

# ADDRESSING LAW ENFORCEMENT NEEDS, ENSURING PERFORMANCE:

## NIJ REVISING VOLUNTARY EQUIPMENT STANDARDS

The National Institute of Justice (NIJ) develops and publishes voluntary equipment standards that specifically address the needs of law enforcement, corrections and other criminal justice agencies to ensure that equipment is safe, reliable and performs according to established minimum performance requirements. NIJ standards are consensus-based and designed to articulate the criminal justice end user community's operational requirements regarding equipment performance. They are designed to provide a level of confidence in a product's fitness for purpose and allow comparison of products based on standardized test methods. NIJ maintains active standards for a variety of equipment, including ballistic-resistant body armor, stab-resistant body armor, restraints, bomb suits, CBRN protective ensembles and offender tracking systems.

To assist in the development of standards, NIJ establishes Special Technical Committees (STC), consisting of actively

serving law enforcement officers from federal, state and local criminal justice agencies; test laboratories; and subject-matter experts knowledgeable in standards development and product certification. Members meet to discuss criminal justice community needs, potential test methods and other related issues that inform the standards. Draft standards are published for public comment, revised in consideration of those comments and then published in final form. NIJ currently has four STCs working on standards that are in various stages of this standards development process:

**Ballistic-resistant Body Armor.** NIJ recently published a proposed revision of NIJ Standard 0101.06, *Ballistic Resistance of Body Armor*, which specifies minimum performance requirements and test methods for the ballistic resistance of body armor used by U.S. law enforcement that is intended to protect the torso against handgun and rifle ammunition. The final version of this draft document is anticipated to be published in 2019 as NIJ Standard 0101.07,

*Ballistic Resistance of Body Armor*. Its primary purpose will be for use by the NIJ Compliance Testing Program (CTP) for testing and evaluation of ballistic-resistant body armor for certification by NIJ. The major revisions are highlighted below:

- Changing protection level names and introducing a third level of hard armor plate protection, with a goal of ensuring clarity through nomenclature that instantly identifies the type of protection offered.



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- New threat levels and additional rifle threats, including 7.62x39mm mild steel core (MSC) and two types of .223 (5.56mm) ammunition for hard armor plate testing.
- A test protocol specific to female armor, developed with input from several focus groups of female officers.
- Dropping Level IIA, the lowest level of soft armor protection.
- Improved definitions and nomenclature, with additional references to the recently published ASTM E3005-15, *Standard Terminology for Body Armor*.
- Referencing several recently published ASTM test methods developed through ASTM Committee E54 that involved a broad community of stakeholders, including NIJ, the U.S. Army, NIST, test laboratories and industry.

**Stab-resistant Body Armor.** Corrections officers face danger and challenges to their safety on the job. Inmates are creative and inventive in fashioning improvised stab weapons from everyday objects or materials, even objects as simple as toothbrushes. To help these officers protect themselves against these threats, NIJ is updating NIJ Standard 0115.00, *Stab Resistance of Personal Body Armor*, with a draft version expected to be published for public comment in 2019. The new standard will include updated test threats developed from improvised weapons confiscated from U.S. correctional institutions and specific test methods for female body armor.

**Civil Disturbance Unit Personal Protective Equipment.** NIJ plans to facilitate the development of baseline performance requirements, standardized test methods and certification requirements for personal protective equipment (PPE) used by U.S. law enforcement civil disturbance units (CDU). To inform this effort, NIJ has established an STC on CDU PPE to oversee the development of performance standards that meet the needs of U.S. law enforcement. NIJ anticipates that these standards will be developed through the consensus process through one or more accredited Standards Development Organizations (SDO), with the participation of U.S. law enforcement CDU practitioners, testing laboratories and product certifiers, as well as manufacturers and industry.

For U.S. law enforcement agencies planning to procure new or certified CDU PPE, NIJ has identified either British Standard 7971, *Protective clothing and equipment for use in violent situations and in training*, or standards developed by the U.K. Home Office [*i.e.*, *HOSDB Blunt Trauma Protector Standard for UK Police* (2007), *PSDB Protective Headwear Standard for UK Police* (2004), and *HOSDB Flame Retardant Overalls Standard for UK Police* (2008)] as performance standards that may meet agencies' needs until such time as U.S. standards can be developed.

**Firearms.** NIJ recently established an STC for Law Enforcement Firearms. The purpose of the STC will be to update NIJ Standard 0112.03 (Revision A), *Autoloading Pistols for Police Officers*, and NIJ Standard 0113.00, *12-Gauge Shotguns for Police Use*, and to develop a new minimum performance standard for patrol rifles. The committee is currently working to articulate minimum performance requirements that U.S. law enforcement should demand of their pistols, rifles and shotguns, and also describe how laboratories should test firearms to determine conformance to the requirements. Factors such as service life; durability; exposure to environmental conditions such as heat, cold, water and sand; and resistance to mechanical shock will be considered.

**Compliance Testing Program.** The Justice Technology Information Center (JTIC) supports NIJ's standards development and administers the NIJ CTP. Through the NIJ CTP, equipment is tested and evaluated in accordance with NIJ standards to determine if it meets minimum performance requirements. Both ballistic-resistant and stab-resistant body armor models that comply with the requirements are added to the Compliant Product List, which can be found at [PoliceArmor.org](https://www.policearmor.org/) (<https://www.policearmor.org/>)

For more information on any of these draft standards, contact JTIC Materials Engineer Dan Longhurst at [dlonghurst@justnet.org](mailto:dlonghurst@justnet.org).