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# Consistency between Requirements for European Class 3 Medical Certification of Air Traffic Controllers (Edition 2.0) and ICAO SARPS Annex 1 (2001)

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Abstract		
<p>Edition 2.0 of the "Requirements for European Class 3 Medical Certification of Air Traffic Controllers" (EUROCONTROL, 2006) has been produced with the objective of providing a set of harmonised, up-to-date medical requirements, specifically designed for Air Traffic Controllers (ATCOs), to be used uniformly across Europe.</p> <p>This document identifies consistencies and differences between the Class 3 Medical Assessment Requirements contained in International Civil Aviation Organization (ICAO) Annex 1 (2001) and the Requirements for European Class 3 Medical Certification of ATCOs. It is intended as supporting documentation for use by States who may wish to inform ICAO of any differences with ICAO Annex 1 provisions.</p> <p>This document also includes a certification comparison chart between Joint Aviation Requirements – JAR-FCL 3 Flight Crew Licensing (Medical) (JAA, 2005a) and European Class 3 ATCO medical requirements as a further support for Authorised Medical Examiners (AMEs).</p>		
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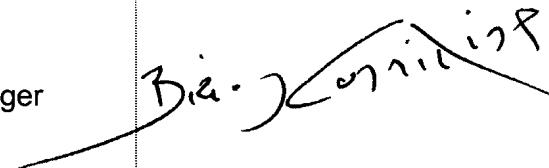
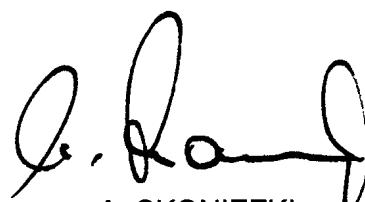
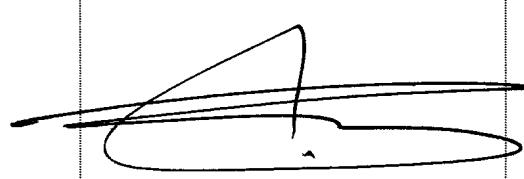
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## DOCUMENT APPROVAL

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## EXECUTIVE SUMMARY

This document identifies consistencies and differences between the Class 3 Medical Assessment Requirements contained in ICAO Annex 1 (2001) and the Requirements for European Class 3 Medical Certification of Air Traffic Controllers, Edition 2.0 (EUROCONTROL, 2006). Even though it is shown that consistency exists, EUROCONTROL (2006) contains additional or more detailed requirements, variations to requirements, and guidance on many assessment items. For renewal or recertification, and taking into consideration the experience of ATCOs, it allows for some assessment items less stringent criteria and/or functional testing than at initial examination.

As the Joint Aviation Authorities (JAA) documentation was used extensively during the development of the European Class 3 medical requirements this document includes at annex a comparison of periodicity between JAA Class 1 and European Class 3 medicals.

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## 1. INTRODUCTION

### 1.1 Background

The Requirements for European Class 3 Medical Certification of Air Traffic Controllers (EUROCONTROL, 2006) has been reviewed by the ATCO Medical Requirements Task Force (AMRTF). The review was based on:

- safety regulatory requirements,
- experience gained from the application of medical requirements,
- developments in the field of aviation medicine.

In the main corpus of the document revisions were agreed to allow more flexibility for the Aeromedical Section (AMS) in the application of the requirements in light of developments in aviation medicine and operational technology while maintaining the high medical standards required in air traffic control.

The revised edition also includes a clearer description of the following:

- decrease in medical fitness and individual responsibility,
- AMS,
- Aeromedical Centre (AMC),
- Authorised Medical Examiner (AME),
- outline syllabus for the training of an AME,
- the issue and content of a medical certificate,

The EUROCONTROL Safety Regulatory Requirement for ATM Services' Personnel (ESARR 5) (EUROCONTROL, 2002) requires ATCOs and student ATCOs who provide an air traffic control service to hold a valid medical certificate of the appropriate class. The European Class 3 Requirements have been developed as an Acceptable Means of Compliance (AMC).

