Part MED

Class 3 Medical Certificate

This part of Jordanian Civil Aviation Regulations is hereby issued under the authority and provisions of article 12-B of the Civil Aviation Law No. (41) dated 2007, as amended.

Capt. Haitham Misto
Chief Commissioner/CEO
Civil Aviation Regulatory Commission

Record of Revisions

Amendment No.	Effective date	Subpart	Paragraph
Original	Sept.1st, 2013	ALL	ALL Notes: Supersedes Subpart-D of Part67
1	Mar. 22nd, 2021	A	MED.060
2	Jan. 19th, 2023	A	MED.045, MED.050 & MED.055

Section NO. **Contents**

Subject

SUBPART- B
CLASS 3 Medical Certificate Requirements

APPENDICES TO SUBPART- B

SUBPART- A
General

MED.005 Applicability .

This medical part applies to applicants for, and holders of:

(a) Air Traffic Controller licences and Student Air Traffic Controller.

(b) Flight attendant applicant.

(c) Aircraft maintenance licences.

MED.010 Provisions.

(a) An applicant for a licence holder mentioned in previous item shall undergo an initial medical examination for the issue of a Class 3 Medical certificate.

(b) Licences holders, applicable for class 3 medical certificate, shall have their class 3 Medical Assessments renewed at regular intervals not exceeding those specified in JCAR- MED .060

(c) When CARC or Authorized Medical Examiner is satisfied that the requirements of this part have been met, a Class 3 Medical certificate maybe issued to the applicant.

(d) Medical Confidentiality shall be respected at all times. CARC will ensure that all oral or written reports and electronically stored information on medical matters of license holders/applicants are made available to the AMSC & AMEs handling the application and for the purpose of completion of a medical assessment & Review. The applicant or his physician shall have access to all such documentation in accordance with national law.

(e) When justified by operational considerations, the medical assessor shall determine to what extent pertinent medical information is presented to relevant officials.

MED.015 thru-MED. 020 Reserved.

MED.025 Medical Fitness.

(a) The holder of a medical certificate shall be mentally and physically fit to exercise safely the privileges of the applicable licence.

(b) In order to apply for or to exercise the privileges of a licence, the applicant or the holder shall hold a medical certificate issued in accordance with the this Medical Part.

(c) After completion of the examination the applicant shall be advised whether fit, unfit or referred to CARC. The Authorized Medical Examiner (AME) shall inform the applicant of any medical condition(s).

(d) CARC established in its safety programme a basic safety management principles to the medical assessment process of licence holders, that as a minimum include:

(1) Routine analysis of medical findings during medical assessments to identify areas of increased medical risk; and

(2) Continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.

(e) The provisions established in this part cannot, on their own, be sufficiently detailed to cover all possible individual situations. of necessity, many decisions relating to the evaluation of medical fitness must be left to the judgment of the individual Authorized Medical Examiner. The evaluation must, therefore, be based on a medical examination conducted throughout in accordance with the highest standards of medical practice.

(f) Predisposing factors for disease, such as obesity and smoking, shall be important for determining whether further evaluation or investigation is necessary in an individual case.

(g) The limitation of medical certificate for the renewal of a Medical Assessment maybe the same as that for the initial assessment except where otherwise specifically stated.

MED.030 Decrease in Medical Fitness.

(a) Holders of medical certificates shall not exercise the privileges of their licences, related ratings or authorizations at any time when they are aware of any decrease in their medical fitness which might render them unable to safely exercise those privileges.

(b) Holders of medical certificates shall not take any prescription or non- prescription medication or drug, or undergo any other treatment, unless they are completely sure that the medication or treatment will not have any adverse effect on their ability to perform safely their duties. If there is any doubt, advice shall be sought from the CARC, or an AME.

(c) Holders of medical certificates shall, without undue delay, seek the advice of the CARC, or an AME when becoming aware of:

(1) Hospital or clinic admission for more than 12 hours; or

(2) Surgical operation or invasive procedure; or

(3) The regular use of medication; or

(4) The need for regular use of correcting lenses

(d)(1) Holders of medical certificates who are aware of:

(i) Any significant personal injury involving incapacity to the privileges of their licenses or

(ii) Any illness involving incapacity to the privileges of their licenses throughout a period of 21 days or more; or

(iii)Being pregnant, shall inform CARC or the AME, who shall subsequently inform the CARC in writing of such pregnancy, and as soon as the period of 21 days has elapsed in the case of pregnancy. The medical certificate shall be deemed to be suspended upon the occurrence of such confirmation of the pregnancy.

(2) In the case of pregnancy, the suspension may be lifted by the AME in consultation with the CARC for such period and subject to such conditions as it thinks appropriate The suspension shall cease upon the holder being medically assessed by the AME – after the pregnancy has ended – and being pronounced fit. Following fit assessment by an AME at the end of pregnancy, the relevant medical certificate may be issued, informing the CARC.

(3) In the case of injury or illness the suspension shall be lifted upon the holder by CARC or under arrangements made by CARC and being pronounced fit , or upon CARC exempting, subject to such conditions as it thinks appropriate, the holder from the requirement of a medical examination.

MED.035 Reserved.

MED.040 Aeromedical Centres (AMCs).

Aeromedical centers (AMCs) will be designated and authorized, at the discretion of CARC for a period not exceeding one year. An AMC shall be:

(a) Within the national boundaries of the Hashemite Kingdom of Jordan and attached to or in liaison with a designated hospital or a medical institute;

(b) Engaged in clinical aviation medicine and related activities;

(c) Headed by an Authorized Medical Examiner (AME), responsible for coordinating assessment results and signing reports and certificates, and shall have on staff physicians with advanced training and experience in aviation medicine;

(d) Equipped with medico-technical facilities for extensive aeromedical examinations. CARC will determine the number of AMCs it requires.

MED.045 Authorized Medical Examiners (AMEs).

(a) CARC will designate and authorize Medical Examiners (AMEs), within its national boundaries, qualified and licensed in the practice of medicine. Following appointment, the AME shall report to CARC and be supervised by the Medical Assessor appointed by CARC.

(b) CARC will determine the number and location of examiners it requires, taking account of the number and geographic distribution of its pilot population.

(c) An AME, responsible for coordinating assessment results and signing reports, maybe allowed access to any prior aero medical documentation held by CARC and related to such examinations as that AME is to carry out.

(d) AMEs shall be fully qualified and licensed for the practice of medicine and have evidence certified by Jordan Medical Council of completion of specialist medical training in one of the following specialty field (Aerospace Medicine, Internal Medicine, family Medicine, Ophthalmology and ENT specialist).

(e) Except for the Aerospace Medicine Specialist, AME Shall have successfully completed a 60 hours basic training course in aviation medicine as specified in item (i) of this subpart, including practical training in the examination methods and aero-medical assessments; AME Shall have demonstrated to CARC that they:

(1) have adequate facilities, procedures, documentation and functioning equipment suitable for aero-medical examinations;

(2) have in place the necessary procedures and conditions to ensure medical confidentiality.

(f) Privileges of an AME designation. Through the designation of AME , the holder shall be granted the privileges to initially issue, revalidate and renew all of the following:

(1) class 2 medical certificates;

(2) class 3 medical certificate.

(g) Requirements for the extension of privileges (Class one Medical Certificate)
AME designation extending their privileges to initially issue revalidation and renewal of class 1 medical certificates where they meet all of the following conditions:

(1) They hold a valid AME certificate;

(2) They conducted at least 30 examinations for the issue, revalidation or renewal of class 2 or 3 medical certificates over a period of no more than 3 years preceding the application;

(3) Except for the Aerospace Medicine Specialist, they successfully completed an advanced 66 hours training course in aviation medicine as specified in item (i) of this subpart, including practical training in the examination methods and aero-medical assessments;

(4) The Aerospace Medicine Specialist certified by Jordan medical Council can be granted initially issue, revalidate and renew class one, two and three medical certificate privileges.

(h) Training courses in aviation medicine

(1) Training courses in aviation medicine referred to the item above shall only be provided after the prior approval of the course by Ministry of Health or Jordan Medical council where the training organization has its principal place of business. In order to obtain such approval, the training organization shall demonstrate that the course syllabus contains the learning objectives to acquire the necessary competencies and that the persons in charge of providing the training have adequate knowledge and experience.

(2) Except in the case of refresher training, the courses shall be concluded by a written examination on the subjects included in the course content.

(3) The training organization shall issue a certificate of successful completion to participants when they have obtained a pass in the examination.

(4) Principles of training:

To acquire knowledge and skills for the aero-medical examination and assessment, the training should be:

(i) based on regulations;

(ii) based on general clinical skills and knowledge necessary to conduct relevant examinations for the different medical certificates;

(iii) based on knowledge of the different risk assessments required for various types of medical certification;

(iv) based on an understanding of the limits of the decision-making competences of an AME in assessing safety-critical medical conditions for when to defer and when to issue;

(v) based on knowledge of the aviation environment;

(vi) exemplified by clinical cases and practical demonstrations;

(vii) Training outcomes:

The trainee should demonstrate a thorough understanding of:

(A) the aero-medical examination and assessment process:

(1) principles, requirements and methods;

(2) ability to investigate all clinical aspects that present aero-medical risks, the reasonable use of additional investigations;
(3) the role in the assessment of the ability of the pilot or cabin crew member to safely perform their duties in special cases, such as the medical flight test;
(4) aero-medical decision-making based on risk management;
(5) medical confidentiality; and
(6) correct use of appropriate forms, and the reporting and storing of information;

(B) the conditions under which the pilots and cabin crew carry out their duties; and
(C) principles of preventive medicine, including aero-medical advice in order to help prevent future limitations.

