



UNITED KINGDOM

AERONAUTICAL INFORMATION CIRCULAR

AIC 75/2001
(Pink 23)
20 Sep 2001

Civil Aviation Authority
Aeronautical Information Service
Control Tower Building, London Heathrow Airport
Hounslow, Middlesex TW6 1JJ
Editorial: 020-8745 3460 (NATS AIS)
Distribution: 01242-235151 (Documedia Ltd)
Content: 01293-573674 (Medical Division)

Cancels AIC 125/1996 (Pink 130)

EFFECT OF FLICKERING LIGHT ON HELICOPTER PASSENGERS AND CREW

1 Bright flickering lights can cause epileptic-type fits in susceptible individuals. They should not, of course, operate as helicopter pilots. The best known examples are the flicker effect from a bright television or driving in sunlight through an avenue of trees, but the shadows of helicopter rotor blades or slowly windmilling aeroplane propellers in bright sunshine produce the same effect. Problems are mostly caused by 'flash' frequencies of between 5 and 20 Hz. A 4-bladed helicopter with a 240 rotor RPM, for example, will give an apparent frequency of 16 flashes per second.

2 Susceptible individuals may already be aware of a feeling of unease or discomfort in a flicker environment and should consider such precautions as wearing sunglasses. If symptoms occur for the first time in flight, pilots should don sunglasses if available and if feasible turn out of the sun to diminish flicker effect and make an immediate emergency landing. Premonitory symptoms of mental unease or discomfort may last for some minutes before an actual fit, but this cannot be relied upon.

3 Public transport helicopter operators should consider the provision of warning notices to passengers. Affected passengers are usually on the sunny side of the helicopter and measures to reduce flicker intensity and contrast, such as wearing sunglasses or covering an adjacent window with a newspaper or tightly closing and covering eyes, will usually be effective.

This Circular is issued for information, guidance and necessary action.