**Executive Summary**
**ANSI-HSSP Workshop on Transit Security**
**Standardization**
January 27-28, 2009
Executive Conference Center (ECC)
One Virginia Square
3601 Wilson Blvd, Suite 600
Arlington, VA  22201

**Purpose:**
On January 27-29, 2009, the ANSI-HSSP convened a Workshop on Transit Security Standardization, bringing together nearly 70 key stakeholders from standards developing organizations (SDOs), federal agencies, and the transit community.  The event, co-chaired by Mr. Colin Alter, subject matter expert, and Mr. Ron Masciana, Deputy Chief of the New York Metropolitan Transit Authority Police, addressed the immediate need for standards and conformity assessment based solutions for urban, suburban, and regional commuter transportation.

**Scope:**
Throughout the course of the two-day Workshop, concurrent break-out sessions in conjunction with the panel topics of video analytics, access control/intrusion detection, and explosives detection equipment were convened. In order to determine the best way forward for the Workshop initiative, break-out session participants engaged in a dialogue that sought to identify the following (inclusive of concept of operations): relevant standards currently published or under development, additional standards needed to aid in securing transit, performance requirements for future standards proposals, and relevant gaps in science and/or technology resulting in the findings and recommendations outlined below.

**Findings & Recommendations:**
**I.  Credentialing, Access Control, and Intrusion Detection**
It was found that work is currently being carried out within the civilian sector to address vulnerabilities presented by keys and key cards, specifically related to securing employee credentials as a component of access control technology.  Also, intrusion detection needs span diverse environments, encompassing such elements as: interior and exterior setting; exposure to diverse climactic conditions; variations in the size of spaces from small rooms to long fence lines along rights-of-way; points accessed with vastly different frequencies; and other physical considerations.  There are multiple existing technologies for the wide range of applications required in public transit.  Challenges exist related to information dissemination and sharing in a security sensitive environment as well as funding to implement the solution appropriate to existing conditions.

It is recommended that this working group, through the ANSI-HSSP, engage organizations such as SIA, ASIS, and others to strategize on the development of standards-based solutions specifically related to the following needs:

- Perimeter security for both open and closed facilities
- Interoperability of systems for physical security
- Risk management and risk sharing within systems
- Lighting
- Intrusion detection systems
- Credentialing and identity management specifically related to visual inspection identification capability smart card electronic identification (e.g. TWIC and PIV card adoption)
- Biometrics
- Remote electronic access capability and centralized reporting
- Standards supporting interchange between technology and operations

For the largest transit agencies, a data base with an integrated approach to limit access to the most sensitive areas of a transit agency by individual would complement such strategies. An integral component would be a method of remote reporting of attempted access by unmatched parameters.

## II. Explosive Detection Equipment
Findings from this group highlighted the challenges surrounding explosives detection from both the perspective of the end-user as well as the standards community.  There is need in this community for diversification in complementary strategies as well as an integrated effort related to the implementation of three key categories of explosives detection equipment: container/bag screening, portable explosives trace detection, and canine detection.  Additionally, there are a variety of technologies that successfully detect both HMEs and conventional explosives in the laboratory environment.

Reasonable recommendations as next steps include continued engagement of key transit community subject matter experts, outreach to knowledgeable principals at agencies such as NIST and TSA in addition to appropriate SDOs, and existing or potential future interagency task forces to address standards needs specifically related to the following:

- Explosives detection devices for both stand-off and scanning devices
- Detection technology for the integration of high-level information
- Standards supporting interchange between technology and operations
- Canine detection standards and determination of actual testing objectives
- Service environment for determining functional requirements

## III. Video Analytics
Relevant findings related to this method of transit security include the need for automated video surveillance refining as well as a video surveillance format for interoperability to mitigate high-consequence risks. Additionally, significant federal and local/regional investments are being made in this technology.  Several transit agencies have procured various forms of video analytics applications, however, selection of the correct application with the necessary capability, remains a challenge. This presents an opportunity for standards development related to system requirements, ultimately reducing reliance on vendor direction for implementation. Also, through the establishment of test and evaluation methodologies, a baseline can be created for performance measurement.

As several entities are currently working on video-analytic standards, it is recommended that all appropriate organizations/agencies, including SIA and SPAWAR, are engaged in the continued development of standardization efforts related to this technology to ensure unification of efforts, specifically related to:

- Testing and evaluation of comparative software-based algorithms
- Performance measurements
- Resolution
- Frame rate
- Housing
- Communication
- Standards supporting interchange between technology and operations

## Next Steps:
- While several key stakeholders were represented at this Workshop, it is clear that there are others that were not in attendance that could contribute to the recommendations outlined above.
- It is imperative that outreach strategies be identified to advance these transit security standardization efforts.
- At the request of the Workshop Co-Chairs, a compilation of existing standards has been prepared and is included in the final Workshop report to aid in surveying current needs, prioritizing those needs, and identify where gaps remain.

In conclusion, the partnership the ANSI-HSSP has developed with the U.S. Department of Homeland Security (DHS) plays an integral role in addressing the nation's critical need for standards and compliance programs, specifically related to the transit security concept of operations, security surveillance, CCTV, video analytics, access control, intrusion detection, and the detection of explosives.  Additionally, this partnership can be leveraged to facilitate standards development related to a diversified, yet complementary, application of these various forms of transit security methodologies.