### 1.2 Scope

This document identifies consistencies and differences between the Requirements for European Class 3 Medical Certification of Air Traffic Controllers (EUROCONTROL, 2006) and the ICAO Annex 1, Medical Provisions for Licensing of ATCOs (ICAO, 2001). The main objective is to develop the rationale why, for certain requirements, it was necessary for the European Class 3 Requirements to differ from, or expand further upon, ICAO SARPS, or to address areas not currently covered in ICAO Annex 1.

The satisfaction of medical requirements by ATCOs and student ATCOs is a fundamental element of safety achievement and therefore of safety management.

The application of European Class 3 Requirements aims to establish harmonisation in this area, thus contributing to the overall harmonisation of licensing of ATCOs in the European Civil Aviation Conference (ECAC) area.

## 1.3

### Rationale

The European Class 3 Requirements stemmed from the need to complement the ICAO Annex 1 Medical Provisions and enable the safety aspects of Class 3 Medical Certificates to more closely match the air traffic services being provided in the ECAC region.

## 1.4

### Applicability

The safety requirements of ESARR 5 (EUROCONTROL, 2002) are applicable to designated authorities, to providers of air traffic services and to all Air Traffic Management (ATM) services' personnel responsible for tasks which, within the provision of an ATM service, are identified as safety related.

The specific requirements for air traffic controllers shall apply to:

- civil designated authorities, civil service providers and civil personnel providing air traffic services to military and civil air traffic;
- military authorities and their personnel providing air traffic services to civil and military air traffic in a mixed civil-military environment, except where an equivalent military licensing scheme exists.

A valid Class 3 Medical Certificate is required for:

- holders of an ATCO Licence / Certificate of Competence who provide an air traffic control service;
- holders of an ATCO Licence / Certificate of Competence who provide an air traffic control service under supervision;
- holders of an ATCO Student Licence who provide an air traffic control service under supervision;
- holders of an ATCO Licence / Certificate of Competence and an associated On-the-Job-Training Instructor (OJTI) Licence endorsement, in the supervision of holders of an ATCO Student Licence or Certificate of Competence, or trainee ATCOs, while they are providing an operational air traffic control service during On-the-Job Training (OJT).

## **2. CONSISTENCY BETWEEN EUROPEAN CLASS 3 AND ICAO ANNEX 1**

### **2.1 Introduction**

The Requirements for European Class 3 Medical Certification of Air Traffic Controllers (EUROCONTROL, 2006)<sup>1</sup> are consistent with ICAO Annex 1 Chapter 6, 'Medical Provisions for Licensing' (ICAO, 2001)<sup>2</sup>. In the following cases EMCR(ATC) exceeds, or defines in more detail, the requirements of Annex 1, or contains additional variations to requirements and/or guidance:

### **2.2 Details**

#### **2.2.1 General**

1. ESARR 5 has introduced a new type of licence / certificate of competence - "Student Air Traffic Controller Licence or Certificate of Competence"- to persons who do not hold an Air Traffic Controller Licence / Certificate of Competence, to enable them to provide an air traffic control service under supervision of a suitably qualified on-job-training instructor (OJTI). To be valid in the provision of an air traffic control service under supervision, the holder of a Student ATCO Licence or Certificate of Competence shall also hold a valid European Class 3 Medical Certificate.
2. The minimum age for obtaining a European Class 3 Medical Certificate shall be seventeen years. Annex 1 does not state a minimum age for obtaining a Class 3 Medical Assessment, but requires the applicant for an ATCO Licence to be not less than 21 years of age.
3. Annex 1 requires renewal of the medical certificate at intervals not exceeding 48 months until age forty and not exceeding 24 months after forty with a recommendation to reduce to one year after the fiftieth birthday. The European Class 3 Medical Certificate shall be revalidated every two years with a recommendation that after the fortieth birthday the two-yearly interval be reduced to one year.
4. EMCR(ATC) requires that where mechanical and electro-mechanical aids are used by an individual to meet the required standard for medical certification, these shall be functionally tested in the operational environment by an appropriate specialist in the equipment under test, to ensure that there is no interference. It may also be necessary for an appropriate medical specialist to assess the individual using the aid in the operational environment.

