

# Medical Requirements for ATCOs in Europe:

## EU cl3 medical certification

# Disclosure form



- I have no personal or familial interests to declare
- I am a full time staff member of the EUROCONTROL Agency

# History

- Before 1999 : wide variety in Europe in rules
  - ICAO cl3 standards
  - “harmonised” EU JAA cl2 standards (private pilots)
  - national standards
- No free movement for work as ATCO in another EU country
- No equal level of competition regarding employment of ATCOs in Europe
- No guarantee of equal safety level in Europe

# History

- EUROCONTROL Member States asked to produce guidelines for the harmonisation of ATCO medical requirements
- in 1999 : establishment of the “ATCO Medical Requirements Study Group” (AMRSG): half of members were ATCOs!
- in 2002 first version “ECTL cl3 medical requirements”, updated in 2006
- But : EUROCONTROL had no legislative power to enforce these requirements , was a “gentleman” agreement , just as JAA aircrew requirements at that time

# History



- From 2006 [EASA takes over](#), supported by the regulatory and legal empowerment of the EU Union
- First the EUROCONTROL cl3 text was [embedded in the EASA ATCO Licensing Rule](#), and thus compulsory for EU and EASA States, plus adding part ORA and ARA
- [In 2012 first EASA ATCO medical certification requirements](#) are ready, but become only applicable from 01/01/2017!

# Basics 1

- no important differences with criteria c11 pilot concerning sudden / silent incapacitation (NATS study: risk ATCO // c11 pilot)
- Differences in sensorial criteria:
  - **vision** (glare, contrast, correction)
  - **colour vision**
  - **hearing** (less noise, different sources of audio input)
  - **speech** problems

## Basics 2

- Psychosocial context is different!
  - sitting work
  - enclosed work
  - stress peaks - or boredom
  - strong social cohesion
  - risk of fixed groups of ATCO's in sectors

# specific assessment of ATCO's workload



All three templates for only

\$ 2,95



# Specific attention points in the rules

- **Sleep apnoea syndrome/sleep disorder**  
ATCO operational experience, sleep apnoea syndrome/sleep disorder education and work place considerations are essential components of the aeromedical assessment
- **Musculoskeletal system :**  
aero-medical assessment in the working environment in conjunction with the appropriate operational expert with a knowledge of the complexity of the tasks of the applicant .
- **Psychology : stress-related symptoms**  
A fit assessment may only be considered after a psychological and/or psychiatric evaluation has demonstrated that the applicant has recovered from stress-related symptoms.

# Visual system

- A comprehensive eye examination by an **eye specialist** is required at the initial examination.
- Routine eye examination: At each revalidation or renewal examination, the visual fitness should be assessed and the eyes should be examined with regard to possible pathology. All abnormal and doubtful cases should be referred to an **ophthalmologist**
- If the refractive error exceeds +3.0/-3.0 dioptres, a **four-yearly** follow-up by an **eye specialist** is required.
- Applicants need a **two-yearly** follow-up undertaken by an **eye specialist** if:
  - (i) a refractive error exceeding -6 dioptres;
  - (ii) an astigmatic component exceeding 3 dioptres; or
  - (iii) anisometropia exceeding 3 dioptres;

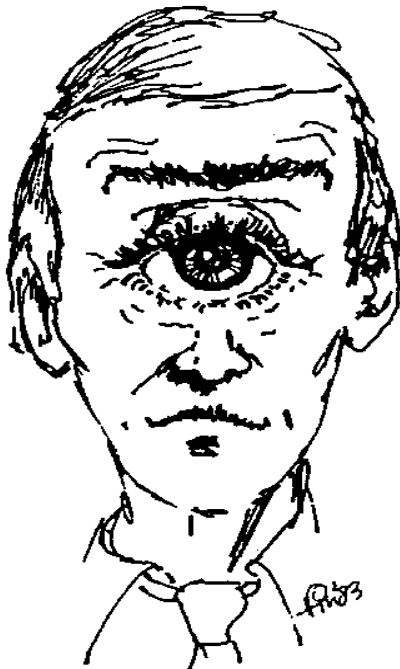
# Visual system

- The effect of [multiple eye conditions](#) should be evaluated by an [ophthalmologist](#) with regard to possible cumulative effects. Functional testing in the working environment may be necessary to consider a fit assessment.
- [Distant visual acuity](#), with or without optimal correction, shall be 6/9 (0,7) or better in each eye separately, and visual acuity with both eyes shall be 6/6 (1,0) or better
- Applicants shall be able to read an N5 chart or equivalent [at 30 – 50 cm](#) and an N14 chart or equivalent [at 60 – 100 cm](#) distance, if necessary with the aid of correction
- Applicants shall undergo [tonometry](#) at the first revalidation examination after the age of 40, on clinical indication and if indicated considering the family history.

