

Tranzinfo Hot Topic

Number 1 (Second edition) 2007

Level Crossing Safety

This is an update of a Hot Topic issue first released in 2005
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A selection of recent publications and resources on level crossing safety issues and crash prevention measures. Current as at 2007. Please contact your nearest transport library if you are looking for more recently published items on this topic.

Contact your organisation's library to obtain items not available online.

1. A defensive stance: railroads rely on a mix of time-tested and new equipment to prevent grade crossing accidents

Cotey A and Stagl J
Progressive Railroading, 2006
Volume 50, Issue 1, pages 38, 40-42 and 44-46

Review of level crossing crash engineering countermeasures employed by various state and city transport authorities in the United States.

2. Accident prediction model for railway-highway interfaces

Oh J, Washington SP and Nam D
Accident Analysis and Prevention, 2006
Volume 38, Issue 2, pages 346-356

Statistical modelling paper examining the factors associated with level crossing crashes using data from South Korea.

3. Australian railway level crossing behavioural strategy 2006-2011: proposal

Nye B, Sochon P and P
Findings of the 9th International Level Crossing Safety and Trespass Symposium, Montreal, Canada, 2006
National Research Council of Canada, Ottawa
8 pages

Paper detailing a proposed behavioural education and awareness program element within Australia's national level crossing strategy.

4. Cost of level crossings: international benchmark report

Arthur D Little Limited
Rail Safety and Standards Board, London, United Kingdom, 2006
49 pages

Report of a commissioned study from the United Kingdom into level crossing upgrade costs, and the cost effectiveness of safety treatment measures.

[Click here](#)

5. Does public education improve rail-highway crossing safety?

Savage I
Accident Analysis and Prevention, 2006
Volume 38, Issue 2, pages 310-316

Regression analysis of the Operation Lifesaver program in the United States and thus the relationship between increased educational initiatives and crash and fatality reductions.

6. Driver behaviour at level crossings: evaluation of a targeted intervention program

Wallace A, Davey J and Stenson N
Proceedings of the 9th International Level Crossing Safety and Trespass Symposium, Montreal, Canada, 2006
National Research Council of Canada, Ottawa
9 pages

This Australian paper outlines a multi-disciplinary approach to reviewing the level crossing safety interventions including incorporating psychological and sociological perspectives.

7. Estimating countermeasure effects for reducing collisions at highway-railway grade intersections

Saccomanno FF, Park P-YJ and Fu L
Accident Analysis and Prevention, 2007
Volume 39, Issue 2, pages 406-416

Paper proposing a Bayesian analysis model to calculate the effectiveness of level crossing crash engineering countermeasures.

8. Installation of pedestrian gates in New Zealand

Fielding H, Gordon C, Lewis-Evans B and Gibson R
Proceedings of the 9th International Level Crossing Safety and Trespass Symposium, Montreal, Canada, 2006
National Research Council of Canada, Ottawa
8 pages

Report on the installation and monitoring of the first set of automatic pedestrian gates to operate at a level crossing in New Zealand.

9. Level crossings – OLA model cooperation

Mornell O
European Railway Review, 2006
Volume 12, Issue 5, pages 28, 30-32 and 34

Paper highlighting level crossing management processes in Sweden, in particular the development and implementation of a number of action plans.

10. Making level crossings safer

Hall S and Van der Mark P
Modern Railways, 2006
January, pages 41-44

An examination of level crossing safety management and train derailment countermeasures in The Netherlands.

11. Rail crossings: a strategy to select countermeasure improvements for rail-highway crossings in California

Cooper DL, MacLeod KE and Ragland DR

Proceedings of the Transportation Research Board 86th Annual Meeting, Transportation Research Board, Washington DC, 2007

11 pages

An analysis from the United States of the effectiveness of level crossing warning treatments, including a cost benefit comparison.

12. Reducing undesirable motor vehicle driver actions at railroad highway-grade crossings

Khattak AJ

Proceedings of the Transportation Research Board 86th Annual Meeting, Transportation Research Board, Washington DC, 2007

16 pages

This paper reports on a driver risk taking behaviour modification strategy involving flexible centreline barrier installation at a level crossing in the United States.

13. Research into obstacle detection at level crossings

Arthur D Little Limited

Rail Safety and Standards Board, London, United Kingdom, 2006

160 pages

Report of a commissioned study from the United Kingdom into developing a system for obstacle detection system for automatic half-barrier level crossings.

[Click here](#)

14. SELCAT: Safer European Level Crossing Appraisal and Technology

Institute for Traffic Safety and Automation Engineering, Technical University of Braunschweig, Germany

Website of the SELCAT project examining level crossing safety technologies which involves representatives from 9 European countries and Japan.

[Click here](#)

15. The Australian level crossing assessment model

Lees C

Proceedings of the 9th International Level Crossing Safety and Trespass Symposium, Montreal, Canada, 2006

National Research Council of Canada, Ottawa

13 pages

An explanation of the development of a model for the prioritising of level crossing treatments.

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