



Safety recommendation no. 494

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Safety deficit	<p>On 14 June 2012, a Falcon 2000 business aircraft was flying the standard instrument departure route (SID) WIL 1A from Buochs airfield, and climbed to the cleared flight level 100. Approximately three minutes later, the Hawker Hunter HB-RVP received take-off clearance for a flight under visual flight rules from the air traffic controller in the tower at Emmen military airbase. After take-off, HB-RVP continued to accelerate as it climbed on a south-southwesterly course. A short time later, the ATC's short-term conflict alert (STCA) was activated. Shortly after this, the traffic alert and collision avoidance system (TCAS) of the Falcon 2000 issued a traffic warning, followed, seconds later, by an avoidance command, which the crew of the OPJ 700 immediately followed. The two aircraft flew in opposite directions towards one another, crossing about 15 NM south-southeast of the Willisau beacon on flight level 100 at a horizontal distance of 0.9 NM and a vertical distance of 400 ft. At this point the ground speed of the OPJ 700 was 247 kt and that of the HB-RVP 372 kt.</p> <p>Visual flight conditions prevailed without relevant restrictions caused by clouds or reduced visibility. The crew of the Hunter did not notice the dangerous proximity. The crew of the OPJ 700 were able to visually detect the other aircraft with the assistance of the TCAS shortly before their paths crossed.</p> <p>The investigation showed that, in addition to other factors, the high airspeed of the civil-registered fighter aircraft had impeded timely warning of both crews, as well as hampering visual search and recognition of the other aircraft.</p> <p>In this context, it was also reviewed to what extent these or other risks regarding the operation of high-powered aircraft had been established by the operators and the supervisory authorities in the past. In the context of such investigations, the Swiss Transportation Safety Investigation Board reached the conclusion that, with regard to the operation of civil high-performance aircraft, in particular former fighter aircraft, the risks had been – up to then – analysed inadequately, both by the operators and by the supervisory authority. In addition, where risks had been identified, the opportunity was missed to jointly draw up and implement targeted improvements. For these reasons, the Swiss Transportation Safety Investigation Board has identified an urgent need for action, so that in future safer operation of such high-performance aircraft can be ensured.</p>
Safety recommendation	<p>The Federal Office of Civil Aviation (FOCA), in collaboration with the operators of civil high-performance aircraft, especially former fighter aircraft, should lay down basic conditions and operating rules, which on the one hand allow safe operation of these aircraft and on the</p>

other hand take into account the safety-related requirements of other airspace users.

Addressees	BAZL Bundesamt für Zivilluftfahrt; BAZL Bundesamt für Zivilluftfahrt; BAZL Bundesamt für Zivilluftfahrt
Stage of the implementation	<p>Implemented - In a letter dated 27 October 2017, the FOCA stated, among other things, the following:</p> <p>"[...] Supervision of the operation of the former military high-performance aircraft (Hunter and Mirage) will be carried out by a flight inspector and a deputy from the FOCA Section SBOC (Section Operation of Complex Airplanes). For the time being, priority has been given to the five Hunter aircraft. On 29.4.2016, the Hunter operators received a new "Permit to Fly 2016". In the associated annex, the FOCA required all Hunter flights to be recorded with GPS loggers. In addition, the Hunter community had to fill the position of a safety manager. The specifications defined by the FOCA include quality assurance of Hunter operations and annual reporting to the FOCA at an audit meeting. The first audit meeting took place in November 2016, the next one is planned for November 2017.</p> <p>In September 2017, the two inspectors responsible also visited the Payerne military airfield to obtain comprehensive information on the operation of the only Mirage III aircraft still flying. The operation of this civil-certified Mirage III has so far been very inconspicuous. The operation is clearly organised and strongly integrated into military flight operations. Mirage flights are concentrated on two to three weeks per year and are planned well in advance. The inspectors will observe Mirage III flight operations and, if necessary, take corrective action."</p>
Investigation report concerning the safety recommendation	<u>Schlussbericht</u> <u>Final report</u>