# Colour Vision

- Applicants shall be normal trichromates!  
**Pseudo-isochromatic plate testing alone is not sufficient**
  
- The means to demonstrate normal trichromacy include:
  - anomalouscopy (Nagel or equivalent). This test is considered passed if the colour match is trichromatic and the matching range is four scale units or less
  - Colour Assessment and Diagnosis (CAD) test.

# different tasks ... different boys



TYPICAL RADAR-CONTROLLER



TYPICAL TOWER-CONTROLLER

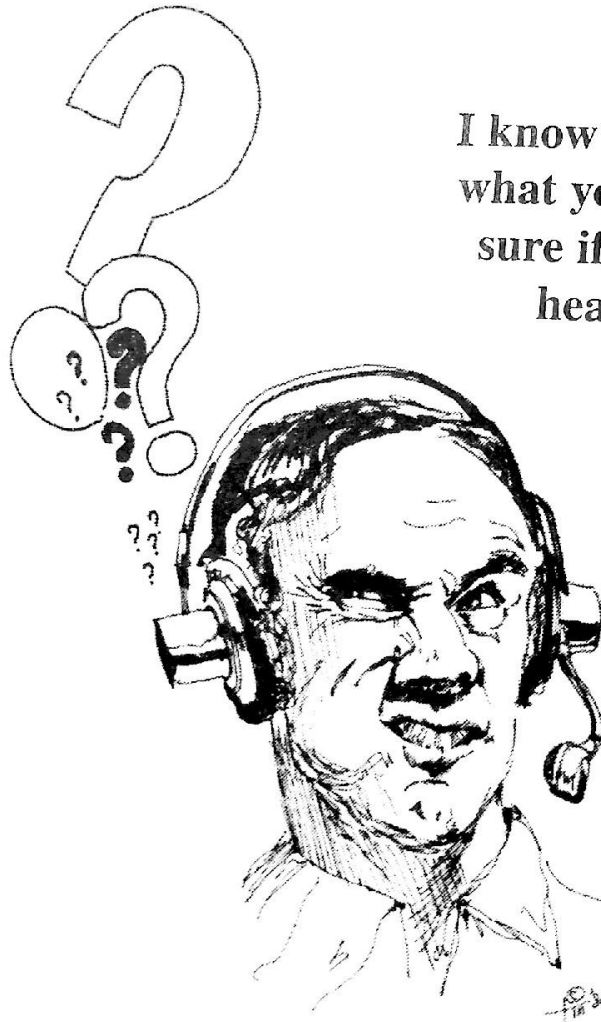
# Hearing

- Hearing shall be tested with pure tone audiometry at the initial examination and at subsequent revalidation or renewal examinations every 4 years until the age of 40 and every 2 years thereafter.
- Applicants for a class 3 medical certificate shall not have a hearing loss of more than 35 dB at any of the frequencies 500, 1000 or 2000 Hz, or more than 50 dB at 3000 Hz, in either ear separately.
- Applicants who do not meet the hearing criteria :
  - Initial applicants shall undergo a speech discrimination test
  - Applicants for a revalidation or renewal of a class 3 medical certificate shall undergo a functional hearing test in the operational environment

# Hearing Aids

- (i) Initial examination: the need of hearing aids to comply with the hearing requirements entails **unfitness**.
- (ii) Revalidation and renewal examinations: a fit assessment may be considered if the use of hearing aid(s) or of an appropriate prosthetic aid improves the hearing to achieve a normal standard as assessed by fully **functional testing in the operational environment**.

# “Hearing constraints”



**I know you believe you understand  
what you think I said but I am not  
sure if you realise that what you  
heard is not what I meant**



# Basics 3

- Focus on **differences between ATCO duties!**
  - workload in different centres
  - different ratings thus different tasks (en route, flow, tower, approach,...)
  - organisational differences (solo positions or not)
  
