



# THE INTERAGENCY BOARD

*Improving all-hazards response for all disciplines*

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# Standards Development Priorities

- Introduction to IAB Standards Development Process
- Status of Previous IAB Standards Development Priorities
- 2016 IAB Standards Development Priorities List:
  - Description
  - Progress and Needs
  - Discussion and Recommendations
  - Next Steps
- Suggestions for Improving the Process



# IAB Standards Development Process

IAB members identify and describe needed standards



IAB survey of members done to prioritize items



IAB sends letters to SDOs, federal agencies, & others



HDSSC informs stakeholders of progress on a regular basis



Standards development is initiated with IAB representation



HDSSC provides forum for interested stakeholders to address needs

# Status of Previous IAB Priorities

Item	Status
Protective helmets	ASTM - developing test methods and specifications (will fully meet the need); Publication expected in 2017
Protective shields	ASTM - developing a ballistic test method (partially meets the need); Publication expected in 2017
Tactical operation video cameras	UL - developing the performance standard NFPA - developing a selection, care, and application guide
Body-worn cameras	UL - working to initiate development of the performance standard
Robot operator self-evaluation & training program	ASTM, in partnership with NIST - developing these standards ASTM and NFPA partnering to co-brand a certification program for robot operators
Protective gloves	ASTM - developing specification and conformity assessment practice; publication expected in 2017 NFPA - developing a selection, care, and application guide
Body armor designed for females	ASTM - developing standard practice (partially meets the need); publication is expected in 2017; additional research to be done
Localization & tracking systems	ISO/IEC 18305 under development; publication expected in 2017

# Nonpneumatic Limb Tourniquets

## Description:

- There is currently no specification or test method for non-pneumatic tourniquets used by responders, and a standard is needed to give confidence or a comparable baseline for claimed performance by manufacturers. There are known incidents of tourniquets failing when used and reports of counterfeit tourniquets being sold.

## IAB Expert:

- Andrew Rowley



Source: [www.chiefsupply.com](http://www.chiefsupply.com)



Source: [www.refactortactical.com](http://www.refactortactical.com)



# Nonpneumatic Limb Tourniquets

## **Progress:**

- Lead identified: Andrew Rowley
- Team of experts has agreed to collaborate
- ASTM E54, Committee on Homeland Security Applications, has requested to take on this activity in collaboration with ASTM F30, Committee on Emergency Medical Services
- Kick-off meeting to be held in early January

## **Needs:**

- Additional interested stakeholders
- Research and testing data

# Less lethal chemical agent devices

## Description:

- A performance standard, including test methods, is needed to address the performance of chemical agent devices and their delivery systems. Several types of chemical agent devices are currently in use, including OC (Oleoresin capsicum) spray (i.e., pepper spray), CS (Orthochlorobenzalmalonitrile) spray (i.e., tear gas), powders, and smoke.

## IAB Experts:

- Nick Roberts, Tom Nolan, Craig Dickerson



Source: [www.newyorker.com](http://www.newyorker.com)

# Less lethal chemical agent devices

## Progress:

- Team of experts has agreed to collaborate
- Draft product specification developed based on *CAST Standard for Police Chemical Irritant Sprays: CS and PAVA* (United Kingdom Home Office)
  - Working with major manufacturer on test methods relevant to US officers
- ASTM E54, Committee on Homeland Security Applications, has requested to take on this activity
- Kick-off meeting to be held in early January

## Needs:

- Additional interested stakeholders
- Research and testing data



# Less lethal conducted energy weapons

## Description:

- Conducted energy weapons (CEWs) are used by more than 16,000 law enforcement agencies as a less lethal force option. Although they are commonly used, CEWs are not tested to any standards and have been found in field use to be very inconsistent in their electrical output. The biggest problem is “cold” weapons that do not have high enough output to cause pain much less incapacitation. Situations in which CEWs are deployed and have low output typically result in the use of lethal force.

