

## **Safety and Security in Aviation – The Dividing Line is Blurred**

**A presentation by Mr. Mark Everitt, General Manager,**

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### **Introduction**

Thank you for the opportunity to speak to this conference on a subject in which I have a deep interest.

In recent years there has been a number of aviation incidents and accidents that, on investigation, revealed a very fine line between the roles of Air Safety and Air Security programmes.

This presentation will identify some of the systems and procedures used by the Aviation Security Service of New Zealand in its approach to quality in service provision, including the detection of 'dangerous goods'

### **Incidents**

Recent incidents in which the aircraft and all on board have been lost include PanAm 103, TWA 800, ValuJet. There are many other reported instances but these three serve to demonstrate the linkage between safety and security.

Although the end result of these three incidents was the same, the cause was different in each case.

## **Causes**

The loss of TWA 800 was caused by a defect in the aircraft, namely, insulation in the wiring loom. A safety incident.

Valujet was lost through the incorrect carriage of dangerous goods. Again, a safety incident.

PanAm 103 was the only one of the three that was a security incident, the cause being a terrorist bomb introduced into the aircraft by exploiting a weakness in the handling of interline baggage.

I believe that the security industry has a significant role to play in the prevention or reduction of risk in two of these cases, the prevention of terrorist attack and the carriage of dangerous goods.

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## **Risk Management**

So, how do we in New Zealand manage the risk?

The overhead shows the aviation industry security co-ordination in New Zealand. All airports servicing international civil aviation have airport security committees. These are made up of the Aviation Security Service (the General Manager is the chairman of each committee), the airport company, airlines, the Civil Aviation Authority and Police, Customs and Agriculture officials.

These committees meet to a regular schedule and discuss any matters that do, or may, impact on security at the airport. Committee members work together to solve any problems that may arise. The advantages of having such an open and frank discussion amongst all concerned with security cannot be overemphasised.

The guiding principles that drive the security of aviation within New Zealand are shown at the centre of the chart. These are the national interest, New Zealand's obligations to ICAO as a contracting state, the Civil Aviation Act and the National Aviation Security Programme.

Branching out from and expanding these principles are documents that relate to specific sectors of the industry.

Civil Aviation Rule (CAR) 108 sets out the responsibilities of airlines for the security of their operations, CAR 109 does the same in relation to air cargo operations and CAR 139 provides the framework for airport operators. CAR 140 sets out the requirements for aviation security providers.

### **CAR 140: Aviation Security Providers**

The rule sets out standards for operational performance, in addition to medical and training standards for aviation security officers. The training standards determine what must be taught to officers, and the level of understanding that must be reached. The rule also requires that persons

holding certain management positions in the organisation must be vetted by the Civil Aviation Authority and accepted by it as 'fit and proper' persons. Any organisation seeking to provide aviation security services within the country must hold a certificate to operate. At the moment, government policy is that only the Aviation Security Service will be permitted to perform these functions but the Service is still required to be certificated against the Rule. The certification is valid for five years and the Service is due to be re-certificated in November 2003.

### **Full Service Required**

Unlike the situation in many countries, New Zealand certification requires the provision of the complete range of security functions. We can't be merely a screening operation. We are required to perform mobile and foot patrols, access control, aircraft search, sterile area search and many other functions, including the maintenance and policing of the national airport identity card system.

### **Airport Identity Cards**

To obtain an airport identity card in New Zealand, the applicant must agree to be vetted by Police and Customs to see if there is any reason for refusing to issue a card. The decision to issue a card is taken by the Regional Manager of the Aviation Security Service in whose region the applicant will be based. The possession of a criminal record doesn't automatically preclude an

applicant. In all such cases the applicant is interviewed by the Regional Manager and given an opportunity to put a case for the card issue. Only where there is a definite perceived risk to aviation is a card refused.

### **Aviation Security Service Mission**

The Aviation Security Service in New Zealand has a responsibility to ensure not only the security, but also the safety of civil aviation. This is one on the Government's strategic objectives to which we are required to contribute and is reflected in the mission statement of the Service.

“We improve the safety of civil aviation through the application of specific security measures.”

Note that “safety’ is improved, not “security”. Security is one aspect of a safe industry.

Although a ‘safe’ aircraft will also, by definition, be secure, the same does not follow in relation to ‘security’. An aircraft may be ‘secure’ in that it has no bombs or weapons on board and still be carrying large quantities of dangerous goods, making it far from safe. As the ValuJet incident demonstrated, it doesn't take a bomb to destroy an aircraft.

## **Dangerous Goods**

Dangerous goods come in many forms and can destroy aircraft just as effectively as Semtex. A fire in the cabin could be caused by matches, particularly book matches, lighters, solvents, aerosols, the list goes on. Aerosols, in particular, have the potential to turn the whole aircraft into a bomb. Hairspray, for instance, is highly volatile as are many other types of material carried in aerosol packages,

## **Aviation Security Officers and the Dangerous Goods Regulations.**

I believe that the detection of dangerous goods in cabin baggage is an important aspect of a security provider's role. All Aviation Security Officers in New Zealand are trained to recognise dangerous goods and in the action to take. This training is part of their basic induction training and is reinforced at intervals throughout their service.

