

## **SUMMARY**

The serious incident occurred during approach to Norrköping/Kungsängen Airport during a scheduled passenger flight from Munich. The aircraft, model EMB-145EP, had the call sign Midland 753G. During the approach, the weather conditions were good with a visibility of more than ten kilometres. The crew performed self-positioning for an ILS approach. At the time, there was an ultralight aircraft in uncontrolled airspace below Midland's cleared route.

During the self-positioning and about seven nautical miles south of the outer marker beacon "ON", Midland suddenly initiated a left turn towards the west outside the control zone and descended below controlled airspace, approaching the ultra-light aircraft. As Midland descended and approached the aircraft, a near collision incident occurred.

The approach aid ILS, which provides both horizontal and vertical guidance, gave command of the controls to the autopilot, which had been armed for approach. When Midland was outside the coverage area of the approach aid, the aircraft picked up a false signal, turned and descended.

The air traffic controller did not have time to correct Midland's incorrect navigation, as it was not quite clear how the approach should be performed. The initial turn was interpreted as Midland having visual contact with the airport and making a correction towards the airport. When Midland then continued the turn and descended, disturbances arose in the form of communication and surprise reactions, and this was probably the reason why a correction of the flight did not occur. According to the ATC provider's operations manual, self-positioning for the ILS approach that Midland received should be terminated by radar vectors, which would have minimized the risk of picking up false lateral signals.

The incident was caused by the fact that planning and follow-up of the approach were not carried out in an appropriate manner.

A contributing factor has been lack of knowledge of false ILS signals.

### **Safety recommendations**

#### **EASA is recommended to:**

- Ensure that clear requirements regarding the limitations of conventional navigation aids are included in the recurrent training. (*see chapter 2.2*) (*RL 2019:12 R1*)

#### **The Swedish Transport Agency is recommended to:**

- Evaluate and consider whether AOC holders have prescribed and appropriate procedures to monitor the crew members' knowledge of the limitations of conventional navigation aids. (*see chapter 2.2*) (*RL 2019:12 R2*)

Inform air traffic control providers about the risks of issuing an approach clearance at an early a stage. (*see chapter 2.1*) (*RL 2019:12 R3*)