



DIRECTORS GENERAL OF CIVIL AVIATION CONFERENCE ON A GLOBAL STRATEGY FOR AVIATION SAFETY

Montréal, 20 to 22 March 2006

Theme 1: The status of aviation safety today

Topic 1.3: Initiatives by States and industry

GENERAL AVIATION SAFETY IMPROVING BUT STATE SUPPORT REQUIRED

(Presented by the International Council of Aircraft Owner and Pilot Associations)

SUMMARY

General aviation has become safer over the past decade, yet improvements are needed. Meteorological, Aeronautical Information Publication (AIP) and NOTAM information are important elements of flight safety, yet not always available or affordable. Further, regulatory restrictions and high fees deter pilots in obtaining added experience and proficiency.

Action by the Conference is in paragraph 5.

1. INTRODUCTION

1.1 General aviation comprises all worldwide non-commercial civil aviation, representing four-fifths of all civil aircraft and two-thirds of all pilots. This segment of the aviation market has enjoyed a significant increase in aircraft produced since the economic downturn early in this decade. Importantly, more than 3,000 general aviation aircraft were produced worldwide in 2005, approximately 20 per cent more than the previous year. Fully 70 per cent of these new units were light piston-engine aircraft.

1.2 State data and estimates supplied by the International Council of Aircraft Owner and Pilot Associations (IAOPA) indicate that world civil aviation consists of approximately 370 000 aircraft and 1.3 million pilots flying some 39 million hours during 2004. These totals remain relatively stable compared to 2003.

1.3 A majority of these aircraft are used for personal transportation and occasional recreation, however specific types may be used for more utilitarian roles and business transportation. Significantly, the economic impact of general aviation on the economy exceeds \$70 billion annually in North America, the only region for which data is available.

1.4 A separate aviation segment not normally included in general aviation (because of non-uniform certification and pilot licencing standards) is the ultralight, microlight and very light aircraft community. This segment of general aviation is growing at a rate of 10 per cent in some parts of the world due to lower purchase and operating costs and reduced certification/licencing requirements. It is estimated that in excess of 100 000 of these aircraft and 250 000 pilots for this segment exist worldwide. (Note that these are in addition to the numbers stated above.) While these aircraft have limited performance characteristics they will provide an entry level for those seeking the greater utility value of more traditional general aviation aircraft.

2. SAFETY

2.1 Given the less stringent regulatory levels afforded general aviation, less capable aircraft and lower experience levels of the pilots, accident statistics for general aviation are generally higher than those experienced in commercial air transportation. Importantly, the general aviation operating environment is more hostile than that of the air carrier, featuring small aerodromes without air traffic services, little or no meteorological information available and unreliable airport condition data available. Yet, private pilots have traditionally accepted these limitations, curtailing their activities to accommodate their personal, aircraft and environmental limitations.

2.2 In general, accident rates for light general aviation activities (aircraft with a maximum take-off mass of less than 2 250 kilogram) average approximately ten accidents per 100 000 flight hours, depending on operating environment and flight purpose. At the upper end of general aviation there are dramatically lower rates, especially for turbine-powered corporate aircraft operations which typically experience accident rates comparable to the airlines. It is sometimes difficult to equate accident levels due to variations in accident reporting standards and requirements among States. Moreover, few States publish general aviation activity levels, making it impossible to calculate accident rates.

2.3 Fortunately, the great majority of light general aviation accidents do not involve fatalities. Rather, they mainly involve light to moderate damage to the aircraft and little or no harm to its occupants.

3. CAUSES

3.1 Sadly, the principal cause for aircraft accidents worldwide are similar, whether they involve a light aircraft or airliner: pilot error. This error can stem from insufficient training, lack of experience, faulty judgment or inadequate support. While it is easy to blame the pilot for the accident, underlying factors may have contributed significantly. These contributing causes often put a pilot into an untenable position from which recovery is difficult or impossible.

3.2 Statements such as “pilot failed to accommodate weather conditions,” “aerodrome conditions were not suitable” or “pilot did not react properly to deteriorating weather conditions” clearly indict the pilot but fail to examine underlying causes. Insufficient, nonexistent or delayed meteorological reporting, unavailable NOTAM information and out-of-date aeronautical information references are examples that make the pilot’s job more difficult under the dynamic conditions that accompany every flight. Without timely support from government agencies the pilot’s job becomes quite difficult; the partnership between pilot and ground-based information systems is of critical importance to flight safety.

3.3 Airlines usually avoid this information vacuum by generating their own data and a means of transmitting it to the flight crew, regardless of the level of information provided by the State. In some

parts of the world meteorological, Aeronautical Information Publication (AIP) and NOTAM information is either not readily available or prohibitively expensive for general aviation operations. The lack of this information contributes to a significant number of worldwide general aviation accidents.

3.4 Experience in a broad range of operating environments, proficiency and recency of experience are proven antidotes to aviation mishaps. This is especially true for the private pilots who normally have fewer flying hours in their logbooks and in a limited number of operating environments. Yet, to an increasing degree rising aircraft operating costs and regulatory restrictions serve as a disincentive for pilots to gain additional experience. Regulatory, air traffic service and aerodrome fees have significantly increased the costs associated with general aviation operations over the past decade in many parts of the world. So, increased fees work against aviation safety for the private pilot who must pay for these services out of pocket. Ironically, these pilots all pay high aviation fuel taxes that seldom are used to amortize the operating fees.

4. SAFETY MEASURES

4.1 A number of States provide safety programmes that actively support the general aviation community. Safety seminars, training programmes, free publications and internet exercises are all useful for pilots to serve as ongoing reminders to the need to adhere to good operating practices and to strive for higher levels of achievement and awareness in aeronautical practice. Yet, the majority of States do not provide such inducements to higher levels of performance for pilots.

4.2 A majority of the 62 IAOPA affiliates produce a number of safety seminars and materials to serve as a reminder for their members to fly safely. These range from week-long training camps in Germany to a series of one-night safety seminars in New Zealand. Our premier aviation safety arm, the AOPA Air Safety Foundation (ASF), has produced a series of internet-based training programmes that cover issues from weather interpretation to runway incursion avoidance specifically designed for private pilots. The ASF programmes are available free of charge to any pilot worldwide. (See www.asf.org)

4.3 Additional State safety awareness support will be important since increasing numbers of light sport aircraft and ultralight/microlights are now entering the general aviation community. Pilots and owners of these often lightly regulated aircraft generally have less training and experience than do operators of more conventional aircraft. Therefore, the safety of these new groups will require continuing education and mentoring.

5. ACTION BY THE CONFERENCE

5.1 The Conference is invited to:

- a) ensure that timely and affordable meteorological, AIP and NOTAM information are available to general aviation operators;
- b) consider the potential negative effects of added regulation and increased fees on general aviation safety;
- c) accommodate emerging forms of general aviation activity with appropriate levels of regulation and assistance; and

- d) provide safety information and programmes for general aviation operators.

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