



Safety recommendation no. 458

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Safety deficit	<p>On 20 July 2011 at 08:53 UTC the AVRO 146-RJ100 aircraft, registration HB-IXP, took off under flight number LX 5187 and radio call sign "Swiss five one eight se-en" on a ferry flight from Nuremberg to Zurich. On this flight the copilot was pilot flying and the commander was pilot not flying.</p> <p>During the approach to Zurich airport the inertial reference unit 1 (IRU 1) failed. The crew did not subsequently carry out an adequate analysis of the situation, did not use the remaining systems appropriately and safe control of the aircraft was for at times no longer guaranteed.</p> <p>According to the available rating sheets from the previous years and the statements made by superiors, the crew consisted of well qualified to very well qualified pilots. No weaknesses are listed in any rating sheet for either pilot. It is attested with reference to both pilots that they worked consistently according to "PPAA", undertook clear analyses in the event of faults and also worked in accordance with the rules of crew resource management (CRM). This is noteworthy in that on these two points the crew exhibited distinct weaknesses during the serious incident.</p> <p>It is also worth mentioning in this context that just over two months before the serious incident the commander had to make an approach in the simulator during a refresher, using only the standby instruments, and in addition both pilots had in particular practised flying using raw data in the year 2010. As the serious incident shows, however, significant weaknesses were revealed in the crew with this type of control of the aircraft.</p> <p>The difference in the work of the crew during simulator exercises and their performance in the serious incident is considerable. The reason for this discrepancy is that in simulator exercises crews are prepared in detail for the faults that occur, and these are expected. The effect of surprise, as was present in the serious incident, is largely lacking. In principle, this applies to all crews. The question therefore is how recurrent training can be better designed so that what is practised in the simulator can be effectively implemented in a real situation.</p>
Safety recommendation	The Federal Office of Civil Aviation should strive, together with the operators, that during checks and refreshers in the simulator, most realistic scenarios can be exercised.
Addressees	BAZL Bundesamt für Zivilluftfahrt
Investigation report concerning the safety recommendation	<u>Final report</u> <u>Schlussbericht</u>