

b: 10.850 10050



# **EU** will Nacht wieder zum Tag machen

#### Frankfurter Flugverbot in Gefahr

Von Mattheas Dahmer

Offentisch • Nach dem Ut- Dentschland hat sich in ei riches vom Aderen des Frank-funer Plugharens ist das letz-funer Plugharens ist das letzto Wort noch längst nicht ge- Lüseig und ein micht gezocht. spundie: Wit Sorge blicken fortiger Eingriff in die Being-die Engläum-Gegnee in der diese der Mitgliedsstaaren. Region nämlich nach idussel, Übet Bettebsbeschränkungen wo die Europäische Kommis until Termschutz ser allein. sion an einer Veterdnung ab- von den Mitgliedstaaren anbeilet, mit der das harf er hand örtlicher Gegebenheiten kämpfle Nachtfleg-erbot ge- 22 en scheiben. Die Wirkung

werden. Dat geplanten Ver Meist bloibt os bei Varianto 1. ordining a folge solich Be- um Hessischen Versiehren? nur nach Abweging and satspend enlagered Das Pringescholdete NachtSagwerhot darstellt, der Lätznschurz (angiet) werficife me als ersies Mittel ein greetzt werrigen.

Die Verordnung, die Ein Ahrlich wird der Eb-Vor-Flogförm Gegner - eindealig woß von Vermeiert der Pradie Handschuf Gen factver gott gewonet. In Gespräcken scholobby trägt, wird nach Ladi interes Zeiting batten. Informationen des cheinfond- sie dazauf verwiesen, door die pfälzischen Umweltministerik geplante Norwighung lediglich unis detent im Derwell und Ermalen Charakter habe. Ei-Verkehrsansschuss des Euro - im Winschätzung, die die Inipaparlaments boraton, in tiative, gegen den Finglätte Mains geht man davon aus, micht teilen dürßen.

dassiste bia Jamesende vera!:= siós edet werdan kann.

tell des Bundeseistwallungen - den sogenannten Subsidiartkipge werden könnte, die einer saleben Röge 18. be-Eslang ist der Lännsicht zu gienzu de nachdem wie mela in der RH mit in euten stehtlig Staaten sie ansagteathen, nte geregelt, deren Umkels muss die EG-kommission ste zung Sathe der Mitgliedestab "herlickstentigen", Gnerprüten ist. EC Vercodo regen ha- fen oder - wenn die Auffasben undes unnittelbare stong im Rat oder im Europäi-Recordsbrott, und lassen natio- schen Parlament mehro-sitlich hale Bestoneningen und Geringetoit, wird in die geplaate nebisortelle, wie das zum Genedmung von der Agenda-Nachtfulgseiteit, wirkungstos der Gesetzgebung streichen.

sehratikungan aut Plughalon i nitramom sieht man dem Plan-Wittschallanteresson orlandt sip oct Abwägung von Intesoin, eine dem Minachutz, ressen gelte biolong schon, Tintriobéto neu ser ladigicin, dass ale IAP schränkung, wie sie ein ein Früfrecht habe, Falls doch de, lönne man Subsidiazitáts-Klage erheben.



### ICAO's Noise Policies

Aircraft operating restrictions were first considered in 1990. The Assembly established a global phase-out of Chapter 2 aircraft. States were allowed to impose restrictions on non Chapter 3 aircrafts (over 25 years old). The phase-out was implemented between 1995 and April 1, 2002. No operation restrictions were allowed on Chapter 3 aircraft. So the phase-out addressed the concept of aircraft economic life.

In 2001 the question of phase-out of Chapter 3 aircraft surfaced again along with a new standard of Chapter 4. CAEP had to analyse in detail on the benefits. The result was no global phase-out of Chapter 3 aircraft (limited environmental benefits, but extreme costs). Instead ICAO endorsed the concept of the Balanced Approach (ICAO, Appendix C of Assembly Resolution A33-7).



# Legal Framework I – Balanced Approach

#### ICAO:

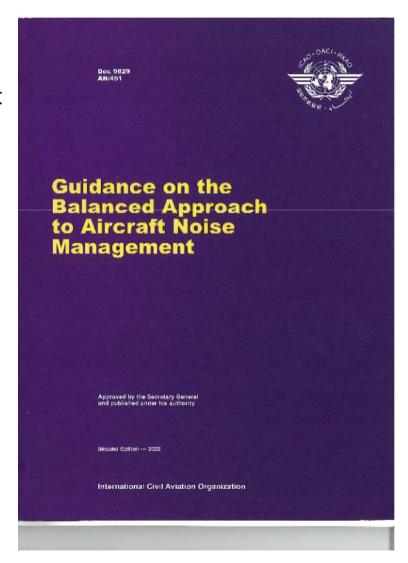
1968 Assembly Resolution A16-3: Aircraft noise in the vicinity of airports

2001 Assembly Resolution A33-7, Appendix C

2007 Assembly Resolution A36-22, Appendix C

2008 Doc 9829: Guidance on the Balanced Approach to Aircraft Noise Management

2011 Annex 16, Vol. I, Part III, IV, V: Standards and Recommended Practices on noise around airports





# Legal Framework II - Balanced Approach

### **Europe:**

Directive 2002/30: On the establishment of rules and procedures with regard to the introduction of noise-related operational restrictions at Community airports
Including flight restriction on marginal Chapter 3 a/c (-5 dB cumulative)

