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AERONAUTICAL INFORMATION SERVICE

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Visual Correction for Licence Holders

1. Good vision is essential for flying and air traffic control work. However, some licence holders need appropriate correcting lenses to achieve the required visual standard. Some need correction for distant vision and some need correction for vision at the instrument panel range. Most people over the age of 40 need corrective lenses for reading. Whenever new lenses are required, the licence holder should advise the refractionist of the distances involved for visual flight deck tasks.
2. **Distant vision correction:** Distant vision correction can be achieved by the use of spectacles or contact lenses.
3. **Near vision correction:** Where the only correction needed is for reading, this should be achieved by using look-over spectacles or lower segment correcting lenses with a neutral upper segment. Full lens correcting reading spectacles degrade distant vision and must never be used on the flight deck.
4. **Near and distant vision correction:** Where correction for both near and distant vision is required, bifocal or multifocal lenses are essential. Pilots are advised to discuss with their Approved Medical Examiner (AME) the shape and size most suitable for each segment.
5. **Intermediate vision correction:** When specific corrective lenses are needed to achieve the standard for intermediate vision, trifocal or multifocal lenses should be used.
6. **Spectacles:** When correcting lenses are essential, whether by spectacles or contact lenses, a spare pair of spectacles must be available to the licence holder. Licence holders with a large refractive error should use contact lenses or high index spectacle lenses. Spectacles with large diameter lenses and thin frames provide the best peripheral vision. Photo-sensitive lenses are not acceptable for pilots or ATCOs. The tint changes too slowly for safe use in aviation.
7. **Contact lenses:** Contact lenses offer advantages over spectacles for correcting distant vision.

They should be mono-focal and non-tinted. The wearer should be able to use the lenses for a prolonged period of at least 14 hours before seeking approval from his AME to use them when flying. The wearer will need to carry a pair of correcting spectacles when wearing his contact lenses and flying.

8. **Sunglasses**: Ideally sunglasses protect the eye from glare whilst not adversely affecting visual acuity. They should be of a neutral grey tint that does not distort colour perception and should transmit at least 15% of incident light. UVB has harmful effects on the eye. Good quality sunglasses absorb at least 95% of the UVB. Polarising sunglasses are not acceptable whilst flying, since they can interact with the cockpit transparency and cause distortion of vision.
9. **Refractive surgery**: Surgery to correct refractive error and enable the subject to stop wearing correcting lenses has increased dramatically in recent years. With low to moderate refractive errors it is successful in achieving uncorrected visual acuity of 6/12 or better in 95% of subjects. This means that 5% cannot reach the standard of uncorrected visual acuity required by a pilot. In some cases, it will not be possible to achieve the required standard even with correction.

Stability of vision is not achieved immediately after surgery. For this reason, a period of grounding of 3 to 6 months will be required before consideration can be given to returning the licence holder to duty. Furthermore, fluctuating vision, glare, 'halo' formation, loss of contrast sensitivity and regression of correction are well recognised complications. An applicant who has undergone surgery affecting the refractive status shall be assessed as **unfit**. The applicant should have obtained medical clearance from AMA before resuming flying duties.

For licence holder who received refractive surgery, an annual full ophthalmic report (using Form DCA 153 (Oph)) is required for all classes of licence holder for four more years post-surgery to assess stability. Subsequent ophthalmic evaluation will be subject to clinical indications (e.g. deterioration in visual acuity).

If the applicant's pre-operative visual acuity was $\geq 6/60$ or ≥ -5.00 diopters spherical equivalent, ophthalmic surveillance once every five years is required to assess retinal abnormalities. Please note that refractive surgery is always elective and there is never a medical indication for such surgery. It is strongly recommended that an applicant considering refractive eye surgery should first consult the AME.

10. AIC 16/15 is hereby superseded.

The Circular is issued for information, guidance and necessary action
by direction of the Director-General of Civil Aviation
Simon LI