(i) Training courses in aviation medicine:

BASIC TRAINING COURSE.
Basic training course in aviation medicine 60 hours

(1) Introduction to aviation medicine 2 hours
(i) History of aviation medicine
(ii) Specific aspects of civil aviation medicine
(iii) Different types of recreational flying
(iv) AME and pilots relationship
(v) Responsibility of the AME in aviation safety
(vi) Communication and interview techniques

(2) Basic aeronautical knowledge 2 hours
(i) Flight mechanisms
(ii) Man-machine interface, informational processing
(iii) Propulsion
(iv) Conventional instruments, 'glass cockpit'
(v) Recreational flying
(vi) Simulator/aircraft experience

(3) Aviation physiology 9 hours
(i) Atmosphere
(A) Functional limits for humans in flight
(B) Divisions of the atmosphere
(C) Gas laws — physiological significance
(D) Physiological effects of decompression
(ii) Respiration
(A) Blood gas exchange
(B) Oxygen saturation
(iii) Hypoxia signs and symptoms

(A) Average time of useful consciousness (TUC)
(B) Hyperventilation signs and symptoms
(C) Barotrauma
(D) Decompression sickness

(iv) Acceleration
(A) G-Vector orientation
(B) Effects and limits of G-load
(C) Methods to increase Gz-tolerance
(D) Positive/negative acceleration
(E) Acceleration and the vestibular system

(v) Visual disorientation
(A) Sloping cloud deck
(B) Ground lights and stars confusion
(C) Visual autokinesis

(vi) Vestibular disorientation
(A) Anatomy of the inner ear
(B) Function of the semicircular canals
(C) Function of the otolith organs
(D) The oculogyral and coriolis illusion
(E) 'Leans'
(F) Forward acceleration illusion of 'nose up'
(G) Deceleration illusion of 'nose down'
(H) Motion sickness — causes and management

(vii) Noise and vibration
(A) Preventive measures

(4) Cardiovascular system 3 hours

(i) Relation to aviation; risk of incapacitation
(ii) Examination procedures: ECG, laboratory testing and other special examinations
(iii) Cardiovascular diseases:
(A) Hypertension, treatment and assessment
(B) Ischaemic heart disease
(C) ECG findings
(D) Assessment of satisfactory recovery from myocardial infarction, interventional procedures and surgery
(E) Cardiomyopathies; pericarditis; rheumatic heart disease; valvular diseases
(F) Rhythm and conduction disturbances, treatment and assessment
(G) Congenital heart disease: surgical treatment, assessment
(H) Cardiovascular syncope: single and repeated episodes

Topics (5) to (11) inclusive, and (17) 10 hours

(5) Respiratory system

(i) Relation to aviation, risk of incapacitation
(ii) Examination procedures: spirometry, peak flow, x-ray, other examinations
(iii) Pulmonary diseases: asthma, chronic obstructive pulmonary diseases
(iv) Infections, tuberculosis
(v) Bullae, pneumothorax
(vi) Obstructive sleep apnoea
(vii) Treatment and assessment

(6) Digestive system

(i) Relation to aviation, risk of incapacitation
(ii) Examination of the system
(iii) Gastro-intestinal disorders: gastritis, ulcer disease
(iv) Biliary tract disorders
(v) Hepatitis and pancreatitis
(vi) Inflammatory bowel disease, irritable colon/irritable bowel disease
(vii) Herniae
(viii) Treatment and assessment including post-abdominal surgery

(7) Metabolic and endocrine systems

(i) Relation to aviation, risk of incapacitation
(ii) Endocrine disorders
(iii) Diabetes mellitus Type 1 & 2
  (A) Diagnostic tests and criteria
  (B) Anti-diabetic therapy
  (C) Operational aspects in aviation
  (D) Satisfactory control criteria for aviation
(iv) Hyper/hypothyroidism
(v) Pituitary and adrenal glands disorders
(vi) Treatment and assessment

(8) Haematology

(i) Relation to aviation, risk of incapacitation
(ii) Blood donation aspects
(iii) Erythrocytosis; anaemia; leukaemia; lymphoma
(iv) Sickle cell disorders
(v) Platelet disorders
(vi) Haemoglobinopathies; geographical distribution; classification
(vii) Treatment and assessment

(9) Genitourinary system

(i) Relation to aviation, risk of incapacitation

(ii) Action to be taken after discovery of abnormalities in routine dipstick urinalysis, e.g. haematuria; albuminuria

(iii) Urinary system disorders:

(A) Nephritis; pyelonephritis; obstructive uropathies

(B) Tuberculosis

(C) Lithiasis: single episode; recurrence

(D) Nephrectomy, transplantation, other treatment and assessment

(10) Obstetrics and gynaecology

(i) Relation to aviation, risk of incapacitation

(ii) Pregnancy and aviation

(iii) Disorders, treatment and assessment

(11) Musculoskeletal system

(i) Vertebral column diseases

(ii) Arthropathies and arthroprosthesis

(iii) Pilots with a physical impairment

(iv) Treatment of musculoskeletal system, assessment for flying

(12) Psychiatry 2 hours

(i) Relation to aviation, risk of incapacitation

(ii) Psychiatric examination

(iii) Psychiatric disorders: neurosis; personality disorders; psychosis; organic mental illness

(iv) Alcohol and other psychoactive substance(s) use

(v) Treatment, rehabilitation and assessment

(13) Psychology 2 hours

(i) Introduction to psychology in aviation as a supplement to psychiatric assessment

(ii) Methods of psychological examination

(iii) Behaviour and personality

(iv) Workload management and situational awareness

(v) Flight motivation and suitability

(vi) Group social factors

(vii) Psychological stress, stress coping, fatigue

(viii) Psychomotor functions and age

(ix) Mental fitness and training

(14) Neurology 3 hours

(i) Relation to aviation, risk of incapacitation

(ii) Examination procedures

(iii) Neurological disorders
(A) Seizures — assessment of single episode
(B) Epilepsy
(C) Multiple sclerosis
(D) Head trauma
(E) Post-traumatic states
(F) Vascular diseases
(G) Tumours
(H) Disturbance of consciousness — assessment of single and repeated episodes
(iv) Degenerative diseases
(v) Sleep disorders
(vi) Treatment and assessment

(15) Visual system and colour vision 4 hours
(i) Anatomy of the eye
(ii) Relation to aviation duties
(iii) Examination techniques
(A) Visual acuity assessment
(B) Visual aids
(C) Visual fields — acceptable limits for certification
(D) Ocular muscle balance
(E) Assessment of pathological eye conditions
(F) Glaucoma
(iv) Monocularity and medical flight tests
(v) Colour vision
(vi) Methods of testing: pseudoisochromatic plates, lantern tests, anomaloscopy
(vii) Importance of standardisation of tests and of test protocols
(viii) Assessment after eye surgery

(16) Otorhinolaryngology 3 hours
(i) Anatomy of the systems
(ii) Clinical examination in ORL
(iii) Functional hearing tests
(iv) Vestibular system; vertigo, examination techniques
(v) Assessment after ENT surgery
(vi) Barotrauma ears and sinuses
(vii) Aeronautical ENT pathology
(viii) ENT requirements

(17) Oncology
(i) Relation to aviation, risk of metastasis and incapacitation
(ii) Risk management
(iii) Different methods of treatment and assessment

(18) Incidents and accidents, escape and survival 1 hour

(i) Accident statistics
(ii) Injuries
(iii) Aviation pathology, post-mortem examination, identification
(iv) Aircraft evacuation
(A) Fire
(B) Ditching
(C) By parachute

(19) Medication and flying 2 hours

(i) Hazards of medications
(ii) Common side effects; prescription medications; over-the-counter medications; herbal medications; 'alternative' therapies
(iii) Medication for sleep disturbance

(20) Legislation, rules and regulations 4 hours

(i) Jordanian Civil Aviation Regulations (JCAR) Medical Standards for class one, two and three Medical Certificate, ICAO Standards and Recommended Practices and European provisions (e.g. Implementing Rules, AMC and GM)
(ii) Incapacitation: acceptable aero-medical risk of incapacitation; types of incapacitation; operational aspects
(iii) Basic principles in assessment of fitness for aviation
(iv) Operational and environmental conditions
(v) Use of medical literature in assessing medical fitness; differences between scientific study populations and licensed populations
(vi) Flexibility
(vii) Annex 1 to the Chicago Convention, paragraph 1.2.4.9
(viii) Accredited Medical Conclusion; consideration of knowledge, skill and experience
(ix) Trained versus untrained crews; incapacitation training
(x) Medical flight tests

(21) Cabin crew working environment 1 hour

(i) Cabin environment, workload, duty and rest time, fatigue risk management
(ii) Cabin crew safety duties and associated training
(iii) Types of aircraft and types of operations
(iv) Single-cabin crew and multi-cabin crew operations

(22) In-flight environment 1 hour

(i) Hygiene aboard aircraft: water supply, oxygen supply, disposal of waste, cleaning, disinfection and disinsection
(ii) Catering
(iii) Crew nutrition
(iv) Aircraft and transmission of diseases

(23) Space medicine 1 hour

(i) Microgravity and metabolism, life sciences

(24) Practical demonstrations of basic aeronautical knowledge 8 hours

(25) Concluding items 2 hours

(i) Final examination

(ii) De-briefing and critique

ADVANCED TRAINING COURSE. Advanced training course in aviation medicine 66 hours

(1) Pilot working environment 6 hours

(i) Commercial aircraft flight crew compartment

(ii) Business jets, commuter flights, cargo flights

(iii) Professional airline operations

(iv) Fixed wing and helicopter, specialised operations including aerial work

(v) Air traffic control

(vi) Single-pilot/multi-pilot

(vii) Exposure to radiation and other harmful agents

(2) Aerospace physiology 4 hours

(i) Brief review of basics in physiology (hypoxia, rapid/slow decompression, hyperventilation, acceleration, ejection, spatial disorientation)

(ii) Simulator sickness

(3) Clinical medicine 5 hours

(i) Complete physical examination

(ii) Review of basics with relationship to commercial flight operations

(iii) Class 1 requirements

(iv) Clinical cases

(v) Communication and interview techniques

(4) Cardiovascular system 4 hours

(i) Cardiovascular examination and review of basics

(ii) Class 1 requirements

(iii) Diagnostic steps in cardiovascular system

(iv) Clinical cases

(5) Neurology 3 hours

(i) Brief review of basics (neurological and psychiatric examination)

(ii) Alcohol and other psychoactive substance(s) use

(iii) Class 1 requirements

(iv) Clinical cases

(6) Psychiatry/psychology 5 hours

(i) Brief review of basics (psychiatric/psychological evaluation techniques)
(ii) Alcohol and other psychoactive substance(s) use
(iii) Class 1 requirements
(iv) Clinical cases

(7) Visual system and colour vision 5 hours

(i) Brief review of basics (visual acuity, refraction, colour vision, visual fields, night vision, stereopsis, monocularity)
(ii) Class 1 visual requirements
(iii) Implications of refractive and other eye surgery
(iv) Clinical cases

(8) Otorhinolaryngology 4 hours

(i) Brief review of basics (barotrauma — ears and sinuses, functional hearing tests)
(ii) Noise and its prevention
(iii) Vibration, kinetosis
(iv) Class 1 hearing requirements
(v) Clinical cases

(9) Dentistry 2 hours

(i) Oral examination including dental formula
(ii) Oral cavity, dental disorders and treatment, including implants, fillings, prosthesis, etc.
(iii) Barodontalgia
(iv) Clinical cases

(10) Human factors in aviation, including 8 hours demonstration and practical experience22 hours

(i) Long-haul flight operations
  (A) Flight time limitations
  (B) Sleep disturbance
  (C) Extended/expanded crew
  (D) Jet lag/time zones
(ii) Human information processing and system design
  (A) Flight Management System (FMS), Primary Flight Display (PFD), datalink, fly by wire
  (B) Adaptation to the glass cockpit
  (C) Crew Coordination Concept (CCC), Crew Resource Management (CRM), Line Oriented Flight Training (LOFT) etc.
  (D) Practical simulator training
  (E) Ergonomics

(iii) Crew commonality
(A) Flying under the same type rating, e.g. A-318, A-319, A-320, A-321
(iv) Human factors in aircraft incidents and accidents
(v) Flight safety strategies in commercial aviation
(vi) Fear and refusal of flying
(vii) Psychological selection criteria
(viii) Operational requirements (flight time limitation, fatigue risk management, etc.)

