

**Submission to All-Party Parliamentary Rail Group on High Speed Rail  
Rail Capacity Enquiry**

Association of Train Operating Companies

12 March 2012

1. How do you view the current capacity situation on Britain's railways?

1.1 Despite the recession, utilisation of capacity on Britain's railways is, on many routes, close to its limits. Although there was a small drop in rail passenger journeys at the start of the downturn, demand has recovered quickly and is now above the forecast that the Department for Transport (DfT) set out in the 2007 High Level Output Statement. The railway has, over the last few years, had to exploit available line and fleet capacity as far as possible. A better longer term strategy is needed.

1.2 We have been working with Network Rail (NR), freight operators and the supply industry through the industry's Planning Oversight Group to help develop such a strategy through a long term planning framework, taking into account the plans for Control Period 5 (CP5) as set out in the Initial Industry Plan of last September. We also provide extensive input into the Route Utilisation Studies that NR carry out.

1.3 In London and the South East demand is already 10 percent above the HLOS forecast and TfL project that demand in 2020 could rise by 33% compared to 2007 figures<sup>1</sup>. Such increases are substantially driven by employment which, in central London, is forecast to grow by over 15% over the next 20 years. The heavy rail network already moves over 1.2m passengers into and out of London daily.

1.4 Growth on regional routes within and into Britain's major cities also needs to be addressed. More and more routes into the major regional centres are now heavily loaded as commuting by car becomes less attractive and many new city centre employment developments favour rail for access. These centres are also seeing increases in demand, despite the recession. In the West Midlands, passenger journeys have increased by 5.2 million between 2008/9 and 2010/11, with year on year increases of 6% or more<sup>2</sup>. Services on regional routes into cities on the proposed HS2 'Y' shaped network to Leeds and Manchester will also need to be improved to provide capacity for the resultant growth in volumes that is expected.

1.5 The following represents a summary of the most congested rail routes:

**London**

1.6 West Coast main line – Inter City (Virgin West Coast) and middle-distance (London Midland) services are already working close to available line capacity on the southern end of the line and there are also major pressures north of Preston. There are limited opportunities to lengthen trains (which is already in progress on Inter City services and on some London commuter flows) and, potentially, the way the available capacity is used. As a result, pressure for significant additional capacity for both passenger and freight is strong and HS2 would transform the position by removing a large number of longer distance Inter City services from the core route south of Birmingham/Rugby. Particular areas of concern are around London, Birmingham and the route as a whole south of Rugby to London.

1.7 North of Preston, the combination of Inter City, Regional and freight trains is already very difficult to timetable and options to speed up slower trains to facilitate better

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<sup>1</sup> Mayor's Rail Vision, TfL February 2012

<sup>2</sup> Centro Rail Trends 2010/11

capacity utilisation are being looked at. The opportunity to run more, faster trains to both Glasgow and Edinburgh is being reviewed currently.

