

Recommendation(s) Status: Passenger door open on a moving train near Desborough

This report is based on information provided to the RAIB by the relevant safety authority or public body.

The status of implementation of the recommendations, as reported to us, has been divided into six categories:

Key to Recommendation Status

Implemented:	All actions to deliver the recommendation have been completed.
Implemented by alternative means:	The intent of the recommendation has been satisfied in a way that was not identified by the RAIB during the investigation.
Implementation ongoing:	Work to deliver the intent of the recommendation has been agreed and is in the process of being delivered.
In-progress:	The relevant safety authority has yet to be satisfied that an appropriate plan, with timescales, is in place to implement the recommendation; and work is in progress to provide this.
Non-implementation:	Regulation 12(2)(b)(iii) = recommendation considered and no implementation action to be taken.
Awaiting response:	Awaiting initial report from the relevant safety authority or public body on the status of the recommendation.

RAIB concerns on actions taken by organisations in response to recommendations are reflected in this report and are indicated by one of the following.

-  The red triangle shows recommendations where the RAIB has concerns that no actions have been taken in response to a recommendation.
-  The blue triangle shows recommendations where the RAIB has concerns that the actions taken, or proposed, are inappropriate or insufficient to address the risk identified during the investigation.
-  The white triangle shows recommendations where the RAIB notes substantive actions have been reported, but the RAIB still has concerns.

Note: The tables which follow, report the status of recommendations on 31 December 2015. In some other cases the end implementer has already sent information to the relevant safety authority about the actions it has taken, or proposes to take and the safety authority is considering whether it is satisfied that those actions and the associated timescales are accepted.

Number/ Date/ Report No/ Inv Title / Current Status	Safety Recommendation	Summary of current status (based on latest report from the relevant safety authority or public body)
<p>1 10/06/2006 31/2007</p> <p>Passenger door open on a moving train near Desborough</p> <p>Status: Implemented</p>	<p>HSBC Rail (UK) Limited and operators of class 222 trains (as appropriate) should review, in conjunction with Bombardier Transportation UK and Faiveley Transport, the door control algorithm and implement any changes necessary to ensure that: I when door locking is required, the falling latch engages with the locking hook in all normal and degraded operating scenarios (paragraph 221); and I following the identification of a locking fault, real or otherwise, the motor is controlled so that the door is not left in an unrestrained condition (paragraph 222d).</p>	<p>HSBC Rail (UK) has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>2 10/06/2006 31/2007</p> <p>Passenger door open on a moving train near Desborough</p> <p>Status: Implemented</p>	<p>Bombardier Transportation UK, Faiveley Transport and operators of class 222 trains (as appropriate) should review, in the light of the investigation findings, their processes for software specification, development, upgrading and verification. They should implement any changes necessary to ensure they identify and manage the risks due to performance errors occurring during fault conditions (paragraphs 222a and 222d).</p>	<p>Bombardier Transportation UK, Faiveley Transport and Midland Mainline has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>3 10/06/2006 31/2007</p> <p>Passenger door open on a moving train near Desborough</p> <p>Status: Implemented</p>	<p>Bombardier Transportation UK and Faiveley Transport (as appropriate) should require their supplier Schaltbau to review and, if necessary, upgrade its manufacturing process and switch design in the light of the evidence presented in this report with the objective of minimising the risk of foreign bodies being present (paragraph 222b)</p>	<p>Bombardier Transportation UK and Faiveley Transport have reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>4 10/06/2006 31/2007</p> <p>Passenger door open on a moving train near Desborough</p> <p>Status: Implemented</p>	<p>HSBC Rail (UK) Limited, Bombardier Transportation UK and operators of class 222 trains (as appropriate), should review fault alarms and handling on class 222 units and implement any changes necessary to ensure that on-board staff are adequately warned and able to take the appropriate action (for instance, operation of the out-of-service lock or stopping the train) in the event of a door system failure. This should include the need for: I the train manager to be aware of door locking faults before authorising train departure (paragraph 222c); and I the driver to be aware of any door-related fault which may put the safety of the train 'in danger' (paragraph 222e).</p>	<p>HSBC Rail (UK) Limited, Bombardier Transportation UK and operators of class 222 trains have reported that they have taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>5 10/06/2006 31/2007</p> <p>Passenger door open on a moving train near Desborough</p> <p>Status: Implemented</p>	<p>HSBC Rail (UK) Limited and operators of class 222 trains (as appropriate) should review the design of the 'pass comm/door activated' indication light and the two conditions requiring it to illuminate. If necessary, improvements should be made to the general design of indications on class 222 trains to ensure that the driver is clearly aware of which condition has occurred (paragraph 222f).</p>	<p>HSBC Rail (UK) has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>

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<p>6 10/06/2006 31/2007</p> <p>Passenger door open on a moving train near Desborough</p> <p>Status: Implemented</p>	<p>HSBC Rail (UK) Limited and operators of class 222 trains (as appropriate) should review the ergonomics of the 'door close/locked' light to determine whether its conspicuity could be improved and therefore be more likely to be observed by drivers if a door opens when the train is moving (paragraph 222g).</p>	<p>HSBC Rail (UK) has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>7 10/06/2006 31/2007</p> <p>Passenger door open on a moving train near Desborough</p> <p>Status: Implemented</p>	<p>Operators of class 222 trains should review the content of training courses and the assessment of drivers, train managers and customer hosts in the practical application of procedures relating to unexpected incidents that may occur while trains are running in service. This should include ensuring that on-board staff members have an adequate understanding of their roles and responsibilities, particularly with regard to the use of the emergency brake override (and where the train should be brought to a stand), the operation of the passenger communication alarm system, and the use of the TMS and other sources of fault and event indication (paragraphs 222f , 222g, 222i, 223 and 224).</p>	<p>Operators of class 222 trains have taken actions in response to this recommendation. ORR has closed the recommendation.</p>
<p>8 10/06/2006 31/2007</p> <p>Passenger door open on a moving train near Desborough</p> <p>Status: Implemented</p>	<p>HSBC Rail (UK) Limited and operators of class 222 trains (as appropriate) should review the ergonomics of the PCA emergency brake handle and, if necessary, make improvements to ensure that, when either passengers or on-board staff attempt to use it, it will successfully operate (paragraph 224).</p>	<p>HSBC Rail (UK) has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>9 10/06/2006 31/2007</p> <p>Passenger door open on a moving train near Desborough</p> <p>Status: Implemented</p>	<p>RSSB should make a Proposal, in accordance with the Railway Group Standards Code, to clarify the various requirements of the Rule Book relating to PCA and power operated doors to ensure they minimise the duration of any hazard affecting the safety of a train. This should include conditions for the use of the emergency brake override (paragraph 222i and 223).</p>	<p>RSSB has reported that it has taken actions in response to this recommendation. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>