

Information about the accident on Sept 20, 1999 with a JAS 39 Gripen from The F 7 Wing at Skaraborg.

A JAS 39 Gripen aircraft with pilot (Flight Lt, 29 years of age, 1,063 flight hours of which 103 in Gripen), took off 990920 at 14.22 from Såtenäs. The aircraft was number two in a two-ship formation with another Gripen. The mission was to perform Air Combat Manouvering (ACM) training (one vs one) at low altitude over Lake Vänern. Both aircraft were commanded by a forward ground controller.

The weather in the area was 20 km visibility, haze at higher altitudes with ground winds estimated at 12 knots out of the east. Airpressure (QNH) was 1,015 hPa. Current water temperature in Lake Vänern was 15 degrees C.

The ACM exercise was initiated by the splitting of the two-ship formation. Number two in the formation represented attacking fighter and was controlled by the forward ground controller in a head-on (180 deg) attack on the two-ship commander. The two-ship commander represented target aircraft at 200 m altitude at M 0.66. Limitations on the target were, not to exceed 6 g's/17 deg AoA during ACM and to initiate evasive manouvering after establishing visual contact with the attacking fighter.

Radar contact with the target was established by the attacking fighter and at a distance of 8 km he got visual contact. Once visual contact was established ACM was initiated during increasing altitude where the aircraft met head-on several times. The intention of the pilot in the attacking fighter was to "kill" the target using a sidewinder missile (AIM-9L). About 60 seconds into the ACM the attacking fighter got too close to the targets tail sector and initiated a climbing manouver followed by a steep diving turn with an indicated airspeed of approx. 400 km/h. During this manouver the attacking fighter passed through the target aircraft vortices which resulted in a large aerodynamic transient. The transient induced by the vortices resulted in increasing negative pitch attitude, leaving the attacking fighter in an almost vertical dive at approximately 1,000 m altitude. The pilot observed that the ground collision warning system was activated and that the manouver to avoid ground collision as recommended by the system was impossible to perform. The pilot decided, in accordance with the flight manual instructions, to eject from the aircraft. The ejection was initiated at 14.32 approximately 7 km west of the Djurö island in Lake Vänern. The ejection sequence was nominal and the pilot landed in the water where he was spotted by the pilot in the target aircraft.

An Air Rescue helicopter from the Såtenäs wing was directed to the scene of the accident and the pilot was brought out of the water at 14.59. He was transported to the hospital in Lidköping for medical examination.

The primary examination of the pilot showed that he had no injuries besides some muscular stiffnes in the neck area.

One of the aircraft's emergency locator transmitters (ELT's) has been located at a depth of 80 meters below the surface.

Actions to salvage the aircraft have been initiated, primarily in order to locate the crash protected memory of the aircraft. The investigator's hope/aspiration is to find stored information from the memory to be able to study the chain of events.

Olle Lundström
Chairman

Rune Lundin
chief investigator

This is an English translation of the Swedish report. If there are any discrepancies caused by translation, the Swedish version is valid.