

Federal parliament's Public Accounts and Audit Committee is reviewing aspects of aviation security in Australia. *About the House* asked the former head of security for Qantas, Ron Armstrong, to outline some of the effects of terrorism on Australia's and the world's aviation landscape, and steps being taken to deal with the problem.

AVIATION SECURITY

This year marks the centenary of civil aviation. The progression from the rag-and-stick flying machine of the Wright Brothers traversing the hills of Kitty Hawk in 1903 to the high-technology aircraft circling the globe today, exceeds by far any other form of technological advancement.

That progress continues to produce aircraft of advanced design and capability, flying faster and further, with greater passenger and cargo payloads. Civil aviation has become a key feature of international business and the global community.

In fact, the financial infrastructure of the world economy is in danger of serious decline unless the threat of terrorism against civil aviation is eliminated.

How can this be achieved? All facets of aviation security need to be subjected to constant review. There is a combination of international and domestic initiatives tackling this need.

The international context for civil aviation goes back to 1947, when the United Nations established the Convention on International Civil Aviation, generally known as the 'Chicago Convention'. The Convention—which spawned the International Civil Aviation Organisation (ICAO), a subcommittee of the UN—outlines in its various Annexes standards and recommended practices to be observed or enforced by its signatory states.

In some cases states still own and operate airlines and airports (as was largely the case back in 1947); however many governments throughout the world, including that of Australia, have now shed direct operational accountability for the safety and security of aircraft and airports and adopted the role of 'regulator'. The every day operational accountability (and cost) for security has been passed on to the new owners of the former state assets, usually multinational corporations.

Annex 17 of the Chicago Convention is the Security Annex, and specifically caters for protection against 'Acts of Unlawful Interference', which are formally identified in the ICAO Security Manual. Annex 17 has been subject to a number of revisions and modifications since 1947, and is now in its seventh edition. Many of the recent modifications are in direct response to recent attacks, which have uncovered security deficiencies.

The Seventh Edition of the Annex centres on the applicability of its standards and recommended practices to several interlocking areas, including:

- international cooperation relating to threat information;
- domestic air operations;
- the protection of the cockpit against unlawful incursion; and
- the establishment of a 'National Aviation Security Committee' and national quality control.

International cooperation relating to threat information against civil aviation is a new standard in the Annex. This new standard is commendable in that the world of civil aviation should be aware of the possibilities of all manner of threat, whether against a state or an individual. The difficulty is that intelligence is often subject to 'top secret classification' within a particular state. Such a classification would preclude the possessor of the information from giving out any form of background data, unless the recipient also has a sufficient security clearance.

This means that people responsible for aviation operations at various levels will need to be security-cleared to a 'top secret' classification so that a protective coverage can be put in place to prevent an act of unlawful interference. Those accountable for the security of the aviation operations would need to have within their organisation a nominated security person cleared to the level required by the state.

One of the problems confronting those in possession of classified information is the ability to sanitise what is known into a useable form. The receipt of such intelligence will usually create the need to introduce additional security measures to protect the operation. All employees and contract staff would need to be disciplined enough to implement what is required without knowing intimate details of 'why'. The training and certification of personnel at all levels of an airline or airport operation is therefore critical.

Prior to the September 11 attacks, security standards relating to domestic flights (that is, operations entirely within one nation) were not included in the Annex. They are now. All the aircraft involved in 9/11 were subject to acts of unlawful interference and were domestic flights departing domestic terminals within the United States.

The cutting instruments used on board the fated flights to slash the throats of cabin crew were box cutters. There is no suggestion that firearms or other weapons were used to hijack the flights. Prior to the 9/11 attacks, screeners at US and Australian airports, would not have confiscated 'box cutters' from a passenger. Today any type of cutting instrument, even a small pair of scissors or a nail file, is subject to confiscation.

In another change, what was once seen as a commercial nicety in allowing passengers to visit the cabin and his crew in the cockpit of an aircraft while in-flight is no longer permitted and forms part of a carrier's security program.

The locking of the cockpit door has been a requirement of aviation security programs for many years, although not enforced by many airlines. Door structures have been ineffective as a barrier against persons intent on a forced entry. Since 9/11 aircraft manufacturers have been called upon to produce doors with adequate surrounds to inhibit forced entry. Many airlines are incorporating the reinforced doors and surrounds to their fleet, with crews

being trained in appropriate access control security arrangements.

Armed sky marshals are being carried on certain flights to restrain people from trying to enter the cockpit. Certain states are arming captains of flights with side-arms, as a last line of defence against persons endeavouring to take over a flight.

Other states believe that emphasis should be placed on turning back the potential terrorist before boarding a flight through a strict passenger screening process. This could well involve an in-depth system of 'profiling of passengers'. Profiling has proved to be an excellent security tool but is renounced by some civil liberties organisations as a breach of privacy.

The security industry, involved in the production of hardware and protective systems, has made considerable advances in producing technologies capable of detecting various forms of weaponry and explosives. X-ray systems which display a complete silhouette of an individual are now available; trace elements contained in cargo can be identified through spectrometer-type analysis.

