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! article on aspects of GA security

banner to appear at top of page:
AVIATION SECURITY

title:
Security requirements for GA operations
should be based on a threat assessment

subheading:
Implementing security measures for general aviation operations seems unavoidable, at least for larger aircraft. It is important, however, that such requirements reflect the level of threat while taking operational realities into account.

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text of article:

FOR several months now, the International Business Aviation Council (IBAC) has been working with the ICAO Aviation Security (AVSEC) Panel, regulatory authorities and the aviation industry to determine how best to apply stronger security measures to the diverse sector of aviation known as general aviation.

The world has accepted that air transportation will never again be the same. Although the horrific events of September 2001 have focused attention on large commercial airline aircraft, the consequences are also being felt by the world's general aviation community. This is partly an inadvertent application of large aircraft regulations, and partly because of legitimate concerns for general aviation security.

The general aviation community has been advocating realistic and effective security provisions responding to real threats. Ineffective rules are not only costly, but can divert attention and valuable resources away from more serious risks. As a pivotal, high-level security conference held in Montreal in February 2002 concluded, general aviation operations are very different from commercial air transport operations and warrant separate security measures.

Consultation crucial

Over the past year, security regulators worldwide have been searching for solutions, trying to determine how best to handle general aviation security. The answers are not obvious for many reasons, not the least being the widely diverse nature of general aviation and the significant differences in how States view general aviation and its socio-economic benefits.

Where aviation safety is concerned, many States have developed excellent procedures for consulting those affected by regulatory changes. The same cannot be said for the development of security rules.

Rules developed without adequate consultation are usually ineffective rules. For this reason, the general aviation community

has been strongly encouraging security authorities to establish consultation programmes equivalent to those now so successful for aviation safety.

The principle of establishing security to match the level of threat should be universal. In commercial aviation, the threat related to a large commercial aircraft operated from a major airport is not the same as the security threat related to a small Part 135 air taxi operation in the Australian Outback. Nor is it the same for aerial work or air tanker fire suppression operations. The level of threat is different, and therefore the security provisions need to be different.

Matching security provisions to the threat associated with general aviation is made particularly perplexing because of the vast differences in operations. General aviation is non-commercial. Among its characteristics:

!it is not publicly available, and seats are not for sale;
!it is not for public hire;
!passengers are almost always known;
!aircraft range from one-seat recreational vehicles such as ultralights to large corporate jets;
!aircraft operate to and from a vast number of airports, large and small (there are generally 10 general aviation airports for every airport served by scheduled commercial air services); and
!small aircraft do not necessarily have to operate from airports.

General aviation can include leisure flights, adventure flying, pilot training and business operations, but the one common denominator is that all operations are private.

Security in this environment, to be effective, cannot be applied as “one size fits all.” General aviation security should be tailored to the threat and should take account of operational realities.

Finding the right balance for security is not an easy matter. Business aviation, a component of general aviation, operates more than 21,000 turbine aircraft today, with over 13,000 companies worldwide operating their own aircraft for business purposes. Aircraft in this sector range from piston engine twins such as the Raytheon Beech Baron typically operated by the businessman-pilot, to

large executive aircraft such as the Boeing Business Jet or Airbus Corporate Jet. Business aviation's primary focus is the corporate aircraft, with professional crews employed to fly the aircraft, and with flight departments managing operations.

Business aircraft operate only about 500 hours per year. They are flown on a non-scheduled basis to every corner of the world. Passengers are either company employees who fly day-in and day-out on the same aircraft, or clients who are usually well known to the company.

One significant, long established hallmark of business aviation is the security that companies have imposed voluntarily. Indeed, many corporations operate aircraft for security reasons — either to protect valuable employee resources or corporate industrial intelligence. Corporations often employ highly trained security staff who also have responsibility for flight department security.

Threat assessment

The challenge of designing general aviation security measures focuses on the need to thoroughly define the threat. Before security standards can be developed, there must be a clear picture of the problem. However, to date no regulatory authority has completed an analysis to define the threat related to general aviation.

Annex 17, the ICAO security standard, lacks a provision specifying its applicability to aircraft size and type of operation. This oversight may have been inadvertent, but the fact remains that all provisions pertaining to the "operator" apply to both small and large aircraft, commercial and private, operating anywhere. Does it make sense to require electronic screening by a certified screener of passengers taking a sightseeing trip in a Cessna 172?

The ICAO AVSEC Panel, whose members are nominated by countries and by international organizations, turned to IBAC and the International Aircraft Owners and Pilots Association (IAOPA) for advice on how best to address GA security. IBAC agreed to conduct a security threat assessment for corporate aviation, and IAOPA agreed to perform a similar assessment for operators of light aircraft and those involved in aerial work.