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<sup>1</sup> Document hereafter further referred to as EMCR(ATC)

<sup>2</sup> Document hereafter further referred to as Annex 1

5. EMCR(ATC) provides guidance concerning the establishment of AMSs and AMCs.
6. EMCR(ATC) provides guidance concerning the appointment and initial training of AMEs and also includes recommendations concerning refresher training for AMEs.
7. EMCR(ATC) gives guidance on the content and structure of a European Class 3 Medical Certificate and includes an extract from the European Manual of Personnel Licensing – Air Traffic Controllers (EUROCONTROL, 2004) concerning individual responsibility and decrease in medical fitness.
8. EMCR(ATC) allows for the variation of medical requirements, for the recertification of experienced ATCOs taking into account specific air traffic control ratings/endorsements and associated working conditions, without any impairment to the safety of services being provided.
9. Additional guidance to Annex 1 refers to the ICAO Manual of Civil Aviation Medicine and EMCR(ATC) to the JAA Manual of Civil Aviation Medicine (JAA, 2005b).

## 2.2.2

### **Cardiovascular System**

10. Annex 1 requires electrocardiography to form part of the heart examination for the first issue of the medical certificate and at re-examination after the age of fifty no less frequently than every two years. EMCR(ATC) requires a standard twelve-lead resting electrocardiogram (ECG) and report for first issue of a medical certificate, at four-yearly intervals until age thirty, at two-yearly intervals thereafter and on clinical indication. However, EMCR(ATC) recommends that holders of an ATCO Licence / Certificate of Competence who have passed their fortieth birthday should have their medical certificates renewed/revalidated annually. An ECG should be carried out as part of the annual examination.
11. At age 65 a European Class 3 Medical Certificate holder shall be reviewed at an AMC by a cardiologist acceptable to the AMS. This review shall include exercise electrocardiography or other tests that will provide equivalent information and shall be repeated on clinical indication.
12. Annex 1 requires the systolic and diastolic blood pressures to be within normal limits. EMCR(ATC) requires that the applicant is assessed as unfit, when the blood pressure exceeds 160 mmHg systolic and/or 95 mmHg diastolic consistently with or without treatment. Applicants with symptomatic hypotension shall be assessed as unfit.
13. Annex 1 requires that there shall be no significant functional nor structural abnormality of the circulatory tree, but states no detailed requirements. EMCR(ATC) extensively details requirements and guidance on coronary artery disease, rhythm/conduction disturbances and general

cardiovascular system issues. An applicant having undergone cardiac transplantation shall be assessed as unfit.

Annex 1 requires that an applicant who has undergone coronary by-pass grafting or angioplasty, with or without stenting or other cardiac intervention shall be investigated and evaluated in accordance with best medical practice. EMCR(ATC) requires satisfactory recovery six months following coronary by-pass surgery or angioplasty and or stenting and stipulates the content of the medical investigations required.

Annex 1 requires that an applicant with an abnormal cardiac rhythm shall be investigated in accordance with best medical practice. EMCR(ATC) requires detailed examination of clinically significant disturbance of supraventricular rhythm, sinoatrial disease or ventricular ectopic complexes. Applicants with complete left or right bundle branch block require cardiac evaluation. Applicants with an endocardial pacemaker can be recertified three months after an insertion following cardiological evaluation.

Annex 1 requires that there shall be no significant functional nor structural abnormality of the circulatory system. EMCR(ATC) gives detailed medical guidelines in case of peripheral vascular disease, aneurysm, abnormalities of any of the heart valves, abnormality of the heart muscle and congenital heart conditions.

## **2.2.3      Respiratory System**

14. Annex 1 recommends radiography in cases where asymptomatic pulmonary disease can be expected. EMCR(ATC) requires post-/anterior chest radiography on clinical indication.
15. Annex 1 requires an assessment of applicants with chronic obstructive pulmonary disease. EMCR(ATC) requires spirometric examination at Initial examination.
16. EMCR(ATC) contains specific assessment requirements for applicants with reactive airway disease (bronchial asthma).
17. EMCR(ATC) contains more detailed requirements and guidance on disorders in the respiratory system, including sarcoidosis, pneumothorax, emphysema and chest surgery.

