



SPAD risk shows increase.

Introduction

This is a four-page summary of the Category A signal passed at danger (SPAD) and Train Protection and Warning System (TPWS) activity report for Q1-2011/12.

Key Facts: Q1-2011/12

Quarter 1:	70 category A SPADs during Q1-2011/12, which is four fewer than Q1-2010/11 (5.4% better). Q1-2011/12 was also 0.9% better than the three-year average of 70.7.
Risk ranking:	25 SPADs were risk ranked 16 or above (two of which were risk ranked 20+). This compares to 22 in Q1-2010/11 (of which three were risk ranked 20+).
TPWS:	21 TPWS interventions (TPWS applied the brakes before, or in the absence of, driver action). 11 TPWS activations (the driver initiated braking before the system). There were also four incidents where the TPWS involvement is currently unknown.
Multi-SPADs:	16 SPADs by multi-SPAD drivers (two or more since qualifying as a driver), four of which register within the current five-year period. 19 SPADs at multi-SPAD signals (two or more within the current five-year period).

Summary of SPAD numbers

The number of SPADs recorded in the twelve months ending June 2011 was 295. This represents a 2.0% increase when compared to the position a year ago. '16+ SPADs' have also increased during the past year, reaching 91 as at the end of June; the total for 20+ SPADs has also risen slightly to 19. This is shown in Chart 1.

SPAD risk.

SPAD risk	June 2011 – 89% June 2010 – 69%	■ 20% worse: Representing a 29% change over the year
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SPAD risk is calculated system-wide using a consistent and objective measure applied by the SPAD risk ranking tool (SRRT). The risk ranking score assigned to each SPAD is then used to track changes in SPAD risk over time.

TPWS 'reset and continue'

There have been no further post-SPAD 'reset & continue' incidents since the one on 13 March.

