

## 4 CONCLUSIONS

The conclusions include the causes of the occurrence. A cause means the various factors in the background of the incident and the direct and indirect circumstances affecting it.

1. A form was used to for the risk assessment of the exercise, in order to assign a numerical value to predetermined risk types (for example, land or sea traffic accidents). The crossing of the Skogby level crossing and highway 25 was not identified and named as a risk on the form.

*Conclusion: To manage and warn of the risks involved in an exercise, it would be necessary to identify and name them.*

2. Skogby's level crossing was particularly dangerous due to the angle of the track and road and the lack of warning devices. From the driver's position in the high mobility terrain vehicle, it was almost impossible to see the train approaching at an angle from the rear.

*Conclusion: There are still several, similar dangerous level crossings in Finland, the safety of which has not been improved, or which have been left in place.*

3. The section of line had a speed limit of 120 km/h, even though the decree on sightlines states that the maximum allowed speed would have been 80 km/h due to the short sight-line.

*Conclusion: A lower train speed would give train and vehicle drivers more time to react and take action as they approach level crossings, and would reduce the damage in possible collisions.*

4. In most cases, level crossings have been improved or removed in connection with infrastructure upgrade projects. The aim has been to increase the speed of train traffic.

*Conclusion: Repairs have not focused on the most dangerous level crossings. No better mechanism has been developed for targeting resources at the improvement of dangerous sites.*

5. The personal injuries involved were serious, partly due to the fact that the conscripts in the high mobility terrain vehicle did not use seatbelts.

*Conclusion: It is difficult to use the seatbelts in the cargo space seating module of a high mobility terrain vehicle when in combat gear. In general, seatbelts are not used when travelling in a high mobility terrain vehicle. Monitoring their use is difficult.*

6. Emergency care arrived at the scene of the accident with a delay of 4–5 minutes. The delay was due to the use of a slower alternative route. The error was noticed by the emergency response centre, but the vehicles were not guided in accordance with good practice.

*Conclusion: The role of the emergency response centre partly involves its capacity to ensure that alerted units reach the site as quickly as possible.*

7. An operational area command (OAC) was not set up for the public administration in the area of the accident site.

*Conclusion: The establishment of a public authority OAC for an accident site would facilitate coordination and communications between rescue services, emergency care, the police and other authorities and stakeholders.*

8. Some of the relatives of the victims initially found it difficult to obtain information on the status and location of the victims. A telephone line for relatives was not set up. The Defence Forces did not immediately contact the relatives and there were problems with the coordination of communications on deaths and injuries with the police. Communication was not efficient in the initial stages.

*Conclusion: In the Defence Forces, plans for communicating with family members have not been updated in line with a modern, fast communication environment.*

9. Crisis support was largely very successful, particularly with regard to the Defence Forces. Support for relatives varied according to place of residence.

*Conclusion: The crisis support system consists of several different levels of actors. Coordination between the various actors is problematic.*