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RESTRUCTRING THE SPOT PROGRAM

Integrating SPOT, Risk-Based Security and Managed Inclusion; Suggested changes to SPOT

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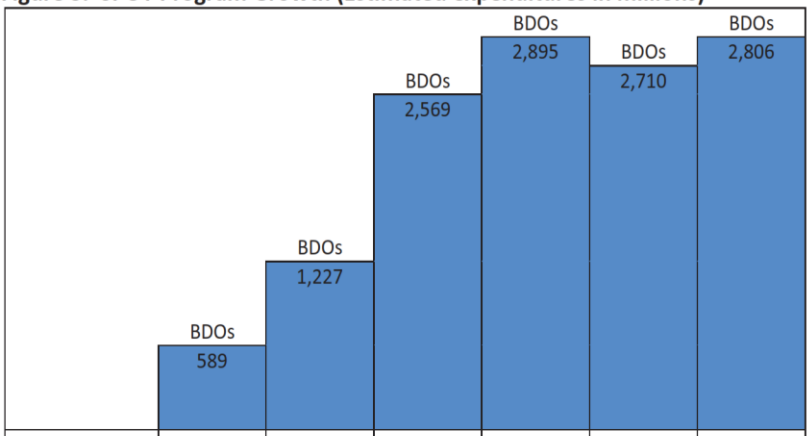
SPOT Program Challenges

- Defensibility and budget cuts
- Gradual reduction in number of airports in which BDOs are deployed
  - 176 in 2013→122 in 2014 → 87 in 2015
- Focused mostly on Cat X and Cat I airports (most cuts at smaller airports)
- SPOT science continuously questioned (e.g. GAO 2010 and 2013, OIG 2013, S&T AIR Validation Study 2007-2011)
- Effectiveness measurability
- Difficult business case
  - Compared to PSP annual budget at ~$180M
- Hard to quantify security benefits

Figure 3. SPOT Program Growth (Estimated expenditures in millions)

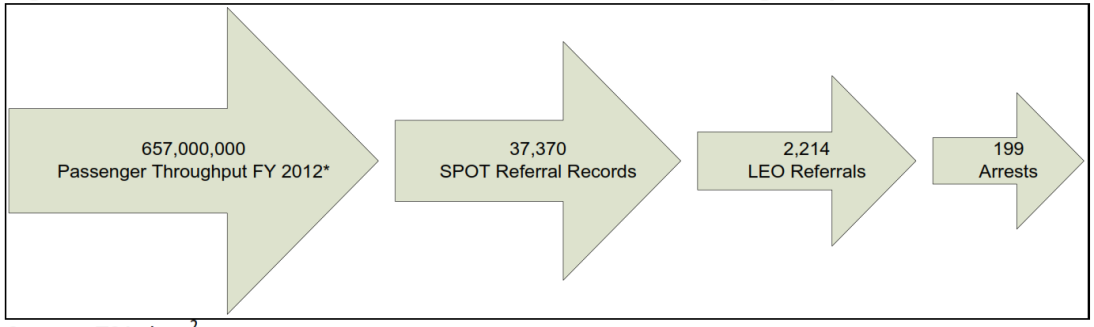


FY	2007	2008	2009	2010	2011	2012
Airports with SPOT	42	160	161	162	162	176
Estimated expenditures	$20M	$81M	$173M	$203M	$196M	$205M

Expenditure data provided by TSA (unaudited)

