CIVIL AERONAUTICS BOARD

WASHINGTON, D. C.

CIVIL AIR REGULATIONS

PART 29—PHYSICAL STANDARDS FOR AIRMEN

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FOREWORD

The physical standards for airmen prescribed in this Part are defined in three general classes according to the degree of physical fitness required to perform the duties authorized by the airman certificates. As a convenient reference, the classes, and types and grades of airman certificates included in each class are as follows:

FIRST CLASS
Airline Transport Pilot

SECOND CLASS
Commercial Pilot
Commercial Lighter-than-air Pilot
Air-traffic Control-tower Operator

THIRD CLASS
Student Pilot
Private Pilot
Student Lighter-than-air Pilot
Private Lighter-than-air Pilot
Free Balloon Pilot

The medical certificate, issued by an authorized medical examiner of the Administrator under the provisions of other Parts, is differentiated from the airman certificate in that the former attests only that the holder thereof has been found to meet the physical requirements prescribed for a particular class and does not authorize the holder to pilot an aircraft, serve as an air-traffic control-tower operator, or perform any other duties requiring airman certificates.

The medical certificate is applicable to any airman certificate within the class for which it is designated or to any airman certificate within any other class for which a lesser degree of physical fitness is prescribed.

CIVIL AIR REGULATIONS

Part 29—PHYSICAL STANDARDS FOR AIRMEN

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29.1 Physical standards. The physical standards for airmen shall be as follows:

29.10 First Class.

(a) Eye. Applicant shall have:

(1) A visual acuity of at least 20/20 in each eye separately without correction: *Provided,* That if the vision in either or both eyes is not poorer than 20/50 and is brought up to 20/20 or better in each such eye by glasses, the applicant may be qualified upon condition that correcting glasses be worn while exercising the privileges of his airman certificate.

(2) An average depth perception of 30 millimeters or less on a prescribed depth perception apparatus, with or without correction: *Provided,* That if the depth perception is greater than 30 millimeters without correction, and is corrected to at least 30 millimeters average by glasses, the applicant may be qualified upon condition that such glasses be worn while exercising the privileges of his airman certificate.

(3) No diplopia in any meridian within 35 degrees from the point of visual fixation.

(4) Not more than one diopter of hyperphoria in either eye.

(5) Not more than 10 diopters of esophoria.

(6) Not more than 5 diopters of exophoria.

(7) An abduction of not less than 3 diopters nor more than 15 diopters.

(8) An adduction of 6 or more diopters.

(9) An accommodation of at least V=1.00 at 18 inches with each eye separately without the use of correcting glasses.

(10) Normal color vision.

(11) Normal visual fields.

(12) No acute or chronic pathological condition of either eye or adenexae which may interfere with its proper function, may progress to that degree or may be aggravated by flying.

(b) Ear, nose, throat, and equilibrium. Applicant shall be able to hear the whispered voice at 8 feet with each ear separately; shall have no acute or chronic disease of the middle or internal ear; no disease of the mastoid; no unhealed (unclosed) perforations of the ear drum; no disease or malformation of the nose or throat which may interfere with or be aggravated by flying; and no disturbance of equilibrium.

If the hearing acuity for the whispered voice is less than 20 feet in either ear the applicant shall possess a hearing acuity of at least 50% of normal in each ear throughout the effective speech and radio range as demonstrated by a standard audiometer.

(c) General physical condition. Applicant shall have no organic or functional disease or structural defect or limitation which would interfere with the safe piloting of aircraft, or other duties of his airman certificate.

Reclining blood pressure shall not exceed 135 mm. systolic, nor 90 mm. diastolic.

Applicants 40 years of age or over shall demonstrate a degree of circulatory efficiency compatible with the safe operation of aircraft at high altitudes.

(d) Nervous system. Applicant shall have no disease of the mental or nervous system and no abnormality of the personality.

29.11 Second Class.

(a) Eye. Applicant shall have:

(1) A visual acuity of at least 20/20 in each eye separately without correction: *Provided,* That if the vision in either or both eyes is not poorer than 20/50 and is brought up to 20/20 or

better in each such eye by glasses, the applicant may be qualified upon condition that correcting glasses be worn while exercising the privileges of his airman certificate.

(2) An average depth perception of 30 millimeters or less on a prescribed depth perception apparatus, with or without correction: *Provided*, That if the depth perception is greater than 30 millimeters without correction, and is corrected to at least 30 millimeters average by glasses, the applicant may be qualified upon condition that such glasses be worn while exercising the privileges of his airman certificate.

(3) No diplopia in any meridian within 35 degrees from the point of visual fixation.

(4) Not more than one diopter of hyperphoria.

(5) Properly balanced eye muscles with an abduction of 3 diopters or more, and adduction of six diopters or more.

(6) Sufficient accommodation to pass a test prescribed by the Administrator based primarily upon ability to read official aeronautical maps.

(7) Normal fields of vision; and

(8) No pathology of the eye.

(b) Ear, nose, throat, and equilibrium. Applicant shall be able to hear the whispered voice at 8 feet with each ear separately; shall have no acute or chronic disease of the middle or internal ear; no disease of the mastoid; no unhealed (unclosed) perforations of the ear drum; no disease or malformation of the nose or throat which may interfere with or be aggravated by flying; and no disturbance of equilibrium.

(c) General physical condition. Applicant shall have no organic or functional disease or structural defect or limitation which would interfere with the safe piloting of aircraft, or other duties of his airman certificate.

(d) Nervous system. Applicant shall have no disease of the mental or nervous system and no abnormality of the personality.

29.12 Third class.

(a) Eye. Applicant shall have:

(1) A visual acuity of at least 20/50 in each eye separately without correction: *Provided*, That if the vision in either or both eyes is poorer than 20/50 and is brought up to 20/30 or better in each such eye by glasses, the applicant may be qualified upon condition that such glasses be worn while exercising the privileges of his airman certificate.

(2) An average depth perception of 30 millimeters or less on a prescribed depth perception apparatus, with or without correction: *Provided*, That if the depth perception is greater than 30 millimeters without correction, and is corrected to 30 millimeters average by glasses the applicant may be qualified upon condition that such glasses be worn while exercising the privileges of his airman certificate.

(3) No diplopia unless corrected by glasses in which case such glasses shall be worn while exercising the privileges of his airman certificate.

(4) No serious pathology of the eye.

(b) Ear, nose, throat, and equilibrium. Applicant shall be able to hear the whispered voice at 3 feet; shall have no acute or chronic disease of the internal ear, no disease or malformation of the nose or throat which may interfere with or be aggravated by flying, and no disturbance in equilibrium.

(c) General physical condition. Applicant shall have no organic or functional disease or structural defect or limitation which would interfere with the safe piloting of aircraft, or other duties of his airman certificate.

(d) Nervous system. Applicant shall have no disease of the mental or nervous system and no abnormality of the personality.

29.2. Waiver of physical standards. An airman certificate may be issued to an applicant who does not meet the appropriate physical standards if in the opinion of the Administrator his aeronautical experience, ability and judgment compensate for his physical deficiency. A medical certificate issued under these conditions may be limited as to type of operation, type of aircraft or period of reexamination: *Provided*, That the provisions of this section shall not apply to applicants for the original issuance of an airline transport pilot certificate.

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