Book review

RAIL HUMAN FACTORS: SUPPORTING THE INTEGRATED RAILWAY

J. Wilson, B. Norris, T. Clarke and A. Mills. Ashgate, Aldershot, 2005. ISBN 0-7546-4382-4, £65.00, 576 pp.

The tragic accidents at Paddington, Labroke Grove and Hatfield and the fire at King's Cross have heightened the public's awareness of the vulnerability of the complex system we call 'the railway'. The study of ergonomics, or human factors, can influence every aspect of railway operations: the train driver, the maintenance task, the signaller, the evacuation from a disaster and, not least, the manager. Studies have been undertaken in the field for at least four decades, but were catapulted into the forefront of rail research by the Cullen Report (2001) following the Ladbroke Grove tragedy.

At first sight this comprehensive look at current thinking and research will appeal only to the rail industry professional. Think again. The research and results presented here in book format are compulsive reading, and can be recommended to all transport professionals, whatever their individual specialisation. The research, comprehensively reported from a wide variety of sources, could equally apply to a study of how to educate and improve the habits of car drivers, safety on motorway roadworks or procedures that could be adopted in multiple road crashes.

This reviewer cannot pretend to have read every word of the 576 pages, but it is perfectly possible and rewarding to select individual chapters. The book has its origins in the First European Conference on Rail Human Factors in 2003, and the editors—from the Institute for Occupational Ergonomics at Nottingham University and the Rail Safety and Standards Board—have done a creditable job in assembling the papers into a logical sequence and

sections. Each author in most cases gives the description of the (prolific) acronyms in full, so the reader doesn't have to skip around the book looking for what they mean. Some are well known—SPAD (signal passed at danger), TPWS (train protection and warning system) or TOCs (trains operating companies), for example. But do you know what FTDs, EDAs and EPSs are? Read the book and you will find out.

A feature that I found invaluable, and which other editors would do well to copy, is the annotated index where all the abbreviations are listed in full. Very few errors or omissions were detected—DLTR instead of DETR, and no explanation (that I could find) of ANOVA—but that is a small price to pay for such a comprehensive exposition.

The value of this book for non-railway professionals is its relevance to other transport disciplines. As an example, the chapter on 'A common system of passenger safety design' should be required reading for any traffic engineer responsible for signing urban traffic management schemes. The complaint of urban clutter is a symptom of driver information overload, and although urban accidents tend to have less serious impact than high-speed rural crashes, the relevance of information being passed to and processed by a train driver can be directly compared to that required by a car driver in towns.

As a final comment, the publishers' recommendation can be plagiarised and amended to read: 'The book is the definitive guide for all those concerned with making transport safer, more reliable, of high quality and more efficient. It will be essential reading for policymakers, researchers and industry around the world.'

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