

SUMMARY IN ENGLISH

The report deals with a serious incident with a Swedish military helicopter, at lake Gilten south of Namsos, Norway on 27 February 2016. The helicopter collided with the ground during a passage over a frozen lake in reduced visibility. The incident occurred during the preparations for an international military exercise in Norway.

The helicopter flew as number two in a two-ship formation consisting of two helicopters HKP 14D. No personal injury or damage to the helicopter occurred as a result of the incident, but the helicopter left a 20 meter long and 50 centimeter deep track in the snow and ice.

Due to the fact that the crews could not fly to the extent that they would have needed and also had planned to do before the exercise, their flight trim was at a low level. Nor had they fully educated themselves on the current helicopter type.

The risk analysis that was done prior to the exercise shows that the participants were aware of the shortcomings in training and current flight trim. The analysis apprehended a number of risks and contained several measures and limitations to mitigate the risks. However, the measures decided were not fully taken. Furthermore, according to SHK, the measures would only have been sufficient to reduce the risks to an acceptable level, if the crews had been in good flight trim. Though, it is possible that the incident could have been avoided if the measures had been taken according to the plan.

The investigation further shows that the current and collective status of the involved crews lied within the experience area that implies an increased risk of accidents (the so called killing zone). The fact that no one reacted upon this within the organization and more actively followed up the preparation and education status of the participating helicopter unit in relation to the demanding environment they were expected to perform in, indicates that there are deficiencies in the routines regarding monitoring and follow-up of the operations with HKP 14 at the central level.

It is also the commission's opinion that a crew should possess instrument flying skills in environments and weather conditions in which instrument metrological conditions can occur.

The overall assessment is that the crew had not had the opportunity to get sufficient training and to build up the flight trim that had been required to safely fly in the current environment and under the prevailing weather conditions.

Safety Recommendations

The Armed Forces are recommended to:

- Evaluate and develop the management, follow-up and monitoring operations with HKP 14. (*RM 2017:02 R1*)

- Design the organization so that local flight commander for HKP 14 will be able to act in his or her role of responsibility. *(RM 2017:02 R2)*
- Design the organization and staff requirements so that Flight safety department (FlygSäk) can support the Director and post holders with competencies corresponding to the area of responsibility Helicopter. *(RM 2017:02 R3)*
- Develop procedures for enhanced crew resource management for optimized use of HKP 14 with the aim, inter alia, to increase safety at contour flying. *(RM 2017:02 R4)*
- Develop the instructions for setting Emergency Height. *(RM 2017:02 R5)*
- Develop the process prior to the release of flight operation manuals so that quality issues do not arise. *(RM 2017:02 R6)*
- Develop enhanced guidelines regarding restrictions and criteria for using HKP 14 AFCS different modes. *(RM 2017:02 R7)*
- Establish routines that lead to increased standardization of checklist usage. *(RM 2017:02 R8)*
- Introduce instrument flight competence requirements on the current helicopter type. *(RM 2017:02 R9)*