



Safety recommendation no. 97

Date of the publication	22.09.2016
Number of the final report	2015022001
Safety deficit	<p>On 20th February 2015, shortly after 06:40 in Rafz, on the track near the exit towards Schaffhausen, a regional train collided with the side of an S-Bahn train. The collision can be attributed to the fact that the S-Bahn train driver incorrectly believed that he could depart when a 'Stop' signal was displayed.</p> <p>During the investigation, the cause of the accident was identified to include the following factor: the kind of cooperation in the driver's cab, which gave the impression of mutual control and thereby made it impossible to recognise the error in a timely manner. The investigation found that, among others, the following factors contributed to the accident:</p> <ul style="list-style-type: none">– The coincidental synchronisation of the signal positions which the locomotive crew involved mistakenly believed to be applicable to their own train.– Self-imposed time pressure. <p>The parties were not sufficiently aware of the influence they are mutually exposed to when working together in the driver's cab. The S-Bahn train driver started the departure process when the trainee train driver was not ready for departure. The trainee train driver acknowledged the announcements made by the train driver in order to avoid delaying departure. Not all parties were ready to depart. The STSB believes that this kind of teamwork is not unique to this accident, and in fact highlights a more widespread problem that should be addressed by training the people involved accordingly and raising their awareness.</p>
Safety recommendation	<p>The FOT should increasingly concern itself with issues relating to human factors and strive to flesh out a concept for training all parties involved regarding teamwork in the driver's cab that takes issues such as verbal and non-verbal communication, the impact of hierarchies, qualifications and experience into consideration.</p>
Addressees	Bundesamt für Verkehr
Stage of the implementation	<p>Implemented. The FOT states that, as part of a 'human factors' support mandate, it has been in collaboration with the University of Applied Sciences and Arts Northwestern Switzerland since 2013. In view of the possibility of an official regulation, various types of basic groundwork have been carried out. The issue of 'human factors' would thereby be addressed appropriately and prioritised accordingly. As part of the collaboration with appropriate departments, the FOT will assess the need for action regarding issues such as verbal and non-verbal communication, the impact of hierarchies, qualifications and experience and, if</p>

necessary, appropriately introduce the findings to the railway companies (e.g. via development courses for examination experts). Additionally, the FOT will examine how the issue, particularly the training concepts, can be better integrated into its monitoring activity.

**Investigation report concerning
the safety recommendation**

Schlussbericht
