

Federal Office of Civil Aviation FOCA
Communication

Laser attacks against aircraft are a safety risk Dazzling pilots is illegal

Aviation is now facing a new type of threat: attempts to dazzle pilots through the use of laser pointers are on the increase. Laser attacks are illegal and represent a serious safety risk. Perpetrators of laser attacks against aircraft now face criminal charges.

As a result of recent technological development, powerful hand-held laser devices are now available and are being used as mobile light sources to an ever-increasing extent. One of the consequences of this development is that the aviation sector is now facing a new type of threat: aircraft crews are increasingly reporting that they have been dazzled by powerful light sources transmitted from the ground. The FOCA was one of 2010 and 2011, about 150 cases, 2012 there were 100 cases. In other countries. too, the number of reported incidents in which pilots have been dazzled or distracted by laser devices has increased sharply. Laser attacks have been carried out against pilots of both airplanes and helicopters, in most cases when the aircraft concerned was close to the ground.

Especially dangerous during takeoff and landing

The consequences of a pilot becoming dazzled by a sudden powerful beam of light may differ according to its intensity. They may range from brief distraction or temporary blindness through to permanent damage to the eyes. But dazzling an aircraft crew can also interfere with flight operations: above all, dazzling the flight crew with laser beams during critical phases of flight (takeoff, landing, flying at low altitude) which require the pilot's full attention, can have fatal consequences. If a pilot loses control of the aircraft only very briefly as the result of being dazzled, in the worst case this could cause the aircraft to crash.

As the result of intensification of laser beams, a slightly more powerful laser pointer that is widely available on the market (e.g. for slide presentations) is sufficient to seriously interfere with a pilot's vision. A pilot who is struck by such a laser beam from a distance of around 350 metres is practically no longer able to see the runway, and thus finds himself or herself suddenly having to fly without the necessary visibility. The restrictions on the use of fixed laser beams or spotlights in the vicinity of airports imposed within the scope of international regulations were introduced for a very good reason.

Laser attacks to be reported to the police

The effects produced by beams from laser pointers can be fascinating, but directing them at human beings is illegal. A person who dazzles the crew of an aircraft with a laser device can be charged with interference with public transport and, depending on the consequences, with causing bodily harm. Anyone who observes an attempt to dazzle an aircraft crew in this way should report it to the relevant cantonal police. Pilots who are victims of a laser attack should immediately contact air traffic control and provide precise information concerning the location and time of the attack. Air traffic control should then pass on the information to the police for investigation. In uncontrolled airspace, pilots can report the incident directly to the police if they have the necessary radio equipment with the corresponding frequencies. Operators of commercial flights are required to report all such incidents to the FOCA.