### Airport Package (2011-2013):

(under revision to: On the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at European airports within the Balanced Approach) Including flight restriction on marginal Chapter 3 a/c (-8/-10 dB cumulative)

### **Germany:**

Luftverkehrsgesetz (LuftVG, 2012), §29b: Protection of people, empathies on night time



# **Objectives**

Can be achieved by adopting a flexible, consistent and transparent process when assessing noise objectives and alleviation measures, including:

- Airport by airport approach
- Use of objective and measurable criteria
- Consultation with stakeholders (collaborative approach)
- Timely and adequate notification of decisions
- Planning Security



# Procedure to Define the Optimal Measures:

- Process Owner: relevant authority (regulator)
- Prove of a/c noise problem
- Assessment of the current and future noise impacts
- Evaluation of costs and env. benefits
- Selection of measures (environmental benefit + costeffectiveness)
- Achieve transparency of evaluated measures
- Consultation with stakeholders (operators that use the airport)
- Provision for dispute resolution



# **Concept and Elements**

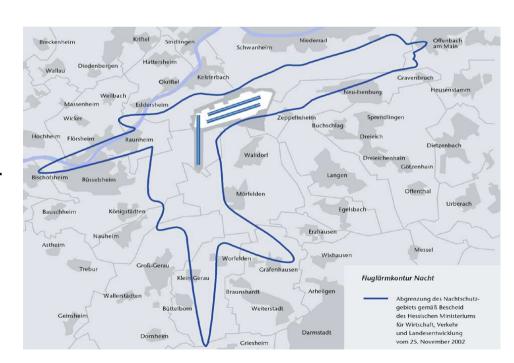
- Aim is to maintain operational capacity at an airport
- Assessment of noise situation
- Four principal elements:
  - Reduction of noise at source
  - Land-use planning and management
  - Noise abatement operational procedures
  - Operational restrictions on aircraft
- Analysis and selection of measures
  - Interrelationships





# Concept and Elements 1 Assessment of Noise Situation

- Identify noise problem
  - Noise sensitive areas
  - Critical hours
- Define noise objective
  - Types of aircraft,
  - Temperature
  - procedures
- Tools/procedures useful for assessing:
  - Noise contours
  - Noise index
  - Baseline (year)
  - Management plans





# Concept and Elements 2 Four Main Elements I. Reduction of Noise at Source

Certification: ICAO, Annex 16, Vol. 1, Part 2

- Today operational standard is Chapter 3 worldwide
- Today certification standard is Chapter 4 (Chapter 4+ in 2016?)
- Expensive research and development costs
- High investment costs for airlines
- Operational time of a/c about 25-30 years

# II. Land-use Planning and Management

Airport Planning Manuel, Part 2, (Doc 9184) Harmonizing land-use and airport activities

Ensuring at existing airports that further residential developments do not endanger reduction on noise already achieved (prevention method)

Conversion of incompatible land-use



# III. Noise Abatement Operational Procedures

Safety requirements (!)

Procedures to minimize noise load under the flight path (inbound, outbound), residential areas

Ground operation of a/c and a/c services

> Relatively low costs

### Examples:

- Run-ups areas or facilities
- GPUs, APU, PCA
- Reverse trust
- Descent operations: low drag low power/ CDO
- Differential runway use
- Aerobridges & Hydrant refueling reducing ground movement





# IV. Operational Restrictions

- ICAO requirement: Last resort due to impacts of operational restrictions
- Bans and restrictions have negative impact on airport capacity and traffic flow (a/l networks, connectivity)
- Night flight restrictions have negative economic impacts not only on local level, but also on regional, national and international level

### Examples:

- Brussels (Belgium) DHL: super hub in Europe, loss of 1.500 direct jobs
- + Liege (France) TNT: main European hub



# Concept and Elements 3 Analysis and Selection of Measures

- Follows comparative economic analysis based on "best practice" evaluation techniques / methods
  - CDM (cooperate decision making), sensitivity analysis
- To achieve maximum environmental benefits in the most costeffective manner
- Combinations of measures can be necessary to achieve noise objectives
- Interrelationships must be taken into account
  - Between different main elements of BA
  - Between noise and emissions (trade-off noise, CO2, NOx)



# Appropriateness of Measures

The concept of noise reduction is based on stirring a/c operations and environmental impacts in the vicinity of an airport.

The appropriateness of the chosen measure/s has to be in direct relation to the needed mitigation.

Securing operation is the final task, there are different, but appropriate measures to all noise problems.

Each measure has to be valued (environmentally, socially and economically) regarding long term planning security for all stakeholders at the airport.



## Not well covered in the BA

- Noise Monitoring, Flight Tracking
- Complaints Management
- Community Relations
- Communications Publications, Website, Meetings
- Community Outreach Education, Projects





### **Conclusions**

Civil Aviation has a wide range of stakeholders whose needs must be considered

Balancing environmental and economic needs should be at the starting point for any discussions on measures

Managing noise to secure operational capacity

Foresighted zoning laws and their stringent implementation have been a strong tool for preventing future noise effects

Implementing operational restrictions should be a last resort (essence of ICAO's Balanced Approach, Doc 9829, Chapter 7.1.3)