## IAB Experts:

- Nick Roberts, Tom Nolan, Craig Dickerson





# Less lethal conducted energy weapons

## Progress:

- Two end user meetings have been held
- Knowledgeable experts and stakeholders have been identified
- Relevant research, test methods, and standards have been identified
- ASTM E54, Committee on Homeland Security Applications, has requested to take on this activity

## Needs:

- Additional interested stakeholders
- *To be identified*

# Less lethal distraction devices

## Description:

- A performance standard is needed for noise flash diversionary devices (distraction devices, flash-bangs, or stun grenades). Many issues have been identified by end users and could be addressed by having a performance standard.

## IAB Experts:

- Nick Roberts, Tom Nolan, Craig Dickerson





# Less lethal distraction devices

## Progress:

- Two end user meetings have been held
- ASTM E54, Committee on Homeland Security Applications, has requested to take on this activity

## Needs:

- Additional interested stakeholders
- Research and testing data
- *To be identified (much work is needed to lay a proper foundation)*

# Less lethal impact (i.e., kinetic energy) devices

## Description:

- Performance requirements and test methods need to be developed to address the performance of less lethal impact devices, such as polyurethane projectiles, plastic projectiles (e.g., Pepperball, FN), wooden batons, foam batons, and bean bags, fired from a launching system. Many issues have been identified by officers.
- Note: Safety of the targeted individual/opponent not to be addressed here

## IAB Experts:

- Nick Roberts, Tom Nolan, Craig Dickerson



Source: [www.campussafetymagazine.com](http://www.campussafetymagazine.com)



Source: [ncja.ncdoj.gov](http://ncja.ncdoj.gov)

# Less lethal impact (i.e., kinetic energy) devices

## Progress:

- Two end user meetings have been held
- ASTM E54, Committee on Homeland Security Applications, has requested to take on this activity

## Needs:

- Additional interested stakeholders
- Research and testing data
- *To be identified (much work is needed to lay a proper foundation)*

# Monitoring effectiveness of protective clothing doffing for avoidance of contamination transfer

## Description:

- A standard is needed to provide general requirements for monitoring how contamination transfer occurs during doffing in order to prevent contamination transfer when responders doff protective clothing.
  - 2015 report: < 1/6 of healthcare workers followed the correct recommendations for removal of personal protective clothing after patient care ⇒ *likely contaminating themselves and increasing the risk of transmission to others*
  - Should address use of specific fluorescent tracers, their application, selection of test subjects, safety provisions, doffing, and viewing and documenting tracers on individuals following exposure.

## IAB Expert:

- Jeff Stull



Source: [www.des.umd.edu](http://www.des.umd.edu)



# Monitoring effectiveness of protective clothing doffing for avoidance of contamination transfer

## Progress:

- Work initiated within ASTM F23: ASTM WK55144, *New Practice for Evaluating the Transfer of Exterior Contaminants from Protective Clothing During Doffing*

## Needs:

- *To be described by Jeff Stull*



# Bomb suits, addressing blast overpressure protection

## Description:

- The scope of this requirement is to develop performance requirements and test methods to be added to the current version of NIJ Standard-0117, *Public Safety Bomb Suit Standard*, to address blast overpressure protection. The effects of blast overpressure on the human body need to be taken into account to address external and internal impact/injury to the head, neck, thorax, abdomen, and ears.
- Development of performance requirements and test methods will require research and testing.

## IAB Expert:

- Martin Hutchings



# Bomb suits, addressing blast overpressure protection

## Progress:

- Battelle has completed a literature review and gap analysis to identify and assess research and testing related to effects of blast overpressure on bomb suit performance and on the bomb technician donning the bomb suit. The report is entitled, “Literature Review of Blast Overpressure Effects on Bomb Suit Performance,” and may be obtained by contacting the IAB Program Office at [info@interagencyboard.us](mailto:info@interagencyboard.us)
- Input and interest received from major manufacturer

## Needs:

- Research and testing to support development of a test method
- Sufficient interest and willingness from end users, technical experts, manufacturers, and other stakeholders to pursue development of a test method

# Explosive containment vessels

## Description:

- Civilian and military bomb technicians use explosive containment vessels to transport explosives and improvised explosive devices. A standard, including performance requirements and test methods, is needed to evaluate: (1) the capability of total containment vessels (TCVs) to contain an explosive blast and/or chemical/biological agents inside the vessel and (2) the venting/scrubbing properties of the TCVs and related machinery.

