
STATEMENT OF REQUIREMENT FOR THE PROVISION OF AVIATION OPTOMETRY SERVICES FOR ROYAL AIR FORCE (RAF) RECRUITING AND SELECTION

1. INTRODUCTION

1.1 RAF Recruiting and Selection (R&S) have a requirement for the provision of initial aviation optometry (IAO) services to the Royal Navy, Army and RAF¹ on potential aircrew and controllers.

1.2 The Service Provider shall be accountable to the Authority (R&S Department of Occupational Medicine (DOM)) for the provision of IAO services.

1.3 The IAO shall be undertaken at Civil Aviation Authority (CAA) approved aeromedical centres.

2. VOLUMES

2.1 The number of initial aviation optometry examinations that may be required over any 1 year period is estimated at **600-800**. This figure shall fluctuate in accordance with annual recruitment requirements.

3. OPTOMETRIST PROFESSIONAL QUALIFICATION REQUIREMENTS

3.1 The Service Provider shall ensure that all optometrists are trained to Authority requirements as detailed in Annex B&C in order to conduct initial aviation optometry examinations and meet the requirements of clinical governance. Records of training and optometrist audit are to be made available upon request by the Authority.

3.2 The Service Provider shall ensure that all optometrists are on the Register of the General Optical Council (GOC). The Service Provider shall ensure that all optometrists are in date with GOC Continuing Professional Development requirements.

3.3 Optometrists subject to GOC Fitness To Practice (FTP) Decisions shall be managed in accordance with GOC policy.

3.4 The Service Provider shall ensure that all optometrists have Medical Malpractice Insurance for their contracted duties.

3.5 The Service Provider shall ensure that all of their staff utilised in the provision of these services have undergone satisfactory Disclosure and Barring Service (DBS) formally Criminal Records and Barring checks. The Service Provider shall provide a current Criminal Records Disclosure Certificate for each member of the Service Provider's personnel providing the service upon the Authority's request.

4. INDUCTION REQUIREMENTS

4.1 The Lead Optometrist shall train all optometrists to Authority requirements as detailed in Annex B&C and AP1269A. The Lead Optometrist shall audit all new optometrists for a minimum of three full clinics or until the Service Provider is assured of compliance with Authority requirements and AP1269A standards.

¹ Throughout this document the term 'RAF' refers to the Royal Navy, Army and RAF (the RAF have Service Level Agreements to provide aviation optometry services to the Royal Navy and Army).

4.2 The Service Provider may contact the Authority's Clinical Governance representatives for advice at any time during the period of contract. The Service Provider is to provide Clinical Governance assurance documents to the Authority at commencement of contract, annually or when they are updated.

4.3 The Authority shall distribute periodic updates to optometry standards and policy to the Lead Optometrist as and when they are published. On receipt, the Service Provider shall ensure that all optometrists are provided with the information contained in these publications.

5. PREMISES AND EQUIPMENT

5.1 Aviation optometry examinations shall be carried out at suitably equipped premises.

5.2 The Service Provider shall have access to and / or provide all equipment necessary to conduct the full aviation optometry examination in accordance with the policy promulgated in AP1269A RAF Manual of Medical Fitness. All equipment shall be maintained and calibrated in accordance with manufacturer's instructions; documentary evidence of this must be available for audit purposes.

5.3 The Service Provider's premises shall conform to all national guidelines in terms of Health and Safety and fitness for function as optometry premises. The Service Provider shall provide the Authority with reasonable access to their premises at any time during the period of contract.

5.4 The Service Provider shall be responsible for the safe handling, storage, collection and subsequent removal and disposal of any clinical waste in accordance with extant Department of Health requirements.

6. BOOKING SERVICE AND EXAMINATION FINDINGS COMMUNICATION

6.1 The Service Provider shall provide a booking service for all optometry examinations. The candidate will be provided with a formal letter of request for IAO by the Authority. This service must comply with the Data Protection Act (DPA 2018) and all other digital and security permissions as required by the Authority.