Source: OIG analysis of TSA data

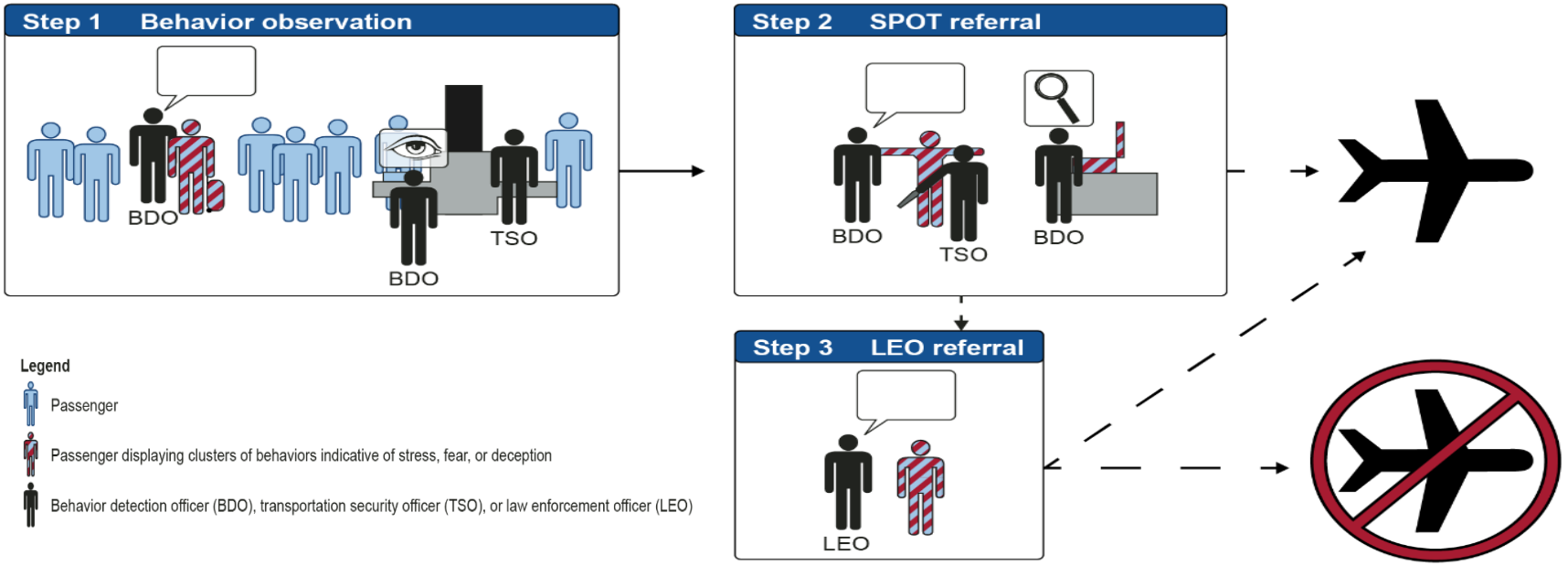
Figure 2. SPOT Referrals and Arrests, October 2011 through September 2012



Source: TSA data[2]

* Passenger throughput estimated at more than 450 airports, of which 176 use SPOT.

Current BDO CONOPS



Step 1 Behavior observation

BDOs scan passengers in line and engage them in brief verbal exchanges while remaining mobile.

BDOs identify passengers who exhibit clusters of behaviors indicative of stress, fear, or deception.

BDOs identify passengers exhibiting behaviors that exceed SPOT point threshold for referral screening.

Step 2 SPOT referral

Passengers undergo a pat-down and search of their personal property while BDOs check travel documents and conduct casual conversation with passenger while continuing to look for behavioral cues.

If a passenger's behavior does not exceed the LEO referral point threshold, the passenger is allowed to proceed to the boarding gate.

If behaviors exceed LEO point threshold or other events occur, such as the discovery of a fraudulent document, then BDOs call LEOs.

