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THE NEED TO STRENGTHEN THE ICAO PROVISIONS RELATING TO BIRD CONTROL ON AND IN THE VICINITY OF AIRPORTS

International Civil Aviation Organization

The International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations. ICAO was created in 1944 to ensure that international civil aviation would be conducted with regularity, with efficiency and, above all, in safety.

OVERVIEW

Bird strikes to aircraft are a threat to the safety of aviation and as air traffic continues to grow, their numbers appear to be increasing. In 1965 ICAO began to monitor bird strikes through the collection of bird strike reports as it became clear that the turbine engine aircraft coming into wider use were more susceptible to bird strike damage than their predecessors. This data collection became automated in 1980 with the creation of the ICAO Bird Strike Information System (IBIS), which now contains information on more than 80 000 bird strikes. When IBIS was created, it was thought that approximately 10 000 bird strikes occurred worldwide each year. However, since 1980, increases in bird strike reporting which have come about through a greater awareness of the problem and the efforts of those in the field of airport wildlife control have given us a better perspective of the present bird strike situation. While estimates vary, it is now believed that as many as 40 000 bird strikes occur to civil aviation aircraft each year. Bird strikes are truly a worldwide phenomenon, as shown by the fact that more than 190 States and Territories, from every ICAO Region, have reported bird strikes to ICAO.

IBIS data reveals that ninety percent of bird strikes, with known locations, occur on or near airports. Birds are attracted to airports and to the airport vicinity for a variety of reasons, all basic and tied directly to their survival. However, their basic needs put birds in direct conflict with aircraft using airports, and it is inevitable that collisions between aircraft and birds occur. While the vast majority of bird strikes have no effect on the flight, eleven per cent of all bird strikes do effect the flight in some tangible way. From the point of view of airport operations, aborted take-offs and emergency or precautionary landings are the most serious. Six percent or roughly 2 400 bird strikes per year result in either an aborted take-off or a precautionary landing. These disruptions in airport operations are not only an inconvenience to passengers; they are costly to all concerned and represent a danger to the travelling public.

EXISTING PROVISIONS

ICAO's principle regulatory document dealing with airport design and operations is Annex 14 to the *Convention on International Civil Aviation*, Volume I *B Aerodromes*. In 1990, amid increasing concerns over rising numbers of bird strikes, ICAO reviewed the specifications found in the Annex with a view to highlighting the importance of dealing with bird hazards. With the assistance of Bird Strike Committee Europe, recently renamed the International Bird Strike Committee (IBSC), three Recommended Practices were introduced into the Annex. They became applicable in November 1990. These Recommended Practices are:

A9.5 Bird hazard reduction

9.5.1 **Recommendation.** *C The bird strike hazard on, or in the vicinity of, an aerodrome should be assessed through:*

- a) *the establishment of a national procedure for recording and reporting bird strikes to aircraft; and*
- b) *the collection of information from aircraft operators, airport personnel, etc. on the presence of birds on or around the aerodrome.*

Note.C The ICAO Bird Strike Information System (IBIS) is designed to collect and disseminate information on bird strikes to aircraft. Information on the system is included in the Manual on the ICAO Bird Strike Information System (IBIS).

9.5.2 Recommendation.C *When a bird strike hazard is identified at an aerodrome, the appropriate authority should take action to decrease the number of birds constituting a potential hazard to aircraft operations by adopting measures for discouraging their presence on, or in the vicinity of, an aerodrome.*

Note.C Guidance on effective measures for establishing whether or not birds, on or near an aerodrome, constitute a potential hazard to aircraft operations, and on methods for discouraging their presence, is given in the Airport Services Manual, Part 3.