Chart 1 Annual moving totals – All SPADs, 16+ and 20+

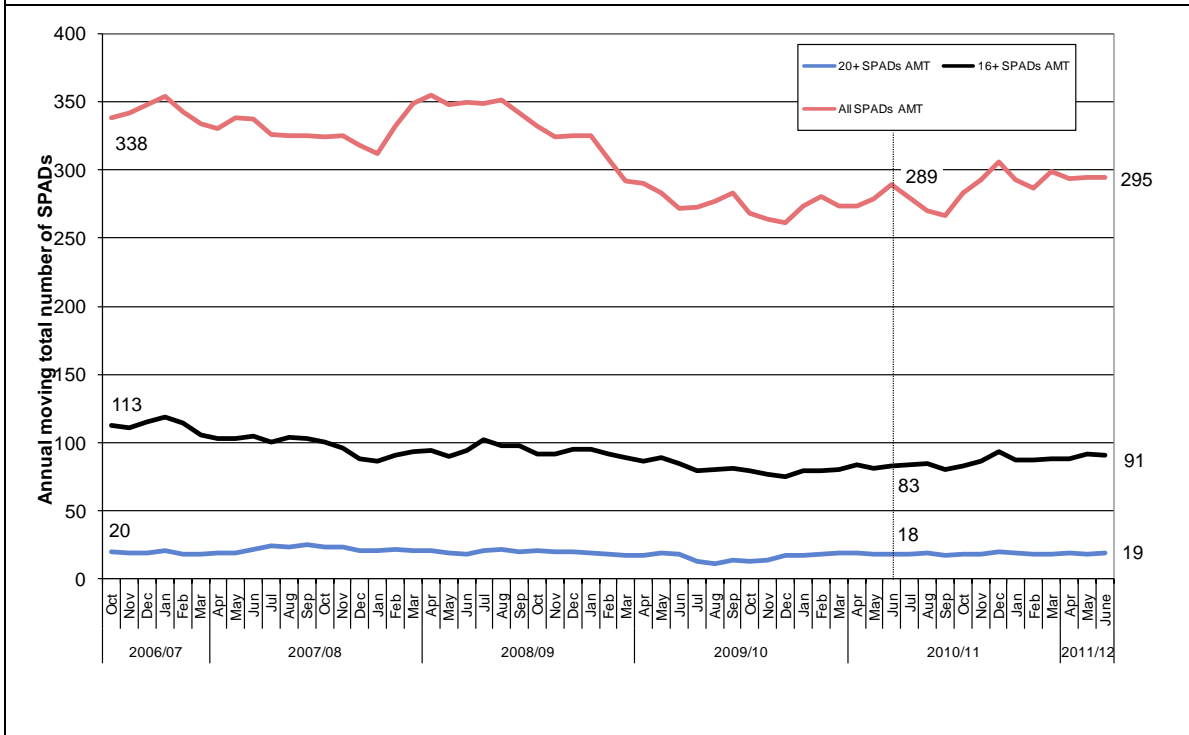
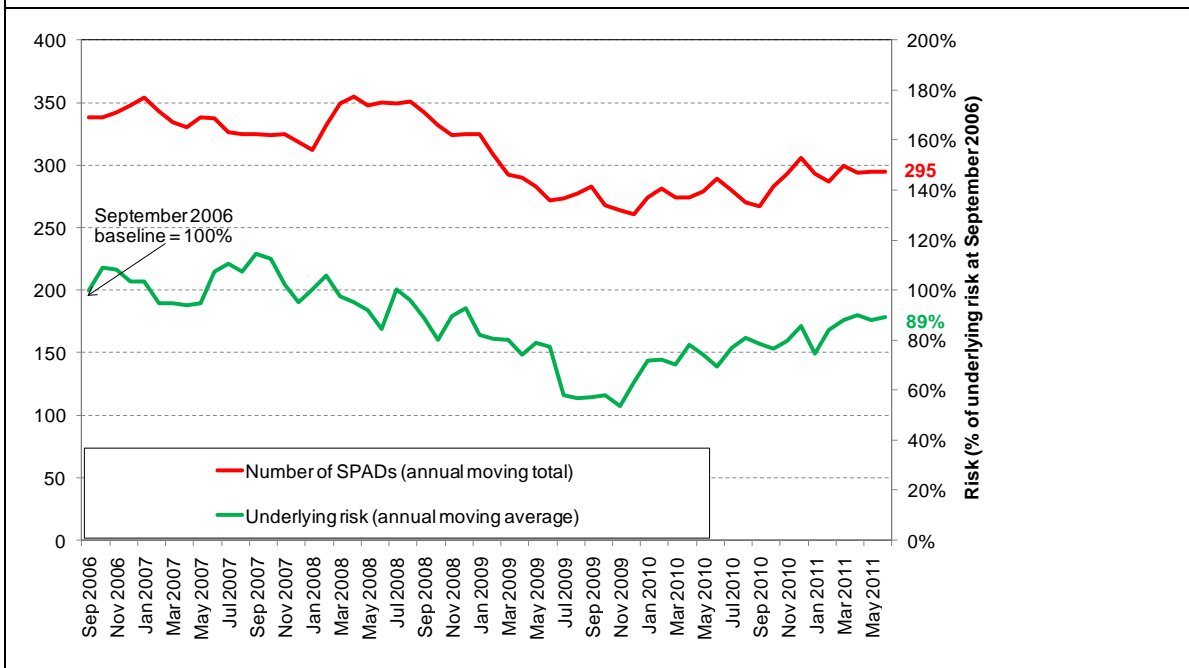


Chart 2 shows the change in SPAD risk over time. During the 12 months prior to January 2011, the SPAD risk metric remained broadly level, showing only slight fluctuations. As at the end of June, it has shown a slight increase to 89% of the benchmark level.

Chart 2 Change in SPAD risk over time¹



¹ The SPAD Risk chart includes SPADs which come within the definition of 'on or affecting a running line'. This is a slightly different set of SPADs to those on NRMI reported on elsewhere. A definition of OORL may be found in the full report

SPAD performance by route

Table 1 examines performance by route for All SPADs and those risk ranked 16+. The percentage changes are based on a comparison between the annual moving totals as at the end of 2009/10 and 2010/11. If any of the changes in SPAD numbers are statistically significant (at the 90% confidence level), this is indicated in the right-hand column of the table.