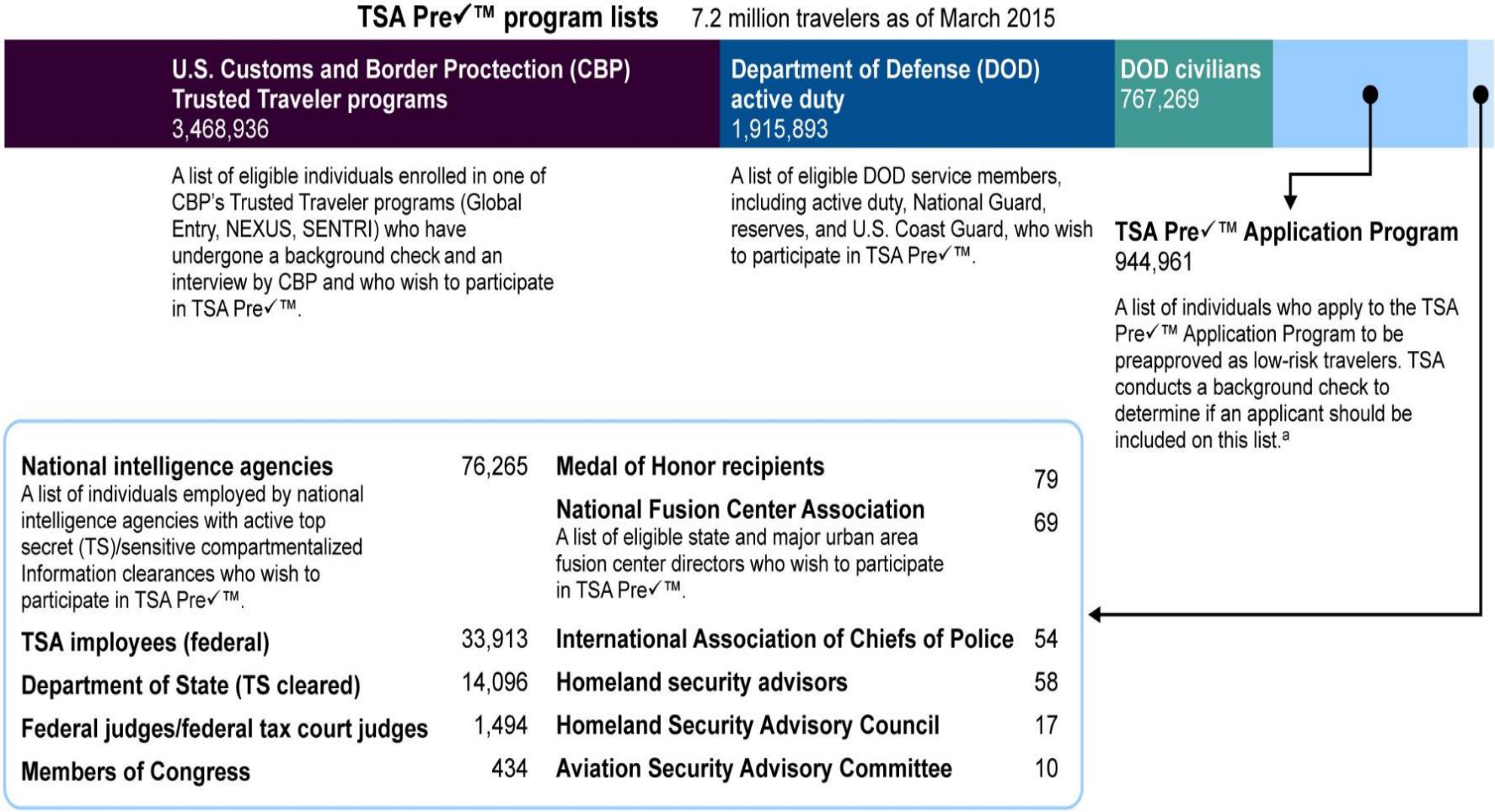
Step 3 LEO referral

Upon LEO arrival, BDOs articulate the reason for the security concern.

On the basis of this description, the LEO may choose to allow the passenger to proceed without further questioning. Alternatively, the LEO may question the passenger and may conduct a criminal background check. The LEO then determines whether to release, detain, or arrest the passenger.

LEOs also have the option to not show up or refer the passenger to another law enforcement agency. Regardless of whether a LEO responds, the federal security director or designee is responsible for reviewing the circumstances surrounding a LEO referral, and making a determination about whether the passenger can proceed into the sterile area of the airport.

