MEETING:	Control Command and Signalling Rolling Stock TOM
DATE:	18/11/2021 11/02/2022 01/02/2022
SUBJECT:	Five-year review of RIS-8012-CCS Issue one - Controlling the Speed of Tilting Trains through Curves
SPONSOR:	Ged Neacy
AUTHOR:	Stuart McFarland

---

1. Purpose of the paper

1.1 This paper sets out the assessment of the five-year review of RIS-8012-CCS Issue one - Controlling the Speed of Tilting Trains through Curves. It seeks Standards Committee approval on the recommendation and way forward.

2. Background

2.1 RIS-8012-CCS Issue one sets out requirements and guidance intended to assist proposers in applying the CSM RA before planned changes to systems that control the speed of tilting trains through curves are put into use.

2.2 RIS8012-CCS issue one in conjunction with RIS-8019-CCS have been applied to systems supporting tilting operations on the West Coast Main Line (WCML) by class 390 and Class 221 tilting trains. To date this is the only application of these standards on the GB network.

2.3 In 2017, a review of GERT8012 Issue one, Controlling the Speed of Tilting Trains through Curves, identified that its content was not in scope of RGSs, being neither a National Technical Rule (NTR) nor a National Safety Rule (NSR). However, the Control Command and Signalling Standards Committee (CCS SC) confirmed that the requirements were valid and useful to the industry and should be retained in a Rail Industry Standard (RIS) (decision 17/CCS/04/083). As a result, the content of GERT8012 Issue one, and the associated Guidance Note GERC8517 Issue one, Recommendations for Systems for the Supervision of Enhanced Permissible Speeds and Tilt Enable, were reproduced in their entirety as an Annex to new RIS-8012-CCS Issue one. There were no changes to requirements or guidance because of transferring the content into the RIS.

2.4 Deviation 03/053/NC against GERT8012 was included as an Annex to RIS-8012-CCS Issue one, with the intent that changes resulting from this deviation would be incorporated in the RIS at the next revision. This deviation has since been addressed by changes introduced to RIS-0734-CCS Issue two, signing of permissible speeds (Standards project 15-017a) which supersede clauses 4.2, 4.3, 4.4 and section 6 of RIS-8012-CCS Issue One. The superseding of these clauses by RIS-0734-CCS Issue 2 was noted as a watermark to RIS-8012-CCS Issue One.

3. Impacts of the document(s) following publication/entering into force

3.1 Consideration has been given to the following during the assessment:

a **Business case for change** –The industry was not required to do anything differently because of the re-classification of GERT8012 as a RIS. There were no changes to requirements, and requirements in the RIS have an equivalent authority to those in an RGS when included in an organisation's Safety Management System.

b **Deviations** – There is one historic deviation and one current deviation registered against GERT8012. The historic deviation was a temporary non-compliance (TNC) for the trial of the Enhanced Permissible Speed (EPS) indicators on the West Coast Main Line, which were subsequently incorporated into the catalogue of lineside signs. The current deviation, 03/053/NC, permits the use of differential EPS indicators required to allow for the difference in performance between the class 390 and class 221 tilting trains on the West Coast Main Line (WCML). The clause against which this deviation was granted has since been superseded by updated requirements in RIS-0734-CCS Issue two, themselves updated to address deviation 06-055-DGN permitting the use of differential Enhanced Permissible Speed signage. There have been no deviations raised against RIS-8012-CCS Issue one since it was published/entered into force.

c **Current projects or proposals being processed** - There are no current RSSB projects or proposals to revise RIS-8012-CCS Issue one.

d **Limited change release** – There are no limited change releases related to RIS-8012-CCS Issue 1. The superseding of certain requirements by RIS-0734-CCS Issue 2 was noted as a watermark to the standard.

e **Amendments and clarifications** - There have been no amendments or clarifications made for RIS-8012-CCS Issue one.

f **Enquiries** - There have been no enquiries raised on RIS-8012-CCS Issue one.

g **Research projects** – There are no current or published research projects that impact on RIS-8012-CCS Issue one.

h **Changes in regulations** – There are no changes in regulations that result in a need to change the requirements in RIS-8012-CCS Issue one.

i **Changes in technology** – Although the introduction of ETCS on the WCML may result in changes to the technical means by which the speed of tilting trains (Class 390) on this line is currently controlled, the content of RIS-8012-CCS Issue one is considered to remain valid and not to require change because of this.

j **National Technical Specification Notices (NTSNs) and European standard**s – There are no changes in NTSN or European standards that necessitate a change to the requirements in RIS-8012-CCS Issue one.

k **Published list of NTRs** – RISs do not contain NTRs.

l **Any other observations:**

i. The standard could be brought up to date through including minor editorial corrections and changes, for example updating standards references, updating abbreviations and definitions etc.

ii. The standard could be improved through minor formatting amendments, correcting the diagrams obscuring text in Annex A, section A.5.