6.2 The Service Provider shall provide the optometry examination findings directly to the Authority. The Authority should be permitted access to optometry results via a secure portal or secure email within one working day of the examination. Whilst the electronic system is under development the Service Provider shall send all optometry documentation to the Authority by recorded post within 1 working day. All outcome management processes must comply with the Data Protection Act (DPA 2018) and all other digital and security permissions as required by the Authority.

7. SERVICES

7.1 All IAO examinations of candidates shall be conducted in accordance with the GOC Code of Conduct.

7.2 All aspects of the IAO examination of candidates shall be carried out to the required tri-Service standards in accordance with AP1269A.

7.3 All judgements on a potential candidates' military aviation optometry fitness and fitness for employment are to be undertaken by the single Service responsible for the candidate.

7.4 The Service Provider will carry out all IAO examinations in a timely and efficient manner, **within 15 working days** of the request for an appointment. Candidates must be seen within 30 minutes of their appointment time. The Service Provider shall provide an explanation to the candidate if this requirement is not met.

7.5 The Service Provider shall ensure adherence to the Common Law Duty of Confidentiality and the DPA 2018 and all other digital and security permissions as required by the Authority when requesting and issuing reports containing sensitive personal data.

7.6 The Service Provider shall refer the candidate to an appropriate care provider if clinically significant pathology is discovered and advise the Authority of the examination findings. The Service Provider is also to advise the candidate to inform the Authority once all further assessments are complete.

8. CONSENT

8.1 The Service Provider shall notify the Authority **within 2 working days** if the candidate refuses consent to complete the IAO examination or release the examination findings to the Authority.

9. DID NOT ATTEND/CANCELLATIONS

9.1 To mitigate the effect of DNAs and cancellations the Service Provider will make best use of mobile telephone, texting and other appropriate technology. DNA means failure to attend for an agreed appointment without prior notice.

9.2 Candidates shall be re-booked onto a replacement optometry clinic **within 10 working days** if the Service Provider cancels an appointment.

10. MANAGEMENT INFORMATION

10.1 Management Information (MI) that can be interrogated by the Authority shall be provided by the Service Provider. MI shall be available in both electronic format or hard copy as requested. The Service Provider shall provide MI to the Authority at the end of each calendar month. MI shall include:

- a. Details of the number of aviation optometry examinations.
- b. Numbers of missed appointments.
- c. The numbers of candidates not offered an appointment within 15 working days.
- d. The numbers of candidates not seen by an optometrist within 30 minutes of appointment time.

10.2 The Authority may require, upon request, the provision of other data relating to IAO assessments in a format to be determined by the Authority.

10.3 The Service Provider shall adhere to the Key Deliverables as detailed at Annex A to this schedule.

11. COMMUNICATION

11.1 The Service Provider shall comply with any strategies implemented by the Authority and their representatives to ensure robust and effective lines of communication are maintained. This is to include review meetings with the Authority.

12. VARIATIONS

12.1 The Requirement may be subject to variation at the request of the Authority to reflect changes in tri-Service aviation medicine policy.

13. AUDIT

13.1 The Service Provider shall agree to undergo an audit conducted by a suitably qualified individual or team from the Authority at any given time during the period of the contract.

14. REQUIRED TESTS

14.1 The scope of the IAO assessment is dependent on the candidate's proposed employment group as detailed in Annex B. Individual employment group requirements are detailed at Annex D and E.

15. COMPLAINTS

15.1 The Service Provider shall have an internal complaints procedure.

Annexes:

Annex A: Key deliverables

Annex B: Initial aircrew and controller optometry examination requirements

Annex C: Colour Assessment and Diagnosis (CAD) testing

Annex D: Employment group visual standards at selection - regular aircrew and controllers

Annex E: Employment group visual standards at selection - non-regular aircrew and controllers

