Written Testimony
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"Transportation Security Acquisition Reform Act: Examining Remaining Challenges"

Chairman Katko, Ranking Member Rice, and Members of the Subcommittee, on behalf of the nine-member Security Manufacturers Coalition, thank you for the opportunity to share our collective thoughts on potential areas of improvement in technology research, strengthening the TSA test and evaluation process, and bringing clarity and stability to technology acquisitions. Your vigilance and oversight this past year was most welcome, and the SMC stands ready to work with you and the TSA in 2016 to improve the security of the traveling public.

The SMC is the unified voice of leading security technology companies with manufacturing operations and offices in 10 states. The 7,000 direct and 20,000 in-direct jobs generated by SMC members run the gamut of systems engineering and design to advanced product assembly with tested and certified equipment deployed across the transportation network throughout the world. Every coalition member is committed to delivering first-rate threat detection and screening equipment to protect our nation and our people.

The coalition is primarily focused on 1) developing a straight-forward dialogue and collaboration with our key government partners; 2) improving the TSA test and evaluation (T&E) process, for which this Subcommittee just received GAO testimony and on which we largely agree; 3) improving the overall TSA acquisition planning; 4) urging an improved R&D process that ties back to TSA requirements and procurement; and 5) ensuring adequate funding is in place to execute important equipment upgrades and recapitalization.

I am also pleased to serve on the Aviation Security Advisory Committee (ASAC) and as the co-chairman of the ASAC's newly-formed Security Technology Subcommittee. Our thanks to the Committee again for supporting legislation to codify the ASAC and ensure technology is a key focus of this important industry advisory group to the TSA.

TSA LEADERSHIP

My testimony today will largely focus on TSA's T&E process, the importance of building off of the five-year acquisition plan requirements of the Transportation Security Acquisition Reform Act (TSARA – P.L. 113-245), and Congress's important role moving forward. However, first and foremost, any meaningful result today and in the future will only be achieved when industry has an active and purposed seat at the table with government – not simply to receive information, but to generate a constructive dialogue on the threats we face and vulnerabilities ripe for exploitation by our adversaries. This will enable manufacturers to align private sector technology research and capabilities with current and future threats, as well as to ensure a viable domestic security technology industrial base is maintained.

Over the past four and a half years in which the SMC has been operating, we have seen a laudable increase in engagement by TSA with the industry. This trend continues under Administrator Neffenger's leadership and with Office of Security Capabilities Assistant Administrator Jill Vaughan, who has genuinely sought a greater partnership with manufacturers. We are optimistic TSA understands how unpredictable purchasing cycles and multi-year timelines for equipment development, testing and qualification negatively impact both government and the industry.

TSA ACQUISITION PLAN

TSARA required TSA to develop a 5-year technology acquisition plan. Released in August, the *Strategic Five-Year Technology Investment Plan for Aviation Security* (henceforth referred to as the "Five-Year Plan"), is a positive step forward in accountability, cross-jurisdictional collaboration and industry engagement.   An essential document for industry planning, the Five-Year Plan provides some visibility into TSA's schedule for replacement and upgrades of existing equipment, and projected future capability needs. But this is just a first step.   Industry needs a more precise roadmap to know where and when to invest. Ensuring our R&D efforts focus on the capabilities that will meet TSA priorities and address emerging security threats is critical to protect the citizens of this country. Greater partnership between TSA and industry will only help with this process.

The SMC believes the Five-Year Plan can be leveraged to vastly improve TSA's acquisition process and, ultimately, the security of our aviation system. This Committee is in a unique position to monitor progress TSA is making on acquisition reform. The SMC supports all efforts to ensure TSA is making necessary changes to: streamline and strengthen the T&E process; align budget requests to identified requirements; provide clear and consistent details on the threat profile to ensure industry is prepared to respond and TSA is making the right investments; and ensure meaningful engagement with industry.