9.5.3 Recommendation.C *Garbage disposal dumps or any such other source attracting bird activity on, or in the vicinity of, an aerodrome should be eliminated or their establishment prevented, unless an appropriate study indicates that they are unlikely to create conditions conducive to a bird hazard problem.@*

In essence, paragraphs 9.5.1 through 9.5.3 recommend that authorities assess the extent of the hazard posed by birds on or in the vicinity of an airport, take necessary action to decrease the number of birds by adopting measures for discouraging their presence, and eliminate or prevent the establishment of any site in the vicinity of the airport which would be an attraction to birds and thereby present a danger to aviation. It is important to note that these three paragraphs are, currently, Recommended Practices and not Standards.

DEFINITIONS OF TERMS

Since ICAO=s inception, one of its main achievements has been the creation of a consensus, among ICAO Contracting States, on the level of standardization required to promote regular, efficient and safe international civil aviation. This standardization has been promulgated by the Organization through the creation of the Standards and Recommended Practices (SARPs) which are found in the eighteen Annexes to the *Convention on International Civil Aviation*.

Standard

ICAO defines a *Standard* as AAny specification for physical characteristics, configuration, matériel, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38.@

Recommended Practice

ICAO defines a *Recommended Practice* as AAny specification for physical characteristics, configuration, matériel, performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity or efficiency of international air navigation, and to which Contracting States will endeavour to conform in accordance with the Convention.

The difference between an ICAO Standard and a Recommended Practice is significant. Since Standards are deemed necessary for the safety of international civil aviation, ICAO Contracting States are Arequired to conform@ to them. If unable to conform to a Standard, a State is required to notify ICAO, through a Notification of Difference, that it is unable to comply with the Standard. Differences between the national regulations and practices of States and the corresponding international Standards are published in the Supplement to each Annex. With respect to Recommended Practices, Contracting States are required only to Aendeavour to conform@ with Recommended Practices. States are invited to notify a difference to a

Recommended Practice when the State feels that such a difference may be important to the safety of international civil aviation.

NEED TO UPGRADE RECOMMENDED PRACTICES TO STANDARDS

Even though recent developments in airframe and aircraft engine technology have been aimed at reducing the effect of bird strikes to aircraft, the best means of dealing with bird strikes is to reduce the number of birds representing the potential threat. The most effective means of reducing the numbers of birds is through a well planned, well implemented airport wildlife control programme which has been integrated with a wildlife control programme in the surrounding community. The current Annex 14 specifications on bird hazards are intended to facilitate the establishment of such a programme. However, as has been noted, since they are Recommended Practices, ICAO Contracting States are not *required* to conform with them; they need only *endeavour* to conform with them.

As noted previously, the number of bird strikes occurring annually appear to be increasing. When viewed in the context of continuing increases in air traffic, the introduction of quieter passenger transports, and the fiscal constraints imposed on airports, this is not surprising. Add to this, the lack of land use planning, the lack of co-ordination with local municipal agencies surrounding airports, and the low priority accorded to wildlife control by some airport authorities and it becomes apparent why the number of bird strikes continues to increase. Against such a background, it may be desirable to review ICAO's existing Recommended Practices on this subject with a view to upgrading one or more to a Standard or even explore the need for additional specifications.

BENEFITS TO BE GAINED

Upgrading an existing Recommended Practice to a Standard or establishing a new Standard related to bird strikes in Annex 14 would have the following benefits:

- a) since the application of a Standard is considered necessary for the safety of international civil aviation, the creation of a Standard relating to bird strikes would be recognition of the fact that bird strikes to aircraft *must* be controlled and reduced;
- b) States would be *required* to comply with the new Standard(s) or file a difference with ICAO;
- c) States would be *required* to assess and, when warranted, take steps to reduce the threat that bird strikes pose to aircraft, not just endeavour to do so; and
- d) by introducing a Standard, thereby making bird control a requirement, it is believed that more States will allocate the resources necessary to control birds on and in the vicinity of airports.

CONCLUSION

Bird strikes to aircraft continue to represent an unacceptable danger to aviation which must be addressed globally. The creation, in ICAO Annex 14, Volume I, of a Standard relating to bird hazard control is necessary if ICAO's 187 Contracting States are to accord appropriate importance to bird strikes and take action to reduce them.
