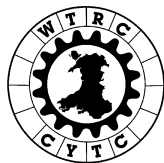


# **The "Capitals United"**

**An analysis of train journeys between Cardiff the capital of Wales and the United Kingdom capital, London 1977-2002 and a comparison with services to other similar centres.**

**A Report for the  
Institute of Welsh Affairs  
by the  
Wales Transport Research Centre  
University of Glamorgan**



**WALES TRANSPORT RESEARCH CENTRE  
CANOLFAN YMCHWIL TRAFNIDIAETH CYMRU**



**Sefydliad Materion Cymreig  
Institute of Welsh Affairs**



The Capitals United Express commenced operations in 1956 (shortly after Cardiff had been declared Capital of Wales the year before) and ran between Cardiff General (Central) and London Paddington. The down train was the 3.55pm from Paddington and it returned as the 8.00am up from Cardiff the following morning. In steam days days the train was hauled by Kings/Castles locomotives. Brush 4s and Western Region hydraulic locos took over after services had been converted to diesel.

The Institute of Welsh Affairs is a non-aligned independent think-tank and research agency, based in Cardiff, with branches in north, mid and west Wales, Swansea Bay and London. It aims to raise the level of information and debate on Welsh public policy issues by publishing research reports and policy papers and holding conferences and seminars. Funding comes from charitable organisations, businesses, trade unions and from a range of other public and private sector bodies. Individual members (annual subscription £30) receive the IWA's journal, agenda, three times a year and can purchase other reports at half price, and receive invitations to a variety of events held in different parts of Wales. Corporate membership starts at £200 a year.

**Institute of Welsh Affairs, Ty Oldfield, Llantrisant Road, Cardiff, CF5 2YQ.**

**Tel: 029 2057 5511. E-mail [wales@iwa.org.uk](mailto:wales@iwa.org.uk) Web: [www.iwa.org.uk](http://www.iwa.org.uk)**

**Wales Transport Research Centre**

University of Glamorgan

Treforest

Pontypridd

CF37 1DL

Telephone: 01443 482123

Fax: 01443 482169

Email: [scole@glam.ac.uk](mailto:scole@glam.ac.uk)

The right of S. Cole to be identified as author of this work has been asserted by him in accordance with the Copyright, Design and Patents Act 1988

**ISBN 1 871726 12 3**

# Contents

1.	Introduction.....	4
2.	Executive Summary.....	5
3.	Study Objectives.....	8
4.	Background.....	9
5.	Findings - Methodology.....	15
6.	Findings - Timetable Analysis.....	16
7.	Recommendations and Action Plan.....	23
8.	Appendix 1: Detailed Timetables.....	27
9.	Other Appendices.....	36
10.	Abbreviations.....	43

## Cover photographs

Top Left:

- The "Capitals United" (1956)
- British Rail promotional poster (1950's)

Bottom Right:

- High speed train HST 125 (2003)
- Adalante (2003)
- Concept train of the future

## **1. Introduction**

This report was commissioned by the Institute of Welsh Affairs and produced by the Wales Transport Research Centre at the University of Glamorgan.

Comments from the principal organizations involved in the provision of rail services as well as the analysts are included in the report so that as full a picture as possible can become available. The authors are grateful, therefore, to Mr. Clive Williams Secretary, and Mr. Mark Youngman, Deputy Secretary, Rail Passengers Committee – Cymru Wales, and Mr. Chris Kinchin-Smith, Managing Director, First Great Western, for their detailed comments on an earlier draft of this report, to Mr. Richard Cole, Regional Network Planning Manager (on behalf of Mr. John Curley, Regional Director, Network Rail Great Western Region and to Chris Austin, executive director, public affairs, of the Strategic Rail Authority. These have been taken into account in the report's preparation. First Great Western (FGW), the main long distance train service operator for south Wales, has also provided a copy of its proposed timetable to take effect from December 2004, subject to Strategic Rail Authority (SRA) and Network Rail approval. This has not been analysed but is included in the appendix with a short commentary. Our thanks go to Mr. David Mathieson, Timetable Strategy Manager, FGW, for his review of the existing timetable and the 2004 proposals.

We also acknowledge with thanks the generous support given by CBI Wales towards publication of this report. The contents and conclusions, however, are entirely those of the authors.

**Professor Stuart Cole**  
**Director**  
**Wales Transport Research Centre**  
**University of Glamorgan**

**EmmaJane Mantle**  
**Researcher**  
**Wales Transport Research Centre**  
**University of Glamorgan**

**Rhys David**  
**Institute of Welsh Affairs**

## **2. Executive Summary**

By any standards Cardiff has good rail services, particularly to London. The journey time is one hour 55 minutes and there is a half hourly frequency during the working day. In those terms it is one of the best in Europe.