- 1.8 Midland Main Line – Thameslink services on this route are now under pressure, despite the introduction of some 12-car workings last December and an increased number of these are planned for future years. The Thameslink project, when fully delivered, will permit one further train per hour on this line (the remaining trains for the St. Pancras-Blackfriars section will come from the Great Northern route serving Finsbury Park/Stevenage). Plans to electrify north of Bedford by 2019 with consequent changes to longer distance service patterns and their operation by electric trains, which offer faster acceleration and increased seating capacity, will help address further growth.
- 1.9 East Coast Main Line – The route has recently seen some expenditure south of Peterborough and Cambridge; this, along with significant timetable and capacity changes to long distance services, has allowed services to cope with commuter growth in particular. However, more remains to be done in alleviating capacity bottlenecks to the north of Peterborough to allow improvements for both freight and long-distance services and an upgrade of the route between Peterborough and Doncaster via Lincoln has been funded in the current control period. The industry is jointly working on possible capacity solutions for CP5.
- 1.10 Southern – Brighton Main Line – Both routes to/from London are working at line capacity with the severest overcrowding on the East Croydon - London Bridge section. Opportunities for enhancement remain only through further lengthening of Southern and Thameslink services (where possible) to 12-cars, and corresponding investment in local metro routes – but these options are limited due to capacity and infrastructure issues (e.g. line capacity; platform lengths).
- 1.11 SWT Main Line – This route is also working very close to capacity with the terminus at Waterloo being the main limiting factor. Most suburban services already experience significant overcrowding during the peak, particularly between Wimbledon and Clapham Junction; this will only get progressively worse, given present demand trends, unless mitigation measures are put in place. Solutions could include modestly enhancing service frequencies and train lengths on the Reading and Windsor Lines to 10/12 cars (some of which is in hand) and further introduction of 10-car trains on Waterloo (main) suburban routes, i.e. towards Epsom and destinations via the Wimbledon line. The large number of level crossings prevents the running of more trains on the Richmond route. In the longer term, one option is to consider more significant initiatives such as a further “Crossrail 2” project linking South West and North East London (see below).
- 1.12 Great Western – This route is, at present, working largely to capacity with overcrowding during the peaks on both inner-suburban and longer-distance services (from Reading and beyond). The implementation of Crossrail, (which ideally would be extended to Reading) together with plans for replacement Inter City Express Project (IEP) services and extension of electrification westwards to Oxford and Newbury will provide more capacity through longer suburban trains and more frequent, longer trains on the Inter City routes. The precise scope of the IEP services is still being defined by DfT and plans to reduce crowding are likely to be a significant feature of the Great Western franchise competition.

## **Regional Centres**

- 1.13 London is not the only rail capacity pinch point and the expansion of demand with consequent overcrowding and the need for further line capacity is not confined to this area. As noted earlier, Birmingham and the West Midlands have seen substantial rail growth over the last few years and whilst some train lengthening and extension of suburban electrification is committed and planned, a longer-term strategy is needed to alleviate congestion through increased demand. Forecasts a few years ago

estimated demand growth for rail in the West Midlands of at least 43% between 2008 and 2029<sup>3</sup> and initial results show that these forecasts are under-estimates. Some congestion relief will arise from the HS2 project, which will potentially allow some capacity release on the Birmingham - Coventry corridor for local trains, but strategies need to be developed to address other areas of growth such as the south end of the Cross City line.

- 1.14 Manchester, Cardiff, Leeds and Glasgow are also experiencing strong commuter growth. The solutions here lie in train length improvements in the first instance but then larger scale options are needed, particularly for Manchester and Leeds. Development work on the Northern Hub, which would alleviate the bottleneck that routes through Manchester currently impose on growth of services across the North, is well underway. Although the recently announced funding for the Ordsall Road curve helps improve connectivity, it is no substitute for the full project which would provide more platforms at Manchester Piccadilly and which is now being considered by the DfT. Options for Leeds might include increasing the number of lines running through the bottleneck of the central hub and further electrification.
- 1.15 These examples demonstrate that Britain's railways are now facing significant capacity constraints but there is no standard 'quick fix'. The solutions will reflect the operating and infrastructure issues of a particular route. A further factor is that the recently published DfT Command Paper signals a review of the interaction between fares policy and demand. ATOC will work with the Government in its fares review, noting that both the level of peak fares and controls over the overall fares levels (through 'fares baskets') are regulated by DfT.
2. What capacity do you believe Britain's railways will require in the future?
  - 2.1 The summary of congested routes in 1.6 – 1.14 (above) shows that the problem is not confined to one route or just London and the South East. Future proposals should focus on solutions which can deliver improvements across a wide area. There are national implications for both passenger and freight.
  - 2.2 The HS2 project is one solution which is able to address a number of existing capacity bottlenecks. Once completed as a 'Y' network to Manchester and Leeds it will release capacity for passenger and freight trains, not only on the West Coast Main Line, but also to a lesser extent on the East Coast and Midland Main Lines, as trains to Leeds and Sheffield could be operated on the new route. It will also alleviate capacity problems in the heavily congested complex of Birmingham New Street, potentially allowing more regional trains to operate.
  - 2.3 London's Crossrail project will also enable capacity improvements on a number of lines. Removing the constraint of reversing large numbers of trains at the terminal stations of Paddington and Liverpool Street will allow improvements to be made to services on both the Great Western and Great Eastern Main Lines whilst the longer trains which will run to Maidenhead, and ideally to Reading, will deliver more capacity per train. The Crossrail scheme shows the advantage of planning on a broad scale.
  - 2.4 A possible 'Crossrail 2' could open up a much-needed north east – south west link for the capital city, releasing capacity on the main line network and also providing much needed additional relief for those Underground lines serving King's Cross, St. Pancras, Euston, Victoria and Waterloo.
  - 2.5 The national rail CP5 (Control Period 5) programme is currently under detailed review by the DfT. The Initial Industry Plan of last September, supported by ATOC, envisages further increases in electrification (for example the Midland Main line), targeted infrastructure improvements on a wide range of routes (such as the East Coast Main line) and a package of incremental changes nationwide including new

