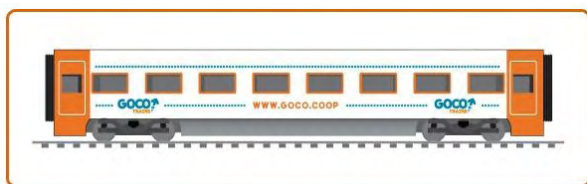


## Go – ing

For the last year or so, the Railway Consultancy has been working with prospective open access train operator GOCO on proposals for running trains on an axis from Westbury to Birmingham Moor Street via Swindon and Oxford. Our role has covered two key areas: timetabling and business planning.

Timetabling on this route is potentially very difficult. It includes a section of single-track and no less fewer than 15 junctions, which are used by eight other train operators. Our aim has been to devise a regular-interval timetable with minimum impact on existing services. Only when this is attempted does it become clear quite how busy and capacity-constrained Britain's network is, and how detailed variations in parameters such as signalled headways cause problems for timetable planners. Through a combination of theoretical principles and practical know-how, we have also been trying to ensure that both rolling stock and crew diagrams are also as efficient as possible. We now appear to have devised a solution to fit timetable, rolling stock and crew requirements.



*GOCO's services are expected to terminate in the new platforms at Birmingham Moor Street*

Our business planning advice to GOCO management has included generating commercially-attractive sub-options, reviewing the demand forecasts prepared externally for them, and helping GOCO through the complexities of negotiation with all the other parties involved. Early work identified that the original intention of serving Weymouth was commercially-weak, but it should still be possible to run a limited service there at weekends. It is hoped to submit a formal track access application soon, but further information on the progress on this project can be obtained from GOCO's website, <http://www.goco.coop/train/>. Further opportunities for developing GOCO's rail interests may arise through integration with their recently-launched car club in Swindon.

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## Editorial

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We are now well into a recession, and the pain is now becoming evident, not only in Britain but also in other European countries, including Greece and Ireland. Public expenditure (on which most railways depend, to one extent or another) is being squeezed. Rightly, this also means questioning whether consultants offer good value for money or not. And, whilst some may not, we like to think that we here at the Railway Consultancy can indeed make a useful and cost-effective contribution to railway performance (both commercial and operating). Our ability to survive is dependent upon our persuading clients that this is the case.

However, it is also helped by the existence of world markets which are not as depressed. This issue of our newsletter contains reports on a couple of projects we carried out during the year in Saudi Arabia, a country which is not short of oil – and hence money. However, as their government realises, oil does not go on for ever, and broadening their economy requires an infrastructure to support it, including a decent railway network. Spending wisely to get the maximum benefit from investment there follows many of the same principles as in countries with more railway (if less money!), and we shall therefore be watching developments there with greater interest in future.

Back at home, building work has not yet started on the station improvements supposed to be associated with the East London Line extension to Crystal Palace, which opened a year ago. That has meant another year of keeping fit with the 100+ stairs to our offices.

Despite various problems with railways in Britain (this issue also carries a story about the impact of severe Winter weather), demand for train services here has continued to grow. High petrol prices are clearly a contributor to that, but the fact that a recent survey showed that British passengers are generally happier with rail services than are their French and German counterparts should give food for thought to all those contemplating an appropriate response to the McNulty report on “Value for Money in the Rail Industry”. Whether working in the sand or the snow, we will be delighted to help any of our clients achieve that.

*Nigel S Harris*

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## Project News

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### Southeastern Performance Analysis

Train service performance is of the utmost importance to Southeastern and its passengers. In the early years of its franchise Southeastern performance showed positive improvements. However, performance deteriorated during 2010, and particularly during the



*Parts of the Southeastern network had their worst Winter for years*

autumn leaf fall season and the severe winter weather in November 2010.

The Railway Consultancy was asked to assist the Southeastern performance team to analyse performance trends across a wide range of categories, in order to help Southeastern work with Network Rail to prioritise actions to improve performance. This included analysis of trends of root cause delays and reactionary delay and the changing trends of delays per incident.

This work helped in gaining an understanding of the relationships between the impact of timetable changes on performance, against the underlying performance of railway infrastructure, particularly during events of major disruption, including the severe winter weather.

The Railway Consultancy also looked at information flows between various rail industry systems during severe disruption as this had been a particular cause of dissatisfaction during the Winter events.

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## Project News

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The Railway Consultancy and its local partners Irolli Trading Corporation and Summit Engineering were delighted to win, through international competition, a tender for strategic planning for the Saudi Railway Organisation (SRO). The project was a key part of SRO's efforts to play a much bigger role within the developing economy of Saudi Arabia.

This study examined the key corridor between Dammam and Riyadh via Hofuf. Although capacity enhancement works are already being undertaken by doubling the line between Hofuf and Riyadh, the SRO had concerns for the future transport demand on its network. We undertook demand forecasting of the four main traffics – passenger, container, cement and grain – to identify the likely future need for train-paths, whilst simultaneously undertaking capacity analysis of the existing situation and a range of potential scenarios. As well as scenarios involving the construction of new lines, we also developed options to address specific bottlenecks in the short term, since the single-track nature of line 2 (via Harad) is already starting to cause problems. We recommended a staged approach to capacity enhancement, with new lines only targeted in the medium-term, to deal with the four-fold increase in traffic expected by 2030.