IBAC chose to perform the security threat assessment using recognized risk assessment methodologies and the services of a panel of experts. The panel consisted of personnel with a broad range of background and expertise including corporate aircraft operations, airport security, company security, fixed base operations, police agencies, security authorities and the ICAO AVSEC Panel.

During a meeting in New York in June 2002, the IBAC panel conducted a variation of a "cause-consequence" analysis. Key events — including hijacking, commandeering and sabotage of corporate aircraft — were identified and "fault trees" used to describe these events and the consequences ascribed to each of them. The panel also proposed countermeasures for mitigating the threats.

The results of the panel's assessment were validated by business aviation personnel in Europe and other parts of the world. The study's conclusions became the basis of recommendations made recently to the ICAO AVSEC Panel. IAOPA completed a similar security threat assessment, although with different methodologies. Results of the two assessments were coordinated to ensure a consistent message from the general aviation community.

The process of assessing the security threat also presented IBAC with material that could be used in updating the international standard for business aircraft operations (IS-BAO). The standard, introduced earlier this year (see "New standard promotes use of safety management systems among business aviation operators," page xy), includes security rules and guidelines for business aircraft operators worldwide.

GA security standards

ICAO standards for aircraft operations (contained in Annex 6, Part I) contain the security requirements for commercial air carriers. However, there is no reference among the provisions for general aviation, contained in Annex 6, Part II, to security standards.

This lack of reference can be redressed by amending the general aviation standards to assign responsibility to the pilot-in-command for all aspects of GA operation, including security. Furthermore, the security standards could be amended to require general aviation

security in accordance with the State's security programme, which ideally would be tailored to the level of threat.

IBAC has recommended more specific requirements for larger general aviation aircraft, namely those weighing over 5,700 kilograms (12,500 lbs). In this case, the proposal calls for standards requiring that operators implement security programmes to industry standards and advise regulators of their implementation. Also required would be background checks for all pilots, and security checks on passengers and baggage that are not pre-qualified.

The concept of pre-qualified passengers recognizes that passengers involved in private operations are normally company employees who fly on the same aircraft regularly. Pre-qualification means that a background security check has been completed by the company or operator so that repeated checks are not necessary for future flights.

Airport security

Considerable discussion by the IBAC panel revolved around the ICAO standards for airports. The security restricted area, often called a "sterile" area, is the only specified level of security. The restricted area carries with it requirements such as background checks on all who access the area and for all screening conducted by a certified screener.

The establishment of restricted areas would be extremely costly for regulators if applied to general aviation areas. In reality, many general aviation facilities have excellent security programmes, although not always aligned with the standards associated with security restricted areas. Again, one size does not fit all.

The solution proposed by IBAC is to incorporate within the security standards a secondary level of security which would be more applicable to general aviation areas. Security programme zones would be applied by airport and security authorities to general aviation airports and possibly also to small remote commercial airports, thus allowing for security measures to match the level of threat.

The principle behind the security programme zone is the delegation of security responsibility to private sector entities. Private

organizations such as fixed base or corporate aircraft operators could be assigned responsibility for providing security, as defined in a security programme, for their facility and the adjacent apron. Under this flexible approach, the security programme for a facility situated close to a major terminal may be relatively restrictive, yet the programme for a general aviation area at a smaller, remote airport can be designed to better suit the threat.

Clearly, provisions would have to be made to ensure that passengers boarded outside a security restricted area do not intermix with passengers boarded within the restricted area. Such provisions are manageable and could be established within the standards.

Such recommendations were presented to the ICAO Aviation Security Panel in September 2002, where they were supported by some States' representatives, the Airport Council International (ACI) and the International Federation of Airline Pilots Associations (IFALPA). Proposed standards that reflect these recommendations will be considered by the ICAO Council when the next amendment to Annex 17 is presented in 2003.

In summary, IBAC has proposed rules for general aviation security that are both responsible and responsive. From the perspective of the general aviation community, the right course of action is to implement security rules that are tailored to the threat itself.

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Summary of new standards recommended
following security threat analysis

All General Aviation

!Pilots to be given responsibility for security, as they are now for safety

!Rule for general aviation to be established in accordance with State security programmes

Large GA aircraft (over 5,700 kg)

!Flight Departments to establish security programmes in accordance with industry standards

!Background checks to be done on pilots

!Security checks to be completed on passengers not pre-qualified

Qualified passengers

!Companies can pre-qualify passengers by performing a security background check

Airport Security

!Security Programme Zone to complement the concept of Security Restricted Areas

!Security Programme Zones to be established at general aviation facilities and airports

!Private companies to assume responsibility for security of their facilities through the Security Programme Zone

!Provisions established to ensure there is no contact between passengers outside a Security Restricted Area and those within secure areas