



Incorporating General Aviation into ICAO Annex 14, Aerodromes

White Paper prepared by the International Council of
Aircraft Owner and Pilot Associations (IAOPA)

General aviation activities encompass a wide range of operations, types of aircraft and applications. This category of aviation constitutes the most diverse of all civil aeronautical activities.

This diversity permits general aviation operators to use a great variety of aerodrome types, ranging from large international airports for business and corporate aircraft to small grass fields for personal transportation and recreation. This range of aerodrome options makes it difficult for State regulatory agencies and international standards developers to establish common sets of aerodrome requirements that accommodate such a wide range of activities.

Applicability

ICAO Annex 14, Volume 1, Aerodromes, has provided international civil aviation with standards and recommended practices for nearly 60 years, yet during that time it has provided just a single standard designed to accommodate all types of civil aviation operations. This means that aerodrome standards for a small single-engine personal-use aeroplane are quite similar to those used for large turbojet commercial airliners. While some distinctions are made regarding aeroplane size and weight, the standards and recommended practices (SARPS) essentially remain the same for all types of aircraft and operations.

The Annex is designed specifically to provide SARPS for “aerodromes open to public use in accordance with the requirements of Article 15 of the Convention. Yet, Article 15 is further modified by Article 68 which notes that States *may designate* “airports which any such service [international air service] may use.” Unfortunately, some States do not designate these aerodromes or fail to adequately maintain the list or include a number of aerodrome sub-categories relevant to the availability of customs and immigration facilities. All of this makes it difficult for States to determine the overall applicability of Annex 14 to their aerodromes.

Annex 14, §1.2.2 states, “The specifications, unless otherwise indicated in a particular context, shall apply to all aerodromes open to public use in accordance with the requirements of Article 15 of the Convention.” To which aerodromes, precisely, does this standard refer? This is important since, §1.4.1 states, “As of 27 November 2003, States shall certify aerodromes used for international operations in accordance with the specifications contained in this Annex as well as other relevant ICAO specifications through an appropriate regulatory framework.” Certification is a complex and expensive process, the specifications for which must be constantly maintained to retain certification.

The point being, should a small, low volume, part-time-customs aerodrome used exclusively by general aviation aircraft be required to undergo certification? What demonstrable benefit is gained? More appropriately, should Annex 14 make distinctions between general aviation and commercial air transport operations?

Differentiating between General Aviation and Commercial Air Transport

As early as 1969 other Annexes to the Convention began making distinctions between general aviation operations and those for commercial air transport. This trend was started by the Assembly for Annex 6, International Aeroplane Operations, clearly defining general aviation and commercial air transport¹. Since that time the distinctions between these types of operations has been further recognized and recorded in detail within the Annex 6 Parts I and II. In more recent times these distinctions have been incorporated in Annex 9, Facilitation, and Annex 17, Security. Numerous other ICAO documents have recorded similar distinctions designed to separate these two very different types of operation.

The differences between general aviation and commercial air transport are sufficiently great to describe separate treatment for operations, facilitation and security. While much of ICAO's work concentrates on the scheduled airlines, general aviation comprises more than 350,000 aircraft operating in excess of 25 million flight hours annually worldwide. And, while airline-served aerodromes number in the thousands worldwide, general aviation aerodromes number in the tens of thousands.

Yet, general aviation requires very few specialized aerodrome features and can normally coexist with airline operations peacefully at all except the world's largest hub facilities. General aviation operates at the periphery of the main aviation system, accommodating to a system and infrastructure designed primarily for the airlines. Lack of aerodrome facilities are not a problem for general aviation since they often operate at thousands of aerodromes that are essentially unimproved grass strips.

It should also be noted that the level of protection provided to general aviation by ICAO SARPS are quite different from those provided to commercial air transport. When ICAO Annex 6, Part II was instituted in 1969 the foreword to this document made clear (and continues to do so) the differences:

Level of safety. The Annex should ensure an acceptable level of safety to third parties (third parties meaning persons on the ground and persons in the air in other aircraft).

Also, as some international general aviation operations will be performed:

a) by crews less experienced and less skilled ;

¹ ***Commercial air transport operation.*** An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.

General aviation operation. An aircraft operation other than a commercial air transport operation or an aerial work operation.

b) by less reliable equipment;
c) to less rigorous standards; and
d) with greater freedom of action than in commercial air transport operations;
it has to be accepted that the passenger in international general aviation aircraft will not necessarily enjoy the same level of safety as the fare-paying passenger in commercial air transport. However, it was recognized that in ensuring an acceptable degree of safety for third parties, an acceptable level of safety for flight crews and passengers would be achieved.

Freedom of Action. The maximum freedom of action consistent with maintaining an acceptable level of safety should be granted to international general aviation.

Aerodrome Certification Requirements

Annex 14, §1.4.2 states: “Recommendation— *States should certify aerodromes open to public use in accordance with these specifications as well as other relevant ICAO specifications through an appropriate regulatory framework consistent with the particular requirements of the aerodrome.*” While this may seem to be a logical extension to the standard for international aerodromes, the implications are significant. First, what constitutes an “aerodrome open to public use?”² No definition is provided within the Annex. Second, advising a State to certify public use aerodromes, regardless of size or purpose, carries with it the same questionable financial burdens and dubious benefits mentioned in conjunction with §1.2.2 concerns. Although this is listed as a *recommendation* it is well known that many States incorporate the entire contents of the Annexes, be the statement a standard or recommendation. Therefore, recommendations become standards for many States, regardless of the font with which the comment is displayed.

