Balanced Approach to Noise Management

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Introduction

- Rationale (Why it was developed).
- Objectives (What it aims to achieve).
- Concept & elements (How it works).
Rationale

- Aircraft noise problems have led to operational limitations and opposition to airport expansion/construction.
- Uncoordinated policy developments to address aircraft noise could hinder the economical operation of air transport.
- Guidance document was published in 2004 (Doc 9829 AN/451) and revised in 2007.
In 2007 the Balanced Approach guidance was expanded to include:

- **People issues**
  - Information on communication strategies;
  - Enhanced information for public access;
  - Consultation was already contemplated in the guidance.

- **Airport Case studies.**
Objectives

- Address aircraft noise problems at individual airports in an environmentally responsive and economically responsible way.
- Achieve maximum environmental benefit most cost-effectively:
  - Recognizing that States may already have noise regulations and policies in place.
Analysis and selection of measures

- Follows comparative economic analysis based on “best practice” evaluation techniques/methods:
  - CBA, CEA, sensitivity analysis.
- To achieve maximum environmental benefit in the most cost-effective manner.
- Combinations of measures can be necessary to achieve noise objectives.
- Interdependencies must be taken into account:
  - Between different element;
  - Between noise and emissions.
Elements of the Balanced Approach

- Reduction of noise at source
- Noise abatement operational procedures
- Operating restrictions
- Land-use planning and management

Balanced Approach
Reduction of noise at source

- Manufacturers’ new technologies have produced significant noise reductions.
- Noise certification is based on aircraft performance (airframe + engine).
- ICAO Chapter 14 noise standard has been agreed by CAEP.
Land Use Planning and Management

- Planning (zoning, easement, etc.).
- Mitigation (building codes, insulation, real estate disclosure, etc.).
- Financial (tax incentives, charges, etc.).
- Key to protecting noise reduction and abatement benefits.
- May involve “opportunity costs” for airports/local government.
Land-Use Control Measures

- Planning (zoning, easement, etc.):
  - Airport planning is an integral part of an area-wide comprehensive planning programme;
  - Airport development and operations should be coordinated with the planning, policies and programmes for the area in which the airport is located.

- Planning instruments:
  - comprehensive planning, noise zoning, subdivision regulations, transfer of development rights and easing acquisition.
Land-Use Control Measures

- **Mitigating instruments:**
  - building codes, noise insulation programmes, land acquisition and relocation, transaction assistance, real estate disclosure and noise barriers.

- **Financial instruments:**
  - capital improvements, tax incentives.
Noise Abatement Operational Procedures

- Aimed at reduction and/or redistribution of noise around the airport.
- Enable full use of modern aircraft capabilities.
- Potentially a cost effective measure.
Operating Restrictions

- Defined as any noise-related action that limits or reduces an aircraft’s access to an airport.
- Not to be used as a first resort, only after consideration of benefits gained from other 3 elements.
- Examples:
  - Movement caps;
  - Noise quotas;
  - Non-addition rules;
  - Curfews.
Noise Charges

- Should be levied only at airports experiencing noise problems.
- Should recover no more than the costs incurred.
A sustainable approach is crucial....

- A combination of the principal elements of the ICAO Balanced Approach may be necessary to improve the noise climate in the vicinity of airports.
- ICAO encourages the benefits to be safeguarded by taking account of the sustainability of future growth of airports.
- ICAO’s role is to provide a global forum to develop a commonly-agreed solution among member States:
  - Consists of a variety of measures to address all aspects of aviation and environmental protection in a harmonized and balanced manner.
For more information on ICAO activities on environmental protection

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