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<sup>3</sup> Centro West Midland Rail Demand Forecasting Study, Halcrow July 2009

trains on routes where demand is growing. Electrification schemes are particularly good at enhancing capacity through a combination of faster services, the ability to run more trains and to insert more calls at stations.

### 3. What is the best way of providing capacity and future-proofing Britain's rail network?

- 3.1 There is no 'one size fits all' solution. Methods to alleviate capacity problems are dependent on the characteristics of demand on any particular route (e.g. frequency of trains, stations served by services etc.) the ability of the infrastructure to accommodate specific solutions (e.g. constraints on station platforms may limit the ability to provide more capacity through longer trains, whilst on other routes no further trains can be run due to bottlenecks (terminals, junction conflicts, two-track railway)) and lack of options for expanding the train fleet, (including both cascaded and new build train options) as well as limits on available depot capacity.
- 3.2 Ideally, 'future proofing' could involve passive provision for longer trains or for future electrification. Opportunities include planning depot locations for eventual expansion and designing station refurbishments to permit longer platforms and/or additional access and stairways to be added later. Long term easing of bottlenecks (such as grade separation, preparation of new alignments to ease speed restrictions) can be allowed for when resignalling and track renewals are carried out and this will lower the cost of future capacity improvements.
- 3.3 Future-proofing could also include provision for follow-on orders when rolling stock is procured. We also envisage a programme of life extension and refreshment of some older rolling stock to extend and retain suburban capacity.
- 3.4 All solutions for 'future proofing' must be informed by sensible strategic planning based on accurate demand forecasting. However, this must not send a signal to return to the earlier 'predict and provide' model of providing future capacity. The solution must be to allow cost-effective planning with flexibility in the model to ensure that increased capacity provision goes hand in hand with increased demand. Considerable integrated all-industry work in recent years has given a much wider and more accurate perspective on regional and national trends in rail.

### 4. What will the effects of providing extra capacity be, beyond addressing journey supply? What would be risked by failing to provide that capacity?

- 4.1 Rail is already a major success story in reversing the static trend of demand experienced in the 1970s and 1980s and is seeing continued growth well above estimates. Lack of capacity will inevitably mean an increase in crowding and rising passenger dissatisfaction. This in turn deters travel and limits revenue growth, the increase in which is partly helping to fund the capacity improvement programme that is now underway.
- 4.2 To the extent that rail demand growth is constrained, the increasing desire for mobility in today's modern economy means the road and air networks taking an increased share of growth, potentially reversing the long-term improvement in carbon emissions from transport that current plans envisage. ATOC analysis in 2007 showed that passenger-km on rail emits only half of the carbon emissions of road and only a quarter of that of air.
- 4.3 Delays in providing capacity could lead to broader negative impacts in terms of UK PLC GDP, particularly in the city regions – 50% of journeys into Central London journeys are by rail, which will affect an economy which is hugely significant for the rest of the UK. The business cases for Crossrail, HS2 and the Northern Hub already identify the importance of the link between capacity and economic growth and this element will clearly be an increasingly significant part of longer term rail planning.

**ATOC**