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DHS Science and Technology Directorate

Pat-Down Accuracy Training Tool (PATT)

TSA Pat-Down Screening Challenges

In 2016, the Transportation Security Administration (TSA) screened more than 2 million scheduled passengers per day, using a combination of technological and manual procedures. Although screening technologies can clear the majority of passengers, Transportation Security Officers (TSOs) must be able to conduct effective pat-downs to clear passengers when anomalies are detected, or when passengers opt out of using these technologies. In addition, pat-downs remain a key component of the screening process as humans have far greater critical thinking skills than automated technologies currently offer, and can distinguish between “normal” anomalies and potential on-body threats in ways that machines cannot. For pat-downs to be most effective, TSOs must exhibit consistent performance when conducting pat-downs.

Current Pat-Down Training Process

TSO's currently use classroom-based instruction and hands-on labs to train the pat-down procedure. Although trainees practice on fellow classmates with Security Training Instructors (STIs), observing and providing feedback, no objective data is captured to assess the quality of the pat-down such as pressure exerted, areas covered and time spent per area. Further, the duration of training time is limited by STIs as are the resource challenges of asking TSOs to pat-down their co-workers to obtain more practice.

Quantifying performance of pat-downs not only optimizes training by targeting individualized errors, but also improves standardization of training for TSOs nationwide to be evaluated against standard pressure and placement performance metrics.

Technology Provides Objective Feedback on Pat-down Procedure Performance

The Pat-Down Accuracy Training Tool (PATT) is being developed to provide quantified performance evaluation of pat-downs. PATT is a stand-alone mannequin in the standard pat-down procedure position (male and female) that contains a sensored skin capable of measuring the amount of pressure applied to various areas of the mannequin during the pat-down procedure.



PATT

Increasing the Effectiveness and Consistency of the Pat-down Task

The PATT training system will address two areas identified for improvement in training the pat-down procedure: (1) increasing procedure consistency by providing objective data to evaluate pressure and coverage performance, and (2) reducing resource constraints to allow for more pat-down task training time.

First, PATT will provide visual, objective feedback to the trainee and instructor, presenting efficiencies/inefficiencies in performance and increasing awareness of specific training needs. STIs can use this information to help trainees improve their procedure.

Second, PATT will enable independent training of the pat-down task, providing standardized feedback nationwide that does not increase demands on STIs. This can increase training time by providing an alternative solution (for use?) outside of a classroom and hands-on labs. Trainees can use PATT to complete initial, recurrent or remedial training to enhance operational effectiveness and the security of the traveling public.

Upcoming Milestones

Delivery of eight female and eight male PATT systems

- Training effectiveness evaluation of the PATT systems

Partner

- Design Interactive, Inc., Orlando, Florida



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