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# The Railway Consultancy Ltd.

*Specialists in Planning, Economics and Management*

Summer 2004

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## Working with Southern

With our base at Crystal Palace station, in the heart of South London Metro territory, we inevitably have close links with our local train operator. Following the SRA's refranchising exercise in 2003, a joint venture of Keolis and Go-Ahead took over the franchise. A low-key first few months disguised a huge amount of work which was carried out behind the scenes, prior to the official launch as "Southern" in June 2004.

Key elements of recent developments have been in improving train service performance, and in improving access to the network. The Consultancy has supported Southern in both of these.

During late 2003, staff undertook an independent performance study of mainline services (including Gatwick Express) departing from Victoria station. Detailed timings of the movements of trains, traincrew, platform and catering staff, and the provision of information were taken throughout three evening peaks. Despite the service running well during our observations, our analysis highlighted where time was being lost, and we made a number of practical recommendations as to how departure procedures could be tightened up by all those involved in operation of the station.

Two key changes in legislation affecting the mobility-impaired have also occurred during 2004. Whilst it is impractical to make all stations immediately accessible (e.g. our home station at Crystal Palace has 119 steps from the furthest platform to the ticket hall), improvements in information can be made, so that at least passengers can find out what is available before travelling.



### Stepping Distances

Senior Analyst Matthew Smith was project manager for a project which involved making multiple measurements of the platform: train stepping distances at all 163 of Southern's stations, inventing a special device in the process, which enabled this to be done from the train (see picture left).

Both the SRA and the National Rail (telephone) Enquiry Service (NRES) needed full information on other facilities available across the Southern network, and a large database was built up, covering issues such as signage, the provision of audio loops, car parks,

luggage trolleys and wheelchairs.

*Southern has recently published its Accessibility Guide, which is available at their major stations.*

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### The Railway Consultancy Ltd

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## Company News

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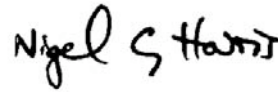
Two years on in our new offices and much has changed in the railway industry – or nothing at all, depending upon your point of view. Further change is likely, with a major Rail Review currently under consideration by the Secretary of State.

There has, however, been a welcome (if so far insufficient) improvement in train service performance. This is an area in which we have been involved, including with projects at Victoria and between Waterloo and Clapham Junction, amongst the busiest places on the network.

Costs continue to be under scrutiny, which is where our cost-effective practical solutions can really play a part. However, it is important that budgetary problems in the industry are resolved, so that small cost-effective schemes can be taken forward. As the article about

Admaston shows (see next page), communities still seek to be part of the railway network, and it is essential that, where there is a good business case for this, we as an industry are able to satisfy this demand.

Railway industry projects still seem to cost too much and take too long, but at least progress is now being made on both big and small projects. We look forward to continue working with our clients to deliver real improvements to the most important people in the industry – the passengers and freight consignors.



Nigel G Harris  
Managing Director

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## Project News

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### Defensive Driving Surveys

Train service performance has clearly become a key issue in recent years, but the causes of its deterioration are complex. One particular issue of which South West Trains (SWT) had become aware was the potential impact of more cautious driving techniques, as a reflection of a more stringent safety regime. On a busy railway, however, this can cause havoc with train schedules and hence punctuality.



SWT therefore commissioned the Railway Consultancy Ltd to carry out a programme of surveys on the section of line between Waterloo and Clapham Junction. Covering all down platforms on the slow lines, staff measured to the nearest second various train, passenger and staff movements. Track circuit occupation and signal aspect data was also obtained from signalbox records at Wimbledon PSB, and the whole dataset merged.

Our analysis showed that, despite a wide variation in journey times, virtually no trains were completing their journeys within the booked time. In fact, this result was also the case when all other variables were excluded e.g. when the dataset was limited only to those trains which had not been signal-checked. Comparison with historical datasets held by the Consultancy showed that trains were typically taking 20 seconds longer than 10 years ago. This analysis then enabled SWT to consider various changes to operational plans and procedures.

*(left) Yellow signal aspect at Vauxhall – but exactly how do train drivers react to it?*

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### Admaston Station Feasibility Study

Although the focus of many rail passenger services is on the major urban and Inter-City markets, rail also plays a key role in the regional market, especially where transport issues are considered in new developments. Continued growth in the West Midlands has led to the creation of new housing estates to the west of the Telford conurbation. A number of villages are close to the Birmingham-Shrewsbury railway line but several miles from the nearest station at Wellington.

