



The CAA Accident Prevention Leaflet

3 of 2007 issued September

## Getting high (in more ways than one)

While most light aircraft pilots remain below 10,000 feet in this country, an increasing number travel further afield, and especially when flying in the region of mountain ranges may find themselves tempted or forced to climb higher. The Air Navigation Order 2005 as amended on 31<sup>st</sup> March 2007 requires that all unpressurised aeroplanes must carry oxygen equipment as listed in Schedule 4, scale L1 or L2, when flying above 13,000 feet altitude.

A supply of oxygen is required sufficient for continuous use by all persons on board for at least the whole time the aircraft is above Flight Level 130, together with suitable and sufficient apparatus to enable such persons to use the oxygen. The commander is required to take all reasonable steps to ensure that he and other crew members use it above FL130 (or if above FL 100 for more than 30 minutes), and that its correct use has been demonstrated and

recommended to his passengers. We have stressed the dangers of reduced oxygen supply (hypoxia) several times in GASIL.

We have recently become aware of an incident to the crew of a military aircraft which suffered a

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failure of its oxygen supply at height. Such crews regularly undertake training in the symptoms and effects of hypoxia, and this crew recognised that the system was not working correctly. However, hypoxia affects many of the brain's functions, and by the time they recognised the problem, they were effectively half asleep. Neither of them felt any need to

take the urgent action that was essential for their survival, or even to declare an emergency to Air Traffic Control. Even when they referred to the emergency drills written in their flight reference cards in an attempt to redeem the situation, they completely missed several of the essential actions which were written there, and in one case considered moving entirely the wrong control, but being so affected by hypoxia decided it wasn't necessary.

Fortunately, the pilot's thorough training overcame the effects of hypoxia, and the crew descended to below 10,000 feet before they lost consciousness or control. However, the incident should draw attention to the hazards of hypoxia. It should also reinforce our advice to pilots intending to fly at high altitudes of the advisability of obtaining high-altitude training in the use of oxygen systems and perhaps experiencing the effects of hypoxia on their own bodies.