Annex A: Key Deliverables

Serial	Reference relevant to section in SOR	Key Deliverables	Means and method of measurement and evidence to demonstrate achievement	Date of review and/or frequency of review
1		Compliance to AP1269A standards	100% of cases pass standard.	Six monthly
2		Number of errors by optometrists against the standard found at scrutiny by the Authority	0% errors on scrutiny by the Authority	Six monthly
3		Optometrists attend training with the Service Provider	100% of optometrists attend training with the Service Provider	Six monthly
4		Optometrists undergo audit of first 3 clinics by the Lead Optometrist	100% of optometrists undergo audit of first 3 clinics by the Lead Optometrist	Six monthly
5		Number of incomplete initial aviation optometry examinations	0% incomplete initial aviation optometry exams on review by the Authority	Six monthly
6		Appointment booked	100% booked into clinic within 15 days	Six monthly
7		Report issued	100% within one day	Six monthly
8		Candidates seen within appointment time	100% within 30 mins of appointment	Six monthly
9		Production of quarterly MI report to agreed standards	100% to agreed standard	Six monthly
10		Attendance at Contract Review Meetings	100% attendance of agreed representatives	Six monthly

Annex B: INITIAL AIRCREW AND CONTROLLER OPTOMETRY EXAMINATION REQUIREMENTS.

The following are the Authority requirements for the initial aircrew and controller aviation optometry examination:

1. Personal and family history of significant eye problems.
2. Visual acuity (distance) with and without correction.
3. Visual acuity (near).
4. Ocular movements including subjective convergence.
5. Objective measurement of accommodation and convergence (using RAF rule).
6. Muscle balance (cover tests and Maddox Wing/Rod for near and distance fixation).
7. Pupil reactions.
8. External inspection of adenexae (including check for contact lenses using slit lamp or ophthalmoscope).
9. The Amsler grid test.
10. Confrontation visual field test (only confrontation allowed, not machine-tested).
11. Ophthalmoscopic examination of the ocular fundus and media.
12. Slit lamp examination (if indicated).
13. CAD test (candidates who pass the CAD screener are fit and graded CP2; those who fail the screener shall undertake the full binocular medical CAD).

The following additional tests are required for aircrew;

14. Visual acuity (intermediate).
15. Formal refraction by retinoscopy if uncorrected $<6/6$ and when required by the Authority.
16. Stereopsis (TNO plates).

Annex C: Colour Assessment and Diagnosis (CAD) Testing

Aircrew and controller candidates who pass the CAD screener are graded CP2. Those who fail the screener shall undertake the full binocular medical CAD.

CV Category	CAD Unit Threshold	Proposed CP Equivalent
CV0	Normal trichomats with RG threshold \leq the mean for age	CP2
CV1	Normal trichomats with RG threshold \leq the upper normal limit for age	CP2
CV2	RG threshold \leq 2.35 CAD Units but not CV1	CP1
CV3	RG threshold \leq 4.00 CAD Units but not CV2	CP3
CV4	RG threshold \leq 12.00 CAD Units but not CV3	CP4
CV5	RG threshold $>$ 12.00 CAD Units but not CV4	CP4

Annex D: EMPLOYMENT GROUP VISUAL STANDARDS AT SELECTION - REGULAR AIRCREW AND CONTROLLERS

	Visual Acuity (each eye separately)				Ref. Range		Muscle Balance (Maddox Rod/Maddox Wing)	Conv erg	Accommodation ¹ (with distance correction)	C P	Stereopsis (TNO Test)
	Unco rr	Cor r. ²	Inter ³	Ne ar ⁴	Sph ⁵	Cyl					
Pilot, RN Aircrew	6/12	6/6	N14	N5	-0.75 to +1.75 dioptres	+0.75 dioptres	Dist: Eso 6Δ to Exo 8Δ, ≤1ΔVertical Near: Eso 6Δ to Exo 16Δ, ≤1ΔVertical	≤10 cm	Age 17 – 20: ≤ 11 cm Age 21 – 25: 11 – 13 cm	2	120 secs of arc
WSO	6/24	6/6	-	N5	-2.00 to +3.00 dioptres	+1.25 dioptres	As Pilot	≤ 10 cm	As Pilot	2	-
WSOp and WSOp ISR Lg	6/24 ⁶	6/6	-	N5	-2.00 to + 3.00 dioptres Estimated Spherical Equivalence ⁷		As Pilot	≤ 10 cm	As Pilot	2 ⁸	120 secs of arc
Certified RPAS (CHC 5)	>6/60	6/6	-	N5	Service entry standards		As Pilot	≤ 10 cm	As Pilot	2	No Standard
Aircraft Controllers (Air Ops Control)	>6/60	6/6	-	N5	Service entry standard		As Pilot	≤ 10 cm	As Pilot	2	No Standard

¹ For candidates whose age is above 25, accommodation should fall within normal age parameters.