## **2.2.4      Digestive System**

18. Annex 1 states that applicants with significant impairment of the gastrointestinal tract, in particular any obstructions, shall be assessed as unfit. EMCR(ATC) contains more detailed requirements and guidance on disorders in the digestive system, including dyspeptic disorders, pancreatitis, gallstones and inflammatory bowel disease.

19. Annex 1 requires an applicant who has undergone surgical intervention on any part of the digestive tract or its adnexae, liable to cause incapacity to be assessed as unfit. EMCR(ATC) states that an applicant who has undergone surgical intervention on any part of the digestive tract or its adnexae, shall be assessed as unfit until such time as the effects of the operation are no longer likely to interfere with the safe exercise of the privileges of the applicable licence(s).

## 2.2.5

### **Metabolic, Nutritional and Endocrine Diseases**

20. Annex 1 requires that in cases of metabolic, nutritional or endocrine disorders likely to interfere with the safe exercise of the applicant's licence privileges, the applicant shall be assessed as unfit. Annex 1 also states that applicants with insulin-treated diabetes mellitus shall be assessed as unfit. EMCR(ATC) is identical and details the acceptable medication in cases of non insulin-dependant diabetes.

## 2.2.6

### **Haematology**

21. Annex 1 does not specifically require blood testing. EMCR(ATC) requires blood testing to form part of the examination for the initial issue of a medical certificate, on revalidation or renewal at four-yearly intervals until age forty, two yearly thereafter and on clinical indication. However, the specific analyses to be carried out may be determined by the AMS of each Member State.
22. EMCR(ATC) contains detailed requirements, variations to requirements and guidance on assessment of haematology conditions, including enlargement of lymphatic glands, leukaemia, enlargement of the spleen, polycythaemia and coagulation defects.

## 2.2.7

### **Urinary System**

23. Both Annex 1 and EMCR(ATC) require urinalysis to form part of every medical examination. EMCR(ATC) details the content of the uninalysis including proteinuria, haematuria and glycosuria. Any abnormal finding requires further investigation.
24. EMCR(ATC) details the fitness assessment in the case of urinary calculi and in cases of renal transplantation. It requires an applicant who has undergone a major surgical operation in the urinary tract or the urinary apparatus involving a total or partial excision or a diversion of any of its organs to be assessed as unfit until such time as the effects of the operation are no longer likely to cause incapacity.

## 2.2.8

### **Sexually Transmitted Diseases and Other Infections**

25. EMCR(ATC) requires that an applicant shall have no established history or clinical diagnosis of any sexually transmitted disease or other infection, which is likely to interfere with the safe exercise of the privileges of the licence. In this respect particular attention should be paid to a history of or clinical signs indicating Human Immunodeficiency Virus (HIV) positivity, immune system impairment, infectious hepatitis or syphilis.
26. Annex 1 and EMCR(ATC) require that the occurrence of Acquired Immune Deficiency Syndrome (AIDS), AIDS-related complex or central nervous system involvement shall be assessed as unfit.
27. EMCR(ATC) provides additional guidance for testing regimes in cases of asymptomatic HIV positive individuals.
28. EMCR(ATC) considers a diagnosis of syphilis not disqualifying. However, symptoms and complications of the disease which impair the safe exercise of the privileges of the licence are disqualifying.

## 2.2.9

### **Gynaecology and Obstetrics**

29. Annex 1 has no requirements for Class 3 Assessment with regard to pregnancy but recommends precautions for timely relief during the gestational period. EMCR(ATC) states that if obstetric evaluation indicates a normal pregnancy, the applicant may be assessed as fit until not later than the end of the 34<sup>th</sup> week of gestation.
30. EMCR(ATC) as does Annex 1 require an applicant who has undergone a major gynaecological operation to be assessed as unfit, until such time as the effects of the operation are not likely to interfere with the safe exercise of the privileges of the licence.