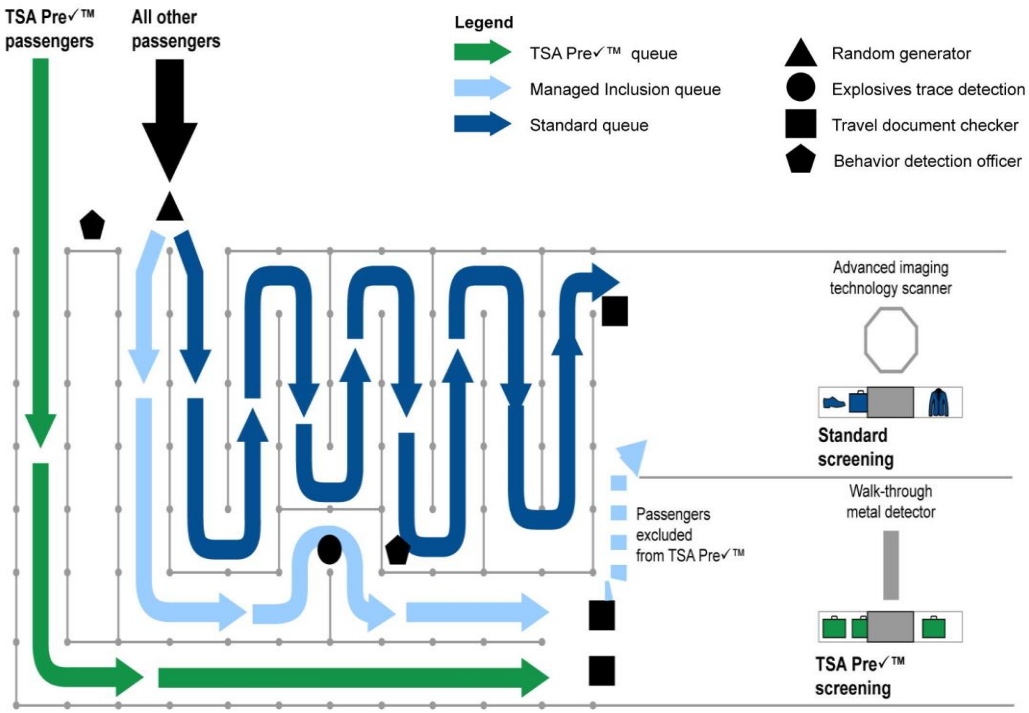
Current Pre√™ Status



Source: GAO analysis of TSA information. | GAO-15-465T

Managed Inclusion

- In 2013 TSA launched MI intended to provide expedited screening to passengers not deemed as low risk prior to arriving at airport (KT)
- Random addition of percentage of passengers
- Mitigating potential risk by random, BDOs, K-9 and ETD screening of MI passengers
- Had negative impacts on overall SSCP throughput
- Questions about security effectiveness (e.g. GAO 2015)
- Further evaluations being conducted



New BDO / MI Concept – Description and Assumptions

- **Apply ~1450 BDOs out of ~2800 to TDCs stations**
  - Assumed increasing total TDC capacity by 100% to 2900
  - CAT FOC at 1450; 2,215 checkpoint lanes nationally
- **BDO average interaction time of 30-45 sec at TDC**
  - Short targeted interview focused on establishing lack of suspicious behavioral, appearance, and fraudulent documentation indicators similar to Israeli BDO (and using same BDO/TDC function as in the Assessor Pilot)
  - Start with “presumed” low-risk populations (e.g. families with established ties, children below 12, elderly above 75, etc.) and expand if and as needed
  - Increase from current average TDC interaction time (~10-12 sec) can be mitigated with additional TDC positions
- **Changed demand vs. capacity – passenger peak flow analysis**
  - Increase in peak flow demand (with more TDC positions) “absorbed” by longer interaction time at TDC and by extra screening capacity provided by more high-throughput Pre√™ lanes

Proposed New BDO / MI Concept – Description and Assumptions

- **Deterrence factor**
  - Given that more BDOs interact with ALL passengers at TDC (with added "covert" BDO functioning under regular SPOT) it is likely that the deterrence factor of the new BDO / MI SOP will be higher
  - However, effectiveness of deterrence is difficult to measure and hard to quantify
- **Maintain regular SPOT program**
  - BDOs performing the current SPOT SOP (or optimized SOP) are an important security layer in detecting malicious intent and thus high-risk passengers
  - This important function should be maintained with part of the BDO workforce
  - Successful implementation of new BDO / MI concept can help maintain (and hopefully increase) SPOT budget and resource allocation

