

Royal Air Force

The following are the minimum visual standards for acceptance for service in the Royal Air Force. These standards are subject to alteration without notice and no responsibility for consequences arising as a result of these changes can be accepted by the Ministry of Defence. The decision as to the individual's fitness is the prerogative of the Medical Board which examines him/her.

The standards set out below are a representative sample of the complex requirements detailed in the recruiting manuals. The full text is not reproduced here for the sake of easy reference.

These standards are to be used as a guide only. The Armed Forces Careers Offices can advise on the procedure to obtain an individual assessment.

Definitions of Colour Perception:

CP2	No errors are made using Ishihara plates in daylight or artificial light of equivalent quality. Tests carried out under normal tungsten or fluorescent lighting are not acceptable except where the ADLAKE lamp (or other easel lamp which provides daylight-equivalent illumination).
CP3	Although errors are made using Ishihara plates the candidate is readily able to recognise the colours used in aviation. At present the Holmes-Wright lantern is the only recognised test.
CP4	Unable to pass Standard 3. Artificial aids as a means of passing a colour vision test (e.g. colour correction contact lenses such as X-Chrom and Chromagen) have not been assessed and currently would not be permitted.

For all branches and trades, the eyesight requirement applies to each eye separately.

Visual standards at selection: Regular aircrew

	Visual Acuity (min)			Refraction Range		Muscle Balance	Conv	Accom	CP	Stereopsis (TNO Test)
	Uncorr	Corr	Near	Spherical Component	Cyl	(Maddox Rod)				
Pilot - RAF minimum	6/6	-	N5	Plano to +1.75 DS	+0.75 dioptres	Dist: Eso 6Δ to Exo 8Δ, ≤1Δ Vertical Near: Eso 6Δ to Exo 16Δ, ≤1Δ Vertical	≤ 10 cm	Age 17-20: ≤ 11 cm Age 21-25: 11-13 cm	2	120" of arc
Pilot - Army/Navy Minimum	6/12	6/6	N5	-0.75 to +1.75 DS	+0.75 dioptres (RN: +1.25)	As above	≤ 10 cm	Age 17-20: ≤ 11 cm Age 21-25: 11-13 cm	2	120" of arc
WSO	6/24	6/6	N5	-1.25 to +3.00 dioptres	+1.25 dioptres	As Pilot	≤ 10 cm	As Pilot	2	-
WSOP [All except WSOP(L)]	6/24	6/6	-	-2.00 to +3.00 dioptres (along highest meridian)		As Pilot	≤ 10 cm	As Pilot	2	120" of arc
WSOP(L)	6/60	6/6	-	-4.00 to +4.00 dioptres (along highest meridian)		No standards laid down	≤ 10 cm	As Pilot	4	-
Sentry Mission Crew	3/60	6/6	-	-4.00 to +4.00 dioptres	+2.00 dioptres	No standards laid down.	≤ 10 cm	As Pilot	2	-

Visual standards at selection: Non-regular aircrew

	Visual Acuity (min)			Refraction Range		Muscle Balance	Conv	Accom	CP	Stereopsis (TNO Test)
	Uncorr.	Corr	Near	Spherical Component	Cyl	(Maddox Rod)				
Non-Regular Aircrew*:	6/24	6/6	N5	-0.75 to +3.00 dioptres	+1.25 dioptres	Dist: Eso 6Δ to Exo 8Δ, ≤1Δ Vertical	≤ 10 cm	Age 17-20: ≤ 11 cm	2	120" of arc

Civil Servants						Near: Eso 6Δ to Exo 16Δ , ≤ 1Δ Vertical		Age 21-25: 11-13 cm		
Contractors Pilots										
DHFS Instructors										
P/T Reserve Aircrew										
AEF Staff Pilots										
Gliding Instructors	6/12	6/12	N5	5.00 dioptres in any axis Astigmatism and anisometropia not to exceed 3.00 dioptres		As Non-Regular Aircrew	≤ 10 cm	As Non-Regular Aircrew	3/4	
Flight Medical Officer	6/60	6/12	N5	5.00 dioptres in any axis		As Non-Regular Aircrew	≤ 10 cm	As Non-Regular Aircrew	3	
UAS - Flying Branches	As for Regular Aircrew									
UAS – Student Members taking part in flying (except Flying Branch Bursars)	6/60	6/12	N5	5.00 dioptres in any axis		-	-	-	3	-
Air Cadets & CCF Cadets		6/9	-	-	-	-	-	-	4	-
Air Stewards selected for C130 duties	6/24	6/9	-	-	-	-	-	-	3	-
Passengers (incl. research subjects)	No visual standards laid down									

Definitions of acuity:

The Armed Forces also use code numbers for recording of medical information such as eyesight, height, hearing etc. When used for vision, the codes are as follows:

1	6/6	2	6/9	3	6/12	4	6/18
5	6/24	6	6/36	7	6/60	8	<6/60

Vision is then described as *unaided/corrected* e.g 5/2 represents unaided vision of 6/24, corrected acuity of 6/9.