## 2.2.10

### **Musculoskeletal Requirements**

31. EMCR (ATC) requires that locomotor dysfunctions, amputations, malformations, osteoarthritic or muscular tendon progressive conditions are evaluated against their impact on the ability to operate satisfactorily in the working environment. This is consistent with but more specific than the generic guidance given in Annex 1.
32. EMCR(ATC) requires that an applicant suffering from severe obesity, taking into account the applicant's age and body mass index, be assessed as unfit.

## **2.2.11 Psychiatric and Psychological Requirements**

33. Both Annex 1 and EMCR(ATC) consider that established conditions including mental disorders, psychoactive substance use, mood disorders neurotic disorders, personality disorders and psychotic symptoms are disqualifying.
34. EMCR(ATC) explicitly states that habitual abuse of alcohol and abuse of psychoactive drugs or substances, with or without dependency, is disqualifying. Variations to requirements and guidance are provided to consider (re-)certification. Annex 1 only includes dependence syndrome induced by alcohol or other psychoactive substances.
35. EMCR(ATC) has defined the psychological requirements whereby an applicant shall have no psychological deficiencies, which are likely to interfere with the safe exercise of the privileges of the licence. A psychological evaluation should be considered as part of, or complementary to, a specialist psychiatric or neurological examination when the Authorised Medical Examiner (AME) or the Authority receives verifiable information from an identifiable source which evokes doubts concerning the mental fitness or personality of a particular individual. Additional requirements and guidance for indicated psychological evaluation are provided.
36. EMCR(ATC) requires an applicant who exhibits inability to cope with stress or stress-related problems to an extent where the symptoms are likely to interfere with an individual's ability to exercise safely the privileges of the licence / Certificate of Competence to be assessed as unfit.

## **2.2.12 Neurological Requirements**

37. EMCR(ATC) requires investigation by electroencephalography only, when indicated by the applicant's history or on clinical grounds.
38. EMCR(ATC) contains more detailed guidance in cases of convulsive episodes or disturbed consciousness or brain injury.

## **2.2.13 Ophthalmological Requirements**

39. EMCR(ATC) guidance requires that ophthalmological specialists used by the AMS should have a basic understanding of the functionality required by air traffic controllers in the exercise of their functions.
40. EMCR(ATC) describes in detail the content of the ophthalmological examination at initial and revalidation or renewal examinations taking into account the refractive error. Tonometry must be carried out two yearly over the age of forty.

41. Annex 1 and EMCR(ATC) require that an applicant who has undergone refractive surgery be assessed as unfit. EMCR(ATC) provides additional guidance detailing conditions under which fitness may be considered after refractive surgery.
42. EMCR (ATC) also provides requirements and guidance concerning other ophthalmological surgery (cataract, retinal, glaucoma, ocular muscle) and keratoconus.

## **2.2.14 Visual Requirements**

43. Annex 1 does not take into account refractive error requirements, only visual acuity. EMCR(ATC) takes into account both visual acuity and refractive error.
44. Both Annex 1 and EMCR(ATC) require distant visual acuity, with or without correction, to be 6/9 or better in each eye separately and 6/6 or better binocularly. Neither defines limits to be applied to uncorrected visual acuity.
45. EMCR(ATC) requires that at initial examination the refractive error falls within the range of +5, -6 dioptres, the astigmatism shall not exceed 2.0 dioptres and the anisometropia shall not exceed 2.0 dioptres. At revalidation or renewal higher refractive errors can be considered subject to a report from an ophthalmologist.
46. Annex 1 requires that applicants whose uncorrected visual acuity in either eye is worse than 6/60 shall be obliged to provide a full ophthalmological report at initial and every five years thereafter. EMCR (ATC) requires that a comprehensive ophthalmological examination be carried out by, or under the responsibility of, a specialist in aviation ophthalmology at the initial examination and at revalidation or renewal if the functional performance shows significant changes, or if the standards can only be reached with corrective lenses. This examination must be performed within 24 months of the renewal examination if the refractive error is outside the range +5 -6 dioptres or within 60 months if the refractive error is within these limits.
47. Both Annex 1 and EMCR(ATC) require the ability to read the N5 chart or its equivalent at a distance of 30 to 50 cms and the ability to read the N 14 chart or its equivalent at a distance of 100cms. EMCR(ATC) additionally requires the progress of presbyopia to be checked at every revalidation or renewal examination.
48. Annex 1 requires that a spare set of near correction spectacles be available when required. EMCR(ATC) recommends that a set of similarly correcting spectacles to meet the visual requirements at all distances is readily available when exercising the privileges of the licence. Annex 1 also requires that if contact lenses are used to meet the visual requirements a pair of suitable correcting spectacles is kept available during the exercise of the privileges of the licence.