Proposed New BDO / MI Concept – Challenges and Risks

- **Scientific basis needs to be established**
  - Is it indeed more cost-effective (throughput, Pd, Pfa) to establish lack of malicious intent than to establish malicious intent?
  - Is that the same behavioral phenomena (two sides of the same coin)?
  - Needed training for BDOs experienced in current SPOT?
  - ODNI's IARPA TRUST 2010 Program may be the scientific foundation needed!
- **Cognitive load concerns**
  - Mitigate expected increase in cognitive load for BDO/TDC staff by use of more TDC and SPOT automation (e.g. broader capability of CAT-BPSS, BDO tech.)
- **SSCP lane utilization**
  - As Pre√™ base expands (geographical expansion of KT and suggested MI) to goal of 90% passenger base, more Pre√™ lanes are added replacing regular lanes
  - But, dedicated Pre√™ lanes can be underutilized and less efficient especially during regular passenger peaks not necessarily synced with Pre√™ peaks
  - Consider dynamic regular/Pre√™ lanes to improve utilization

Proposed New BDO / MI Concept – Challenges and Risks (Continued)

- **Defensibility**
  - Will / can ad-hoc BDO-driven MI be challenged by civil rights / privacy groups?
  - Subjective inclusion criteria may be seen as unfair or exclusionary to some passengers?
- **Significant level of effort for TSA**
  - Establishment of scientific basis can be time-consuming and costly (but hopefully the significant scientific bodies of work on SPOT and/or ODNI IARPA TRUST program are applicable)
  - Piloting and developing test and evaluation metrics and plans will take time
  - Socialization efforts of new concept will require additional efforts

Bottom Line – So what? Why Should We Care?

- This can help TSA reach much higher Pre√™ passenger base and drive significant throughput and passenger experience improvements nationwide
- This can help TSA meet Congressional mandates and further drive required staffing efficiencies through better leverage of the established RBS culture
- This can be a better way to defend the critical BDO program and maintain (or increase) it's current funding and resource levels
- Finally - IS THIS NOT WORTH FURTHER EXPLORATION?

Executive Summary

SPOT Program - Challenges

- **RBS** - TSA Pre√™ passenger base reached 50% in 2014 but end-goal is ~90%!
  - How do we get there? Geographical expansion of KT base may not be sufficient
  - Compare to Ben Gurion airport / EL-AL Security with ~95% low-risk passenger base
  - Scalability and applicability!
- **BDO Effectiveness -** BDO referral success rate is very low (e.g. 2012 - 0.006% BDO referrals, and of those ~37K only 0.5% end in LEO arrests)
  - Hard to measure and prove cost-effectiveness and operational efficiency given low frequency phenomena and CONOPS limitations
  - 2011-2013 Assessor Pilot
  - Optimized SPOT Pilot
  - OSC Stated goal to expand BDOs capability
- **Business Case -** SPOT program average annual budget at ~$200M with ~2800 BDOs vs. PSP average annual budget at ~$180M.
  - Cost-effectiveness, defensibility
  - This is why we should care!

Integrating SPOT, MI and RBS

- **RBS and MI** – Use BDOs to ad-hoc "clear" certain low risk PAX into Pre√™
  - Start w/ rule-based (e.g. proven families, elderly)?
- **New BDO CONOPS** – short and active interaction (30-45 sec) with some/all passengers at TDC to ascertain low-risk (use behavior, appearance and documentation indicators)
  - Similar to Assessor pilot BUT with ~2800 BDOs more TDCs can be deployed using BDOs to man them (to offset throughput impacts)
  - Re-establish SPOT science (detection of lack of malicious intent) – is it more defensible?
  - ODNI's IARPA TRUST 2010 Program
  - Increase SPOT Pd, reduce Pfa with active interaction (compared to passive queue combing)
  - Address increase in cognitive load by use of more TDC/BDO automation (CAT-BPSS, BDO Tech.)
- **Cost-Effectiveness** –new BDO effectiveness measurable using clear RBS KPPs (e.g. throughput increase/BDO, Pd)
  - Program cost becomes more defensible
  - Some "traditional BDOs" kept as a security layer
  - Deterrence increased (but is it measurable?)