

# DOMESTIC AVIATION SECURITY REVIEW

22 April 2009

## Summary Report for Public Release

### 1. Executive Summary

- 1.1 Following the alleged hijacking of a 19-seat domestic aircraft on 8 February 2008, Cabinet directed officials to undertake a review of domestic aviation security in New Zealand focussed on smaller passenger aircraft. The review considered all aspects of New Zealand's domestic aviation system. It sought to identify areas of risk and assessed security measures currently in place to manage these risks. Where gaps were identified, additional security options were developed.
- 1.2 Fifty-seven percent of total domestic passenger capacity in New Zealand is currently screened. In comparison, Australia and Canada screen 96 percent and 99 percent of all domestic passengers respectively. The key risk that the review identified was that unscreened passengers or crew could carry on board an aircraft a prohibited item that could be used to endanger the safety of people or the aircraft.
- 1.3 Within the aviation environment, the ability to manage and control aviation security risks is restricted by the fact that once an aircraft is airborne the range of controls available to counter threats is very limited. Therefore, the most effective controls are those that either deter or detect an event of concern before any adverse consequences occur.
- 1.4 The review determined that introducing measures such as strengthened flight deck barriers, better training and education, and security committees at all airports will improve security to a limited extent. However, screening was found to be the only effective way to stop weapons being taken on board an aircraft.
- 1.5 The review developed a number of options to increase the number of passengers screened domestically, and address the vulnerabilities and risks identified. These screening options are broadly consistent with international best practice and would bring New Zealand into line with other OECD countries.
- 1.6 The costs of screening are high. Screening passengers creates costs for airports that provide the spaces necessary for screening, and for airlines that may face increased turnaround times for aircraft. It creates costs for government which funds the screening equipment, and it increases the Aviation Security Service's costs which are passed on to passengers via airlines.

### 2. Risk Assessment

- 2.1 Although triggered by the alleged hijacking on 8 February 2008, the review did not simply respond to this one event. Instead, the review undertook a comprehensive system-wide assessment of the domestic aviation security system.

- 2.2 A violent incident involving an acutely disaffected person<sup>1</sup> is judged to be feasible and could well occur on board a domestic aircraft in New Zealand. The Combined Threat Assessment Group (CTAG) assesses that the threat from acutely disaffected people currently to be **MEDIUM** (feasible and could well occur). The threat posed to domestic aviation by terrorism is currently assessed to be **VERY LOW** (unlikely).
- 2.3 Threat levels, while useful in informing risk assessments should not be used as the sole basis for decision making. Robust identification and consideration of potential system vulnerabilities, and how they may be exploited by potential offenders remains essential. The levels of threat, and therefore risk, are unlikely to diminish in future years.
- 2.4 Risk is calculated from a combination of factors, one of which is threat. Threat levels for terrorists and acutely disaffected people, provided by CTAG, were used to assess the risk posed by these two sources to the domestic aviation security system.
- **Threat = Intent x Capability.** Threat levels (assigned by CTAG) are used to inform the likelihood of an event occurring.
  - **Risk = Likelihood x Consequence.** Risk is a combination of the likelihood (i.e. threat) of a specific incident occurring and the consequences of the incident.
- 2.5 The review has focussed on the area of high risk arising from unscreened passengers. Passengers on domestic non-jet aircraft (19-90 passenger seats) are not screened and could be able to carry weapons and other prohibited items on board. The high level of risk is driven by the catastrophic consequences that could result from a violent incident in the air, and not by the likelihood of an incident occurring.

### 3. Security measures to address the identified risk

- 3.1 Screening passengers, crew and their carry-on baggage is the only effective way to stop weapons being taken on board an aircraft. Officials assessed a wide variety of other security measures to address this risk. While some of these measures will contribute to increased security when used in combination with screening, these additional measures do not provide the level of assurance that screening does against weapons being taken on board an aircraft.
- 3.2 The costs of increasing screening at domestic airports are high. Finding a balance between cost and risk mitigation is difficult, especially when these may vary from location to location. Airports and airlines are concerned that costs will not be recoverable from passengers. For some airports and airlines these costs may be prohibitive, and impact on the viability of their business.
- 3.3 Airports and airlines do not consider that the risks faced by the domestic aviation system warrant additional screening.

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<sup>1</sup> 'Acutely disaffected people' includes those who are profoundly intoxicated, adversely affected by a mental disorder, or hold an excessive or irrational grievance or grudge, to the extent that these factors contribute to an act or threat of unreasonable or irrational violence. This definition is not a legal one and has been constructed for threat assessment purposes only.

## **Non-screening measures**

- 3.4 The review found that the following additional security measures would enhance general aviation security and awareness:
- strengthened flight deck barriers for all aircraft with more than 30 passenger seats;
  - security committees at all airports operating scheduled flights on aircraft of 19 or more passenger seats; and
  - enhanced education and training requirements for airport and airline staff.