(11) Incidents and accidents, escape and survival 2 hours
(i) Accident statistics
(ii) Types of injuries
(iii) Aviation pathology, post-mortem examination related to aircraft accidents, identification
(iv) Rescue and emergency evacuation

(12) Tropical medicine 2 hours
(i) Endemicity of tropical disease
(ii) Infectious diseases (communicable diseases, sexually transmitted diseases, HIV etc.)
(iii) Vaccination of flight crew and passengers
(iv) Diseases transmitted by vectors
(v) Food and water-borne diseases
(vi) Parasitic diseases
(vii) International health regulations
(viii) Personal hygiene of aviation personnel

(13) Concluding items 2 hours
(i) Final examination
(ii) De-briefing and critique

(j) Refresher Training in Aviation Medicine. During the period of authorization an AME is required to attend a minimum of 20hours refresher training [acceptable to CARC]. A minimum of 6 hours must be under the direct supervision of the CARC. Scientific meetings, congresses and flight deck experience may be approved by CARC for this purpose, for a specified number of hours

(k) An AME will be authorized for a period not exceeding 12Months. Authorization to perform medical examinations may be for Class 1or Class 2 or both at the discretion of CARC. To maintain proficiency and retain authorization an AME should complete at least ten aero medical examinations each year. For re-authorization the AME shall have completed an adequate number of Aeromedical examinations to the satisfaction of the CARC and shall also have undertaken relevant training during the period of authorization.

(l) CARC may at any time in accordance with its national procedures revoke any Authorization it has issued in accordance with the requirements of this medical part if it is established that an AME has not met, or no longer meets, the requirements of this medical part or relevant national law of the Hashemite Kingdom of Jordan.

(m) Having completed the medical examination of the applicant in accordance with this medical part, the medical examiner shall coordinate the results of the examination and submit a signed report, or equivalent, to CARC, in accordance with its requirements, detailing the results of the examination and evaluating the findings with regard to medical fitness.

(n) If the medical report is submitted to CARC in electronic format, adequate identification of the examiner shall be established.

(o) If the medical examination is carried out by two or more medical examiners, CARC shall appoint one of these to be responsible for coordinating the results of the examination, evaluating the findings with regard to medical fitness, and signing the report.

(p) The AME shall be required to submit sufficient information to CARC to enable it to undertake Medical Assessment audits. The purpose of such auditing is to ensure that medical examiners meet applicable standards for good medical practice and aeromedical risk assessment.

(q) CARC will use the services of medical assessors to evaluate reports submitted by AME.

(r) The competence of a medical examiner should be evaluated periodically by the medical assessor.

(s) Authorized Medical Examiners (AMEs) appointed prior to implementation of this medical part will be required to attend training in the requirements and documentation of this medical part but may continue at the discretion of CARC.

MED 0.050 Aeromedical examinations.

(a) The applicant shall complete the CARC Application form 27/1001, which issued by CARC. On completing a medical examination, the AME shall submit without delay a signed full report to the CARC in the case of all Class examinations, except that, in the case of an AMC, the Head of the AMC may sign the reports and certificates on the basis of assessments made by staff physicians of the AMC designation by CARC.

(b) For Periodic Requirements a summary of special investigations required at initial, routine revalidation or renewal, and extended revalidation and renewal examination according to CARC regulations.

MED 0.055 Medical Certificates.

(a) Content of certificate. CARC medical certificate form 27/1002; the medical certificate shall contain the following information:

(1) Reference number (if designated by CARC).
(2) Class of certificate.
(3) Full name.
(4) Date of birth.
(5) Nationality
(6) Expiry date of the Medical Certificate.
(7) Date of previous Medical Examination.
(8) Date of last electrocardiography.
(9) Date of last Audiometry.
(10) Date of last Ophthalmology.
(11) Limitations, conditions and/or variations.
(12) AME/AMC/AMU name, number and signature.
(13) Date of examination.
(14) Signature of applicant.

(b) Disposition of certificate:

(1) A medical certificate shall be issued, in duplicate if necessary, to the person examined once the examination is completed and a fit assessment made.

(2) The holder of a medical certificate shall submit it to CARC for further action if required.

(3) The holder of a medical certificate shall present it to the AME at the time of the revalidation or renewal of that certificate.

(c) Certificate annotation, limitation or suspension:

(1) When a review has been performed and a medical certificate has been issued in accordance with this medical part, any limitation that may be required shall be stated on the medical certificate.

(2) Following a medical certificate renewal examination, CARC may, for medical reasons duly justified and notified to the applicant and the AMC or AME, limit or suspend a medical certificate issued by the Authorized Medical Examiner.

(d) Denial of Certificate:

(1) An applicant who has been denied a medical certificate will be informed of this in writing in accordance with this medical part and of his right of review by CARC.

(2) Information concerning such denial will be collated by CARC within 5 working days.

MED.060 Period of Validity of Medical Certificates.

(a) Period of validity for class 3 medical certificate shall be valid from the date of the examination plus the period stated in Appendix 1 to this part plus the remaining days of the expiry calendar month.

(b) Period of validity of a Medical Assessment may be extended, at the discretion of CARC, up to 45 days. It is a must to let the calendar day on which the Medical Assessment expires remain constant year after year by allowing the expiry date of the current Medical Assessment to be the beginning of the new validity period under the provision that the medical examination takes place during the period of validity of the current Medical Assessment but no more than 45 days before it expires.

(c) A medical certificate revalidated prior to its expiry becomes invalid once a new certificate has been issued.

(d) Renewal:

(1) If a licence holder allows his Medical Certificate to expire by more than Two years, renewal shall require an initial or extended Certification, at CARC discretion

(2) If a licence holder allows his Medical Certificate to expire by more than one year but less than Two years, renewal shall require the prescribed standard or extended examination to be performed at an approved AMC which has obtained his relevant medical records, or by an AME at the discretion of the CARC.

(3) If a licence holder allows his certificate to expire by more than 90 days but less than one year, renewal shall require the prescribed standard to be performed at an approved AMC, or by an AME at the discretion of the CARC.

(4) If a licence holder allows his certificate to expire by less than 90 days, renewal shall be possible by standard as prescribed.

(e) The requirements to be met for the revalidation or renewal of medical certificates are the same as those for the initial issue of the certificate, except where specifically stated otherwise.

(f) The period of validity of a medical certificate may be reduced by an AME in consultation with the CARC when clinically indicated.

(g) Additional examination where CARC has reasonable doubt about the continuing fitness of the holder of a medical certificate, CARC may require the holder to submit a further examination, investigation or tests.

(h) The period of validity of a Medical Assessment may be extended at the discretion of Aviation Medicine Unit Manager at CARC up to 45 days from the expiry date appears on the certificate.

MED.065 Requirements for Medical Assessments.

(a) An applicant for, or holder of, a medical certificate issued in accordance with This medical part shall undergo a medical examination based on the following requirements:

(1) Physical and mental;

(2)Visual and color perception; and

(3) Hearing.

(b) Applicant for class 3 of Medical Assessment shall be required to be free from:

(1) Any abnormality, congenital or acquired; or

(2) Any active, latent, acute or chronic disability; or

(3) Any wound, injury or sequelae from operation; or

(4) Any effect or side-effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken; such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of duties.

(c) If the medical Standards prescribed in this medical part for a particular licence are not met, the appropriate Medical Assessment shall not be issued or renewed unless the following conditions are fulfilled:

(1) Accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety;

(2) Relevant ability, skill and experience of the applicant and operational conditions have been given due consideration;

(3) The licence is endorsed with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations.

MED.070 Use of Medication or Other Treatments.

(a) A medical certificate holder who is taking any prescription or non-prescription medication or who is receiving any medical, surgical or other treatment shall comply with the requirements of this medical part.

(b) All procedures requiring the use of a general or spinal anesthetic shall be disqualifying for at least 48 hours.

(c) All procedures requiring local or regional anesthetic shall be disqualifying for at least 12 hours.

MED.075 Use of Psychoactive Substances.

(a) Holders of licences provided for in this part shall not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance which might render them unable to safely and properly exercise these privileges.

(b) Holders of licences provided for in this part shall not engage in any problematic use of substances.

(c) CARC will ensure, as far as practicable, that all licence holders who engage in any kind of problematic use of substances are identified and removed from their safety critical functions. Return to the safety-critical functions may be considered after successful treatment or, in cases where no treatment is necessary, after cessation of the problematic use of substances and upon determination that the person's continued performance of the function is unlikely to jeopardize safety.

MED.080 Responsibilities of the Applicant.

(a) The applicant for or holder of a medical certificate shall produce proof of identification and sign and provide to the AME a declaration of medical facts concerning personal, family and hereditary history. The declaration shall also include a statement of whether the applicant has previously undergone such an examination and, if so, with what result. The applicant shall be made aware by the AME of the necessity for giving a statement that is as complete and accurate as the applicant's knowledge permits.

(b) Any false declaration made with intent to deceive shall be reported to the CARC to which the licence application is or will be made. On receipt of such information the CARC shall take such action as it considers appropriate, including the transmission of such information to any other Civil Aviation Authorities .

MED.085 Delegation of Fit Assessment, Review Policy & Secondary Review.

(a) Delegation of fit assessment:

(1) If the medical requirements prescribed in this medical part for a particular licence are not fully met by an applicant, the appropriate medical certificate shall not be issued, revalidated or renewed by AMC or AME but the decision shall be referred to CARC. If there are provisions in this medical part that the applicant under certain conditions in accordance with this medical part may be assessed as fit, CARC may do so. Such fit assessments may be done by AMC or AME in consultation with CARC.

(2) AMC or AME, that assesses an applicant as fit at discretion of CARC as in (a) (1), shall inform CARC of the details of such assessment.

(b) Review Policy: CARC may issue, revalidate or renew a medical certificate after due consideration has been given to AMSC requirements, expert Aeromedical opinion and, if appropriate, the opinion of other relevant experts familiar with the operational environment and to:

(1) The medical deficiency in relation to the operating environment;

(2) The ability, skill and experience of the applicant in the relevant operating environment;

(3) A medical test related to working environment , if appropriate and;

(4) The requirement for application of any limitations to the medical certificate and licenses Where the issue of a certificate will require more than one limitation the additive and interactive effects upon flight safety must be considered by CARC before a certificate can be issued.

(c) Secondary review. CARC will constitute asecondary review procedure, with independent medical advisers, experienced in the practice of aviation medicine, to consider and evaluate contentious cases.

Note : Guidance material to assist medical examiners is published by ICAO. Separately in manual called Manual of Civil Aviation Medicine (Doc 8984), which can be accessed at the following hyperlink ICAO (Doc 8984).

MED.090-Thru 095 Reserved.

Appendix- 1 to

MED. 0.060 of Subpart A

Summary for Class 3 Medical Certificate Validity.

License and or applicant	Class	Validity According to Airman Age
Air Traffic Controller	Third	18 - 39 = 24 month 40 + = 12 month
Flight attendant	Third	18 - 39 = 24 month 40 + = 12 month
Aircraft maintenance	Third	Each 36 month

SUBPART- B
Class 3 Medical Certificate Requirements.