49. EMCR(ATC) requires that correcting lenses, when worn during the exercise of licensed privileges, shall permit the applicant to meet the visual requirements at all distances. Annex 1 and EMCR(ATC) require that no more than one pair of spectacles shall be used to meet the requirement.
50. When the central vision in one eye is below limits, EMCR(ATC) allows consideration for recertification if binocular fields are normal and the underlying pathology is deemed acceptable.
51. EMCR(ATC) defines that convergence outside the normal range may be considered acceptable provided it does not interfere with near vision (30-50 cm) and intermediate vision (100 cm) with or without correction.
52. EMCR(ATC) allows to consider a candidate having monocular vision for recertification, if the ophthalmological examination is satisfactory and the condition does not preclude the individual from safely exercising the licence privileges. Testing for revalidation or renewal certification under these circumstances should include functional testing within the appropriate working environment.
53. EMCR(ATC) contains additional requirements, variations to requirements and guidance for applicants with imbalance of the ocular muscles.
54. Annex 1 in a note states that single-vision near correction (full lenses of one power only; appropriate for reading) may be acceptable for certain air traffic control duties. EMCR(ATC) requires that spectacles or contact lenses must provide optimal visual function and be suitable for air traffic control purposes.

#### **2.2.15 Colour Perception**

55. Annex 1 requires the applicant to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties. EMCR(ATC) requires an applicant to have normal colour vision.
56. Annex 1 requires an applicant to correctly identify a series pseudoisochromatic plates in daylight or under International Commission on Illumination (CIE) standard. EMCR(ATC) requires the ability to pass the Ishihara test as specified in the Ishihara User Manual or the anomaloscope as a normal trichromate.

#### **2.2.16 Otorhinolaryngological System**

57. EMCR(ATC) requires a comprehensive otorhinolaryngological (ORL/ENT) examination at the initial examination and in abnormal and doubtful cases thereafter. A routine Ear-Nose-Throat (ENT) examination shall form part of all revalidation and renewal examinations.

58. EMCR(ATC) contains requirements in case of perforation or dysfunction of the tympanic membranes or disturbances of the vestibular function.
59. Both Annex 1 and EMCR(ATC) require that speech defects and stuttering which cause impairment of speech communication (Annex1) or significant disorder of speech or voice (EMCR(ATC) shall be assessed as unfit. EMCR(ATC) requires speech or voice disorders that reduces intelligibility to be referred to a speech specialist, taking into account the operating environment.

## **2.2.17      Hearing Requirements**

60. Both Annex 1 and EMCR(ATC) require hearing to be tested at all examinations by spoken voice tests. Annex 1 gives guidance for calibration of audiometers – quiet room definition and average conversation voice output.
61. Both Annex 1 and EMCR(ATC) require testing with a pure-tone audiometer at the initial examination, and every four years until age forty and every two years thereafter.
62. In Annex 1 and EMCR(ATC) the audiogram covers the frequencies for 500 to 3000 Hz.

For pure-tone audiometer testing Annex 1 requires that there shall not be a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1000 or 2000 Hz, or more than 50 dB at 3000 Hz.

EMCR(ATC) for the initial examination requires that there shall not be a hearing loss in either ear, when tested separately, of more than 20 dB(HL) at any of the frequencies 500, 1000 and 2000 Hz, or of more than 35 dB(HL) at 3000 Hz. An applicant whose hearing loss is within 5 dB(HL) of these limits in two or more frequencies tested, shall undergo pure tone audiometry at least annually.