² If the examiner considers the candidate requires CFS he is to be assessed A2 and awarded the appropriate restriction (see [Lflts 2-03](#) and [5-14, Annex C](#)).

³ Each eye separately at 100 cm with spectacles if applicable

⁴ Each eye separately between 30-50 cm, with spectacles if applicable

⁵ RN only. Manifest Hyperopia = +2.50 Dioptres

⁶ To be employed on Primary SAR winch person duties, the WSOp eyesight must be correctable to the required standard using contact lenses.

⁷ The spherical equivalent is the algebraic sum of the spherical component of refraction plus half of the cylindrical component of the refraction. For example: Spherical +4.00D with cylindrical +2.00D = (+4) + (2/2) = ESE 5.00Spherical -7.00D with cylindrical +3.00D = (-7) + (3/2) = ESE -5.50

⁸ CP3 for legacy candidates assessed prior to the obsolescence of the Holmes Wright Lantern

Annex E: EMPLOYMENT GROUPS VISUAL STANDARDS AT SELECTION – NON-REGULAR AIRCREW AND CONTROLLERS

	Visual Acuity (min)				Ref. Range		Muscle Balance (Maddox Rod/ Maddox wing)	Co nve rg.	Accom modati on ⁹ (with correct ion)	CP	Stere opsis (TNO Test)
	Uncorr	Corr	Inter ¹⁰	Near ¹¹	Estimat ed Spheric al Equivale nt ¹²	Cyl					
PTVR Pilots	6/36	6/6	N14	N5	No standard		Dist: Eso 6Δ to Exo 8Δ, ≤1ΔVertical Near: Eso 6Δ to Exo 16Δ, ≤1ΔVertical	≤ 10 cm	Age 17-20: ≤11 cm Age 21-25: 11-13 cm	2	120 secs of arc
PTVR WSO	6/36	6/6	-	N5	No standard		Dist: Eso 6Δ to Exo 8Δ, ≤1ΔVertical Near: Eso 6Δ to Exo 16Δ, ≤1ΔVertical	≤ 10 cm	Age 17-20: ≤11 cm Age 21-25: 11-13 cm	2	No Stan dard
Non-Regular Aircrew: Civil Servant Pilots Contractor Pilots AEF Staff Pilots	6/36	6/6	-	N5	No standard		Dist: Eso 6Δ to Exo 8DΔ, ≤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 secs of arc

⁹ For candidates whose age is above 25, accommodation should fall within normal age parameters.

¹⁰ Each eye separately at 100 cm, with spectacles if applicable.

¹¹ Each eye separately between 30-50 cm with spectacles if applicable,

¹² The spherical equivalent is the algebraic sum of the spherical component of refraction plus half of the cylindrical component of the refraction. For example:

Spherical +4.00D with cylindrical +2.00D = (+4) + (2/2) = ESE 5.00

Spherical -7.00D with cylindrical +3.00D = (-7) + (3/2) = ESE -5.50

VR(AEF) pilots										
Reserve Rearcrew Contractor Rearcrew	6/36	6/6	-	N5	-2.00 to +3.00 dioptres	Dist: Eso 6Δ to Exo 8Δ, ≤1Δ Vertical Near: Eso 6Δ to Exo 16Δ, ≤1Δ	≤ 10 cm	As Pilot	2	120 secs of arc
Or CAA Class 2 visual standards for contractors flying on a waiver										
Non-regular Aircraft Controllers	>6/60	6/6	-	N5	Service Entry Standard	Service Entry Standard	≤ 10 cm	As Pilot	2	No Stan dard