*SRO Passenger Service at Dammam*

As part of the Saudi Railway Organisation's (SRO's) long-term plans, an international tender was also let for the schematic design for a dry port in Hofuf city, in the Eastern Region of Saudi Arabia. Again working with local partners Irolli Trading Corporation and Summit Engineering, the Railway Consultancy was selected for this work, which included a number of strands of activity.



*SRO Container Train*

A series of site visits were undertaken in the Hofuf area, in order to identify appropriate locations. Other considerations taken into account included:

- the significant plans of the municipality for urban expansion;
- railway operating conditions and practices in Saudi Arabia, including the recent introduction of double-stack container trains;
- forecast demand levels; and
- international best practice for the design of dry port facilities.

These enabled us to devise a schematic design for a relatively small terminal to the West of the city. As initial traffic levels are expected to be relatively low, we recommended a staged design, in which some capital works (e.g. relating to the area of hard standing, and the replacement of reachstackers with overhead gantry cranes) could be postponed for a decade or so, thereby enhancing the economic viability of the project. In order to demonstrate the dry port visually, a simulation was created.



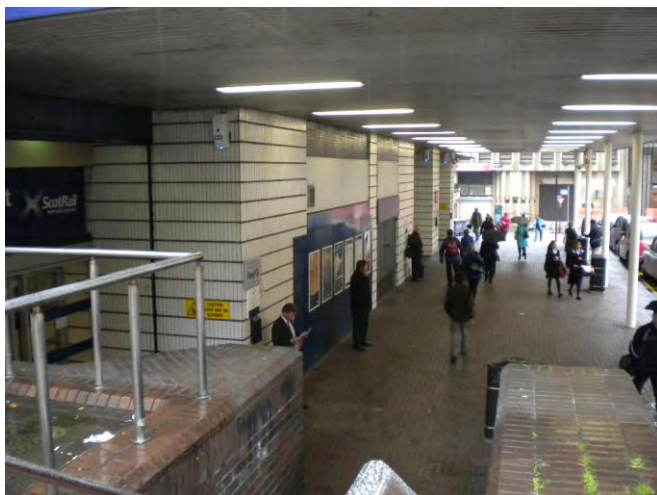
*Reach-stacker working at Dammam yard*

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### Wayfinding Research

Following on from a workstream of projects covering car-parking, access to stations, and Southern's information zoning, the Rail Safety and Standards Board (RSSB) working on behalf of the GB rail industry, appointed The Railway Consultancy to undertake an independent evaluation of the RNIB React system, a system of navigation and audio sign-posting, which had been piloted at a number of railway stations. The project was also required to investigate existing or future alternative technologies, in order to identify the case for the rail industry to invest in such systems.



*Wall-mounted REACT sensor at Glasgow Queen Street*

RCL, working with expert partners, managed the project, which included specialist disability market research, consultation with rail industry and other stakeholders and technical and economic evaluation of the RNIB React system and other current or future potential systems.

Train and station operators expressed support in principle for the consideration of wayfinding technology at stations but have expressed some reservations about the RNIB React system on grounds including costs, the difficulties in effectively integrating the system within existing rail systems and also the potential for the system to be superseded in the short to medium term by alternative technologies, which were evaluated during this research.

The research concludes that the GB rail industry should not, at present, commit to large scale investment in wayfinding or assistive technology, but should continue actively to review the evolution of existing systems, including RNIB React, as well as the development and availability of currently emerging technologies.

The research also recommended that the rail industry should also take account of the rapid development of communications technologies including 'smart' mobile phones and wireless communications, as well as the ongoing capability and coverage of smart cards such as concessionary travel cards.

The full report can be found at:

[http://www.rssb.co.uk/SiteCollectionDocuments/pdf/reports/Research/T881\\_rpt\\_final.pdf](http://www.rssb.co.uk/SiteCollectionDocuments/pdf/reports/Research/T881_rpt_final.pdf)

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### WRI Book

The Wheel:Rail Interface Handbook, sponsored by Network Rail, was published last year and has been selling so well that a re-print may be necessary. Buy yours now from [www.anharris.co.uk](http://www.anharris.co.uk).

### Benchmarking Leads to Results

Our support of the benchmarking activities carried out by RTSC at Imperial College London continues to bear fruit. London Underground recently estimated that results from a study on escalators would save them £100m operating costs in the coming years, whilst other work has led to academic results, with a paper delivered to the TRB conference at Washington.

### Freight Trains Return

A couple of years ago, working with partner consultancy i-Transport, we undertook an outline feasibility study for freight trains to serve a new glass factory operated by Quinn at Ince, Cheshire. We were delighted to discover recently that this led, first to a trial run, and subsequently to a timetabled service of three trains per week of sand from Middleton Towers (King's Lynn). In the short term, trains are currently running to an alternative railhead facility at Ellesmere Port, which itself reopened recently. Our work had showed that it would be possible to re-use sidings adjacent to the factory, and later this year, operations are expected to transfer to these sidings.

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The Railway Consultancy provides services across areas such as demand forecasting, operational planning, strategy and business development; for more details see our website [www.railwayconsultancy.com](http://www.railwayconsultancy.com)

### Contact Details

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