Several officers have qualified through the IATA Dangerous Goods course and hold current certificates. The currency of these certificates is strictly maintained. One senior officer serves on the aviation industry dangerous goods committee in New Zealand.

In screening between 200,000 and 250,000 passengers each month, officers of the Service uplift approximately 250 items of dangerous goods. This is one of the highest rates in the world, according to figures released by IATA last year.

This emphasis on dangerous goods also improves the effectiveness of screening for weapons, because officers aren't looking for definite shapes, such as Glock pistol or a knife. They are looking for anything that they can't definitely satisfy themselves is safe. The Aviation Security Service puts the onus squarely on the officer to ensure that the contents of any bag are safe before allowing it to be carried on the aircraft.

### **Dangerous Goods are Handled as an Agent of the Airline.**

The Service is only organisation in a position to find the goods in passengers' bags. The airlines can ask passengers about the contents of their bags, but they very rarely search them.

The Service screens the bags and can identify the dangerous goods contained in them.

### **Handling of Dangerous Goods**

The Service deals with unauthorised articles in two ways.

First, there are those items classified as 'Security items'. These can be carried in the hold of the aircraft. Examples of security items include knives, tools, sporting firearms, etc.

Such items are placed in a bag with proper identification and signed over to the airline's representative before the flight departs. The bag is placed in the

hold of the aircraft and the passenger collects it from the carousel at the destination airport with the rest of their baggage.

Goods classified as 'Prohibited items' can't be carried on the aircraft, in the cabin or the hold. This category includes most dangerous goods, such as paint solvents or mercury thermometers. Sometimes the goods are prohibited through lack of required packaging. These goods are relinquished by the passenger, the relinquishment being recorded and signed by both the passenger and the officer involved.

All our stations are equipped with approved storage facilities for dangerous goods and the relinquished items are stored for three months before disposal. This period allows an opportunity for a passenger returning to New Zealand to apply for the release of the goods.

Relinquished goods are never disposed of to Service staff. To do so would open the Service and its officers to allegations of corruption and conflict of interest.

At the end of the holding period, the goods are either destroyed or, depending on their nature, handed to a charity organisation such as the Salvation Army for distribution.

## **Overweight Bags**

Another aspect of safety in aviation that is often ignored, even by the airlines themselves, is the overweight bag. Flights to some destinations are more prone to this problem than others, as passengers seek to avoid the payment of excess baggage charges by taking most of their baggage in the cabin with them.

In New Zealand, a security officer who detects an overweight bag will notify the agent for the flight. The airline usually insists on the bag being carried in the hold.

## **Recurrent Testing**

One of the methods used by the Aviation Security Service to maintain the quality of its operations, is recurrent testing.

Civil Aviation Rule: Part 140 requires it. This testing, together with internal audit, has become one of the cornerstones of the Services approach to quality, contributing to our certificates against CAR 140 and ISO 9002.

All operational officers of the Service are tested in their six main functions at least once every 150 days. The Service philosophy is that officers should be cross functional and not restricted to one task such as screening. In fact, officers change duties every hour during a shift. This variety of work is vital in

maintaining officer interest and alertness and is a significant factor in both effective security and job satisfaction, leading to a high staff retention rate.

The tests are carried out under operational conditions and cover X-ray interpretation, physical search of bags, both walk-through and hand-held metal detector operation, sterile area search and aircraft search. They are also tested in mobile, foot and static patrol duties.

Officers who fail these tests are taken off the duties involved until re-certified as competent by the training staff. In the first instance, they are interviewed by the examining officer who seek to determine if there is any specific reason for the failure that will require attention before further testing is performed.

The interviewer is looking for indications of health, family or other problems that may be affecting the officer's duty performance. After the interview a decision is made as to whether and how much re-training is required. In some cases, an immediate re-test is performed. Any training required is provided and the officer successfully re-tested before being permitted to resume the duty concerned.

Should an officer fail the second test, he is given a first warning and further training is provided. At the completion of the training, the officer is tested and failure at this stage results in his suspension from all duties. The officer is then interviewed by the Regional Manager and a recommendation made to the General Manager to dismiss the officer. I would stress that no officer has

been dismissed under this regime since its introduction. In fact, I don't believe that any officer has failed the first retest.

An interesting phenomenon, when the system was first discussed with staff before introducing testing, was that, when asked what to do about officers who failed the first test, they said that we should fire them at that stage. Management had to insist on giving officers second and third chances, not only to comply with New Zealand employment law, but also to protect the Service's not inconsiderable investment in the officer.

During these tests, weapons, dummy bombs and dangerous goods are equally likely to be used. Often more than one article will be present in a test. This is to ensure that the search is performed to sufficient depth to locate all unauthorised articles.

### **Violent, Intoxicated and Unruly Passengers**

A relatively new, but increasingly common phenomenon in aviation is the violent, intoxicated or unruly passenger. Again, this is primarily a safety issue but security officers are often involved.

The Aviation Security Service has a Memorandum of Understanding with the Police and airlines that defines for who will take action in these cases, and involves proactive measures on the ground.