At revalidation or renewal examinations EMCR(ATC) requires that there shall not be a hearing loss in either ear, when tested separately, of more than 35 dB(HL) at any of the frequencies 500, 1000 and 2000 Hz, or of more than 50 dB(HL) at 3000 Hz. An applicant whose hearing loss is within 5 dB(HL) of these limits in two or more frequencies tested shall undergo pure tone audiometry at least annually.

63. Both Annex 1 and EMCR(ATC) allow applicants with greater hearing loss to be assessed as fit if a speech discrimination test in a noise field corresponding to normal air traffic control working conditions, demonstrates a satisfactory hearing ability.
64. Annex 1 does not mention the use of hearing aids. EMCR(ATC) requires that at the initial application the use of a hearing aid be assessed as unfit. For recertification, a controller needing hearing aids for both ears shall be

assessed as unfit. For revalidation or renewal certification the use of one hearing aid, or an appropriate prosthetic aid (such as a special headset with individual earpiece volume controls), may be acceptable. Full functional and environmental assessments should be carried out to ensure that the individual is able to perform the licensed functions.

## **2.2.18 Dermatological Requirements**

65. Annex 1 has not defined any dermatological requirements. EMCR(ATC) requires that an applicant who suffers from any dermatological pathology, which is likely to interfere with the safe exercise of the privileges of the licence, shall be assessed as unfit and provides guidance for specific disorders.

## REFERENCES

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## **GLOSSARY**

For the purposes of this document the following definitions shall apply.

Problematic Alcohol abuse	The habitual use of alcohol in such a way that it interferes with physical, mental and/or social well-being or is interfering with the safe execution of the ATCOs' tasks.
Aeromedical Centre (AMC)	A centre staffed by physicians appropriately trained and authorised by the Aeromedical Section to carry out medical examinations in accordance with medical standards and requirements established by the Aeromedical Section. It may be part of, or separate from, the Aeromedical Section.
Authorised Medical Examiner (AME)	A physician appropriately trained and authorised by the Aeromedical Section to carry out medical examinations for the issue of medical certificates which support the air traffic control licence.
Aeromedical Section (AMS)	The body responsible for implementation and application of European Class 3 aeromedical standards.
Date to date	A period from the date of issue (of a medical certificate) to the same date in the appropriate calendar year; for instance a medical certificate issued on 23 June 00 to an air traffic controller aged under forty will expire on 23 June 02.
Problematic Drug abuse	Improper utilisation of any substance which has not been appropriately prescribed for that individual and/or is interfering with the safe execution of the ATCOs tasks.
Initial	Used in association with (medical) certificate or (medical) examination to indicate the very first occasion on which a medical certificate towards a licence is issued or the first examination leading to the issue of such a medical certificate is conducted.
Licence	The terms 'licence' or 'air traffic controller's licence' shall have the same meaning as 'certificate of competence and licence' or

'licence/certificate' as applied to air traffic controllers.

Recertification	The process of renewal or revalidation of a medical certificate.
Renewal	The process which takes place whereby a medical examination is carried out following expiry of the current medical certificate. The new medical certificate will be issued with a validity from the date of renewal for the appropriate period of one or two calendar years, date to date.
Revalidation	The process whereby a recertification medical examination is carried out within a 45-day period preceding the date of expiry of the current medical certificate, enabling the new certificate to be issued with a validity from the date of expiry for the appropriate period of one or two calendar years, date to date.

## ABBREVIATIONS AND ACRONYMS

For the purposes of this document, the following abbreviations and acronyms shall apply.

AIDS	Acquired Immune Deficiency Syndrome
AMC	Aeromedical Centre
AME	Authorised Medical Examiner
AMRTF	ATCO Medical Requirements Task Force
AMS	Aeromedical Section
ATC	Air Traffic Control
ATCO	Air Traffic Controller
ATM	Air Traffic Management
CAA SRG	Civil Aviation Authority Safety Regulation Group (UK)
CEI (standard)	International Commission on Illumination (standard)
dB(HL)	Decibels(Hearing Loss)
DFS	Deutsche Flugsicherung GmbH (Germany)
DGAC	Direction Générale de l'Aviation Civile (France)
DAP	Directorate ATM Programmes
DAP/HUM	Human Factors Management Business Division
EATM	European Air Traffic Management ( <i>formerly 'EATMP'</i> )
EATMP	European Air Traffic Management Programme ('EATM' since May 2003)
ECAC	European Civil Aviation Conference
ECG	Electrocardiogram
EMCR(ATC)	Requirements for European Class 3 Medical Certification of Air Traffic Controllers
ENT	Ear-Nose-Throat
ESARR	EUROCONTROL Safety Regulatory Requirements

