



# **Noise Certification Workshop**

## **Session 3: Aircraft Noise Re-certification**

**Re-certification provisions  
(standards and guidelines)**

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## Re-certification - General

- ☀ **Definition of Re-certification:**

"Certification of an aircraft, with or without a revision to its certification noise levels, to a Standard different to that to which it was originally certificated."
- ☀ **The re-certification of helicopters and small propeller-driven aeroplanes is not considered.**
- ☀ **Re-certification shall be granted on the basis that the evidence used to determine compliance is as satisfactory as the evidence expected of a new type design.**
- ☀ **Existing arrangements between certificating authorities should be respected. It is expected that bilateral arrangements will facilitate the mutual recognition between authorities of approvals granted.**

## Re-certification to Chapter 4

Chapter 4, 4.1 c):

"The Standards of this chapter shall be applicable to all subsonic jet aeroplanes and all propeller-driven aeroplanes certificated originally as satisfying Annex 16, Volume I, Chapter 3 or Chapter 5 for which re-certification to Chapter 4 is requested."

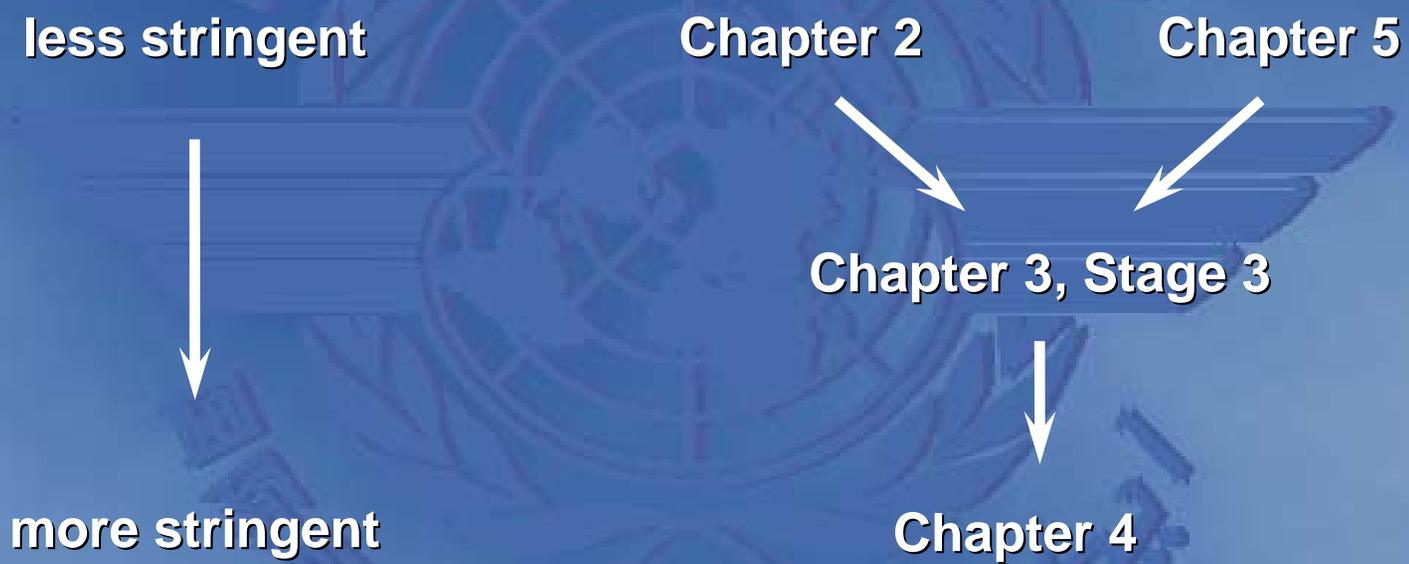
## ICAO and FAA Noise Certification Regulation (1)

### - Relevant Chapters/Stages -

| Regulation    | Chapter/Stage | Aircraft               |
|---------------|---------------|------------------------|
| ICAO Annex 16 | Chapter 2     | subsonic jet           |
| ICAO Annex 16 | Chapter 3     | subsonic jet           |
| ICAO Annex 16 | Chapter 3     | large propeller-driven |
| ICAO Annex 16 | Chapter 4     | subsonic jet           |
| ICAO Annex 16 | Chapter 4     | large propeller-driven |
| ICAO Annex 16 | Chapter 5     | large propeller-driven |
| FAR Part 36   | Stage 3       | subsonic jet           |
| FAR Part 36   | Stage 3       | large propeller-driven |

# ICAO and FAA Noise certification Regulation (2)

- Differences regarding noise limits -



## Reason for Re-certification to Chapter 4

- ✱ **Question:** An aircraft was originally approved in accordance with
  - Chapter 3 or 5
  - Chapter 2
  - FAR Part 36, Stage 3and complies with the maximum noise levels of Chapter 4. Why is re-certification necessary?
  
- ✱ **Answer:** Technical details within ICAO Annex 16 and FAR Part 36 have been changed over the years. It has to be assured that re-certification is granted on the current standard regarding the regulation and the guidance material.

## History of Annex 16

| Document                | Edition  | Amendment | Applicable since     |
|-------------------------|----------|-----------|----------------------|
| Annex 16                | 1        |           | January 1972         |
| ...                     |          |           |                      |
| Annex 16                | 2        |           | October 1977         |
| Annex 16                | 3        |           | August 1978          |
| Annex 16, Vol. I        | 1        |           | November 1981        |
| ...                     |          |           |                      |
| Annex 16, Vol. I        | 2        | 3         | November 1988        |
| Annex 16, Vol. I        | 3        | 4         | November 1993        |
| <b>Annex 16, Vol. I</b> | <b>3</b> | <b>5</b>  | <b>November 1997</b> |
| ...                     |          |           |                      |
| Annex 16, Vol. I        | 4        | 8         | November 2005        |

## Re-certification - ICAO Annex 16

### Checking against assessment criteria?

#### ☀ No

- for aeroplanes which were approved in accordance with Annex 16, Volume I, Third Edition, Amendment 5 (Nov. 1997) or higher.

#### ☀ Yes

- for aeroplanes which were approved in accordance with Annex 16, Volume I, Third Edition, Amendment 4 (Nov. 1993) or lower.

## Re-certification - FAR Part 36

Checking against assessment criteria? Yes.

- ✱ For Stage 3 aeroplanes which were approved in accordance with FAR Part 36, Amendment 24 (August 2002) or higher, one assessment criterion has to be considered (criterion g\*).
- ✱ For Stage 3 aeroplanes which were approved in accordance with FAR Part 36, Amendments 7 through 23, 14 assessment criteria\* have to be considered.

\* for details see presentation "Assessment Criteria"