Table 1 Route Performance – Comparison of Moving Annual Totals

	Route	Annual moving total June 2010	Annual moving total June 2011	Difference in annual total	%age change in annual rate	Annual change significant?
All SPADs	Anglia	34	29	-5	-15%	No
	Kent	25	33	8	32%	No
	London North Eastern	52	50	-2	-4%	No
	London North Western	63	55	-8	-13%	No
	Scotland	22	28	6	27%	No
	Sussex	21	16	-5	-24%	No
	Wessex	21	30	9	43%	No
	Western	44	47	3	7%	No
	East Midlands	7	7	0	0%	No
16+ SPADs	Anglia	15	8	-7	-47%	No
	Kent	6	13	7	117%	No
	London North Eastern	15	19	4	27%	No
	London North Western	13	16	3	23%	No
	Scotland	11	7	-4	-36%	No
	Sussex	5	4	-1	-20%	No
	Wessex	5	13	8	160%	Yes
	Western	11	11	0	0%	No
East Midlands	2	0	-2	-100%	No	

Railway Group Standard GO/RT3119 – Version 2

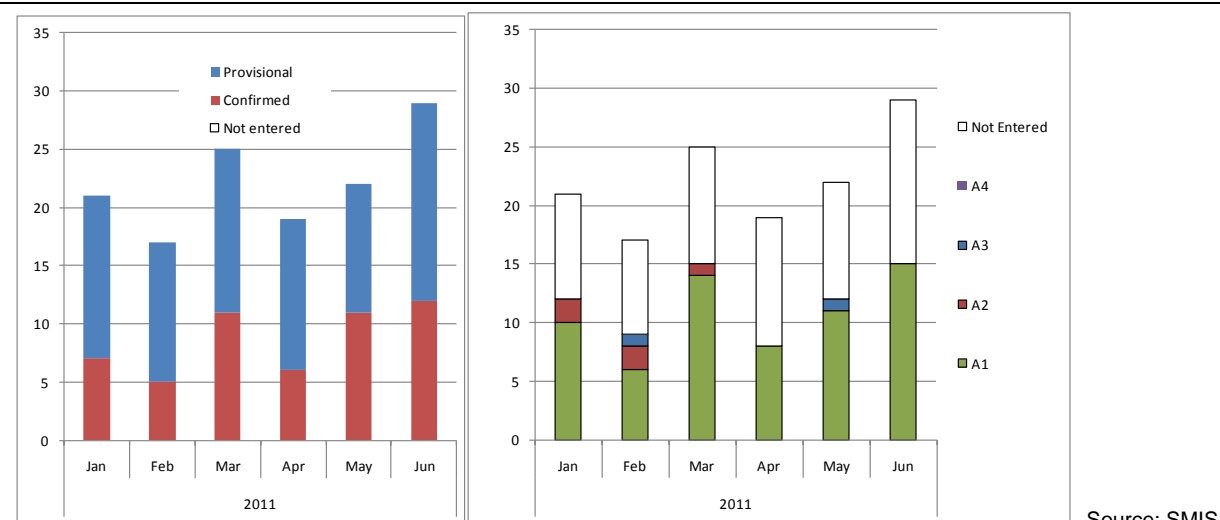
Version 2 of GO/RT3119 (*Accident and Incident Investigation*, dated September 2010) came into effect on 4 December 2010.

The principal changes to this standard are in the descriptions of how SPADs are categorised. The reporting of a SPAD and subsequent procedures undertaken by signallers and drivers remains unchanged. At present, a reported SPAD is initially categorised by the Infrastructure Manager (Network Rail only). The changes to this document do not alter this initial procedure, however the decision now results in a 'provisional' SPAD category (P). This provisional category of SPAD remains until the conclusion of the investigation by the lead organisation, at which time the (P) designation should be removed.

GO/RT3119 sub-divides Category A SPADs into four different types: A1, A2, A3 and A4. These differing sub-categories cover the scenarios of a 'classic' category A SPAD, as well as those of a signal being imperfectly displayed/part obscured, an incorrect authority being given and a train experiencing compromised braking performance.

Chart 3 shows the distribution of the different SPAD classifications, for the past six months, based on SMIS data. It may be seen from the right-hand bar chart that approximately half the SPADs in this period do not have a SPAD sub-category entered in SMIS. With such a large proportion of this categorisation data being unavailable for analysis, it is not possible to draw any meaningful conclusions from it. RSSB will support the duty holders in this area, with a view to improving this situation.

Chart 3 SPADs by sub-category



Further information:

Please refer to www.opsweb.co.uk for further data. The site contains a spreadsheet containing every SPAD event since 1998, and is updated monthly. All RSSB publications are freely downloadable from the RSSB website at www.rssb.co.uk.

If you would like to discuss any of the material contained in the SPAD report, please contact: Roger Badger, Safety Intelligence Analyst, roger.badger@rssb.co.uk