MED.100 Cardiovascular System – Examination.

(a) An applicant for or holder of a Class 3 medical certificate shall not possess any abnormality of the cardiovascular system, congenital or acquired, which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) A standard 12-lead resting electrocardiogram (ECG) are required at the examination for first issue of a medical certificate, until age 50, then every 2 years, or when clinically indicated.

(c) Exercise electrocardiography is required only when clinically indicated

(d) Reporting of resting and exercise electrocardiograms shall be by AME or other specialists acceptable to CARC.

(e) Estimation of serum lipids and serum cholesterol is required at the examination for first issue of a medical certificate, then when clinically indicated.

MED. 105 Cardiovascular System – Blood pressure.

(a) The blood pressure shall be recorded with the technique given in paragraph 3 Appendix 1 to Subpart B at each examination.

(b) When the blood pressure at examination consistently exceeds 160 mmHg systolic and/or 95 mmHg diastolic with or without treatment the applicant shall be assessed as unfit.

(c) Treatment for the control of blood pressure shall be compatible with the safe exercise of the privileges of the applicable licence(s) and be compliant with paragraph 4 Appendix 1 to Subpart B. The initiation of medication shall require a period of temporary suspension of the medical certificate to establish the absence of significant side effects.

(d) Applicants with symptomatic hypotension shall be assessed as unfit.

MED.110 Cardiovascular System – Coronary Artery Disease.

(a) Applicants with suspected cardiac ischemia shall be investigated. Those with asymptomatic, minor, coronary artery disease, requiring no treatment, may be assessed as fit by CARC if the investigations in paragraph 5 Appendix 1 to Subpart B are completed satisfactorily.

(b) Applicants with symptomatic coronary artery disease, or with cardiac symptoms controlled by medication, shall be assessed as unfit.

(c) After an ischemic cardiac event (defined as a myocardial infarction, angina, significant arrhythmia or heart failure due to ischemia, or any type of cardiac revascularisation) a fit assessment for Class 3 applicants may be considered by CARC if the investigations in paragraph 6 Appendix 1 to Subpart B are completed satisfactorily.

MED.115 Cardiovascular System – Rhythm/Conduction Disturbances.

(a) Applicants with disturbance of supraventricular rhythm, including sinoatrial dysfunction, whether intermittent or established shall be assessed as unfit. A fit assessment may be considered by CARC subject to compliance with paragraph 7 Appendix 1 to Subpart B.

(b) Applicants with asymptomatic sinus bradycardia or sinus tachycardia may be assessed as fit in the absence of underlying abnormality.

(c) Applicants with asymptomatic isolated uniform supra-ventricular or ventricular ectopic complexes need not be assessed as unfit. Frequent or complex forms require full cardiological evaluation in compliance with paragraph 7 Appendix 1 to Subpart B.

(d) In the absence of any other abnormality, applicants with incomplete bundle branch block or stable left axis deviation may be assessed as fit.

(e) Applicants with complete right bundle branch block require cardiological evaluation on first presentation and subsequently in compliance with appropriate items in paragraph 7 Appendix 1 to Subpart B.

(f) Applicants with complete left bundle branch block shall be assessed as unfit. A fit assessment may be considered by CARC in compliance with paragraph 7 Appendix 1 to Subpart B.

(g) Applicants with first degree and Mobitz type 1 A-V block may be assessed as fit in the absence of underlying abnormality. Applicants with Mobitz type 2 or complete A-V block shall be assessed as unfit. A fit assessment may be considered by CARC in compliance with paragraph 7 Appendix 1 to Subpart B.

(h) Applicants with broad and/or narrow complex tachycardias shall be assessed as unfit. A fit assessment may be considered by CARC subject to compliance with paragraph 7 Appendix 1 to Subpart B.

(i) Applicants with ventricular pre-excitation shall be assessed as unfit. A fit assessment may be considered by CARC subject to compliance with paragraph 7 Appendix 1 to Subpart B.

(j) Applicants with an endocardial pacemaker shall be assessed as unfit. A fit assessment may be considered by CARC subject to compliance with paragraph 7 Appendix 1 to Subpart B.

(k) Applicants who have received ablation therapy shall be assessed as unfit. A fit assessment may be considered by CARC in compliance with paragraph 7-a Appendix 1 to Subpart B.

MED.120 Cardiovascular System – General.

(a) Applicants with peripheral arterial disease before or after surgery shall be assessed as unfit. Provided there is no significant functional impairment a fit assessment may be considered by CARC.

(b) Applicants with aneurysm of the thoracic or abdominal aorta, before or after surgery, shall be assessed as unfit. Applicants with infra-renal abdominal aortic aneurysm may be assessed as fit by CARC.

(c) Applicants with significant abnormality of any of the heart valves shall be assessed as unfit and :

(1) Applicants with minor cardiac valvular abnormalities may be assessed as fit by CARC subject to compliance with paragraph 9 Appendix 1 to Subpart B.

(2)Applicants with cardiac valve replacement/repair shall be assessed as unfit. A fit assessment may be considered by CARC subject to compliance with paragraph 9(c) Appendix 1 to Subpart B.

(d) Systemic anticoagulant therapy is disqualifying. Applicants who have received treatment of limited duration, may be considered for a fit assessment by CARC subject to compliance with paragraph 10 Appendix 1 to Subpart B.

(e) Applicants with any abnormality of the pericardium, myocardium or endocardium not covered above shall be assessed as unfit. A fit assessment may be considered by CARC following complete resolution and satisfactory cardiological evaluation in compliance with paragraph 11 Appendix 1 to Subpart B.

(f) Applicants with congenital abnormality of the heart, before or after corrective surgery, shall be assessed as unfit. A fit assessment may be considered by CARC in compliance with paragraph 12 Appendix 1 to Subpart B.

(g) Heart or heart/lung transplantation is disqualifying.

(h) Applicants with a history of recurrent vasovagal syncope shall be assessed as unfit. A fit assessment may be considered by CARC in an applicant with a suggestive history subject to compliance with paragraph 13 Appendix 1 to Subpart B.

(i) There shall be no significant functional nor structural abnormality of the circulatory.

MED.125 Respiratory System – General.

(a) An applicant for or the holder of a Class 3 medical certificate shall not possess any abnormality of the respiratory system, congenital or acquired, which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Posterior/anterior chest radiography is required at the first examination, then when indicated on clinical or epidemiological grounds.

(c) Applicants with significant impairment of pulmonary function shall be assessed as unfit

MED.130 Respiratory System – Disorders.

(a) Applicants with chronic obstructive airway disease shall be assessed as unfit unless the applicant conditions has been investigated & evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant license or rating privilege.

(b) Applicants with asthma requiring medication shall be assessed in compliance with paragraph 1 Appendix 2 to Subpart B.

(c) Applicants with active inflammatory disease of the respiratory system shall be assessed as temporarily unfit.

(d) Applicants with active sarcoidosis shall be assessed as unfit (see paragraph 2 Appendix 2 to Subpart B).

(e) Applicants with spontaneous pneumothorax shall be assessed as unfit pending full evaluation in compliance with paragraph 3 Appendix 2 to Subpart B.

(f) Applicants requiring major chest surgery shall be assessed as unfit for a minimum of three months following operation and 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) .

(g) Applicants with unsatisfactorily treated sleep apnoea syndrome shall be assessed as unfit.

(h) Applicants with active pulmonary tuberculosis shall be assessed as unfit. (see paragraph 5 Appendix 2 to Subpart B).

MED.135 Digestive System – General.

An applicant for or holder of a Class 3 medical certificate shall not possess any functional or structural disease of the gastro-intestinal tract or its adnexa which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

MED.140 Digestive System – Disorders.

(a) Applicants with recurrent dyspeptic disorders requiring medication or with pancreatitis shall be assessed as unfit pending examination in compliance with paragraph 1 Appendix 3 to Subpart B.

(b) Applicants with asymptomatic gallstones discovered incidentally shall be assessed in compliance with paragraph 2 Appendix 3 to subpart B .

(c) Applicants with an established diagnosis or history of chronic inflammatory bowel disease shall be assessed as unfit (see paragraph 3 Appendix 3 to Subpart B).

(d) Applicants shall be completely free from hernia that might give rise to incapacitating symptoms.

(e) Applicants with any sequelae of disease or surgical intervention on any part of the digestive tract or its adnexae likely to cause incapacitation in flight, in particular any obstruction due to stricture or compression, shall be assessed as unfit.

(f) Applicants who have undergone a surgical operation on the digestive tract or its adnexa, involving a total or partial excision or a diversion of any of these organs, shall be assessed as unfit for a minimum period of two months or 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) (see paragraph 4 Appendix 3 to Subpart B).

MED.145 Metabolic, Nutritional and Endocrine Systems.

(a) An applicant for or holder of a Class 3 medical certificate shall not possess any functional or structural metabolic, nutritional or endocrine disorder which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).
(b) Applicants with metabolic, nutritional or endocrine dysfunctions may be assessed as fit in accordance with paragraph 1 Appendix 4 to Subpart B.

(c) Applicants with diabetes mellitus may be assessed as fit only in accordance with paragraphs 2 and 3 Appendix 4 Subpart B.

(d) Applicants with diabetes requiring insulin , a fit assessment maybe considered by CARC.

(e) Applicants with a Body Mass Index > 35 may be assessed as fit only if the excess weight is not likely to interfere with the safe exercise of the applicable licence(s) and a satisfactory cardiovascular risk review has been undertaken(See paragraph 1 Appendix 9 to Subpart B).

MED.150 Haematology.

(a) An applicant for or the holder of a Class 3 medical certificate shall not possess any haematological disease which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Haemoglobin shall be tested at every examination for a medical certificate. Applicants with abnormal haemoglobin shall be investigated. Applicants with a haematocrit below 32% shall be assessed as unfit (see paragraph 1 Appendix 5 Subpart B).

(c) Applicants with sickle cell disease shall be assessed as unfit (see paragraph 1 Appendix 5 to Subpart B).

(d) Applicants with significant localised and generalised enlargement of the lymphatic glands and diseases of the blood shall be assessed as unfit (see paragraph 2 Appendix 5 to Subpart B).

(e) Applicants with acute leukaemia shall be assessed as unfit. After established remission applicants may be assessed as fit by CARC.

Applicants with chronic leukaemia shall be assessed as unfit. After a period of demonstrated stability a fit assessment may be considered by CARC.(See paragraph 3 Appendix 5 to Subpart B.

(f) Applicants with significant enlargement of the spleen shall be assessed as unfit (see paragraph 4 Appendix 5 to Subpart B).

(g) Applicants with significant polycythaemia. a fit assessment maybe Considered by CARC.

(h) Applicants with a coagulation defect, a fit assessment maybe Considered by CARC.

MED.155 Urinary System.