	(SRC)
ESARR 5	EUROCONTROL Safety Regulatory Requirement for ATM Services' Personnel (SRC)
HIV	Human Immunodeficiency Virus
HRT	Human Resources Team (EATM)
HUM	Human Resources (Domain) / Human Factors Management (EATMP/EATM)
Hz	Hertz ( <i>cycles per second</i> )
IAA	Irish Aviation Authority
ICAO	International Civil Aviation Organization
IFATCA	International Federation of Air Traffic Controllers' Associations
JAA	Joint Aviation Authorities
JAR-FCL	Joint Aviation Requirements – Flight Crew Licensing
LVNL	Luchtverkeersleiding Nederland (ATC The Netherlands)
mmHg	Millimetres of mercury ( <i>a unit of pressure</i> )
ORL	Otorhinolaryngological
OJT	On-the-Job Training
OJTI	On-the-Job-Training Instructor
SARPS	Standards And Recommended Practices (ICAO)
SRC	Safety Regulation Commission (EUROCONTROL)

## ANNEX 1: COMPARISON BETWEEN JAR CLASS 1 PILOT CERTIFICATION AND EUROPEAN CLASS 3 ATCO MEDICAL REQUIREMENTS

LICENCE	CLASS 1	EUROPEAN CLASS 3
	COMMERCIAL PILOT AIRLINE TRANSPORT PILOT	STUDENT ATCO ATCO
<b>INITIAL EXAMINATION</b>	AMC	AMC
<b>ISSUE OF MEDICAL CERTIFICATE</b>	Initial: AMS Renewal: AMC or AME	Initial: AMS Renewal: AMC or AME
<b>VALIDITY OF MEDICAL CERTIFICATE</b>	Under 60 1 year	Under 40 2 years
<b>ROUTINE MEDICAL EXAMINATION</b>	Over 60 6 months	Over 40 1 year
<b>CHEST X-RAY</b>	Chest x-ray only on clinical indication	Chest x-ray only on clinical indication
<b>EEG</b>	Only on clinical indication	Only on clinical indication
<b>HAEMOGLOBIN</b>	Haemoglobin at initial then every examination	Blood tests (State discretion): under 40: 4 yearly over 40: 2 yearly
<b>ELECTROCARDIOGRAM</b>	At initial then: under 30: 5 yearly 30 - 39: 2 yearly 40 - 59: annually over 60: 6 monthly	At initial then: under 30: 4 yearly over 30: 2 yearly
<b>AUDIOGRAM</b>	At initial then: under 40: 5 yearly 40 and over: 2 yearly	At initial examination: under 40: 4 yearly over 40: 2 yearly
<b>COMPREHENSIVE OTORHINOLARYNGOLOGICAL EXAMINATION</b>	At initial by AMC or specialist then if indicated	At initial by AMC or specialist then if indicated
<b>OPHTHALMOLOGICAL EXAMINATION</b>	At initial examination and if refractive error exceeds +/-3 dioptres  Specialist reports every 5 years if refractive error exceeds +3 up to and including +5 dioptres, or exceeds -3 up to and including -6 dioptres Specialist reports every 2 years if refractive error exceeds -6 dioptres	Comprehensive at initial by AME or specialist:  Within +/-5 dioptres: 5 yearly Above +/-5 dioptres: 2 yearly
<b>TONOMETRY</b>	over 40 years: 2 yearly	over 40 years: 2 yearly
<b>LIPID PROFILE</b>	At initial then age 40	Estimation of lipids to facilitate risk assessment is at the discretion of the AMS
<b>PULMONARY FUNCTION TESTS</b>	At initial then if indicated	At initial then if indicated
<b>URINALYSIS</b>	At initial then every examination	At initial then every examination

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