These technologies have been developed by industry at tremendous cost, which will need to be recovered from the consumer. The financial outlay for a country such as Australia with only 39 airports servicing passenger-carrying aircraft will be massive in dollar terms. As development costs are recouped from a larger base, these items may become affordable to many first-world countries. To date, third world and developing countries have not afforded the conventional detection equipment that has been on the market for some years. Unfortunately the back door may remain open to the terrorist who will simply rethink his point of entry and reshape his mode of attack.

In Australia various legislative and other steps are being taken, both to meet new international standards, and as independent domestic initiatives.

The existing regulatory framework for aviation security is contained in the *Air Navigation Act 1920*, the *Air Navigation Regulations* and *Air Navigation (Baggage Screening) Regulations*. The Act provides for certain airlines and airports to have security programs.

These programs contain what are called 'standard security measures' (SSMs) tailored for the relevant airline or airport. Typically, these SSMs cover matters such as passenger, baggage and cargo screening and control of access to areas of the airport and aircraft themselves.

Australia also has a National Aviation Security Committee, which has as its main responsibility the overview of all aspects of aviation security within Australia. It has identified the need for consolidation and revision of our international obligations to aviation security, with an emphasis on

achieving quality control. To achieve this, legislators have drafted the *Aviation Transport Security Bill 2003* which is presently before the Australian parliament.

The bill is far-reaching and calls for airports, cargo-handling agents, catering facilities and all other agencies which offer services to civil aviation to produce operational security programs. Such programs must detail the operational security standards called for in the proposed Act and how the participants will implement those standards.

All these programs will need to be signed off by the Secretary of the Department of Transport and Regional Services (DTRS), who is able to bestow on employees of the Department and law enforcement officers a range of powers to determine whether a corporation and/or a person is complying.



The first armoured security door installed on an Airbus cockpit by the European airplane constructor. The door is bullet-proof with an electronic code locking device and a spyhole. The new doors have been designed to conform to new international civil aviation rules to be enforced from 1 November 2003 for passenger planes carrying more than 60 people. Photo: Eric Cabanis/AFP/Newspix

It is envisaged that the 'how' factor will afford the regulator the enhanced capacity to monitor and improve compliance with industry standards. Enforcement of the provisions of the respective programs will be undertaken by various inspectors as appropriate with their own areas of responsibility.

The requirement for each aviation industry participant to produce a program with a how factor facilitates audit for the regulator. Beyond that, the necessity for various bodies to define their own programs will create special ownership and an understanding of what is required.

Under the *Aviation Security (Consequential Amendments and Transitional Provisions) Bill 2003*, both Part 3 and the relatively new Part 3A of the *Air Navigation Act* are to be repealed. If passed, all major Aviation Security provisions will be contained in the *Aviation Transport Security Act 2003* and associated regulations.

These initiatives will hopefully overcome a range of problems.

Standards in place to preserve the safety of airline and airport operation have been, in some quarters, sporadically overlooked in the need to achieve short-term efficiencies. 'On time performance' is a key criterion for most carriers and airports; delays cost money and are not popular with executive management. Any delays attributed to meeting a security standard (for example the reconciliation of passenger baggage) may be overlooked by ground-handling staff in order to retain scheduled departure times.

Complacency is another trap often experienced by those involved with ongoing menial tasks. To keep people actively motivated and alert calls for a continuous audit of performance, regular training sessions, and hour-by-hour contact by management.

Terrorist groups have the benefit of 'time' in that they are able to observe an airline's operation and build a form of attack from perceived deficiencies of a carrier's security program.

The other area where initiatives can be undertaken is risk analysis.

Carriers and airports will continue to be a target of terrorism while the aviation community only responds to incidents and does not take the trouble to monitor trends as they occur throughout the world. Methods of prevention through risk analyses (beyond the restricted perceptions of direct threats to civil aviation) should address those trends.

The method of attack involving suicide assailants on the four aircraft in the 9/11 incident can be seen as a repeat of previous incidents. For example, the suicide attack on the USS Cole in Aden Harbour, and the attacks on US Embassies in Africa were trend indicators of the willingness of perpetrators to forfeit their lives for their cause.

Present indications are that civil aviation is now but one of a menu of targets that terrorists will attack, using suicide as their weapon. The risk is that sectors of the industry may slide into complacency, rather than focussing on perpetual vigilance.

Prevention can be best achieved through cooperative arrangements between states; a strict selection criteria of all persons who 'touch' upon the operation; a high training standard that meets all security programs; and an intense degree of continued analysis.

Much is being done to progress the cause of aviation security. Australia is a leader in this and other disciplines encompassing civil aviation. ■

Ron Armstrong joined Qantas in 1982 from the NSW Police Force, and in 1986 became Head of Security. During his time at Qantas he was involved with the management and resolution of many security matters. He now serves as a consultant to the International Air Transport Association (IATA) on security matters, and as a casual lecturer for the Department of Aviation at the University of New South Wales.