## Recommendation(s) Status: Class investigation into rail breaks on the East Coast Main Line

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 ORR's report to RAIB)
1 20/11/2013 26/2014  Buffer stop collision at Chester station  Status: Implementation ongoing	The intent of this recommendation is to reduce the risk associated with low adhesion by extending the fitment of automatic sanders.  Operators of class 220 and 221 units should fit sanders to their trains which comply with Group Standard GM/RT2461 and automatically deposit sand on the rail when wheelslide is detected during heavy braking (equivalent to brake step 2 on step braked trains). The mode of operation of this new equipment should take account of recommendation 1 of RAIB report 25 (Part 3)/2006 (paragraph 114).	ORR has reported that Operators of class 220 and 221 units have a proposed action plan and timescale for delivery to be taken in response to the recommendation. ORR will advise RAIB when actions to address this recommendation have been completed.
2 20/11/2013 26/2014  Buffer stop collision at Chester station  Status: Implemented	The intent of this recommendation is to reduce the risk associated with trains approaching buffer stops in low adhesion conditions by an extension of existing defensive driving policy.  Virgin Trains should amend its defensive driving policy so that the requirement to reduce speed to 10 mph or less at a distance of 200 metres from the signal when approaching a danger signal in low adhesion conditions is also applied when approaching a buffer stop with a train that is not fitted with automatic sanders (paragraph 129).  This recommendation may also to apply to other train operators.	ORR has reported that Virgin Trains 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.
3 20/11/2013 26/2014  Buffer stop collision at Chester station  Status: Implementation ongoing	The intent of this recommendation is that manufacturers of new trains for the UK railway system are made aware of the need for sanders to operate during braking in step 2 (or the equivalent brake handle position for units not fitted with stepped brakes) and above.  RSSB should propose and promote an amendment to Railway Group Standard GM/RT2461 to extend the requirement that sanders operate automatically when wheel slip is detected in full service and emergency braking, to braking at lower settings (eg step 2 on units with stepped brake controllers) (paragraph 152).	ORR has reported that RSSB has a proposed action plan and timescale for delivery to be taken in response to the recommendation. ORR will advise RAIB when actions to address this recommendation have been completed.

23 February 2017 Page 2 of 2