



2014 IAB STANDARDS DEVELOPMENT PRIORITY LIST

TIER 1

- Product standard for personal protective equipment for emergency medical services providers
- Standard test method for body armor designed for females
- Standard test method for mask test machines

TIER 2

- Standard test methods for localization and tracking systems
- Product standard for body worn video cameras used by public safety practitioners
- Product standard for duty gloves worn by responders in law enforcement and corrections role
- Standard test methods for robot operator evaluations “Standard test methods in a box”

TIER 3

- Product standard for conducted energy devices (less lethal)
- Product standard for chemical munitions (less lethal)
- Product standard for impact munitions (less lethal) fired from a launching system
- Product standard for distraction devices (e.g., flashbangs)

TIER 1

Product standard for personal protective equipment for emergency medical services providers

EMS providers respond to incidents involving injured or ill patients that must be treated and transported to the hospital. Those responders need protection against blood-borne pathogens, but because many incidents today involve hostile operatives, EMS providers also need protection against ballistics and other hazards. These responders need PPE that has been demonstrated to meet their operational requirements and to also meet performance standards similar to those for law enforcement.

Standard test method for body armor designed for females

There are currently no test methods for assessing body armor designed for females. Test methods are needed to assess: (1) Ballistic protection in terms of projectile penetration resistance and backface deformation; (2) Effect of air gaps behind armor; (3) Effects of panel flexing on ballistic performance of shaped armor; (4) Coverage area, especially on the sides; and (5) Ergonomics of shaped armor.

Standard test method for mask test machines

Standard test methods are needed to assess the performance of respirator fit test machines. Responders who wear respirators are concerned that current testing is not sufficient and have questions such as when fit test equipment is used, it gives a result, but what does that result mean? And when routine calibration is done, what is the equipment calibrated to? There are existing standards for programs and respirator fit methods but not for the fit test equipment.

TIER 2

Standard test methods for localization and tracking systems

The capability to determine/estimate the location of an individual or an object inside a building, tunnel, mine, or similar environment

has wide applicability in the responder community and is of interest to firefighters, law enforcement, emergency medical personnel, and the military. Standard test methods are needed to allow performance of available systems to be assessed so that users are able to determine whether a given system meets their needs.

Product standard for body worn video cameras used by public safety practitioners

The field deployment of body-worn video camera systems by public safety practitioners (e.g., patrol, corrections, SWAT and other tactical responders) offers significant advantages in keeping officers safe, enabling situational awareness and providing evidence for trial. A major issue with the use of body-worn video cameras is a lack of product standards, standard test methods, and operational standards. Without such standards in place, practitioners lack adequate information to select the proper system that meets their requirements. Specifications that need to be addressed in a product standard include the following: Battery life, run time; Video quality; Night recording; Recording limits; Camera focal width; Audio recording; Camera placement; Radio integration capability; Downloading and storage of data; Propriety software; Evidence requirements; and Encryption.

Product standard for duty gloves worn by responders in law enforcement and corrections role

There is a need to develop a single standard containing performance requirements and test methods for protective gloves worn by law enforcement and corrections officers while on duty.

Although there is an NIJ protocol for testing gloves, it was published in 1999, is out of date, and does not specify performance requirements. At least the following criteria should be addressed:

- Dexterity and ergonomic requirements of officers. Pathogen, chemical, cut, tear, puncture (including needle stick) and abrasion resistance.
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2014 IAB STANDARDS DEVELOPMENT PRIORITY LIST CONTINUED



Standard test methods for robot operator evaluations “Standard test methods in a box”

This item is a continuation and expansion of previously identified IAB standards requirements for response robot standard test methods, including FY2013 IAB priority for training, Standard for Robot Operator Self-evaluation and Training Program. Many robot test methods have been published that can be adapted for use in operator training and evaluation programs.

The requirement for FY 2014 is two-fold:

- Continue and expand test method development to address robots for vehicle-borne improvised explosive device (VBIED) response, for air deployment, and for water deployment. Both civilian bomb squads and military explosive ordnance disposal (EOD) specialists are currently focused on robots for responding to VBIEDs and have expressed a need for aerial observation robots and water-deployed robots.
- Develop a standard describing (1) scenario-based drills for operator evaluation (based on published and developing robot test methods) and (2) instructions for building/configuring standardized apparatus to be used in performing the drills. The drill descriptions should have the necessary elements (e.g., performance checklists, time constraints, data sheets) to accurately evaluate robot operator capabilities in terms of situational awareness; maneuvering; terrain and obstacle negotiation; and manipulator strength, reach and dexterity with an emphasis on VBIED applications. The instructions for building/configuring each apparatus would contain a bill of materials and tools, drawings, and assembly guidance so that each apparatus could be built and configured with the same result by any user of the standard. The instructions should also include guidance for packaging the apparatus in a portable container that can be easily shipped to civilian and military locations for training and evaluation. The resulting apparatus and packaging are referred to as “test methods in a box.”

TIER 3

Product standard for conducted energy devices (less lethal)

Performance requirements and test methods need to be developed to address the performance of conducted energy devices (CEDs) used by public safety practitioners. Three types of CEDs used by law enforcement and corrections are: (1) Hand-held, (2) Shield/

baton, and (3) Belt/band/sleeve. While many studies have been performed on specific technologies to evaluate efficacy and, to some degree, evaluate the safety of these devices, there currently exists no standardized way to evaluate product performance prior to being marketed to agencies. Buyers must evaluate performance based on manufacturer claims and individual product performance demonstrations.

Product standard for chemical munitions (less lethal)

Performance requirements and test methods need to be developed to address the performance of chemical munitions and their delivery systems. Several types of chemical munitions are currently in use, including OC (Oleoresin capsicum) spray (i.e., pepper spray), CS (Orthochlorobenzalmonitrile) spray (i.e., tear gas), and smoke. Several forms of chemical agents are currently in use; solid, liquid, foam, and micro-pulverized. Standard should address: Performance requirements; safety mechanisms to protect the user; flash fire potential; dispersion methods; and resistance to dropping, impact, and extreme temperature.

Product standard for impact munitions (less lethal) fired from a launching system

Performance requirements and test methods need to be developed to address the performance of impact munitions, such as polyurethane projectiles, wooden batons, foam batons, and bean bags, fired from a launching system. Standards should address: Intended use; appropriate launching system; projectile type, materials, and number in cartridge; accuracy; kinetic energy upon impact; effective image; muzzle velocity; and potential hazards.

Product standard for distraction devices (e.g., flash bangs)

A product standard needs to be developed for noise flash diversionary devices (NFDDs), also known as distraction devices, flashbangs, or stun grenades, used by law enforcement and corrections. Distraction devices may be divided into two categories: (1) Those that produce light and sound and (2) Those that produce light and sound and eject either chemicals (OC/CS) and/or projectiles (rubber pellets). Standards should address; construction, fuse type, candela, acoustic sound, fuse delay, emitted flash duration, heat, fragmentation due to function, projectiles, collateral effects, and safety considerations.