INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASSEMBLY – 35TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 15:   **Environmental protection**

ENHANCING THE BALANCED APPROACH TO AIRCRAFT NOISE MANAGEMENT

(Presented by Australia)

SUMMARY
The Balanced Approach currently focuses on ways to reduce the amount of aircraft noise which the community is exposed to. However, there are many non-auditory factors which are important in determining reaction to aircraft noise.   The Balanced Approach could be enhanced if strategies were incorporated to address 'people issues'.

REFERENCES
Guidance on the Balanced Approach to Aircraft Noise Management (ICAO Doc 9829)

INTRODUCTION

1.1   People's reaction to aircraft noise is complex. Reducing noise, of itself, will not necessarily solve aircraft noise problems or reduce community pressures on airports. There are many non-auditory factors which are highly important drivers of the human reaction to aircraft noise.

1.2   Experience has shown that people are likely to have a heightened negative reaction to aircraft noise if, for example, they believe they have been 'lied to' or deliberately misled about the level of aircraft noise they do, or are likely to, receive. Similarly there is likely to be opposition to aircraft noise at any sound pressure level if the community believes that the noise is not necessary and that it could be avoided by the implementation of feasible alternatives.

1.3   Conversely, there is likely to be a less negative reaction to aircraft noise if the community is involved in the decision-making processes which lead to the noise being generated. Giving people ownership of noise outcomes and the ability to influence decisions gives positive benefits.

1.4   Pressures on airports are increasingly coming from residents living in areas outside published noise contours – these areas have conventionally been treated as not being exposed to significant levels of noise. The affected persons typically live under busy flight paths and the issues generally relate to the high number of aircraft noise events rather than the loudness of the individual events.

1.5   If aircraft noise is to be effectively managed strategies need to be adopted to address these issues.

1.6   The importance of the issues in paragraphs 1.2 and 1.3 became apparent in Australia when a new runway was opened at Sydney Airport in 1994. There was a very strong adverse public reaction to the opening of the runway. An important factor in this reaction was the widely held view that the public had been misled about the noise impacts of the project in the Environmental Impact Assessment (EIA) process. The findings of a resultant Parliamentary Inquiry led to the airport's airspace being restructured through a process underpinned by community involvement.

2.   CONVENTIONAL APPROACHES

2.1   Conventional approaches to managing aircraft noise focus on reducing the amount of noise to which the community is exposed. The Balanced Approach encapsulates the four broad elements of these strategies. Strategies focussed on the types of 'people issues' identified in paragraphs 1.2 and 1.3 have not received any great attention.

2.2   In Australia, messages generated through conventional approaches to describing aircraft noise have been a major contributor to people believing they have been misled. For example, areas outside the conventional noise contours have generally been paid little attention in formal EIA processes. This has led people to erroneously believe that there is no noise outside the contours. Noise contours do not show, and are often poorly correlated with, the location of flight paths.

2.3   Conventional noise contours are based on the concept of the annual average day. This is a constant source of criticism from the Australian public and frequently leads to claims that airports and aviation authorities are acting in a misleading way. Average day information hides both the fluctuations in noise and what happens at sensitive times – it clearly does not portray aircraft noise in the way that it is perceived by a member of the public.

2.4   In practice the claims of being misled are frequently triggered when people receive 'surprise noise'. For example, noise contour information may generate an expectation in the mind of the prospective house buyer that there is no aircraft noise at the location of the new house – in practice these expectations may not be met when the person occupies their new home. Community wide 'surprise noise' situations have arisen in Australia when new projects have started up following EIA processes based on the conventional assessment approaches.

3.   EXPANDING THINKING

3.1   Many States have extensively applied all the principles embodied in the Balanced Approach and hence it offers little potential for further gains for these countries. Including 'people issues' in the Balanced Approach would add a dimension that does not yet appear to have been given detailed consideration.

3.2   Strategies can be developed to address the issues raised in paragraphs 1.2 and 1.3. Experience in Australia has demonstrated that establishing a system for describing aircraft noise in ways that the non-expert can understand enables effective communication to take place between all parties examining specific aircraft noise management issues. Establishing this common language facilitates community involvement in decision making processes and overcomes many of the issues revolving around misleading information.

3.3   In essence the system adopted in Australia is based on facilitating transparency through breaking aircraft noise information down into its constituent parts. Most non-experts build up a picture of aircraft noise in their minds using four core elements of information - where the aircraft fly, how often and at what times the aircraft operate, and the loudness of individual overflights. Non-experts generally structure conversations on aircraft noise around these four elements when talking amongst themselves. This information can be readily gathered, analysed and presented with the technology that is now commonly available. For many applications there is no need, in fact it is counter-productive, to follow the conventional practice of compressing this information into annual average day logarithmic noise contours.

3.4   Given the area-wide pattern of pressures on airports it is important that community involvement in decision making processes be extended to areas well beyond conventional noise contours. If this is to occur it is essential that aircraft noise information be generated that shows area-wide aircraft noise exposure patterns.

3.5   The approach is, in effect, an extension of the widely accepted principle of 'noise disclosure'. If perceptions of being misled are to be avoided then the prospective house purchaser needs to know if they are buying a house under a busy flight path irrespective of whether the house is inside or outside conventional noise contours. Similarly, if there is to be transparency and real community involvement in EIA processes proposed flight path patterns and the time distribution of operations on those flight paths need to be clearly defined across a wide area. Transparency can be a very effective tool in assisting noise sensitive individuals to avoid living under busy flight paths.

4.   **FINANCIAL IMPACT OF THE PROPOSED ACTION**

4.1   Australia considers that the proposed additional work should be handled under the work programme of the Committee on Aviation Environment Protection (CAEP). The additional cost of coordinating this work should be marginal and could be borne under programme 3.6 Environment Protection.

5.   **ACTION BY THE ASSEMBLY**

5.1   The Assembly is invited to:

(a)   note that many states could obtain additional benefits from the application of the Balanced Approach by addressing "people issues" through community engagement;

(b)   request the Council to incorporate community engagement techniques into the Balanced Approach as part of its ongoing review of the material in Document 9829 to ensure that guidance remains current and responsive to the needs of States.

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