Wrockwardine Parish Council therefore commissioned the Railway Consultancy to examine the feasibility and cost-effectiveness of providing a station at Admaston. Engineering cost estimates provided by Thursfield Smith Consultancy, and our own estimates of the impact on existing train service operation, were assessed against demand forecasts prepared using our own GCOST™ model. An appraisal of the scheme showed it to have a positive Benefit:Cost ratio.



*The proposed station site at Admaston*

Emphasising the instability of bus services (and therefore why local authorities look to the railway), the main bus route linking Admaston and Shawburch with Wellington was withdrawn at short notice in April 2004. Wrockwardine PC therefore returned to the Railway Consultancy to reappraise the station in the new situation. As can be expected, withdrawal of the bus service strengthened the case for the railway station, a case which the Parish Council then took forward to seek funding.

### North London Line

The North London Line provides a key orbital link in London's rail network for both freight and local passenger trains. It passes directly through the centre of Hackney, a borough so far without an underground line. Following a period of poor train service performance, and with potential extra use should London win its Olympics bid for 2012, there was increasing local pressure for improved train service levels, which are anyway a key element of the London borough of Hackney's transport objectives. However, it was acknowledged that there were constraints on such service improvements.



*A Class 313 arrives at Highbury*

The Railway Consultancy was therefore commissioned by the Council to undertake an independent and detailed assessment of the existing condition of, and potential for, local passenger services along the line. Constraints hindering current performance which were considered included traincrew arrangements, short platforms, differing types of power supply, the requirement to accommodate freight traffic, and a paucity of reversing and overtaking facilities.

Using the company's TRAKATTK train service simulation, we were able to identify the impacts and extent of current realistic station, track and train improvements, as well as longer term aspirational measures designed to meet the predicted increases in demand from major local developments and the Olympics. As part of the outputs from the study, we were then able to advise the council on how to promote and achieve these developments.

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## Other News

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### Reducing Our Environmental Impact

The Railway Consultancy has continued to work with the Woodland Trust in calculating the emissions of carbon dioxide arising from our travel. Consultancy staff once again applied this method to assess our own impact on the environment, and another 90 trees were planted in Kent, to sequester the emissions for which we were responsible.

This is just part of our environmental policy at the Railway Consultancy Ltd, which includes minimising waste, maximising recycling and encouraging the use of public transport (especially rail) wherever possible.

Locally, we have started a garden to improve the environment here at Crystal Palace station.

### Website

Projects mentioned here, together with others we have worked on and additional information about the Company, may be found on our website [www.railcons.com](http://www.railcons.com), which has recently been updated.

### Staff E-Mail Addresses

Staff can be contacted using [firstname.lastname@railcons.com](mailto:firstname.lastname@railcons.com)

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### Project Updates:

#### Developments in the North West,

Further to features in previous newsletters, we are glad that progress has been made on a number of the project with which we have been involved. Ground preparation works for the new interchange are now taking place at Allerton, whilst elsewhere on Merseyside a business case is being made for improvements to St Helens Central. A similar situation has been reached at Salford Central in Greater Manchester, whilst Deesside-based Toyota has now run a trial using intermodal rail services from the Trafford Park terminal.

#### ...Scotland

As many will know, the proposed re-opening of the Stirling-Alloa route is progressing well through the Scottish Parliament, with work to start soon. Our operational input, as sub-consultant to Babties, should have convinced everyone that the railway is operable, as well as having a sound business case. Opening is due for December 2005.

#### ...and abroad

We continue to support the Railway Technology Strategy Centre, Imperial College in their benchmarking of metro railways across the world. During the last year we helped with a project examining the different ways in which metros reacted to passenger-related incidents - whether deliberate (such as vandalism) or accidental (such as being taken ill). The project's results were presented in Montreal, where we also carried out a train service survey; fortunately, this did not include the measurement of any significant passenger-related incidents!

### Planning Freight Railways

"Planning Freight Railways" was published in late 2003. Co-edited by director Nigel G Harris, the book contains a wide range of contributions (including from other members of the Consultancy) and will be of interest to all those seeking to know more about rail freight's potential for development.

Although the book is available in bookshops at £30, we can offer it for this price directly to you post-free in the UK (please send cheques made payable to 'A & N Harris' at our address on the front of this newsletter).