Security officers are required to observe passengers at screening point.

While this is primarily intended to identify any persons who may warrant additional scrutiny during screening, it also provides the opportunity to assess them for any other likely problems such as drunkenness or extreme anger.

If an officer identifies a passenger as likely to cause problems for the flight crew, the matter is drawn to the attention of the airline representative who decides whether any action is needed. On several occasions, the airline has refused to carry a passenger and security officers have been called on by the airline to remove unruly passengers from flights before take off. They have also been called upon to remove unruly or intoxicated persons, not always intending passengers, from airline courtesy lounges.

The need for effective proactive action on the part of everyone in the industry is borne out by two recent incidents in the USA in which unruly passengers broke into the cockpit of aircraft in flight and assaulted pilots. These are extreme cases but, in the light of trends to more violence in society, could become more common in future.

### **No Smoking Legislation**

No Smoking legislation is one cause of unruly behaviour, as passengers react to the lack of nicotine, often exacerbated by over consumption of alcohol.

The Service provides immediate response to in-flight incidents on the arrival of the aircraft. In such cases, the Service is usually notified by the aircrew radioing ahead for assistance on arrival.

New Zealand legislation needs to be stronger than at present. In most cases, the offender is warned of the possible consequences of repeat offending but there are difficulties in taking the matter further. Although the legislation provides for instant fines, there are problems in the application of this provision and prosecution is not always viable when the offender is a short-term visitor to the country. If the passenger has committed an actual assault on other persons, the Police may arrest them and take prosecution action.

The Service is working with the aviation industry in New Zealand toward more effective legislation.

## **Powers**

Aviation Security Officers have specific powers under the Civil Aviation and Aviation Crimes Acts. They also have powers under other Acts but they do not have Police powers of arrest except for a very limited range of offences and have to call on the Police to handle cases outside their authority.

However, one of the powers that is very useful is that provided in the Civil Aviation Act to question any person found in a security area and to detain them if not satisfied as to their identity or reason for being in the area. This

power and the professional approach of our officers, means that they are able to act effectively in cases of breaches of security and to reduce the demand for Police resources at the airport. This is particularly so because of the Service's focus on its core business of aviation security.

All our officers are trained in customer relations and this often enables them to handle situations without the use of excessive legal powers.

## **Audit**

A major factor in the Aviation Security Service quality system is audit. The Service is audited by many organisations, including the Civil Aviation Authority of New Zealand - which sometimes include airline representatives in the audit team - the United States Federal Aviation Administration, Bureau Veritas Quality International and Audit New Zealand. The Service also opens its doors to any of its customers who may wish to carry out an audit of the services provided to them. In addition to these audits, the Service undergoes a triennial review of its operations and administration by a third party. This is carried out by one of the big accounting firms, - so far, a different one each time - with an industry representative on the team and is performed for the Minister of Transport. These reviews are very useful to the Service as, although it has never had a bad audit report, there are always suggestions for improving our operations. The Service then includes the recommendations in its next business plan and appoints a project manager to oversee the

implementation by nominated managers or supervisors. Progress on the project is reported to the Board each month.

Recurrent testing is also part of our audit regime. It is the only method available to us to measure our detection rate. Operationally, any article not detected is lost to us and we will only find out about it, if the presence of the article on an aircraft results in an incident. By carrying out controlled testing of officers, we are able to gain a measure of our effectiveness. The results of testing are reported to the Minister of Transport quarterly and the target is 95% of all objects detected. In an organisation with approximately 180 officers undergoing tests, it doesn't take many failures to drop below this level.

### **Effects of an Aircraft Disaster on Security Providers**

Security and safety are very closely linked in the aviation industry. They are never completely separated and this is clearly demonstrated when there is a catastrophic aircraft loss. The immediate reaction is "It must have been a bomb. What was security doing?" Nobody is immune from this response; certainly not the media, which tends to look for sensational news, and what is more sensational than the catastrophic loss of an aircraft with several hundred persons on board? The general public, industry and the aviation authorities all follow along the same line of inquiry in the first instance. Too often, there is an immediate 'knee jerk' tightening of security requirements by the authorities.

In most cases, it is only after several months of investigation that mechanical failure or another cause is accepted by the authorities. It is at this time that the additional security measures may be, but sometimes aren't, lifted. In the meantime, the security operators have suffered what can be very large financial penalties in maintaining the level of security demanded of them. Additionally, law-abiding passengers have been subject to delays and sometimes quite intrusive measures to no purpose. The security provider carries the burden of the passengers' discontent with the measures. Nobody offers any compensation for these costs or, for that matter, an apology when they are proved to have been unnecessary.

## **Conclusion**

The point that arises from this is that security providers can't ignore anything that may be instrumental in causing the loss of an aircraft, however remote that chance may be. The dividing line between Safety and Security is blurred. However, I maintain that, through awareness, recruiting the best people for the job, providing them with better training and a wider range of duties, leading to greater job satisfaction, and the use of quality systems, we can make better use of the security infrastructure that is in place, and use our Aviation Security Officers to deal with issues relating to both aviation safety and aviation security. This can only result in a safer aviation industry.