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
- Standards development is initiated with IAB representation
- HDSSC provides forum for interested stakeholders to address needs
- HDSSC informs stakeholders of progress on a regular basis
<table>
<thead>
<tr>
<th>Item</th>
<th>Status</th>
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<tbody>
<tr>
<td>Protective helmets</td>
<td>ASTM - developing test methods and specifications (will fully meet the need); Publication expected in 2017</td>
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<tr>
<td>Protective shields</td>
<td>ASTM - developing a ballistic test method (partially meets the need); Publication expected in 2017</td>
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<tr>
<td>Tactical operation video cameras</td>
<td>UL - developing the performance standard</td>
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<td></td>
<td>NFPA - developing a selection, care, and application guide</td>
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<td>Body-worn cameras</td>
<td>UL - working to initiate development of the performance standard</td>
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<td>Robot operator self-evaluation &amp; training program</td>
<td>ASTM, in partnership with NIST - developing these standards</td>
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<td>ASTM and NFPA partnering to co-brand a certification program for robot operators</td>
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<tr>
<td>Protective gloves</td>
<td>ASTM - developing specification and conformity assessment practice; publication expected in 2017</td>
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<td></td>
<td>NFPA - developing a selection, care, and application guide</td>
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<tr>
<td>Body armor designed for females</td>
<td>ASTM - developing standard practice (partially meets the need); publication is expected in 2017; additional research to be done</td>
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<tr>
<td>Localization &amp; tracking systems</td>
<td>ISO/IEC 18305 under development; publication expected in 2017</td>
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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
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
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

Source: www.sandia.gov
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
- \textit{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
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)
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
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

Source: NBSCAB
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

• 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
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:
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  – Cassy Robinson: casandra.robinson@nist.gov
Contact Information

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

www.interagencyboard.org

Or email the IAB Program Office at:

info@interagencyboard.us

“Out of Many, One”