PLAN DETAILS

The SMC encourages Congress to require future iterations of the Five-Year Plan to provide more specific dollar allocations and investment detail tied to particular equipment type. The spend plan generically suggests a $3.6 billion investment over the five-year period but fails to align those expenditures along actual programs, projects and activities. Further, there is virtually no mention of "new" acquisition as opposed to recapitalization. Finally, the acquisition plan should be based on the true needs of the TSA from a technology capabilities standpoint, not an expected budget framework.

This lack of detail creates challenges for industry. By example, "Figure 8. Approved PSP and EBSP Recapitalization" on Page 22 of the Five-Year Plan indicates TSA plans to recapitalize 897 Enhanced Metal Detectors (EMDs) in FY16. At this stage, it is unclear whether TSA plans to purchase these machines directly off of the Qualified Equipment List – equipment that has been certified and cleared through the T&E process – or whether new requirements will be introduced requiring additional testing and validation. At present, TSA has not provided vendors a schedule,

RFP or plan to extend the useful life of existing EMDs operating under standing requirements. The SMC is equally concerned that in FY17 and beyond order volumes for EMD are less than 10 percent of FY16.

Figure 8 also suggests acquisition in FY17 of 296 Next Gen Advanced Technology X-ray (AT-2) machines. Industry is awaiting a list of requirements for this technology, which may include cybersecurity hardening. Even under the best possible scenario, if the requirements document were released and a manufacturer provided equipment to TSA for T&E immediately, the likelihood of TSA being able to purchase in FY17 is challenging based on the comprehensive testing process.

Overall, industry is concerned about future recapitalization plans outlined in the Five-Year Plan that consist of peaks and valleys on a year by year basis. This makes resource allocation and staffing extremely challenging for manufacturers. A more consistent, level spend plan spread out over the five years would enable original equipment manufacturers (OEMs) to maintain consistency in staffing and manufacturing plans.

T&E PROCESS REFORM

TSARA is an important first step to meaningful reforms, but while plans are great, it is the implementation of those plans that determines ultimate success. TSA has outlined a number of initiatives underway at OSC that seek to improve the acquisitions process, particularly relating to the development, testing, and qualification of security equipment. While TSA has done a good job of providing transparency into the process for industry, the fact remains that under the best scenario, it can take three years or longer to navigate a piece of equipment through the T&E process. While the bar must be high, this process impacts innovation, competition, improved security and efficiency, as both the government and industry expend undue time and resources navigating a complicated process.

We believe GAO did an admirable and fair assessment of the state of TSA's test and evaluation process and we offer a few of our perspectives for this Committee's consideration.

First, GAO touches on a key challenge at TSA: the need to improve coordination internally in the T&E and overall acquisitions process. The report cites a lack of coordination between program managers and the T&E division, which has led to problems in establishing unrealistic acquisitions schedules and conflicts in the interpretation of test results. Quite simply, the barriers to effective coordination within TSA need to be broken down to facilitate a more coordinated acquisitions process. Breaking down internal barriers and empowering key individuals as well as instituting direct accountability is absolutely required.

Second, as noted in the report, the TSA has begun to share test plans with OEMs for specific transportation security equipment (TSE). The SMC supports this as a means to ensure alignment on the goals and testing procedures between the TSA and vendors. TSA has provided test plans

for Explosive Detection Systems (EDS), and they are helpful, but we encourage test plans for other TSE to be shared.

The GAO also notes OSC has implemented plans and policies that would engage third parties to assist in the test and evaluation process. The SMC shares the concerns raised by GAO that the TSA has undertaken third-party testing without a clear vision of what the end-state will truly be. As noted by GAO, the current third party testing procedures could potentially raise costs and lengthen an already arduous equipment vetting process rather than provide an expedited, focused review that in turn gets equipment to the field.

