CARBON MONOXIDE CONTAMINATION IN AIRCRAFT

1. Attention is drawn to the possibility of dangerous carbon monoxide concentrations in aircraft. All aircraft types may be affected, but this Notice relates mainly to light aircraft. Carbon monoxide (CO), a poisonous gas, is a product of incomplete combustion and is found in varying degrees in all smoke and fumes from burning carbonaceous substances; it is colorless, odorless and tasteless.

2. The two main sources of contamination are:

   (a) Modifications such as those involving the introduction of additional openings in the fuselage or the removal of windows and doors e.g. for camera installations or parachutists: in future, before approval can be given for such modifications, aircraft must be tested to ensure that the cockpit/cabin is free from unacceptable concentrations of CO. Aircraft modified in accordance with an approved scheme must also be subjected to a similar test.

   (b) Defective heating systems of the type which utilise an exhaust heat exchanger: physical inspections of such systems should be carried out according to the manufacturer’s instructions at the intervals specified and whenever carbon monoxide contamination is suspected.

3. Other possible sources of contamination are:

   (a) Apertures in fire walls of single-engine aircraft, ineffective seals at fuselage strut attachments, defective exhaust manifold slip joints, exhaust system cracks or holes, discharge at engine breathers, defective gaskets in exhaust system joints and faulty silencers: aircraft should be carefully examined for defects of this nature during routine inspections, which should occur at sufficiently regular intervals.

   (b) Exhaust from other aircraft during ground holding and taxiing: the obvious precaution in this case is that ground holding and taxiing should be carried out clear of the exhaust area of preceding aircraft.

4. Proprietary carbon monoxide detectors are available which will indicate if the CO concentration within the aircraft has risen above an unacceptable level.

5. The DCA Airworthiness Unit should be contacted on cases where the presence of carbon monoxide is suspected.

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