

Decision Time

By the time you read this, a number of key decisions affecting the railway industry should have been made. At a strategic level, the Department for Transport's High-Level Output Statement (HLOS) should have been published, setting out the Government's vision for the railway over the next five years (Network Rail Control Period 4). The HLOS process is one which we have been involved with, providing analytical support for a statement whose supporting work is not just high-level, but worked through in some detail. Already widely-leaked is the commitment to provide around 1000 new carriages, starting with extra trains for Southern, to allow them to cascade others to FCC. However, with traffic levels currently rising at around 7% p.a. on average, this capacity is becoming urgently needed, and we await with concern the actual announcements of firm orders for new trains. This cannot wait long in some areas, where passengers are standing (if not being left behind) and hence where customer satisfaction is falling.

A number of franchise decisions are also being made. Four bidders were shortlisted for the East Midlands franchise, which comprises the old Midland Main Line operation with a number of local services in Nottinghamshire and Lincolnshire. We carried out a considerable amount of fieldwork support for Stagecoach, in areas such as monitoring queues, ticket checking on trains and train running. We also undertook a comprehensive count of passengers using Nottingham station between 0700 and 1900 on a very cold day in December. Stagecoach has recently been confirmed as winners of this franchise.

Go-Ahead (for whom we did a small piece of work) and Serco were the two shortlisted bidders for the West Midlands franchise, which (despite its name) also includes suburban services out of Euston. We backed the winning team on this one too (is this a coincidence?!), the announcement being made in late June.

In addition to the planned re-franchising activities, the East Coast franchise has also had to be re-tendered, following the well-documented financial problems of GNER's parent Sea Containers. Again, we have carried out a range of fieldwork to support the Stagecoach bid – and now know a lot about the loadings of GNER's trains!



Class 222 at Nottingham, centre of the new East Midlands franchise, and where footbridge refurbishment has just started.

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As well as the standard franchises awarded by the Department, Transport for London have recently awarded to Laing/MTRC the London Orbital rail franchise, which includes the Gospel Oak – Barking, West, North and East London Lines (ELL). Not only are both Laing's Chiltern operation and MTRC from Hong Kong clients of ours, but we have an interest as users, because the extension of the ELL to Crystal Palace is due in 2010.



Our offices just show above the trackbed where new platforms for the ELL are to be constructed

Together with the proposed extension of the Croydon Tramlink here, Crystal Palace will become the centre of the universe (well, almost!).

However, not only are all these franchise decisions important for the bidders and the operating staff associated with the franchise, they are also important in enabling a raft of more detailed planning work to continue. Community Rail initiatives on the Watford Junction – St Albans Abbey line, where we have a contract with Hertfordshire County Council to monitor traffic levels, are dependent upon close working with the train operator.

The same is true of the redevelopment project for Bletchley station, described more on page 3 of this newsletter. So we very much hope that the Department, TfL and train operators will be able to stick to their timescales and take the required actions soon, to take the railway forward from later this year. The railway is in good shape – and these decisions can only help to improve matters further.

Company News

Transition

The last year has been something of a year of transition for the Railway Consultancy. David McIntosh retired as a Director during 2006, although his years of experience are still available for us to call upon. William Adeney has subsequently joined the company in a management role, at present only on a part-time basis. William has considerable expertise in the areas of railway strategy and asset management, and was also for four years the Managing Associate of the Railway Technology Strategy Centre at Imperial College, with whom we continue to work closely.



Also joining the Company have been analysts Shonali Burman-Roy and Daniel Mausli. Shonali brings a

Geography degree to bear on work which has already included train service modelling for London Underground, and a range of surveys. Daniel adds considerably to our timetabling expertise, having worked previously for Network Rail's Strategic Access Planning unit and, before that, for Swiss consultants SMA, who have led efforts in developing Taktfahrplan timetables across Europe in recent years.



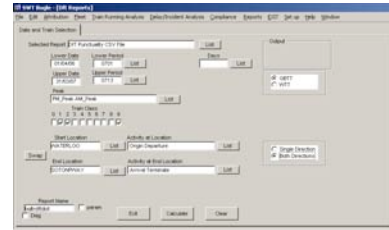
We have also secured an extension to the lease of our main office at Crystal Palace station, a lease due to expire in 2013. As noted on the front page, this time-period could see a complete transformation of the station, with both East London Line and Tramlink extensions, whilst the local area also has the potential to benefit from long-overdue works to the adjacent park and athletics facilities. So why not come and see us and everything else that's going on here?

Punctuality Impact Research

From generalised cost theory (and common sense!), it is reasonable to assume that passengers are adversely affected by poor rail service performance. The exact form of this relationship is, however, not obvious, but it is common to understand the impact of delays as a multiplier of the time spent being delayed. (For instance, an unadvertised delay of 10 minutes may have the same impact on passengers as a scheduled 30 minute longer journey time). Until now, however, data on the relationship has often only been available at a fairly general level. Previous research has also yielded a wide variation in results, driven in part by the way in which punctuality was actually defined (e.g. average minutes late, % of trains within 5 minutes etc.), and partly by the length of time over which the research examined passenger responses.

