Behavioural Detection

Behavioural analysis has been effective in identifying criminal elements at airports. How can behavioural detection contribute to mitigating aviation security risks, how effective is it and how can behavioural analysis be enhanced?

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Presentation Topics:

- What is Behavioural Detection or Profiling?
- Some guiding principles for Behavioural Detection
- A few case studies and examples
- The future of Behavioural Detection
"The first impression is the last impression"

- Unknown -

"You never have a second chance to make a first impression"
• The old adage: First impressions last…
• We all “profile”....
• Its our natural reaction and an almost subconcosus action when we meet new people
• It is evident in our personal and professional lives

“Our conscious mind can process 16 bits of information per second, our unconscious however can process 11 million.”
— Dr. Spencer Reid
What does Dave do?

1. Accountant?
2. Biker?
3. Doctor?
4. Gang Member?
5. Lawyer?
6. Tattoo Artist?
Profiling - The use of personal characteristics or behaviour patterns to make generalizations about a person;
The use of these characteristics to determine whether a person may be engaged in illegal activity;
The practice of categorizing people and predicting their behaviour according to particular characteristics

More accepted terminology:
• Behavioural Analysis or Behavioural Detection
• Behaviour Pattern Recognition (BPR)
Some Guiding Principles For The Correct Application Of BPR

- We look for the person not the item
- We look for the potential threat or risk they may pose
- We look for the exceptions
- Then we can implement more targeted screening to the exception

Why we do this?

We have limited resources, we want to focus on the exceptions – the threat and the risk
We want to release valuable resources and allow the majority to have an easier screening process.
Some Guiding Principles For The Correct Application Of BPR

• Our Goal is to detect, deter and disrupt criminals and terrorists from causing harm to facilities, aircraft, passengers and crew.

• As well as minimize and control potential damage to the country and relevant airlines as well as the industry as whole.

• A lot of times BPR indicates other criminal elements such as: INADS, Drug related issues, Human trafficking, potential unruly passengers and various other potential threats to civil aviation.

• However instead of “interrogating” each passenger, we use BPR and spend an average of 30 seconds which allows a highly trained person (with experience “gut feel” becomes much more enhanced) to make an informed decision about the risk.

Why, Where, When, What, Who
Some Guiding Principles For The Correct Application Of The Questioning Process

- Documents check is the first step; gives us the initial tools to start the process
- Second step, we look at the person
- Lastly we look at personal belongings
IED Concealed In Checked Baggage By Duped Passenger

- Date: 17th April 1986
- EL AL flight 016 from London Heathrow To Tel Aviv
- Irish national women Anne Marie Murphy
- Six month pregnant, 32 years old
- Baggage screening revealed suspicious signs
- Explosives concealed in the bottom of the bag, double panel
- Timing device set to explode 2.5 hours from take off

- Jordanian Nizar Hindawi was her boyfriend for 2 years
- Pregnant from Nizar, he suggested they will marry
- Plan to spend the honeymoon in Israel, He will join her from Jordan
- He helped her to pack, providing her with the bag
- Nizar was working for Syrian Air Force Intelligence

Exceptions:
- Wrong Hotel Name
- Admitted that someone gave her a bag
Did you know he had a “Dummy Run”?
Exceptions:

- Small bag for two a week's stay
- He raised “Red Flags”, allowed to fly with ELAL but under observation
- He was also initially refused flight on AA but allowed the next day
Why Is profiling a “dirty word”? 

- Ethnic profiling, religious profiling, racial profiling…
- It appears to be a subjective process
- It's NOT based on religion, race, color or creed
- It's based on the individual’s reaction to the process
- Immigration and custom apply the same process, why does security get a bad reputation?
- We only look for exceptions
Airport search not racial profiling when based on customs officers’ on-the-job experience: court

Andrew Duffy, Postmedia News
Tuesday, Oct. 14, 2014

OTTAWA — Customs officers are not guilty of racial profiling when they use on-the-job experience to decide who to stop and search at Canada’s airports, the Federal Court of Appeal has ruled.

“Officers on the front line, such as the officer herein, cannot be expected to leave their experience — acquired usually after many years of observing people from different countries entering Canada — at home,” Justice Marc Nadon said, writing on behalf of a three-person appeal panel.

Justice Nadon made the comment in overturning a tribunal decision that quashed an $800 fine imposed against an Ottawa woman, Ting Ting Tam, who failed to declare some pork rolls in her luggage.

The Canada Agricultural Review Tribunal ruled last year that Ms. Tam had been the victim of racial profiling by a Canada Border Services Agency customs officer at the Macdonald-Cartier International Airport.
Suspicious Signs – Some Live Examples

- Arriving late for a flight
- Hesitation
- Touching one’s clothing
- Ignoring the surroundings
- Nervousness
- Walking aimlessly
We see more Artificial Intelligence Systems and Technologies, which will use sophisticated algorithms to identify potential threats. SDS Cogito unit for example:
Thank you all for the attention