iii. Transferring the content of the standard into the new RIS template would involve providing rationale requirements, however this is not considered justifiable because no new tilting trains are planned to be introduced on the network.

iv. Requirements developed by the Digital Railway Programme for the implementation of European train Control System (ETCS) include those on the integration and/or co-existent operation of ETCS and Tilt Authorisation and Speed Supervision (TASS), the system currently employed on the WCML to meet the requirements of RIS-8012-CCS for the operation of Class 390 and Class 221 tilting trains. These requirements, currently captured as Open Points in RIS-0797-CCS Issue one, ERTMS/ETCS Baseline 3 Onboard Subsystem Requirements: Retrofit, and RIS-0798-CCS Issue one, ERTMS/ETCS Baseline 3 Onboard Subsystem Requirements: New trains, are not considered to require changes to the requirements in RIS-8012-CCS Issue one, but references to these standards could be included. Work being undertaken on the integration of TASS and ETCS on Class 390 tilting trains may generate additional requirements or guidance; it is considered that it would be better to include this in RIS-0797-CCS and RIS-0798-CCS when it becomes available.

4. Discussion

4.1 Consultee Feedback

4.1.1 Feedback obtained from initial consultation with identified industry representatives, including suppliers and ROSCOs, suggests that:

a) The requirements in RIS-8012-CCS Issue one remain valid and applicable and do not hinder, or require change for, the integration of existing or future tilting systems with onboard ETCS systems.

b) There is no known plan to introduce new tilting trains on the GB rail network, and even if there was, the requirements in RIS-8012-CCS Issue one remain valid and applicable.

c) In future, it may be required that Class 390s and Class 221s, which currently operate in tilting mode on the WCML utilising TASS, are moved to operate on a different line and:

i. If operations on this new line require tilting, then either the existing RIS-8012-CCS Issue one compliant TASS system will be utilised (requiring roll out of the trackside element on the new line), or an integrated ETCS/TASS solution may be implemented.

ii. If tilting is not required, then the TASS and/or tilting system could be isolated or disabled (the tilt equipment on Class 221s operated by Cross Country has been locked out of use completely), or they could remain active with the tilting and speed supervision function deactivated by the absence of TASS information from the trackside.

4.2 Review assessment

4.2.1 The standard is rarely used, if at all, and there is no known intent to introduce additional tilting trains to the GB network in the future. If new tilting trains are introduced, the requirements in RIS-8012-CCS Issue one remain valid.

4.2.2 The expansion of tilting operations by the existing tilting stock to areas other than those already covered is a possibility, albeit the expectation would be that speed supervision would either be provided by the existing TASS system, which is compliant with RIS-8012-CCS, or would be provided using an integrated ETCS/TASS solution compliant with the guidance in RIS-0797-CCS. The scope of the requirements in RIS-8012-CCS Issue one includes their use with a cab-signalling system – these requirements are considered to remain valid for operation under ETCS.

4.2.3 Although there may be additional requirements or guidance generated by ongoing investigations into the integration of ETCS and TASS on Class 390 tilting trains, it is

considered that this should be included in RIS-0797-CCS and RIS-0798-CCS if and when it becomes available.

4.2.4 The assessment from section 3 suggests there is currently no case for an update of RIS-8012-CCS Issue one.

5. Recommendations

5.1 The Control Command and Signalling Standards Committee is asked to:

a DISCUSS the five-year review assessment.

b SUPPORT the recommendation that although formatting and editorial changes are required there is currently no business case for doing so, and as the requirements remain valid the standard should be retained without change.

c APPROVE the review assessment for consultation with industry.

5.2 Supporting Standards Committees are asked to:

a DISCUSS the five-year review assessment.

b SUPPORT the recommendation that although formatting and editorial changes are required there is currently no business case for doing so, and as the requirements remain valid the standard should be retained without change.

c SUPPORT the review assessment for consultation with industry.

RSSB completion: [do not delete]

Lead Standards Committee	*Meeting date*	*Recommendation approved*	*Minute numbers*		*Next review date*
			Pre-consultation review	*Post-consultation review*	
Control Command and Signalling	01/07/2021				

Appendix A Associated information to support the review

The information in this appendix is provided by the industry groups information manager to assist with the review. This appendix should be deleted prior to submitting the review form to the SCs.

Deviations	List current deviations: Nil (against RIS-8012-CCS) 03/053/NC against GERT8012	List deviations in progress: Nil
Request for Help:	Nil	
Proposals: Nil	List approved proposals: Nil	List proposals not yet approved by the standards committee: Nil
7. RSSB Standards Programme	This document is currently not on the RSP.	
Amendments or clarifications	Nil.	
Limited change releases	Nil	
Enquiries	Nil	
Business case for change	17 IA18	
Information from RMDB Note: update RMDB to reflect action/decision	Nil (This document is not listed in the RMDB CCS sub-system, therefore there is no file 'Considerations for revisions' relating to this standard) There are no considerations for revision in CDB.	

Related documents:
Process procedure for the 12 month and five year review of Railway Group Standards and other documents