(a) An applicant for or the holder of a Class 3 medical certificate shall not possess any functional or structural disease of the urinary system or its adnexa which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Applicants presenting any signs of organic disease of the kidney shall be assessed as unfit. Urinalysis shall form part of every medical examination. The urine shall contain no abnormal element considered to be of pathological significance. Particular attention shall be paid to disease affecting the urinary passages and the genital organs. (see paragraph 1 Appendix 6 to Subpart B).

(c) Applicants presenting with urinary calculi shall be assessed as unfit unless fully investigated and treated until such time as the effect are no longer likely to interfere with the safe exercise of the privileges of the applicable licence(s)

(d) Applicants with any sequela of disease or surgical procedures on the kidneys and the urinary tract likely to cause incapacitation, in particular any obstruction due to stricture or compression, shall be assessed as unfit. Applicants with compensated nephrectomy without hypertension or uraemia may be considered fit by CARC subject to compliance with paragraph 3 Appendix 6 to Subpart B.

(e) Applicants who have 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 shall be assessed as unfit for a minimum period of three months and 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) (see paragraphs 3 and 4 Appendix 6 to Subpart B).

MED.160 Sexually transmitted Diseases and Other Infections.

(a) An applicant for or holder of a Class 3 medical certificate shall have no established medical 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 applicable licence(s).

(b) Particular attention, in accordance with Appendix 7 to Subpart B, shall be paid to a history of or clinical signs indicating:

(1) HIV positivity,

(2) Immune system impairment,

(3) Infectious hepatitis,

(4) Syphilis.

MED.165 Gynaecology and Obstetrics.

(a) An applicant for or the holder of a Class 3 medical certificate shall not possess any functional or structural obstetric or gynaecological condition which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) An applicant with a history of severe menstrual disturbances unamenable to treatment shall be assessed as unfit.

(c) Pregnancy entails unfitness. If obstetric evaluation indicates a completely normal pregnancy, the applicant may be assessed as fit until the end of the 34th week of gestation, in accordance with paragraph 1 Appendix 8 to Subpart B by CARC, AMC or AME. Licence privileges may be resumed upon satisfactory confirmation of full recovery following confinement or termination of pregnancy.

(d) Following confinement or termination of pregnancy the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.

(e) An applicant who has undergone a major gynaecological operation shall be assessed as unfit for a period of three months or until such time as the effects of the operation are not likely to interfere with the safe exercise of the privileges of the licence(s) (see paragraph 2 Appendix 8 to Subpart B).

MED. 170 Musculoskeletal Requirements.

(a) An applicant for or holder of a Class 3 medical certificate shall not possess any abnormality of the bones, joints, muscles and tendons, congenital or acquired which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) An applicant shall have sufficient sitting height, arm and leg length and muscular strength for the safe exercise of the privileges of the applicable licence (see paragraph 1 Appendix 9 to Subpart B).

(c) An applicant shall have satisfactory functional use of the musculo-skeletal system. An applicant with any significant sequela from disease, injury or congenital abnormality of the bones, joints, muscles or tendons with or without surgery shall be assessed in

accordance with paragraphs 1, 2 and 3 Appendix 9 to Subpart B.

MED. 175 Psychiatric Requirements.

(a) An applicant for or holder of a Class 3 medical certificate shall have no established medical history or clinical diagnosis of any psychiatric disease or disability, condition or disorder, acute or chronic, congenital or acquired, which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Particular attention shall be paid to the following (see Appendix 10 to Subpart B):

(1) Schizophrenia, schizotypal and delusional disorders;

(2) Mood disorders;

(3) Neurotic, stress-related and somatoform disorders;

(4) Personality disorders;

(5) Organic mental disorders;

(6) Mental and behavioural disorders due to alcohol;

(7) Use or abuse of psychotropic substances.

(8) Mental retardation;

(9) A behavioural or emotional disorder, with onset in childhood or adolescence ; or mental disorder not otherwise specified.

(c) An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant’s condition as unlikely to interfere with the safe exercise of the applicant’s licence and rating privileges.

Note — Mental and behavioural disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition — Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements which may be useful for their application to medical assessment.

MED.180 Neurological requirements.

(a) An applicant for or holder of a Class 3 medical certificate shall have no established medical history or clinical diagnosis of any neurological condition which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Particular attention shall be paid to the following (see Appendix 11 to Subpart B):

(1) Progressive disease of the nervous system,

(2) Epilepsy and other causes of disturbance of consciousness,

(3) Conditions with a high propensity for cerebral dysfunction,

(4) Head injury,

(5) Spinal or peripheral nerve injury.

MED. 185 Ophthalmological Requirements.

(a) An applicant for or holder of a Class 3 medical certificate shall not possess any abnormality of the function of the eyes or their adnexa or any active pathological condition, congenital or acquired, acute or chronic, or any sequela of eye surgery or trauma, which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) An ophthalmological examination can be done by an ophthalmologist or a vision care specialist acceptable to the CARC or, at the discretion of CARC, or by an AME (All abnormal doubtful cases shall be referred to an ophthalmologist acceptable to CARC) is required at the initial examination and shall include :

(1) History;

(2) Visual acuity, near and distant vision; uncorrected and with best optical correction if needed;

(3) Colour vision;

(4) Examination of the external eye, anatomy, media and fundoscopy.

MED.190 Visual Requirements.

(a) Visual acuity tests should be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60 cd/m2).

(b) Visual acuity should be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

(c) Distant visual acuity. Distant visual acuity, with or without correction, shall be 6/9 or better in each eye separately and binocular visual acuity shall be 6/6 or 6/9 or better. No limits apply to uncorrected visual acuity.

(d) Refractive errors. Refractive error is defined as the deviation from emmetropia measured in dioptres in the most ametropic meridian. Refraction shall be measured by standard methods (see Appendix 13 to Subpart B). Applicants shall be assessed as fit with respect to refractive errors if they meet the following requirements:

(1) Refractive error

(i) At the initial examination the refractive error shall not exceed +5 to -8 dioptres .

(ii) At revalidation or renewal examinations, an applicant experienced to the satisfaction of CARC with refractive error not exceeding +5 dioptres or a high myopic refractive error exceeding -8 dioptres may be assessed as fit by CARC.

(iii) Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.

(iv) Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical Assessment.

(2) Astigmatism

(i) In an initial applicant with a refractive error with an astigmatic component, the astigmatism shall not exceed 4,0 dioptres.

(ii) At revalidation or renewal examinations, an applicant experienced to the satisfaction of CARC with a refractive error with an astigmatic component of more than

4,0 dioptres may be assessed as fit by CARC.

(3) Keratoconus is disqualifying. CARC may consider a fit assessment if the applicant meets the requirements for visual acuity.

(4) In an applicant with amblyopia, the visual acuity of the amblyopic eye shall be 6/18 or better. The applicant may be assessed as fit provided the visual acuity in the other eye is 6/6 or 6/9 or better, with or without correction, and no significant pathology can be demonstrated.

(5) Anisometropia:

(i) In an initial applicant the difference in refractive error between the two eyes (anisometropia) shall not exceed 4,0 dioptres.

(ii) At revalidation or renewal examinations, an applicant experienced to the satisfaction of CARC with a difference in refractive error between the two eyes (anisometropia) of more than 4,0 dioptres may be assessed as fit by CARC. Contact lenses shall be worn if the anisometropia exceeds 4,0 dioptres.

(6) The development of presbyopia shall be followed at all aeromedical renewal examinations.

(7) An applicant shall be able to read N5 chart (or equivalent) at 30–50 centimetres and N14 chart (or equivalent) at 100 centimetres, with correction if prescribed.

(e) An applicant with significant defects of binocular vision shall be assessed as unfit.

(f) An applicant with diplopia shall be assessed as unfit

(g) Reduced stereosis, abnormal convergence not interfering with Near vision, and ocular misalignment where the fusion reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

(h) (1) If a visual requirement is met only with the use of correction, the spectacles or contact lenses must provide optimal visual function and be well-tolerated and suitable for aviation

purposes. If contact lenses are worn they shall be monofocal and for distant vision. Orthokeratologic lenses shall not be used.

(2) Correcting lenses, when worn for aviation purposes, shall permit the licence holder to meet the visual requirements at all distances. No more than one pair of spectacles shall be used to meet the requirements.

(3) Contact lenses, when worn for aviation purposed, shall be monofocal and non- tinted.
(4) A spare set of similarly correcting spectacles shall be readily available when exercising the privileges of the licence.

(i) Eye Surgery:

(1) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their license and rating privileges.

(2) Cataract surgery, retinal surgery and glaucoma surgery entail unfitness. A fit assessment may be considered by CARC at revalidation or renewal.

(j) The applicant shall be required to have normal fields of vision.

Note 1- An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of CARC. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

Note 2 — N5 and N14 refer to the size of typeface used.

Note 3 — An applicant who needs near correction to meet the requirement will require “look-over”, bifocal or perhaps multi-focal lenses in order to read radar screens, visual displays and written or printed material and also to make use of distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for

certain air traffic control duties. However, it should be realized that single-vision near correction significantly reduces distant visual acuity.

Note 4 — Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractions of reading distances for the air traffic control duties the applicant is likely to perform.

Note 5 — When near correction is required in accordance with this paragraph, a second pair of near correction spectacles shall be kept available for immediate use

Note 6 — Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.

MED.195 Colour perception.

(a) The applicant shall be required to demonstrate the ability to perceive readily those colors the perception of which is necessary for the safe performance of duties. (see paragraph 1 Appendix 14 to Subpart B).

(b) The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same color temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission on Illumination (CIE). (anomaloscopy or colour lanterns) (see paragraph 2 Appendix 14 to Subpart B). At revalidation or renewal colour vision needs only to be tested on clinical grounds

(c) An applicant obtaining a satisfactory result as prescribed by the evaluating medical examiner shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colors used in air navigation and correctly identify aviation colored lights. Applicants who fail to meet these criteria shall be assessed as unfit.

(d) A color unsafe applicant may be assessed as fit for day duty only.

(e) Sunglasses worn during the exercise of the privileges of the license or rating held shall be Non - polarizing and of a neutral grey tint.

MED.200 Otorhinolaryngological Requirements.

(a) An applicant for or holder of a Class 3 medical certificate shall not possess any abnormality of the function of the ears, nose, sinuses, or

throat (including oral cavity, teeth and larynx), or any active pathological condition, congenital or acquired, acute or chronic, or any sequela of surgery and trauma which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) A routine Ear-Nose-Throat examination shall form part of all initialson and renewal examinations (see paragraph 2 Appendix 15 to Subpart B).

(c) Presence of any of the following disorders in an applicant shall result in an unfit assessment:

(1) Active pathological process, acute or chronic, of the internal or middle ear.

(2) Unhealed perforation or dysfunction of the tympanic membranes (see paragraph 3 Appendix 15 to Subpart B).

(3) Disturbances of vestibular function (see paragraph 4 Appendix 15 to Subpart B).

(4) Significant restriction of the nasal air passage on either side, or any dysfunction of the sinuses.

(5) Significant malformation or significant, acute or chronic infection of the oral cavity or upper respiratory tract.

