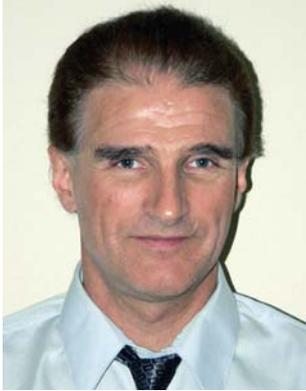


A Personal View



expressed by Steve Wolff

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Today’s terrorists are smarter and more innovative than their predecessors and we’ve avoided recent catastrophic attacks mostly by luck and good intelligence. Richard Reid – the shoe bomber – and the foiled UK plotters in 2006 were not – and would not – have been stopped by today’s checkpoint screening process. Although we continue to add new technologies, I believe we need to rethink our overall checkpoint screening strategy.

Unlike hold baggage, where IEDs must be assembled, the checkpoint also has to find disassembled bomb components and conventional weapons. Today’s terrorists study our processes and work around them, using homemade explosives, fuel/oxidizer mixtures and cleverly concealed, difficult to find bomb components. Terrorists have used teams to smuggle them on board where they can be assembled and have even been willing to do chemistry on the aircraft.

Airports and regulators around the world are responding with 21st Century scanning technologies, but our underlying strategy remains more like early 20th Century manufacturing: we make decisions on a bag-by-bag and passenger-by-passenger basis, with minimal attempt to integrate the information prior to making a decision. Second, much of our process is visible, making it easy for terrorists to study what we do and develop workarounds. These two items present a huge loophole that terrorists can exploit both via solo- and team-based attacks. New scanning technologies won’t address these loopholes by themselves; we need creative thinking and a new strategy to thwart sophisticated attackers.

A first step would be to consider the passenger plus their bags as a single

security entity. It would be better to layer flight-based screening (looking for threats across multiple passengers on the same flight) on top of – and as a backup to – our existing process. Passengers would go through a checkpoint, as they currently do, to catch obvious items and then all data would be stored, sorted by passenger and sent to a dedicated inspector team for that flight. High-speed computers, networks, analysis and database management tools are low-cost, readily available and can be adapted to the task. Flight-based screening can be done remotely, hidden from prying eyes in quiet and comfortable rooms so that inspectors can concentrate on the complex task of searching the images and data for threat components across multiple passengers and bags on the same flight. In theory, this can happen while passengers wait in the departure lounge.

Several steps towards flight-based screening have been completed, but as yet, not brought together. The first was a “system of systems” trialled by the National Safe Skies Alliance after 9/11 known as the Advanced Technology Screening Checkpoint (ATSC). It focused on integrating all aspects of detection, combining less-than-perfect technologies, inspection protocols, operator training and motivation. To achieve high detection rates, a single inspector needed to see the information obtained from all devices – including operator decisions – for every passenger and their bags prior to making a final “GO” or “NO GO” decision. While the ATSC handled this information manually, trials showed that it was possible to achieve several times the detection rate of standard checkpoints at smaller than hold baggage threat masses. The U.S. National

Science Foundation funded the second step: a computer/ database system that integrated information and data from the different screening devices in an existing checkpoint. The system digitally collected X-ray images; threat decisions and bag photos, sorted them by passenger and stored it all in a database. It used electronic communication between primary and secondary search to allow X-ray operators to be remotely located and shared; a considerable cost and space benefit. Adding a boarding card reader and expanded networking to download any PNR information, the infrastructure would be in place to perform flight-based screening, all at low cost and with off-the-shelf hardware.

With a dramatic change in our checkpoint strategy and tools like these, we may better be able to beef up this last line of defence. Our current item-by-item screening methods are not up to the task, even with new scanning technologies. We need to collect and integrate security data but more importantly, change how we look at it and make decisions. The hardware and software capabilities are mature, widespread and cheap. What we need is a vision to move forward. A flight-based screening approach is one – there may be others.

Today’s terrorists are more sophisticated than at any time in history. We must adapt and develop better-designed, well-managed and efficiently operated security checkpoints. Let’s not wait until another incident highlights our deficiencies and forces us to do so.

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