

Air Proximity Hazards (AIRPROX)

An Airprox (commonly referred to as a 'near miss') is a situation in which, in the opinion of a pilot or an air traffic controller, the distance between aircraft as well as their relative positions and speed, had been such that the safety of the aircraft involved was or may have been compromised. The UK Airprox Board (UKAB) (1) reviews all reported UK Airprox incidents.

An Airprox report can only be filed by a pilot or air traffic controller. Indeed, it is highly unlikely that an aircraft's safety could have been compromised by the presence of another aircraft without the knowledge of one or more of the pilots involved or the air traffic control system. Notwithstanding that pilots and controllers are constantly alert to the possibility of a reduction of the minimum required separation between aircraft, there are many warning systems that activate if it appears that safety is going to be or has been compromised:

- Traffic Collision Avoidance System (TCAS) – a system fitted to commercial aircraft that warns the pilot of the close proximity of other aircraft. Under certain circumstances, TCAS will advise pilots of a recommended course of action to resolve the situation.
- Short Term Conflict Alert (STCA) – an air traffic control facility that highlights to radar controllers that 2 or more aircraft are in potential confliction.
- Separation Monitoring Function (SMF) – a system that automatically records the flight profile details of aircraft that have been involved in a loss of standard separation. Whilst

SMF will not prevent a loss of separation from occurring, it will mean that an incident is brought to the attention of the air traffic control authorities and will be investigated accordingly.

There are, nevertheless, occasions when other individuals believe they have witnessed 'a near miss' and wish to report the incident. In such circumstances it invariably proves to be the case that aircraft on apparently conflicting tracks were separated vertically, ie they were at different heights. Indeed, vertical separation is fundamental to air traffic systems worldwide. Even to the expert eye, judging the relative height of 2 or more aircraft can be extremely difficult, especially if the higher aircraft is larger than the other.

In the UK, at all levels and even in the worst weather conditions, air traffic controllers can cross aircraft 1000 feet above or below each other. In good weather, in areas where an air traffic control service is not mandatory, pilots can significantly reduce this 1000 feet vertical separation and still operate with complete safety on a 'see and avoid' basis.

(1) UKAB can be contacted via e-mail at: info@airproxboard.org.uk

<http://www.caa.co.uk/default.aspx?categoryid=423>

