

Accident with SE-MES 14 July 2019

Final report RL 2020:08

Aircraft type	GA8-Series
Registration	SE-MES,
Model	GA8-TC 320
Class, airworthiness	Normal, Certificate of Airworthiness and valid ARC
Serial number	GA8-TC320-12-178
Owner	Skydive Umeå AB
Time of occurrence	14 July 2019, 14:08 hrs during daylight
Location	Storsandskär, Västerbotten County
Type of flight	Private/lift of parachutists

Summary

The purpose of the flight was to drop eight parachutists from flight level 130 (an altitude of 13,000 feet, approximately 4,000 metres). The load sheet that the pilot received did not contain any information about the individual weights of the parachutists or the total mass of the load. The pilot could thus not, with any help from the load sheet, check or make his own calculation of mass and balance before the flight.

The aeroplane was approaching the airport and, at 14:05 hrs, the pilot requested permission to drop the parachutists slightly higher because of clouds. The air-speed was decreasing in conjunction with the aeroplane's approach to the airport. Just over a kilometre from the airport where the jump point was located, the aeroplane suddenly changed direction to the left and began descending rapidly in almost the opposite direction. The aeroplane then travelled just under one kilometre at the same time as it descended 1,500 metres, which is a dive angle of over 45 degrees.

Summary

The aeroplane broke up in the air as both the airspeed and the g-forces exceeded the permitted values for the aeroplane. From an altitude of 2,000 metres, the aeroplane fell almost vertically with a descent velocity of around 60 m/s.

The fact that no one was able to get out and save themselves using their parachute was probably due to the g-forces and the rotations that occurred.

All those on board remained in the aeroplane and died immediately upon impact.

The following factors are deemed to be probable causes of the accident:

- The lack of a safe system for risk analyses and operational support, including data for making decisions concerning flights, termination or replanning of commenced flights
- The lack of a standardised practical and theoretical training programme with approval of a qualified instructor.
- The lack of a safe system for determining centre of gravity prior to and in conjunction with the parachuting jumps.

Safety recommendations

EASA is recommended to:

- Consider introducing a formal training programme for pilots in parachute operations. (See section 2.7). *(RL 2020:08 R1)*
- Review the approval procedures of mass and balance documentation when certifying aircraft approved for parachute operations. (See section 2.6.3). *(RL 2020:08 R2)*

Safety recommendations

The Swedish Transport Agency is recommended to:

- As part of its oversight activities, ensure that there are appropriate loading instructions or equivalent in place and adhered to for parachute operations. (See section 2.8). *(RL 2020:08 R3)*
- With support of SFF, take measures to ensure that licensed parachutists have sufficient knowledge of aircraft mass and balance and flight operational consequences when moving around in the aircraft and that the Pilot/Commander receives the support necessary to maintain the rules that apply to the flight. (See section 2.9). *(RL 2020:08 R4)*

Chat is open for discussion