Annex 14 does not define the term *international aerodrome*, making it difficult to determine which landing areas are required to comply with the provisions of Annex 14. Interestingly, Annex 9, Facilitation, does define the term *international airport*³, which may be similar to an *international aerodrome*. The Annex 9 definition incorporates the requirement for customs and immigration facilities, yet it does not specify the availability of these services as either continuous, intermittent or on-demand. Importantly, an aerodrome offering customs and immigration services intermittently or on-demand will impose the burden of certification where it may not be economically desirable or beneficial to the majority of users.

A number of states certify only those aerodromes that accommodate significant amounts of scheduled airline traffic. Still others certify aerodromes with threshold levels of activity, regardless of purpose. It is very difficult for States to certify hundreds or even thousands of aerodromes that meet the broad criteria of public use, regardless of activity

² Some States define a **public use aerodrome** as one that is available for use by the general public without a requirement for prior approval of the owner or operator.

³ *Any airport designated by the Contracting State in whose territory it is situated as an airport of entry and departure for international air traffic, where the formalities incident to customs, immigration, public health, animal and plant quarantine and similar procedures are carried out.*

levels, because of untenable cost-benefit ratios.

Rescue and Firefighting

RFF requirements create a significant burden for general aviation pilots and operators because of the aerodrome landing, parking and handling fees levied on these operations to fund the aerodrome fire brigades. Additionally, the expense required to maintain a fire brigade at a small general aviation aerodrome frequently restricts the operating schedule for these facilities in an effort to avoid the associated RFF expenses. Annual expenses for maintaining a sunrise-to-sunset, partial week RFF capability at small general aviation aerodromes easily may exceed \$150,000 [*two firemen, equipment depreciation, training, supplies, etc.*] annually.

Anecdotal evidence from IAOPA affiliates shows that the requirement has provided little benefit for general aviation personnel, primarily because the mass, takeoff and landing speeds and fuel capacity of small general aviation aircraft are insufficient to yield the type of takeoff or landing accident that would require a aerodrome fire brigade. This contention is supported by the fact that the most active general aviation States, Australia, Canada and the United States, have either filed a complete or partial Annex 14 difference with ICAO on this issue, relieving those States of the responsibility to provide RFF services at general aviation or at low-activity aerodromes supporting unscheduled commercial air transport.

Finally, general aviation operations do not require or desire the same level of protection as do commercial service operations (see bottom of page 2). States often do not have an equivalent “duty of care” to protect private aviation operations as it does for fare-paying customers in commercial operations. Therefore, general aviation operators are predominately willing to forego the requirement for RFF services at their aerodromes. Conversely, the passengers paying for commercial air transport services deserve a higher level of safety and care. Additionally, these operations normally involve larger, heavier, faster aircraft that give rise to more severe consequences resulting from landing or takeoff accidents.

Conclusion

There are a number of other standards contained in Annex 14 that could be modified to accommodate the needs of general aviation to a greater degree. However, the most important and pressing are the recommendations shown below.

Recommendations:

1. Annex 14, §1.1 and 1.2.2 should be specific regarding to which aerodromes these standards apply to: “This annex applies to all international service airdromes which have been so designated by a State and listed in their AIP/AIS as full-time facilities providing customs, immigration and agricultural clearance service.”
2. §1.4.1 should be made more specific using the same specification shown above.

The existing, "...aerodromes used for international operations in accordance with the specifications contained in this Annex as well as other relevant ICAO specifications..." is too vague and subject to interpretation; use of the definition shown in recommendation 1 is appropriate.

3. §1.4.2, define the term "public use aerodrome" – suggestion: one that is available for use by the general public without a requirement for prior approval of the owner or operator.
4. §1.4.2 should define which domestic public use aerodromes should be certified. Suggestion: those public use aerodromes which provide commercial air transport services, utilizing aircraft with 30 or more passenger seats.
5. § 9.2.1 should contain the underlined modifier, "Rescue and firefighting equipment and services shall be provided at an aerodrome certified for international commercial air transport operations. *Note: At aerodromes with fewer than ten commercial air transport operations per day rescue and firefighting services should be provided on-demand rather than maintaining a full-time capability.*
6. Definitions: Since the term "commercial air transport" has been used, it should be defined. While the term "general aviation" has not been used it will provide a useful corollary. Use the same terms shown in ICAO Annexes 6, 9, and 17 – see footnote 1.
7. Finally, since common use of the term *aerodrome* is limited to a few States, substitute the designation appropriate to the 21st century, *airport*, when describing locations suitable for the operation of aircraft in Annex 14. Significantly, the term *aerodrome* does not appear in the ICAO Convention or Annex 9, however *airport* does a number of times.

6-25-11

The International Council of Aircraft Owner and Pilot Associations represents the interests of more than 450,000 pilots and aircraft owners in 69 States. Formed in 1962, IAOPA is dedicated to promoting the peaceful uses of general aviation and aerial work worldwide.

IAOPA
421 Aviation Way, Frederick, MD 21701, USA.
Tel +1 301 695 2220, Fax +1 301 695 2375.