

Recommendation(s) Status: SPAD and subsequent near miss at Didcot North Junction

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 22/08/2007 23/2008</p> <p>SPAD and subsequent near miss at Didcot North Junction</p> <p>Status: Implemented</p>	<p>First Great Western should review its driving policy with the objective of enhancing its guidance on driving technique when approaching signals that are showing restrictive aspects. This review should include consideration of the principle that when travelling at or near the maximum permitted line speed drivers should not apply power after passing a signal with a restrictive aspect and should not subsequently reapply power until the aspect of the next signal is observed to be no more restrictive than the signal they have just passed (paragraph 235).</p> <p>Having completed the above review First Great Western should ensure that its drivers are briefed on any changes to the driving policy and trained accordingly.</p>	<p>First Great Western has reported that it has taken actions in response to this recommendation.</p> <p>ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.</p>
<p>2 22/08/2007 23/2008</p> <p>SPAD and subsequent near miss at Didcot North Junction</p> <p>Status: Implementation ongoing</p>	<p>Network Rail should, in consultation with train operators, review its existing risk assessments for all existing junction signals in order to verify that:</p> <ul style="list-style-type: none"> • the actual braking performance of trains signalled by that route has been correctly taken into account; and • proper consideration has been given to any reasonably practicable measures identified. (paragraphs 234b and 236) <p>When addressing this recommendation Network Rail should ensure that risk assessors are competent and have access to accurate input data (paragraph 230).</p>	<p>Network Rail has reported that it has implemented a new risk assessment tool, the Signal Overrun Risk Assessment Tool (SORAT). This calculates the reduction of risk provided by TPWS within the main body of the risk assessment process. To perform this task SORAT has a database of all the trains and their capabilities currently being operated on the GB rail infrastructure. Information within this database includes but is not limited to:</p> <ul style="list-style-type: none"> • Emergency braking rates (%g) • TPWS activation time (freewheel time) • Brake build up time • Accident consequence modelling • Maximum unit speed • Unit length • Train protection fitment (TPWS, ATP, ERTMS, Train stop) <p>This information is provided for 97 types of stock that Network Rail currently have knowledge of, which operates on the GB network. As new rolling stock is brought into service this information is updated into SORAT to accurately reflect usage and braking capabilities of rolling stock operating on the GB network.</p> <p>RAIB is awaiting confirmation from ORR that implementation is complete.</p>
<p>3 22/08/2007 23/2008</p> <p>SPAD and subsequent near miss at Didcot North Junction</p> <p>Status: Implemented by alternative means</p>	<p>In support of Network Rail's assessment of risk at junction signals (see Recommendation 2), RSSB should make a 'proposal', in accordance with the Railway Group Standards Code, to amend Railway Group Standards to require train operators, in consultation with rolling stock owners, to publish and disseminate to Network Rail any detailed data they may possess relating to the actual braking performance of the trains</p>	<p>RSSB have carried out a review of this recommendation and concluded that no change to Railway Group Standards is justified since the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) (22 Duty of Co-operation) obliges every transport operator to cooperate. While noting the obligation imposed by the guidelines, the RAIB is concerned that braking performance data for older rolling stock</p>

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they operate on the national network (for a range of typical train formations). This should include the distance to stop from a range of speeds (or the duration of any freewheel time and the subsequent rate of deceleration) (paragraphs 242 and 243).

is not readily available. This was confirmed by Network Rail in their response to response to recommendation 9. However, the RAIB has recently noted that Network Rail has now developed a comprehensive database of train braking performance. The RAIB therefore considers that this recommendation has been implemented by alternative means.

4 22/08/2007 23/2008
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North Junction
Status: Implemented by alternative means

RSSB, in consultation with industry stakeholders, should review the practicability of enhancing the minimum emergency braking performance mandated for new passenger trains in Railway Group Standards. The objective of any such enhancement shall be to improve consistency between the minimum braking performance of new passenger trains and the design of train protection systems in use on the network. If shown to be reasonably practicable, RSSB should make a 'proposal', in accordance with the Railway Group Standards Code, to amend Railway Group Standards accordingly (paragraph 212).

The intent of this recommendation is now addressed by the TSI that came into force at the end of 2011. This mandates that trains braking should be consistent with the signalling system. Since TPWS forms a part of the signalling system this should ensure that future passenger trains will have braking that is consistent with TPWS installations.

5 22/08/2007 23/2008
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North Junction
Status: Implemented

Network Rail should review its management processes with the objective of ensuring that:

the findings of signal and layout risk assessments (using tools such as SAT) are translated into reasonably practicable measures to address the risk identified (paragraph 236); and

relevant risk assessments are properly considered when reviewing the actions to be taken in response to recommendations made following investigations (paragraph 237).

Network Rail 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.

6 22/08/2007 23/2008
SPAD and subsequent near miss at Didcot
North Junction
Status: Non-implementation

ATOC should review its guidance note ATOC/GN007 with the objective of clarifying the advice to passenger train operators on good practice for driving technique when approaching signals displaying a restrictive aspect. This review should give detailed consideration to the adoption of the principle outlined in Recommendation 1 (paragraph 238).

ATOC has carried out a review and concluded that no change to the existing guidance note is required.
ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.

7 22/08/2007 23/2008
SPAD and subsequent near miss at Didcot
North Junction
Status: Implemented

First Great Western should review its systems for the management of route knowledge with the following objectives:

to assess whether the extent of current route knowledge required by its drivers is compatible with the need for drivers to retain adequate situational awareness.

to assess whether the currently mandated minimum frequency of exposure to each route is sufficient (this review should be

First Great Western 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.

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updated when the actions at Recommendation 8 have been completed).

to put in place systems for monitoring the actual exposure of drivers to each route they have signed for.

to assess the adequacy of driver training and competency management systems related to route learning and the retention of route knowledge.(paragraphs 239 and 240)

8	22/08/2007	23/2008	RSSB, in consultation with ATOC, and with reference to project T655, should carry out further research into the periodicity of driving turns/refresher training required to acquire and retain route knowledge (paragraph 241).	RSSB and ATOC 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. ORR proposes to take no further action unless they become aware that the information provided becomes inaccurate.
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9	22/08/2007	23/2008	Network Rail should ensure that its methodology and computer systems for assessing the risk associated with signal overruns correctly take into account the actual braking performance of all trains scheduled to pass a signal. This should allow for freewheel time and the subsequent average deceleration (paragraph 242).	Network Rail 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.