The DfT therefore decided to fund further research into this area and, after tender, awarded a contract to ITS (at Leeds University) and The Railway Consultancy (as sub-contractor), with the specific aim of examining these relationships at the level of individual traffic flows. It was hoped to gain greater insights both into variations in the competitive environment, and over time.

Our contribution to the study was to develop a method for the extraction of performance data from railway industry databases. Early consideration of the problem highlighted the difficulties in extracting datasets which were directly comparable with those emanating from the LENNON ticketing system. It also became apparent that the existing database queries did not provide data in a helpful format, which could have led to huge quantities of data processing.



We therefore specified and commissioned a new database query for the BUGLE system from the Universal Improvement Company, its developers. Data was then extracted for a number of measures of performance for two years' worth of four-weekly accounting periods for 69 traffic flows in South East England, 19 of which were to/from London, where separate peak and offpeak analysis was possible. These datasets were then fed back to ITS for econometric analysis.

Bletchley Station Upgrade Appraisal

Bletchley station was rebuilt in the 1960s, as part of the West Coast Main Line electrification project, but this did not address the fundamental problem that the main entrance faces away from the town. By 2006, the station was also arguably in need of improvement.



In addition, English Partnerships was seeking to improve the town centre around the station, as part of the Bletchley Regeneration Framework, whilst bearing in mind the need for enhanced facilities for serving an expanded Milton Keynes in the future. The Railway Consultancy was therefore engaged to assist with the appraisal of various options for the station, including a new or extended footbridge giving access to a new ticket hall opposite the bus station. From the railway point of view, this is a relatively simple appraisal comparing the additional operating costs of new infrastructure with the expected increase in demand, although cost information was particularly difficult to obtain. Working as sub-consultants to engineers White Young Green, who provided a number of physical solutions to these issues, possible options were developed.

However, providing *public* access across the railway, to facilitate development to the West of the railway, provides urban regeneration not railway benefits, whilst train operators Silverlink were unhappy about use of the railway bridge for the general public. Our analysis was therefore taken forward for discussions about funding from both railway and external sources.

LUL Infrastructure Assessment Analysis

London Underground carries out considerable work in examining its infrastructure to see if minor changes can be made to it which would have beneficial impacts on train service performance. Following work done by RCL for LUL in 2005, we were commissioned to investigate the impact of installing additional pointwork to enable trains from any branch to reach either of the platforms in the appropriate direction at Earl's Court – arguably the heart of the District Line. In addition to this, RCL further investigated the value of modifying the present infrastructure at Oakwood to increase operational flexibility by adding an additional reversing siding or bay platform. For both projects, LUL's Train Service Model was used as the primary tool of investigation to produce scenarios relating to passenger hours and service performance, and therefore the value of each proposal, allowing us to make a number of recommendations.

Safety Analysis

We have continued to carry out statistical analysis of Signals Passed At Danger (SPADs) and other safety-related incidents for a number of train operating companies. This has identified a range of physical, environmental and human factors which clearly impact very significantly on risks, not least in the area of roster construction. Do contact us if this would be of interest to your train operations.

Publications

Staff continue to develop their expertise and extend everyone's knowledge by giving conference presentations and publishing papers. Our work on timetabling and station stop times has continued to generate interesting results, which have been reported in such august places as:

"Train Boarding and Alighting Rates at High Passenger Loads", Journal of Advanced Transportation 40 (3) pp. 249-263 (2006);

"The Rational Use of Recovery Time", paper with F. Schmid, University of Birmingham and others, IMechEng conference on "Railway Capacity – the Engineering Response". 13th June 2007

NSB Stations – The Good, the Bad and the Ugly

Last year, we carried out a range of operational consultancy work for Norwegian Railways (NSB), including a week-long programme of station stop time surveys, which formed part of a concerted effort to improve train service performance in Oslo's Western corridor. NSB also commissioned the Railway Consultancy to carry out a physical audit of station facilities at a range of stations in the Oslo area. These surveys examined the function and quality of stations from a passenger perspective. They covered issues such as access to, and the presence of, stations within the local community, information within the stations (and on reaching local destinations nearby), provision for cyclists and the mobility-impaired, retail and maintenance issues.



The good (Asker), the bad (Lysaker)...

Broadly, whilst the larger stations were good quality, some of the smaller stations were not, and a preliminary assessment was made of the impact of this on passenger revenues. A range of detailed suggestions were made about repair and décor and the upgrade of facilities to standards appropriate for the number and type of passengers, for instance more cycle racks where excess bikes were otherwise being taken onto platforms.

Whilst acknowledging local cultural norms, enhancements to the visibility of stations were encouraged, since some stations were particularly poorly-signed from their neighbourhoods.



...and the ugly (Stabekk)

Recommendations were also made about changes to organisational structures within the railway which are likely to sustain the improvements.

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