The SMC believes that developing a viable and optional third-party testing process could be an example of a collaborative initiative by TSA and industry. Under this process, TSA would select and certify providers in the private sector and conduct proper oversight of these entities. Once this is in place, TSA should then accept the findings and results of the third party providers and not start the entire testing process over again, particularly on items that are not critical to detection and operational performance. Rather than TSA spending considerable time testing items that can be objectively measured (such as size, weight, lights, basic functions), and then spend weeks in coordination and correction, third party testing could offer a faster, more cost efficient alternative by allowing TSA to focus on the critical aspects of threat detection. Overall, third party testing should be used as an economical way to ensure requirements are met, not as a duplicative, costly measure.

It should be noted that setting up this structure will require substantial resources by OSC, as the initial vetting, approval and certification of third party testing providers, and the sustained monitoring and oversight, will require considerable support. However, SMC believes the security and industry innovation benefits of a reliable, well-constructed third party vetting process warrant TSA's attention and Congress' persistent oversight to get this right. Recently, TSA has reached out to SMC to begin framing out a third parting testing program in 2016 and we look forward to this dialogue.

The SMC also endorses GAO's recommendation that the TSA conduct a comprehensive assessment of testing data, including timeframes, costs incurred and testing delays across all technologies, to ascertain the factors that lead to recurrent chokepoints in the T&E process. This would provide a good opportunity for industry and TSA to collectively identify and find solutions to address the most prominent stumbling blocks in the process.

Finally, perhaps the single, most critical element for ensuring a successful test and evaluation process is the thoughtful development of equipment requirements. TSA and industry have struggled over the years with requirements that number in the hundreds, many of which have little relevance with the core detection and operational performance of the equipment. There is also the challenge of constantly shifting requirements, which cause significant disruptions in the testing process. We have urged TSA with each procurement to identify the handful of solid, core requirements to test capabilities.

In summary, shortening and streamlining the testing process and collaborating with industry to identify recurrent chokepoints and develop solutions would go a long way to getting newer, more advanced equipment into the field. It will provide a higher-degree of certainty to industry that the process isn't a series of roadblocks, but important, measurable checkpoints on a linear road. It will also help to foster more competition and effective use of government and industry resources.

S&T INVESTMENT & INTERAGENCY COLLABORATION

The TSA's Five-Year Plan projects a more integrated engagement with the DHS Science & Technology Directorate. We urge the Committee to require more detail in future iterations of the Five-Year Plan to include specific examples and plans of S&T investment directly tied to fulfilling TSA identified capability gaps and future requirements; the subsequent transition of TSE from development to the T&E stage; and eventually acquisition. There are substantial opportunities to improve coordination between S&T and TSA to ensure the development of newer, higher-capability equipment that can be transitioned to a more effective testing process and fielded more expeditiously.

The SMC supports the thoughtful investment of research dollars, provided it is tied to addressing real threats identified by TSA as a capability gap and with an eye toward eventual and realistic procurement either by the government or as a requirement of government (as in the case of air cargo). Secretary Johnson's efforts to better align S&T Integrated Product Teams (IPT) under the Unity of Effort Initiative is a welcome first step. TSA and OSC needs to have a prominent role in the IPT effort, and ultimately should have a lead role in identifying key R&D needs and activities, as they are responsible for acquiring and operating equipment that will meet new and evolving threats.   Further, industry input should be solicited early on in the process to ensure research goals align with achievable, cost-conscious results.

LIFECYCLE
Along with the T&E process and up and down procurement cycles, there are other notable challenges for industry. In 2014, with no industry input, TSA made a decision to expand the projected lifecycle of EDS machinery from 10 to 15 years. This had significant implications on company manufacturing and staffing plans. While the justification by TSA was that detection capabilities for known threats continues to be sufficient, the results are that future threat research and response is stifled and next-generation detection and high-speed capabilities are delayed.

The lifecycle decision may have a very real budgetary and operational impact for TSA, as the ability to maintain and keep equipment fully operational and performing its mission after 10 years of service is increasingly difficult. This means more patches, difficulty finding replacement parts, more service calls, antiquated operating systems, and less efficiencies. Further, trying to bring 10-15-year-old equipment into the Age of the Internet of Things is almost impossible as the

equipment was designed and built to requirements that never envisioned cybersecurity, Internet connectivity or data conversion capabilities.