- Impact of **work environment:**
  - ergonomics
  - shift rostering and fatigue

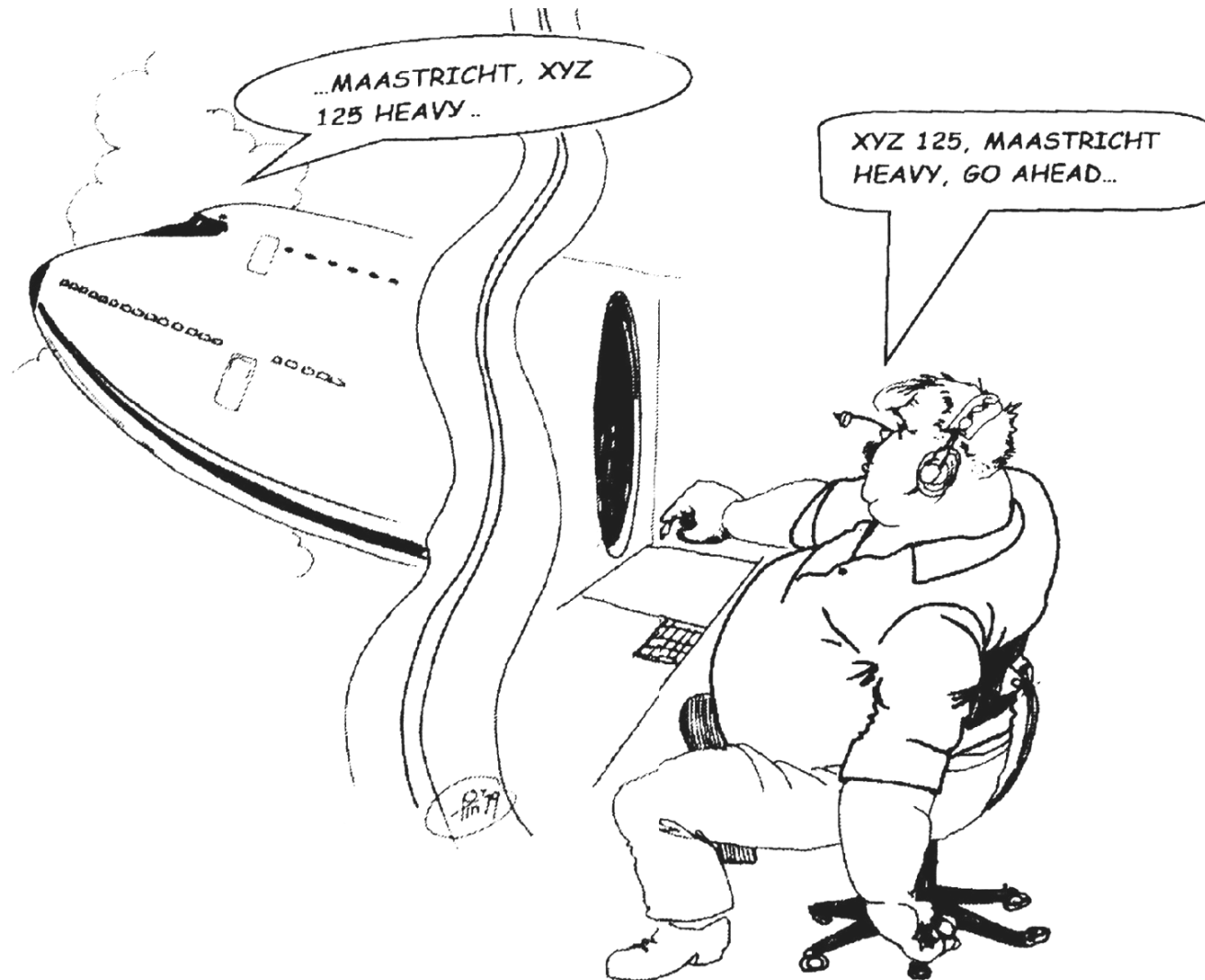
# Validity and issuing of medical certificates

- **Validity** 24 months, over 40 yr 12 m
- **Initial** at AeMC, revalidation & renewal by AME cl3
- **Pregnancy**: up to end 34<sup>th</sup> week

# Limitations

- In cases where a fit assessment may only be considered with a limitation, the [AeMC, AME or the licensing authority](#) should evaluate the medical condition of the applicant with appropriate personnel from the air navigation service provider and other experts, if necessary.
- **“Operational” limitations** : The [competent authority](#), in conjunction with the [air navigation service provider](#), shall determine the operational limitations applicable in the specific operational environment concerned

# Operational limitations...



# TRAINING for AME's c13 :

## Requirements for the issue of an AME c13 certificate:

- “have successfully completed **basic** and **advanced** training courses in aviation medicine, including
- specific modules for the aero-medical assessment of air traffic controllers
- and the specific environment in air traffic control”