(6) Significant stuttering or other speech defects to cause impairment of speech communications.

MED.205 Hearing Requirements.

(a) The applicant shall be required to demonstrate a hearing performance sufficient for the safe exercise of their license and rating privileges.Hearing shall be tested at all examinations. The applicant shall be able to understand correctly ordinary conversational speech or whispered voice when at a distance of 2 metres from and with his back turned towards the AME in a quiet room. (see Appendix 16 to Subpart D).

(b) Hearing test with pure tone audiometry (see paragraph 1 Appendix 16 to Subpart D) is required at the initial examination , then not less than once every four years up to the age of 40 years, and thereafter not less than once every two years and when clinically indicated.

Alternatively, other methods providing equivalent results may be used.

(c) There shall be no 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 more than 50 db (HL) at 3000 Hz.

(d) The frequency composition of the background noise is defined only to the extent that the frequency range 600 to 4 800 Hz (speech frequency range) is adequately represented.

(e) In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used.

(f) An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical working environment.

(g) Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's license and ratings are valid may be used.

MED.210 Psychological Requirements.

(a) An applicant for or holder of a Class 3 medical certificate shall have no established psychological deficiencies, particularly in operational aptitudes or any relevant personality factor, which are likely to interfere with the safe exercise of the privileges of the applicable licence(s). A psychological evaluation (see paragraph 1 Appendix 17 to Subpart B) may be required by CARC where it is indicated as part of, or complementary to, a specialist psychiatric or neurological examination (see paragraph 2 Appendix 17 to Subpart B).

(b) When a psychological evaluation is indicated a psychologist acceptable to CARC shall be utilised.

(c) The psychologist shall submit to CARC a written report detailing his opinion and recommendation.

MED. 215 Dermatological Requirements.

(a) An applicant for or holder of a Class 3 Medical Certificate shall have no established dermatological condition, likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Particular attention should be paid to the following disorders .

(1) Eczema (Exogenous and Endogenous),

(2) Severe Psoriasis,

(3) Bacterial Infections,

(4) Drug Induced Eruptions,

(5) Bullous Eruptions,

(6) Malignant Conditions of the skin,

(7) Urticaria.

Referral to the CARC shall be made if doubt exists about any condition.

MED.220 Oncology.

(a) An applicant for or holder of a Class 3 medical certificate shall have no established primary or secondary malignant disease likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) After treatment for malignant disease applicants may be assessed as fit in accordance with Appendix 19 to Subpart B.

Appendix -1 to Subpart B
Cardiovascular System

1- Exercise electrocardiography shall be required:

(a) when indicated by signs or symptoms suggestive of cardiovascular disease.

(b) for clarification of a resting electrocardiogram;

(c) at the discretion of an aeromedical specialist acceptable to CARC

2- (a) Serum lipid estimation is case finding and significant abnormalities shall require review, investigation and supervision by the AMC or AME in conjunction with CARC.

(b) An accumulation of risk factors (smoking, family history, lipid abnormalities, hypertension, etc.) shall require cardiovascular evaluation by the AMC or AME in conjunction with CARC.

3- The diagnosis of hypertension shall require review of other potential vascular risk factors. The systolic pressure shall be recorded at the appearance of the Korotkoff sounds (phase I) and the diastolic pressure at their disappearance (phase V). The blood pressure should be measured twice. If the blood pressure is raised and/or the resting heart rate is increased, further observations should be made during the assessment.

4- Anti-hypertensive treatment shall be agreed by CARC. Drugs acceptable to CARC may include:

(a) non-loop diuretic agents;

(b) certain (generally hydrophilic) beta-blocking agents;

(c) ACE Inhibitors;

(d) angiotensin II AT1 blocking agents (the sartans);

(e) slow channel calcium blocking agents.

5- In suspected asymptomatic coronary artery disease or peripheral arterial disease, exercise electrocardiography (according to paragraph 6
(a) Appendix 1 to Subparts B) shall be required followed, if necessary, by further tests (myocardial perfusion scanning, stress echocardiography, coronary angiography or equivalent investigations acceptable to CARC) which shall show no evidence of myocardial ischemia or significant coronary artery stenosis.

6- After an ischemic cardiac event, including revascularisation or peripheral arterial disease, applicants without symptoms shall have reduced any vascular risk factors to an appropriate level. Medication, when used only to control cardiac symptoms, are not acceptable. All applicants should be on acceptable secondary prevention treatment.

A coronary angiogram obtained around the time of, or during, the ischemic cardiac event shall be available. A complete and detailed clinical report of the ischemic event, the angiogram and any operative procedures shall be available to CARC.
There shall be no stenosis more than 50% in any major untreated vessel, in any vein or artery graft or at the site of an angioplasty/stent, except in a vessel leading to an infarct. More than two stenoses between 30% and 50% within the vascular tree should not be acceptable.

The whole coronary vascular tree shall be assessed as satisfactory by a cardiologist acceptable to CARC, and particular attention should be paid to multiple stenoses and/or multiple revascularisations.
An untreated stenosis greater than 30% in the left main or proximal left anterior descending coronary artery should not be acceptable.

At least 6 months from the ischemic cardiac event, including revascularisation, the following investigations shall be completed:

(a) an exercise ECG (symptom limited to Bruce Stage IV, or equivalent), showing no evidence of myocardial ischemia nor rhythm disturbance.

(b) an echocardiogram (or equivalent test acceptable to CARC) showing satisfactory left ventricular function with no important abnormality of wall motion (such as dyskinesia or akinesia) and a left ventricular ejection fraction of 50% or more.

(c) in cases of angioplasty/stenting, a myocardial perfusion scan or stress echocardiography (or equivalent test acceptable to CARC) which shall show no evidence of reversible myocardial ischemia. If there is any doubt about myocardial perfusion in other cases (infarction or bypass grafting) a perfusion scan will also be required;

(d) Further investigations, such as a 24 hour ECG, may be necessary to assess the risk of any significant rhythm disturbance.
Follow-up shall be yearly (or more frequently if necessary) to ensure that there is no deterioration of cardiovascular status. It shall include a review by a specialist acceptable to CARC,

exercise ECG and cardiovascular risk assessment. Additional investigations may be required by CARC.

After coronary artery vein bypass grafting, a myocardial perfusion scan (or equivalent test acceptable to CARC) shall be performed if there is any indication, and in all cases within five years from the procedure.
In all cases coronary angiography, or an equivalent test acceptable to CARC, shall be considered at any time if symptoms, signs or non-invasive tests indicate cardiac ischemia.

7- Any significant rhythm or conduction disturbance requires evaluation by a cardiologist acceptable to CARC and appropriate follow-up in the case of a fit assessment:

(a) Such evaluation shall include:

(1) Exercise ECG to the Bruce protocol or equivalent. The test should be to maximum effort or symptom limited. Bruce stage 4 shall be achieved and no significant abnormality of rhythm or conduction, nor evidence of myocardial ischaemia shall be demonstrated. Withdrawal of cardio active medication prior to the test should be considered.

(2) 24-hour ambulatory ECG which shall demonstrate no significant rhythm or conduction disturbance,

(3) 2D Doppler echocardiogram which shall show no significant selective chamber enlargement, or significant structural, or functional abnormality, and a left ventricular ejection fraction of at least 50%.

(b) Further evaluation may include:

(1) Repeated 24-hour ECG recording.

(2) Electrophysiological study.

(3) Myocardial perfusion scanning, or equivalent test;

(4) Cardiac MRI or equivalent test.

(5) Coronary angiogram or equivalent test (see Appendix 1 paragraph 6).

(c) CARC Assessment:

(1) A trial fibrillation/flutter:

(i) For initial certification a fit assessment shall be limited to those with a single episode of arrhythmia which is considered by CARC to be unlikely to recur.

(ii) Revalidation/renewal shall be determined by CARC

(2)Complete right bundle branch block:

(i) For initial certification a fit assessment may be considered by CARC if the applicant is under age 40 years. If over age 40 years, initial certification should demonstrate a period of stability, normally 12 months.

(ii) For revalidation/renewal a fit assessment may be considered if the applicant is under age 40 years.

(3) Complete left bundle branch block Investigation of the coronary arteries is necessary in applicants over age 40:

(i) Initial certification should demonstrate a 3 year period of stability.

(ii) For revalidation/renewal, after a 3 year period with no complication, a fit assessment may be considered by CARC.

(4) Ventricular pre-excitation:

(i) Asymptomatic initial certification with pre-exitation may be assessed as fit by CARC if an electrophysiological study, including adequate drug-induced autonomic stimulation reveals no inducible re-entry tachycardia and the existence of multiple pathways is excluded.

(ii) Asymptomatic certification with pre-excitation may be assessed as fit by CARC at revalidation/renewal.

(5) Pacemaker Following permanent implantation of a subendocardial pacemaker a fit assessment which shall be no sooner than three months after insertion shall require:

(i) no other disqualifying condition.

(ii) a bipolar lead system.

(iii) that the applicant is not pacemaker dependent.

(iv) regular follow-up including a pacemaker check.

(6) Ablation:A fit assessment for Class 3 applicants having undergone successful catheter ablation may be considered by CARC only for at least one year, unless an electrophysiological study, undertaken at a minimum of two months after the ablation, demonstrates satisfactory results may be considered by CARC or AME.

8- Applicants with unoperated infra-renal abdominal aortic aneurysms may be assessed as fit for Class 3 by CARC. Follow-up by ultra-sound scans, as necessary, will be determined by CARC. After surgery for infra-renal abdominal aortic aneurysm without complications, and after cardiovascular assessment, Class 3 applicants may be assessed as fit by CARC.

9- (a) Applicants with previously unrecognised cardiac murmurs shall require evaluation by a cardiologist acceptable to CARC and assessment by CARC. If considered significant, further investigation shall include at least 2D Doppler echocardiography.

(b) Valvular Abnormalities:

(1)Applicants with bicuspid aortic valve may be assessed as fit by CARC Follow-up with echocardiography, as necessary, will be determined by CARC or AME.

(2)Applicants with aortic stenosis require CARC review. Left ventricular function must be intact. A history of systemic embolism or significant dilatation of the thoracic aorta are disqualifying. Those with a mean pressure gradient of up to 20 mm Hg may be assessed as fit. Those with mean pressure gradient above 20 mm Hg but no greater than 40 mm Hg may be assessed as fit for Class 3 by CARC. A mean pressure gradient up to 50 mm Hg may be acceptable, at the discretion

of CARC. Follow-up with 2D Doppler echocardiography, as necessary, will be determined by CARC.

(3)Applicants with aortic regurgitation may be assessed as fit. There shall be no demonstrable abnormality of the ascending aorta on 2D Doppler echocardiography. Follow-up, as necessary, will be determined by CARC.

(4) Applicants with rheumatic mitral valve disease shall normally be assessed as unfit.

(5) Mitral leaflet prolapse/mitral regurgitation. Asymptomatic applicants with isolated mid- systolic click may be considered fit. Class 3 applicants with uncomplicated minor regurgitation may require fit assessment by CARC. Applicants with evidence of volume overloading of the left ventricle demonstrated by increased left ventricular end-diastolic diameter shall be assessed as unfit. Periodic review and assessment as determined by CARC is required.