## IAB Expert:

- Martin Hutchings





# Explosive containment vessels

## **Progress:**

- Lead identified: Martin Hutchings
- Knowledgeable experts and stakeholders are being identified
- Major manufacturer has agreed to participate and provide research and testing data
- ASTM E54, Committee on Homeland Security Applications, has requested to take on this activity
- Kick-off meeting to be held in January

## **Needs:**

- Additional interested stakeholders
- Research and testing data



# Guidance for illicit substance detection

## Description:

- Law enforcement officers (LEOs) are in need of guidance for dealing with suspected illicit substances encountered in the field. The issue has gained importance as officers are faced with handling “liquid meth” (i.e., methamphetamine in solution), which has become a more common procedure for attempts to smuggle illicit drugs across US borders.
- A notable gap exists between finding a substance, testing it, and identifying it as methamphetamine in solution. Once the substance is identified, the handling and PPE requirements become easy to address. Before the substance is identified, officers face the very difficult situation of having a “solution suspected of containing illicit substances”.



# Guidance for illicit substance detection

## Progress:

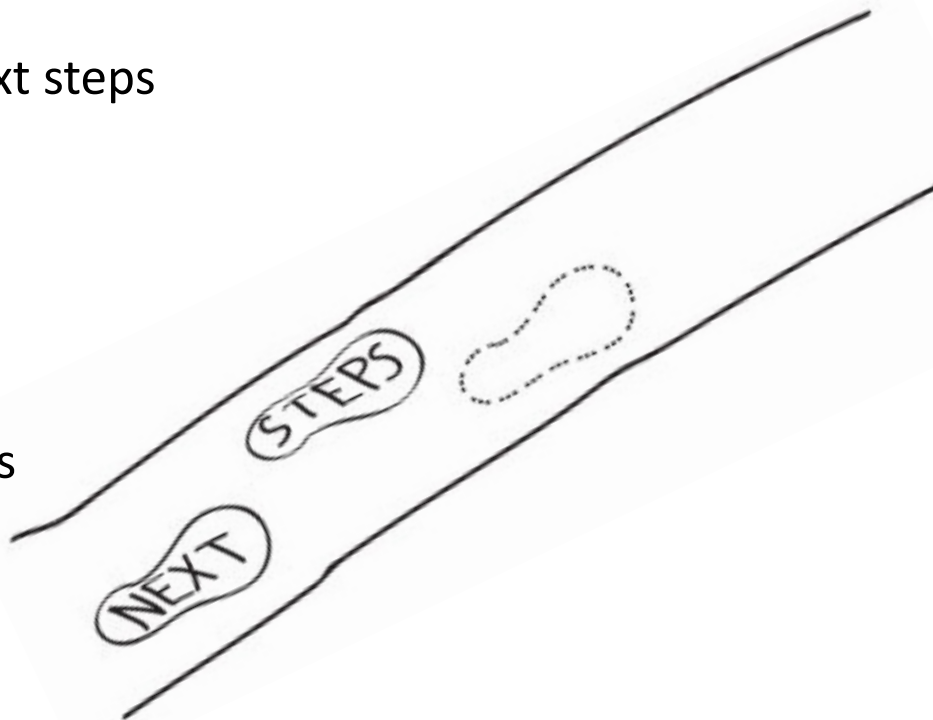
- Very little progress to date in further defining this need or a path forward

## Needs:

- **Champion for the effort**
- An assessment of current national guidelines, methods, and best practices for LEO approach to evaluation of unknown compounds (solids, powders, liquids, vapors) for illicit substances
  - Should ask whether current LEO policies meet or reflect the current best practices for safety, efficiency, effectiveness, evidentiary chain of custody, intent to conceal, and processes to document prevention of contamination along chain of custody
- Background research and data collection to further define need

# Path Forward

- Review of action items and next steps
- Suggestions for:
  - Improving the process
  - Following through on items
  - Communicating progress
- Contact information:
  - Michelle Deane: [mdeane@ansi.org](mailto:mdeane@ansi.org)
  - Cassy Robinson: [casandra.robinson@nist.gov](mailto:casandra.robinson@nist.gov)



# Contact Information

For more information about the IAB, please visit our website  
at:

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Or email the IAB Program Office at:

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**“Out of Many, One”**