Congress should closely watch TSA lifecycle equipment determinations for both delayed security impacts, operational cost increases and the very real implications for a viable domestic security industrial base. At a minimum, pushing equipment approval timelines to the right delays the next generation of equipment with increased capabilities, hinders current performance and stifles innovation.

A market environment that engenders innovation is our best defense against improvised explosives and thwarting transportation threats. Certainly intelligence is key, but when this fails, if we are not encouraging technological innovation and next-generation investment, we will lose not only our technological edge, but the industrial base that goes with it.

OPEN ARCHITECTURE

Related, the Five-Year Plan touches on a desire by TSA to move to a networked system of equipment, or as Administrator Neffenger refers to, a "system of systems." A key component of this end-state is an open architecture which functionally seeks to better integrate technology applications and apply security countermeasures, "at the system level rather than the component level" (pg. 25).

The SMC appreciates the discussion provided in the Five-Year Plan on this system of systems approach and recognizes the security proposition of data-sharing. However, industry remains skeptical of this initiative without greater transparency on what could be a significant business disruption and potentially impact security efficacy. With a goal of implementing this concept within the next 5-10 years, the constructive engagement with industry right now is vital.

SMC encourages caution and thoughtfulness in an effort that appears to seek uniformity, commonality, and standardization amongst the various TSE, which could ultimately discourage the drive for innovation and newer capabilities. While industry supports the concepts behind risk-based, layered security, potentially surrendering intellectual property and company-sensitive algorithms developed through tens of millions of dollars of private sector investment generates another set of risks, including the potential degrading of the competitive nature and vibrancy of the industry. We look forward to discussing this in more detail with TSA in the future to reach a desired state of better capabilities and integration, while maintaining a viable industry base.

TRANSPORTATION SECURITY EQUIPMENT FUNDING

As mentioned in the Five-Year Plan and the GAO Report, TSA is transitioning into a technology sustainment mode focusing on recapitalization of over 2,400 pieces of equipment that are reaching their end of life over the next 5 years. While process is key, it is also absolutely critical to ensure that recapitalization of security equipment is fully funded to keep our transportation system safe and the industry viable.

The SMC is grateful to Congress for its leadership in fully funding the FY16 DHS budget request for TSA Checkpoint Support and EDS Procurement/Installation. We encourage the Subcommittee to work with your colleagues to continue this trend while reducing the bureaucratic barriers for innovation and deployment.

SMC would encourage this Subcommittee to require future TSA budget documents to allot specific funding amounts to various technologies within the Checkpoint Support account and insist the Five-Year Plan provides a lookback on actual equipment purchased during the preceding three fiscal years. Because Checkpoint Support funding is not delineated to individual equipment types, industry has had difficulty ensuring federal funds are truly reaching the intended target and consistent with previous documents. Further, previous EDS procurements have been significantly delayed or cancelled after significant vendor investment. Congress should insist on an accounting for these unspent funds and ensure they are carried over EDS replacement only.

These details would go a long way to informing Congress on the true TSA operational equipment need as opposed to budget constrained funding requests.

<u>CLOSING</u>

The SMC believes the mission the Chairman and Ranking Member are on is the right one. As equipment begins to phase out, new technologies must be researched, developed and purchased. New threats cannot be resolved with antiquated solutions.

The SMC encourages continued, vigilant oversight. However, we would encourage the Congress to be mindful of new legislation that could serve to bog down an already ponderous acquisitions process with more requirements and procedures. This could serve to add additional delays and costs. We recommend Congress work with TSA and industry to find efficiencies and make this complicated process more streamlined and effective. Doing so will save time and money, while providing OEMs and emerging companies more certainty to develop and produce a new generation of equipment with better capabilities to meet ever-evolving threats.