(c) Valvular surgery:

(1) Applicants with implanted mechanical valves shall be assessed as unfit.

(2) Asymptomatic applicants with a tissue valve who at least 6 months following surgery shall have satisfactorily completed investigations which demonstrate normal valvular and ventricular configuration and function may be considered for a fit assessment by CARC as judged by:

(i) a satisfactory symptom limited exercise ECG to Bruce Stage IV or equivalent which a cardiologist acceptable to CARC interprets as showing no significant abnormality. Myocardial scintigraphy/stress echocardiography shall be required if the resting ECG is abnormal and any coronary artery disease has been demonstrated. See also paragraphs 5, 6 and 7 of Appendix 1 to Subparts B.

(ii) a 2D Doppler echocardiogram showing no significant selective chamber enlargement, a tissue valve with minimal structural alterations and with a normal Doppler blood flow, and no structural, nor functional abnormality of the other heart valves. Left ventricular fractional or shortening shall be normal;

(iii)the demonstrated absence of coronary artery disease unless satisfactory re- vascularisation has been achieved – see paragraph 7 above;

(iv)the absence of requirement for cardioactive medication;

(v)Follow-up with exercise ECG and 2D echocardiography, as necessary, will be determined by CARC.

10- Applicants following anticoagulant therapy require review by CARC. Venous thrombosis or pulmonary embolism is disqualifying until anticoagulation has been discontinued. Pulmonary embolus requires full evaluation. Anticoagulation for possible arterial thromboembolism is disqualifying.

11- Applicants with abnormalities of the epicardium/myocardium and/or endocardium, primary or secondary, shall be assessed as unfit until clinical resolution has taken place. Cardiovascular assessment by CARC may include 2D Doppler echocardiography, exercise ECG and/or myocardial scintigraphy/stress echocardiography and 24-hour ambulatory ECG. Coronary angiography may be indicated.

12- Applicants with congenital heart conditions including those surgically corrected, shall normally be assessed as unfit unless functionally unimportant and no medication is required. Cardiological assessment by CARC shall be required. Investigations may include 2D Doppler echocardiography, exercise ECG and 24- hour ambulatory ECG. Regular cardiological review shall be required.

13- Applicants who have suffered recurrent episodes of syncope shall undergo the following:

(a) a symptom limited 12 lead exercise ECG to Bruce Stage IV, or equivalent, which a cardiologist acceptable to CARC interprets as showing no abnormality. If the resting ECG is abnormal, myocardial scintigraphy/stress echocardiography shall be required.

(b) a 2D Doppler echocardiogram showing no significant selective chamber enlargement nor structural nor functional abnormality of the heart, valves nor myocardium.

(c) a 24-hour ambulatory ECG recording showing no conduction disturbance, nor complex, nor sustained rhythm disturbance nor evidence of myocardial ischaemia.

(d) and may include a tilt test carried out to a standard protocol which in the opinion of a cardiologist acceptable to CARC shows no evidence of vasomotor instability.

Appendix -2 to Subpart B
Respiratory System

1- Applicants experiencing recurrent attacks of asthma shall be assessed as unfit, A fit assessment for Class 3 may be considered by CARC if considered stable with acceptable pulmonary function tests and medication compatible with flight safety (no systemic steroids).

2- Applicants with active sarcoidosis are unfit. A fit assessment may be considered by CARC if the disease is:

(a) investigated with respect to the possibility of systemic involvement; and

(b) limited to hilar lymphadenopathy shown to be inactive and the applicant requires no medication.

3- Spontaneous pneumothorax:

(a) A fit assessment following a fully recovered single spontaneous pneumothorax may be acceptable after one year from the event with full respiratory evaluation.

(b) At revalidation or renewal a fit assessment may be considered by CARC if the applicant fully recovers from a single spontaneous pneumothorax after six weeks from the event with full respiratory investigation.

(c) A recurrent spontaneous pneumothorax is disqualifying. A fit assessment may be considered by CARC following surgical intervention with a satisfactory recovery.

4- Pneumonectomy is disqualifying. A fit assessment following lesser chest surgery may be considered by CARC after satisfactory recovery and full respiratory evaluation.

5- Applicants with quiescent or healed lesions, known to be tuberculosis or presumably tuberculosis in origin, a fit assessment with full respiratory investigation and history of drugs used acceptable to CARC may be considered.

Note 1.— Guidance on assessment of respiratory diseases is contained in the ICAO(Doc 8984).Manual of Civil Aviation Medicine

Note 2.— Guidance on hazards of medication and drugs is contained in the ICAO(Doc 8984). Manual of Civil Aviation Medicine.

Appendix- 3 to Subpart B
Digestive System

1- (a) Applicants with recurrent dyspeptic disorder requiring medication shall be investigated .

(b) Pancreatitis is disqualifying. A fit assessment may be considered by CARC if the cause of obstruction (e.g. medication, gallstone) is removed.

(c)Alcohol may be a cause of dyspepsia and pancreatitis. If considered appropriate a full evaluation of its use/abuse is required.

2- Applicants with a single asymptomatic large gallstone may be assessed as fit after consideration by CARC. An applicant with asymptomatic multiple gallstones may be assessed as fit by CARC.

3- Inflammatory bowel disease is acceptable provided that it is in established remission and stabilised and that systemic steroids are not required for its control.

4- Abdominal surgery is disqualifying for a minimum of three months. CARC may consider an earlier fit assessment at revalidation or renewal if recovery is complete, the applicant is asymptomatic and there is only a minimal risk of secondary complication or recurrence.

Appendix- 4 to Subpart B
Metabolic, Nutritional and Endocrine Systems

1- Metabolic, nutritional or endocrinological dysfunction is disqualifying. A fit assessment may be considered by CARC if the condition is asymptomatic, clinically compensated and stable with or without replacement therapy, and regularly reviewed by an appropriate specialist.

2- Glycosuria and abnormal blood glucose levels require investigation. A fit assessment may be considered by CARC if normal glucose tolerance is demonstrated (low renal threshold) or impaired glucose tolerance without diabetic pathology is fully controlled by diet and regularly reviewed.

3- The use of antidiabetic drugs is disqualifying. In selected cases, however, the use of biguanides or alpha- glucosidase inhibitors or sulphonylureas may be acceptable for a Class 3 fit assessment .

4- Addison's disease is disqualifying. A fit assessment may be considered by CARC at revalidation or renewal for Class 3, provided that cortisone is carried and available for use, whilst exercising the privileges of the licence.

Appendix- 5 to Subpart B
Haematology

1- Anaemias demonstrated by reduced haemoglobin level require investigation. Anaemia which is unnameable to treatment is disqualifying. A fit assessment may be considered by CARC in cases where the primary cause has been satisfactorily treated (e.g. iron deficiency or B12 deficiency) and haematocrit has stabilised at greater than 32%, or where minor thalassaemia or haemoglobinopathies are diagnosed without a history of crises and where full functional capability is demonstrated.

2- Lymphatic enlargement requires investigation. A fit assessment may be considered by CARC in cases of acute infectious process which is fully recovered or Hodgkin's lymphoma and Non Hodgkin's lymphoma of high grade which has been treated and is in full remission.

3- In cases of chronic leukaemia a fit assessment may be considered by CARC. There shall be no history of central nervous system involvement and no continuing side-effects from treatment of flight safety importance. Haemoglobin and platelet levels shall be satisfactory. Regular follow-up is required.

4- Splenomegaly requires investigation. CARC may consider a fit assessment where the enlargement is minimal, stable and no associated pathology is demonstrable (e.g. treated chronic malaria), or if the enlargement is minimal and associated with another acceptable condition (e.g. Hodgkin's lymphoma in remission).

5- Polycythaemia requires investigation. CARC may consider a fit assessment if the condition is stable and no associated pathology has been demonstrated.

6- Significant coagulation defects require investigation. CARC may consider a fit assessment if there is no history of significant bleeding or clotting episodes.

Appendix -6 to Subparts B
Urinary system

1- Any abnormal finding upon urinalysis requires investigation.

2- An asymptomatic calculus or a history of renal colic requires investigation. While awaiting assessment or treatment, CARC may consider a fit assessment at revalidation or renewal after successful treatment.

3- Major urological surgery is disqualifying for a minimum of three months. CARC may consider a fit assessment if the applicant is completely asymptomatic and there is a minimal risk of secondary complication or recurrence.

4- Renal transplantation or total cystectomy is not acceptable for Class 3 at initial examination. At revalidation or renewal a fit assessment may be considered by CARC in the case of:

(a) renal transplant which is fully compensated and tolerated with only minimal immuno-suppressive therapy after at least 12 months; and

(b) total cystectomy which is functioning satisfactorily with no indication of recurrence, infection or primary pathology.

Appendix- 7 to Subparts B
Sexually transmitted diseases and other infections

1- HIV positivity is disqualifying.

2- At revalidation or renewal a fit assessment of HIV positive individuals may be considered by CARC subject to frequent review. The occurrence of AIDS or AIDS related complex is disqualifying.

3- Acute syphilis is disqualifying. A fit assessment may be considered by CARC in the case of those fully treated and recovered from the primary and secondary stages.

Appendix- 8 to Subparts B
Gynaecology and obstetrics

1- the AME or AMC in coordination with the CARC may assess the fitness during the first 34 weeks of gestation following review of the obstetric evaluation , AMC or AME shall provide written advice to the applicant and the supervising physician regarding potentially significant complications of pregnancy.

2- Major gynaecological surgery is disqualifying for a minimum of three months. CARC may consider an earlier fit assessment at revalidation or renewal if the holder is completely asymptomatic and there is only a minimal risk of secondary complication or recurrence.

Appendix- 9 to Subpart B
Musculoskeletal requirements

1- Abnormal physique, including obesity, or muscular weakness may require medical work environment testing approved by CARC. Particular attention shall be paid for duties required to emergency procedures and evacuation.

2- In cases of limb deficiency, a fit assessment may be considered by CARC.

3- An applicant with inflammatory, infiltrative, traumatic or degenerative disease of the musculoskeletal system may be assessed as fit by CARC. Provided the condition is in remission and the applicant is taking no disqualifying medication and has satisfactorily completed a medical examination.

Appendix- 10 to Subpart B
Psychiatric requirements

1- An established schizophrenia, schizotypal or delusional disorder is disqualifying. A fit assessment may only be considered if CARC concludes that the original diagnosis was inappropriate or inaccurate, or in the case of a single episode of delirium provided that the applicant has suffered no permanent impairment.

2- An established mood disorder is disqualifying. CARC may consider a fit assessment after full consideration of an individual case, depending on the mood disorder characteristics and gravity and after all psychotropic medication has been stopped for an appropriate period.

3- A single self destructive action or repeated acts of deliberate self-harm are disqualifying. A fit assessment may be considered by CARC after full consideration of an individual case and may require psychological or psychiatric review. Neuropsychological assessment may be required.

