



## Safety recommendation no. 440

<b>Date of the publication</b>	02.11.2011
<b>Number of the final report</b>	2122
<b>Safety deficit</b>	<p>On 23 June 2008, a helicopter of type Agusta A109K2, registration HB-XWJ, was subject to strong ground resonance upon landing on the landing site at Samedan Hospital.</p> <p>After the crew exited, major damage to the helicopter as well as damage to the helipad of the landing site was found. The helicopter was on the outer edge of the helipad of the helicopter landing site and extended approximately 1 m beyond the facade of the building. The gratings of the helicopter platform in the landing zone had been partially detached from their fixings and had shifted. On 8 October 2009, another incident involving ground resonance occurred on the same platform. The damage to the platform was comparable with that of the accident.</p> <p>The failure of a helipad on a hospital roof could lead to a catastrophe.</p> <p>The investigation of the structural strength of the helipad of the helicopter landing site at Samedan Hospital showed that it did not meet the ICAO standards. For the FOCA, landing sites at hospitals were considered to be remote landing sites for emergency flights at the time of the accident. It was possible to build and operate landing sites at hospitals without an approval of the FOCA. The failure of a helipad on a hospital roof could lead to a catastrophe.</p> <p>In France, since 2010, the French competent authority (Direction générale de l'Aviation civile – DGAC) has been checking helicopter landing sites on hospitals using a checklist which corresponds to ICAO Annex 14 Vol. II. In case of structural discrepancies, a deadline is set for them to be remedied. In Germany, helicopter landing sites with more than 100 aircraft movements per year are treated as helicopter aerodromes, with a corresponding operating licence. This includes helicopter landing pads on hospitals. Licensing is essentially based on ICAO Annex 14 Vol. II.</p> <p>278 landings were made on the Samedan Hospital helicopter landing site in 2007. In 2007 there were 166 helicopter landing sites at hospitals in Switzerland, 34 of which were helipads on roofs and 29 were on roofs without helipads.</p>
<b>Safety recommendation</b>	<p>The Federal Office of Civil Aviation (FOCA) should ensure that the helicopter landing sites at and on hospitals in Switzerland comply with the standards according to ICAO Annex 14 Volume II and the Heliport Manual, primarily in regards to the structural design and with a risk based approach.</p>
<b>Addressees</b>	BAZL Bundesamt für Zivilluftfahrt
<b>Stage of the implementation</b>	Partially implemented - In a letter dated 19 May 2020, the FOCA replied that since the publication of the Safety Recommendation, 9 special category hospital landing sites and 18 normal category landing sites in Switzerland have been adapted or converted in

accordance with ICAO Annex 14 Volume II and the FOCA Directive. In an approach based on risk and performance, the hospital landing strips, the total number of which is more than twice as large as the number of airfields, have been categorised according to medical and aviation-specific criteria. At present, 28 hospital airfields have been approved or are being planned. The FOCA guidelines would apply to any new construction or renovation of a hospital landing site. The FOCA also announced that in view of this year's revision of ICAO Annex 14, Vol. II and in particular the old heliport manual (1995), an update of the guideline is being sought. The aspect of dynamic loads should also be taken into account.

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**Investigation report concerning  
the safety recommendation**

Final report  
Schlussbericht

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