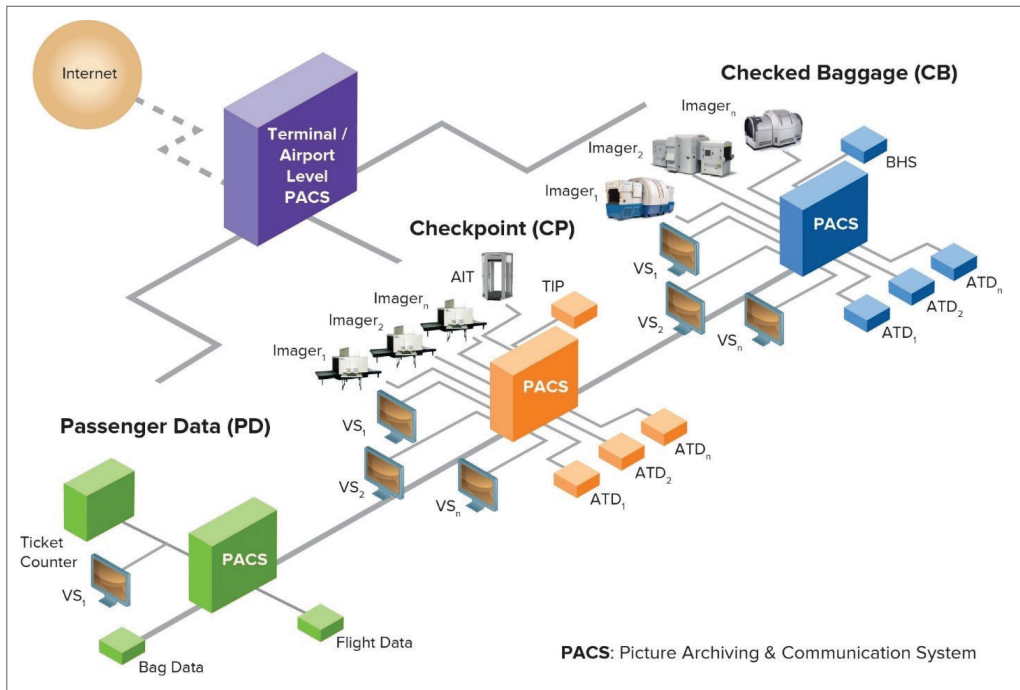

Verif-IQ™ Image Quality Verification System

Verif-IQ offers a standardized means to test and validate the image quality of CT-based explosive detection systems. Verif-IQ is based on the ANSI N42.45-2011 standard for CT systems and on the European equivalent, IEC 62945.

ProDetect™ Security Screener Training

ProDetect is an internet or local server based software training system designed to improve the accuracy, reliability and efficiency of your security screening staff. Our training goes far beyond system functionality and focuses on advanced threat identification and image interpretation skills. Our highly interactive training system uses best practices in adult computer based learning to maximize the retention of new knowledge and improve screeners' practical skills. ProDetect's unique interactive improvised explosive device recognition module and image interpretation training module (including 3D training for CT systems) offer state-of-the-art security screener training.

Digital Imaging and Communications In Security (DICOS)

DICOS is a security industry standard developed by Battelle for the U.S. Department of Homeland Security and now maintained by the Association of Electrical Equipment and Medical Imaging Manufacturers (NEMA) as the standard for Computed Tomography (CT) explosive detection systems (EDS) and other technologies used for security screening. Battelle provides DICOS-based system engineering and integration services for airports and other security operators to maximize the security and operational benefits of this revolutionary standard.

LS-10 Liquid Threat Detection System

Detect threat flammables, acids, oxidizers, explosive precursors and explosive compounds in almost any container in less than five seconds. The Battelle LS10 is a liquid bottle scanner that distinguishes threat liquids from benign substances and alerts security personnel to suspicious contents quickly and accurately. Already in use in airports in Europe, Australia and other locations, it enables travelers and visitors to safely carry liquids, gels and aerosols through security checkpoints.

Explosives Test Facility

Battelle's High Energy Research Laboratory Area is the largest privately owned explosives test facility in the U.S. and supports testing and characterization of explosives including HMEs.

What can we solve for you today?

solutions@battelle.org | www.battelle.org/aviation-security

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products, and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio since its founding in 1929, Battelle serves the national security, health and life science, and energy and environmental industries. For more information, visit www.battelle.org.

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It can be done