4- Mental or behavioural disorders due to alcohol or other substance use, with or without dependency, are disqualifying. A fit assessment may be considered by CARC after a period of two years documented sobriety or freedom from substance use. At revalidation or renewal a fit assessment may be considered depending on the individual case and at the discretion of CARC, treatment and review may include:

(a) in-patient treatment of some weeks followed by

(b) review by a psychiatric specialist acceptable to CARC; and

(c) ongoing review including blood testing and peer reports, which may be required indefinitely.

Appendix- 11 to Subpart B
Neurological requirements

1- Any stationary or progressive disease of the nervous system which has caused or is likely to cause a significant disability is disqualifying. However, in case of minor functional losses, associated with stationary disease CARC may consider a fit assessment after full evaluation.

2- A history of one or more episodes of disturbance of consciousness of uncertain cause is disqualifying. In case of a single episode of such disturbance of consciousness, which can be satisfactorily explained, a fit assessment may be considered by CARC, but a recurrence is normally disqualifying.

3- Epileptiform paroxysmal EEG abnormalities and focal slow waves normally are disqualifying. Further evaluation shall be carried out by CARC.

4- A diagnosis of epilepsy is disqualifying, unless there is unequivocal evidence of a syndrome of benign childhood epilepsy associated with a very low risk of recurrence, and unless the applicant has been free of recurrence and off treatment for more than 10 years. One or more convulsive episodes after the age of 5 are disqualifying. However, in case of an acute symptomatic seizure, which is considered to have a very low risk of recurrence by a consultant neurologist acceptable to CARC, a fit assessment may be considered by CARC.

5- An applicant having had a single afebrile epileptiform seizure which has not recurred after at least 10 years while off treatment, and where there is no evidence of continuing predisposition to epilepsy, may be assessed as fit if the risk of a further seizure is considered to be within the limits acceptable to CARC.

6- Any head injury which has been severe enough to cause loss of consciousness or is associated with penetrating brain injury must be assessed by CARC and be seen by a consultant neurologist acceptable to CARC. There must be a full recovery and a low risk (within the limits acceptable to CARC) of epilepsy before a fit assessment is possible.

7- Assessment of applicants with a history of spinal or peripheral nerve injury shall be undertaken in conjunction with the musculo-skeletal requirements.

Appendix -12 to Subpart B
Ophthalmological Requirements

1- At the initial examination for a Class 3 medical certificate the ophthalmological examination shall be carried out by an ophthalmologist acceptable to CARC or by a vision care specialist acceptable to CARC or by AME. All abnormal and doubtful cases shall be referred to an ophthalmologist acceptable to CARC.

2- At each aeromedical revalidation or renewal examination an assessment of the visual fitness of the licence holder shall be performed and the eyes shall be examined with regard to possible pathology. All abnormal and doubtful cases shall be referred to an ophthalmologist acceptable to CARC.

3- Conditions which indicate specialist ophthalmological examination include, but are not limited to, a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity and/or the occurrence of eye disease, eye injury, or eye surgery.

Appendix 13 to Subpart B
Visual Requirements

1- Refraction of the eye and functional performance shall be the index for assessment.

2- (a) For those, who reach the functional performance standards only with corrective lenses CARC or AME may consider a Class 3 fit assessment if the refractive error is not exceeding +5 to -6 dioptres and if:

(1) no significant pathology can be demonstrated;

(2) optimal correction has been considered ;

(3) 5 yearly review is undertaken by an ophthalmologist or vision care specialist acceptable to CARC, if the refractive error is outside the range ±5 dioptres.

(b) CARC may consider a fit assessment at revalidation or renewal if the myopic refraction is greater then -6 dioptres if:

(1) no significant pathology can be demonstrated;

(2) optimal correction has been considered;

(3) a 2 yearly review is undertaken by an ophthalmologist or vision care specialist acceptable to CARC for those with a myopic refraction greater than -6 dioptres.

(c) If the refractive error is within the range –5/–8 dioptres at initial examination or exceeding -8 dioptres at revalidation / renewal, CARC may consider a fit assessment for Class 3 provided that:

(1) no significant pathology can be demonstrated;

(2) optimal correction has been considered .

3- Astigmatism. CARC may consider a fit assessment at revalidation or renewal if the astigmatic component is greater than 4,0 dioptres if

(1) no significant pathology can be demonstrated;

(2) optimal correction has been considered;

(3)a 2 yearly review is undertaken by an ophthalmologist or

vision care specialist acceptable to CARC.

4- Keratoconus. CARC may consider fit assessment for Class 3 at revalidation or renewal after diagnosis of a keratoconus provided that:

(a) the visual requirements are met with the use of corrective lenses;

(b) review is undertaken by an ophthalmologist acceptable to CARC, the frequency to be determined by CARC

5- Anisometropia. CARC may consider fit assessment at revalidation or renewal if the anisometropia exceeds 4,0 dioptres if:

(1) no significant pathology can be demonstrated;

(2)optimal correction has been considered;

(3)a 2 yearly review is undertaken by an ophthalmologist or vision care specialist acceptable to CARC.

6- Monocularity:

(1) Monocularity entails unfitness for a Class 3 certificate; CARC may consider a fit assessment if :

(a) the monocularity occurred after the age of 5.

(b) at the time of initial examination, the better eye achieves the following:

(i) distant visual acuity (uncorrected) of at least 6/6;

(ii) no refractive error;

(iii) no history of refractive surgery;

(iv) no significant pathology.

(c) operational limitations, as specified by CARC, may apply.

(2) CARC may consider a fit assessment at revalidation or renewal for Class 3 applicants if the underlying pathology is acceptable according to ophthalmological specialist assessment.

7- Heterophorias. The applicant/certificate holder shall be reviewed by an ophthalmologist acceptable to CARC. The fusional reserve shall be tested using a method acceptable to CARC (e.g. Goldman Red/Green binocular fusion test or equivalent).

8- After refractive surgery, a fit assessment for Class 3 may be considered by CARC provided that:

(a) pre-operative refraction as stated was no greater than +5 or -8 dioptres.

(b) satisfactory stability of refraction has been achieved (less than 0,75 dioptres variation diurnally);

(c) examination of the eye shows no postoperative complications;

(d) glare sensitivity is within normal standards;

(e) mesopic contrast sensitivity is not impaired ;

(f) review is undertaken by an ophthalmologist acceptable to the CARC .

9- (a) Cataract surgery. A fit assessment for Class 3 may be considered by CARC after 3 months .

(b) Retinal surgery. A fit assessment for Class 3 may be considered by CARC 6 months after successful surgery. A fit assessment for Class 3 may be acceptable to CARC after retinal Laser therapy. Follow-up, as necessary, will be determined by CARC.

(c) Glaucoma surgery. A fit assessment may be considered by CARC 6 months after successful surgery, Follow-up, as necessary, will be determined by CARC.

Appendix -14 to Subpart B
Colour Perception

1- The Ishihara test (24 plate version) is to be considered passed if the first 15 plates are identified without error, without uncertainty or hesitation (less than 3 seconds per plate). These plates shall be presented randomly.

2- Those failing the Ishihara test shall be examined either by:

(a) Anomaloscopy (Nagel or equivalent). This test is considered passed if the colour match is trichromatic and the matching range is 4 scale units or less, or by

(b) Lantern testing. This test is considered passed if the applicant passes without error a test with lanterns acceptable to CARC such as Holmes Wright, Beynes, or Spectrolux.

Appendix- 15 to Subpart B
Otorhinolaryngological Requirements

1- At the initial examination a comprehensive ORL examination shall be carried out by an AMC or a specialist in aviation otorhinolaryngology acceptable to CARC or by AME.

2- At revalidation or renewal examinations all abnormal and doubtful cases within the ENT region shall be referred to a specialist in aviation otorhinolaryngology acceptable to CARC.

3- A single dry perforation of non-infectious origin and which does not interfere with the normal function of the ear may be considered acceptable for certification.

4- The presence of spontaneous or positional nystagmus shall entail complete vestibular evaluation by a specialist acceptable to CARC. In such cases no significant abnormal caloric or rotational vestibular responses can be accepted. At revalidation or renewal examinations abnormal vestibular responses shall be assessed in their clinical context by CARC.

Appendix- 16 to Subpart B
Hearing Requirements

1- The pure tone audiogram shall be performed at initial examination & cover the frequencies from 500 – 3000 Hz. Frequency thresholds shall be determined as follows:
500 Hz
1000 Hz
2000 Hz
3000 Hz

2- (a) Cases of hypoacusis shall be referred to CARC for further evaluation and assessment.

(b) If satisfactory hearing in a noise field corresponding to normal working conditions can be demonstrated, a fit assessment may be considered at revalidation or renewal.

Note 1.—
For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35 dB(A).

Note 2.—
For the purpose of testing hearing in accordance with the requirements, the sound level of an average conversational voice at 1 m from the point of output (lower lip of the speaker) is c. 60 dB(A) and that of a whispered voice c. 45dB(A). At 2 m from the speaker, the sound level is 6 dB(A) lower.

Appendix- 17 to Subpart B
Psychological Requirements

1- Indication. A psychological evaluation should be considered as part of, or complementary to, a specialist psychiatric or neurological examination when CARC receives verifiable information from an identifiable source which evokes doubts concerning the mental fitness or personality of a particular individual. Sources for this information can be accidents or incidents, problems in training or proficiency checks, delinquency or knowledge relevant to the safe exercise of the privileges of the applicable licences.

2- Psychological Criteria. The psychological evaluation may include a collection of biographical data, the administration of aptitude as well as personality tests and psychological interview.

Appendix -18 to Subpart B
Dermatological Requirements

1- Any skin condition causing pain, discomfort, irritation or itching can distract applicant from their tasks and thus affect flight safety.

2- Any skin treatment, radiant or pharmacological, may have systemic effects which must be considered before fit assessment by CARC.

3- Malignant or Pre-malignant Conditions of the Skin:

(a) Malignant melanoma, squamous cell epithelioma, Bowen's disease and Paget's disease are disqualifying. A fit assessment may be considered by CARC if, when necessary, lesions are totally excised and there is adequate follow-up

(b) In case of basal cell epithelioma, rodent ulcer, keratoacanthoma or actinic keratoses a fit assessment may be considered after treatment and/or excision in order to maintain certification.

4- In case of other skin conditions:

(a)Acute or widespread chronic eczema,

(b) Skin reticulosis,

(c)Dermatological aspects of a generalised condition ,
and similar conditions require assessment of treatment and any underlying condition before assessment by CARC.

Appendix- 19 to Subpart B
Oncology Requirements

A fit assessment may be considered by CARC for Class 3 if:

(a) There is no evidence of residual malignant disease after treatment;

(b) Time appropriate to the type of tumour has elapsed since the end of treatment;

(c) The risk of recurrence or metastasis is within limits acceptable to CARC.

(d) There is no evidence of short or long-term sequelae from treatment. Special attention shall be paid to applicants who have received anthracycline chemotherapy ;

(d) Arrangements for follow-up are acceptable to CARC.

-END-