



## Safety recommendation no. 521

<b>Date of the publication</b>	12.01.2017
<b>Number of the final report</b>	2294
<b>Safety deficit</b>	<p>On 3 June 2015, an airprox occurred between a commercial aircraft and a hot-air balloon within the terminal control area (TMA) of Zurich Airport. The commercial aircraft was approaching Zurich Airport using radar vectoring. The hot-air balloon had entered the terminal control area several times without clearance from an air traffic control centre because the balloon pilot was insufficiently aware of the risks he was posing even if only entering into such airspace by a short distance. Because the transponder was switched on, the hot-air balloon was in theory visible to air traffic control. However, the display on the air traffic controllers' monitors was so inconspicuous that the unauthorised entry went unnoticed until the airprox.</p> <p>Air traffic control's ground-based short-term conflict alert (STCA) system did not warn of the commercial aircraft approximating the hot-air balloon. In order to prevent unnecessary warnings from being emitted, it had been programmed in such a way that captured aircraft with a ground speed of less than 30 knots were not taken into account. During its entire flight, the hot-air balloon's ground speed was significantly below this value. The programming of the STCA system is therefore not suitable for warning of conflicts involving slow-flying aircraft.</p>
<b>Safety recommendation</b>	The Federal Office of Civil Aviation, together with Skyguide air traffic control, should improve the short-term conflict alert (STCA) system so that it also warns of conflicts with slow-flying aircraft.
<b>Addressees</b>	BAZL Bundesamt für Zivilluftfahrt
<b>Stage of the implementation</b>	Implemented. A modification was made to the ground-based conflict alert system (Short Term Conflict Alert – STCA) at Zurich on 9 June 2017 and to that at Geneva on 22 June 2017 so that air traffic controllers also receive notification of conflicts with slow-moving aircraft. This increases their situational awareness.
<b>Investigation report concerning the safety recommendation</b>	<u>Schlussbericht</u>