Visual standards at selection: Officers of ground branches

The overall refraction limit of +8.00 / -7.00 DS applies along the highest meridian applies, including no more than 5 DC

Branch	Unaided / corrected vision in each eye	CP
Engineer	8/2	2
Supply	8/2	4
Administration		
Secretarial	8/2	4
Physical Education	5/2	4
Catering	8/2	4
Training	8/2	4
Security - Provost	7/2	4
Operations Support		
RAF Regiment	8/2	4
Fighter Control	8/1	2
Air Traffic Control	8/1	2
Flight Operations	8/1	2
Intelligence	8/1	2
Intelligence R(Aux)AF	8/2	2

Intelligence Mobile Met Unit	8/2	4
Medical, Dental and Nursing	8/2	4
Legal	8/2	4
Chaplains	8/2	4
Director of Music	<6/60 / 6/9	4

Visual standards at selection: Ground Trades			
Trade Group numbers (TG):	Trade	Vision (unaided/corrected)	CP
1	Aircraft Engineering	8/2	2
2	Avionics	8/2	2
3	Ground Electronic Engineering	8/2	2
4	Omitted		
5	General Engineering	Arial erector: 3/1 Others: 8/2	2
6	Mechanical Transport	MTD: 7/2 MT Tech: 8/2	3
7	Omitted		
8	Security	RAPF: 3/1 Gnr: 8/2 Fftr: 1/-	3
9	Air Traffic Control	8/1	2
10	PTI	5/2	4
11	Telecommunications	8/2	3
12	Aerospace Systems Operators	8/1	2
13	Safety and Surface	8/2	2
14	Photography	Photographer: 8/2 Others: 7/1	2
15	Medical	8/2	4
16	Dental	8/2	4
17	Personnel Administrator	8/2	4

18	Supply and Movements	8/2	2,3 or 4 depending on specific trade
19	Catering	8/2 C130 duties 5/2	4 3
20	Omitted		
21	Music	8/2	4

CLINICAL CONSIDERATIONS

1. Visual defects and medical ophthalmic conditions are significant disabilities that frequently result in rejection of candidates at selection. This is particularly true of potential aircrew where the highest standards are demanded. As eyesight changes with age, it is essential to reassess visual acuity at regular periods.
2. Visual standards for the various branches and trades are detailed above. Aircrew have stringent standards reflecting the importance of good eyesight in maintaining mission effectiveness and flight safety. Although only distance visual acuity standards are laid down for the majority of ground branches and trades, the ocular function should nonetheless be adequate for the proposed duty of the individual being assessed.

3. Clinical conditions which result in a bar to entry include the following:

- Herpes Simplex Keratitis
- History of corneal graft
- Keratoconus
- Uveitis
- Ocular hypertension or glaucoma
- Cataract and pseudophakia
- Central serous retinopathy
- Diabetic and hypertensive retinopathies
- Retinal detachment
- History of paretic squint, optic neuritis or ophthalmic migraine
- Visual field defects

4. Refractive Surgery

A history of refractive surgery is a bar to entry for all aircrew branches.

However the following methods of surgical correction of myopia or hypermetropia are considered suitable for entry on an individual, case by case basis for non-specialist employment groups:

- 1) Photorefractive keratectomy (PRK) or laser epithelial keratomileusis (LASEK).
- 2) Laser in-situ keratomileusis (LASIK).
- 3) Intrastromal corneal rings (ICRs),

This is subject to the provision of documentary evidence showing:

- 1) The date of the last surgical procedure – which must be at least 1 year before application
- 2) That the pre-operative refraction was within the limits of +/-6.00 Dioptres
- 3) That the refraction is stable

All candidates will be assessed on a case-by case basis, taking the residual visual function into account.

A history of radial keratotomy (RK), astigmatic keratotomy (AK), or any other form of refractive surgery is a bar to entry to the RAF.
All invasive intraocular surgical procedures are also a bar to entry.