## **Screening options**

- 3.5 The Aviation Security Service (Avsec) that carries out passenger screening is operational at eight airports, and currently screens passengers on jet aircraft. Various options to extend domestic screening were developed. These options involve Avsec screening passengers, crew and carry-on baggage using x-ray machines and walk-through and hand-held metal detectors. The two main options are outlined below.
- Passenger, crew and carry-on baggage screening at New Zealand's **10 busiest airports**.
  - Passenger, crew and carry-on baggage screening at New Zealand's **14 busiest airports**.
- 3.6 The cost of these two options to airports and airlines varies depending on whether or not passenger separation is required.

## ***Passenger separation***

- 3.7 Current arrangements at New Zealand airports require that screened passengers are kept separate from unscreened passengers. For example, passengers arriving from airports that are not screened, and non-passengers visiting the airport, are kept separate from passenger lounges and gateways where screened passengers wait to board their aircraft.
- 3.8 If screening measures are required for more flights and at more airports, significant modification at some airport terminals would be needed to accommodate passenger separation.
- 3.9 In particular, Auckland, Wellington and Christchurch airports, where almost all regional flights are destined, will have to ensure that flights (and passengers) arriving from airports that do not have screening in place are kept separate from departing passengers who have been screened.
- 3.10 Passenger separation also involves costs to airlines, as it creates delays on the apron. Airlines rely on quick turn-around times on the apron to minimise their costs, hence any delays would affect their timetables and profit margin.
- 3.11 Screening options, both with and without passenger separation, have been developed. Although the relaxation of passenger separation requirements reduces the costs to airports in the short-term, it increases Avsec's ongoing operational costs. This is because maintaining passenger separation requirements for jet aircraft<sup>2</sup>, and providing additional screening for passengers on aircraft of fewer than 90 passenger seats capacity, requires additional screening points to

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<sup>2</sup> Passenger separation is required for all passengers travelling on jet aircraft of more than 90 passengers seats. This is because these aircraft are able to fly further than smaller non-jet aircraft.

accommodate both 'types' of passengers. A comparison of the 10-year cost for options with and without passenger separation yields little overall difference (refer to the Summary of Costs below).

### **10 airport option**

3.12 This option includes passenger, crew and carry-on baggage screening for all aircraft of 19 or more passenger seats conducting scheduled passenger services at the 10 busiest airports, or those operating jet or international services. These airports are Auckland, Wellington, Christchurch, Nelson, Dunedin, Queenstown, Palmerston North, Hawke's Bay, Hamilton, and Rotorua.

3.13 The implementation of this option would result in 92 percent of all passenger capacity being screened, including 59 percent of all 19-seat aircraft.

### **14 airport option**

3.14 This option includes passenger, crew and carry-on baggage screening for all aircraft of 19 or more passenger seats conducting scheduled passenger services at the 14 busiest airports, or those operating jet or international services. These airports are Auckland, Wellington, Christchurch, Nelson, Dunedin, Queenstown, Palmerston North, Hawke's Bay, Hamilton, Rotorua, New Plymouth, Invercargill, Tauranga, and Blenheim.

3.15 The implementation of this option would result in 97 percent of all passenger capacity being screened, including 72 percent of all 19-seat aircraft.

### **Summary of Costs**

<b>Options</b>	<b>Overall 10-year cost (\$m)</b>	<b>Equivalent average cost per year (\$m)</b>	<b>Avsec passenger charge (\$ GST Incl)<sup>3</sup></b>	<b>Infrastructure cost to airports (\$m)</b>	<b>Airport and airline<sup>4</sup> cost per passenger (\$)<sup>5</sup></b>	<b>Total cost per passenger (\$)</b>
<b>14 airport option</b>						
Passenger screening at 14 airports, <u>with</u> passenger separation.	159	22	4.42	47.111	0.89	5.31
Passenger screening at 14 airports, <u>without</u> passenger separation	161	22	4.92	24.062	0.49	5.41
<b>10 airport option</b>						
Passenger screening at 10 airports <u>with</u> passenger separation	134	19	3.97	58.627	1.14	5.11
Passenger screening at 10 airports <u>without</u> passenger separation	121	17	4.41	20.941	0.47	4.88

<sup>3</sup> The Aviation Security Charge is currently set at \$4.66 (GST incl) per passenger per sector.

<sup>4</sup> Airport costs are those relating to infrastructure. Airline costs are those relating to flight deck barriers.

<sup>5</sup> This is the average cost per passenger (for airport and airline costs) spread over a 10-year period. Costs per passenger are likely to vary depending on how each airport chooses to recover its costs.