## Validity of AME c13 certificates:

- AME c13 has to undertake refresher training in aviation medicine and in the working environments of air traffic controllers

# Refresher courses

- Attendance at scientific meetings and congresses **and air traffic control observation**
- **Scientific meetings or congresses** that may be credited by the competent authority:
  - European Conference of Aerospace Medicine **ECAM**
  - International Academy of Aviation and Space Medicine congresses **ICASM**
  - Aerospace Medical Association annual scientific meetings **AsMA**

## In reality

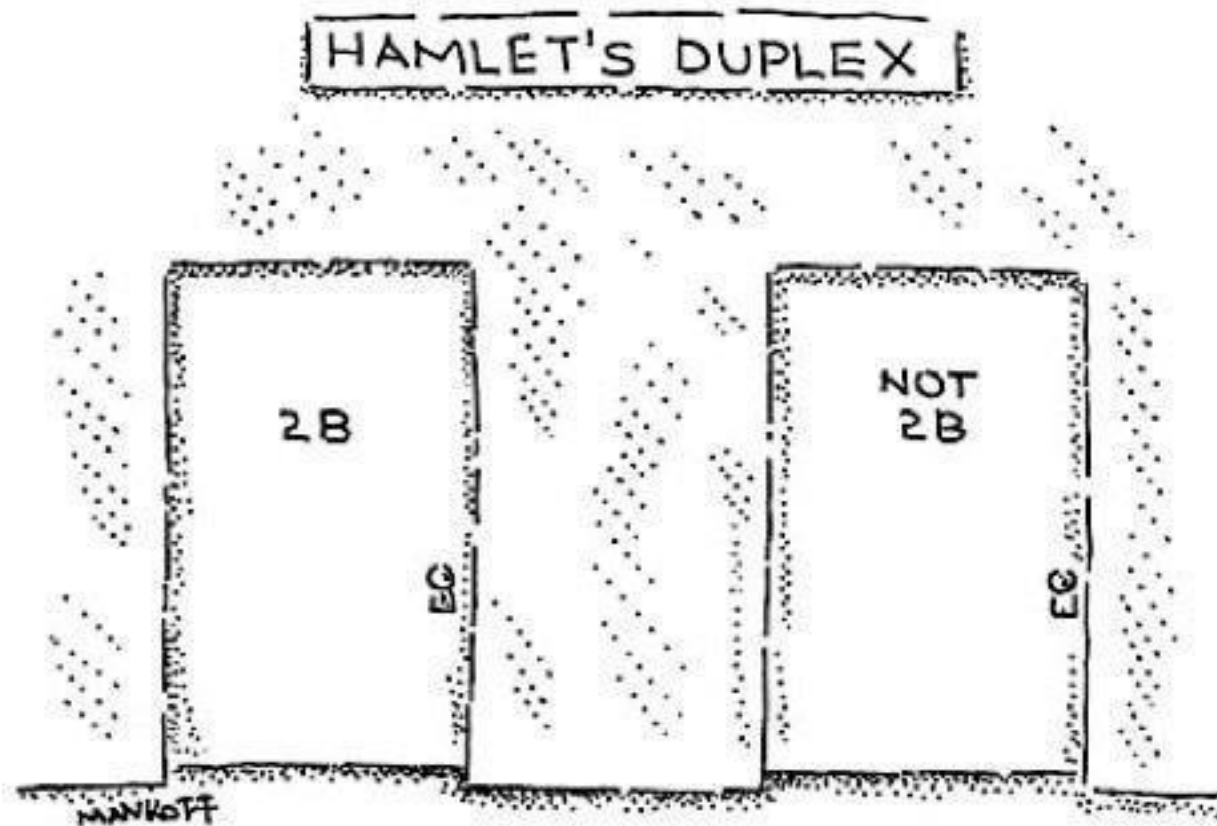
- Most of the cl3 assessments are done by cl1 AME's
- Are they OK ? Yes , IF:
- Or enough **experience** (grandfather rights): 5 yrs ?
- Or enough **specific ATCO part** in advanced training (1 day?):  
to prove via syllabus !!!
- Or **conversion** course (about 2 days?)

# AME c13 (ATCO) versus AME c11 (prof.pilots) privileges

- **10 examinations per year needed:**  
only ATCO's not including c11 assessments !!
- Cave: actually **2 books** part MED without connection !  
EASA plans to merge in the future
- population ATCO's probably not big enough for many AME's c13:  
= good or wrong ?



# AME's still between 2 books



Thanks for listening to me

