

SUMMARY IN ENGLISH

The flight trainees (CRT trainees) in a JAS 39 Gripen division, which was part of the Norrbotten Wing, F21, in Kallax were at the time of the incident in a training stage which included manoeuvring aerial combat with aircraft JAS 39 C.

The event began with an attacking pair of aircraft, with the trainee and an instructor in a formation with the trainee to the right in the direction of flight, flying at an altitude of around 14,000 feet, and met the target aircraft at a slightly higher altitude. After the contact, the trainee – who had been given the task of attacking – had difficulty re-establishing visual contact with the target aircraft and, upon contact, was unsure whether the target aircraft was flying towards or away from him. The trainee thus performed a flat turn to the left in order to show his intention to swing in inside the target aircraft's flight path. The pilot in the target aircraft had lost visual contact with both aircraft in the attacking pair as they passed into the target aircraft's rear blind spot. Subsequently, the target aircraft's pilot could only regain visual contact with the leader of the attacking pair and thus continued his turn in order to attempt to achieve a shooting position behind the leader.

At a late stage, the trainee realised that he and the target aircraft would come into very close proximity and took evasive action. The pilot of the target aircraft experienced the trainee's passing in front of him as a split-second of “pitch black in the cockpit”. The pilot of the target aircraft assessed the passing distance as 2-3 aircraft lengths; i.e., around 30-45 metres. After the incident, the trainee announced over the radio that the training would be discontinued in the interest of flight safety.

The investigation has revealed that the group of trainees in question were subject to interruptions and delays for part of their training that could not be resumed within the framework of the planned stages of training in light of available resources. The consequences of this included the trainees in this group being transferred to their units with a level of knowledge and experience lower than what was planned.

The training for and work as a fighter pilot not only requires theoretical knowledge but also the ability to act and make quick decisions. Exercises which are intended to improve reflex-reliant actions and judgment are based on repetition and regularity. Interruptions and lack of continuity in training which involves such practical exercises therefore constitute a risk-raising factor when skills are to be practiced or applied in activities with very high safety requirements, unless the exercises are sufficiently adapted to the individual trainee's conditions.

The incident was a result of the trainee not receiving sufficient flight training for them to have attained the expected knowledge and ability requirements necessary to carry out the exercise whilst maintaining safety. The background cause of the incident was that the air force unit had not been allocated sufficient resources by the Swedish Armed Forces' headquarters to carry out the fighter pilot training within the given timeframe and with sufficient continuity.

Safety recommendations

SHK recommends that the Swedish Military Aviation Authority:

- Ensure the Swedish Armed Forces creates procedures for detecting at an early stage any interruptions in flight training, and in a clear manner attending to the consequences of these, so that these do not affect safety in the training sessions themselves. *RM 2015:01 (R1)*
- Investigate whether the method established in LML for ensuring the balance between tasks and resources is effective and applied in the right way in order to achieve the purpose. *RM 2015:02 (R2)*
- Ensure that an established method is applied when transferring flight trainees so that the recipient unit has sufficient knowledge of the trainee's stage of training and individual conditions prior to further training. *RM 2015:01 (R3)*
- Assess and, where appropriate, take measures to increase the visual signature of JAS 39 in times of peace, *RM 2015:01 (R4)*
- Ensure the instructions for fighter pilot flight training have a higher level of detail, so that senior air force personnel have better support for the design of individual flight exercises in terms of learning curve, exercise planning, limitations and flight safety risks. *RM 2015:01 (R5)*
- Consider establishing special requirements in terms of the level of training, experience and the number of flying hours for instructors on flight training. *RM 2015:01 (R6)*
- Investigate and, where suitable, introduce a more coherent organisation into the flight training with the purpose of increasing the flight safety advantages and improving opportunities to address the lack of resources in flight training. *RM 2015:01 (R7)*