However, two criticisms are frequently made :-

- Punctuality has declined in recent years;
- In 1987 the fastest train (with limited stops) was timed at 1 hour 49 minutes to London and 1 hour 40 minutes from London. Today these fastest times have been extended by 6 minutes and 20 minutes respectively, and average journey times have also become longer.

It is for these reasons the railways receive negative (though often unjustified) media coverage, despite achieving better journey predictability and safety than road travel. This report sets out to consider the latter of the two criticisms and to make a comparative assessment in those terms of Cardiff with Bristol, Leeds and Nottingham. The competitiveness of Cardiff is dependent on good rail and road links both for job location and for national, UK and international events

The report draws conclusions and suggests an action plan to be taken forward during an early timespan.

### **Conclusions on journey times**

The main reasons for increased journey times on the Great Western Main Line (GWML) between 1987 and 2002 were:

- the last major track and signal upgrade was in 1965-1977; other routes have had more recent upgrades
- the full introduction of HST125 services to and from south Wales in the years between 1976 and 1987 raised performance, compared with previous years and with other cities.
- increased number of stops to serve demand at Bristol Parkway, Swindon and Reading (in the latter case including access for the coach connection to and from London Heathrow Airport)
- the necessity to serve a considerable inter-urban market as a result of high economic growth along the Corridor
- the introduction of maximum speed governors for the HSTs, and subsequently the use of Automatic Train Protection (unique to the GWML), have extended point to point timings
- increased usage of the GWML and other routes has resulted in a larger number of freight and passenger trains and north-south crossing movements over the critical section between the Severn Tunnel and Reading; in addition the Heathrow Express quarter-hourly service requires dedicated platforms at, and fast track paths into, Paddington
- temporary signalling arrangements at Paddington following the Ladbroke Grove accident
- reduced reliability of the infrastructure due to age and more speed restrictions
- the HST trains were extended to have eight trailer cars rather than seven, in 1990-92, so reducing their rate of acceleration.

### **Solutions suggested by the rail industry**

- planned investment of £500m along the Great Western/ South Wales Main Line
- new platform at Swindon to ease west bound train flows (opened July 2003)
- improvements to junction facilities at Filton near Bristol Parkway station (authorised for construction in 2004)
- further investment under consideration:
  - additional platform at Bristol Parkway station
  - additional signalling in the Severn Tunnel
  - increased line speeds on the relief lines between Cardiff and the Severn Tunnel
  - additional platforms at Reading station

However, except at Swindon and Filton Junction as noted above, funding has not yet been secured for these projects.

Investment in new trains might include the proposed 'HS2' replacement for the HSTs, capable of 125 mph as at present but with better acceleration in spite of having nine trailer cars rather than the present eight.

### **Action Plan suggested in this report**

- additional powers of direct rail investment and revenue support
- powers of direction and guidance over the Strategic Rail Authority (SRA) to be transferred from the Department for Transport to the National Assembly for Wales (NafW).
- recognition that Cardiff, if it is to compete in the international arena as a business location and as an events centre requires high quality rail access from London, Birmingham and Manchester
- plans for the HS 2 train require joint funding decisions now for the next stage of development
- the introduction of trains at key business times with limited stops at Newport, and Bristol Parkway thus reducing journey times to 1 hour 45 minutes.
- use of relatively new cascaded TransPennine trains (Class 175s) of the type used presently in north Wales on services along the South Wales Main Line (SWML) and on to Manchester and Birmingham
- track improvements to increase line speeds on the relief lines between Cardiff and the Severn Tunnel to 100mph, and other infrastructure enhancements between Reading and the Severn Tunnel
- Cardiff Queen Street Station scheme, expected to be completed by 2006, will assist in providing extra capacity at Cardiff Central Station during major events.
- full consideration by the SRA, Welsh Assembly Government (WAG), and the UK Government for a 200mph line from west London to Bristol Parkway and Cardiff. This would be a TGV type operation bringing journey times between Cardiff and London to 1 hour 10 minutes and Swansea to 2 hours. (This year sees the 20th year of operation in France of the TGV Sud Est service between Paris and Lyon, an area with a smaller population than the Cardiff – Newport conurbation).
- Recognition of the importance of the high speed line to the possible development of an international airport near Llanwern.

Overall, the report paints a picture of a railway system trying to provide a good quality service against a background of 25 years since the last major investment. Efforts to achieve improvements are being made but lead times are still unacceptably extended. In relation to the Great Western Main Line

(GWML), the funding of the companies' and the governments' investment programme has now to take on a more dynamic approach.

Investment is currently being concentrated for the most part in the Channel Tunnel Rail Link, the West Coast main Line, and London commuter services. For Cardiff to become the thoroughly modern international capital of Wales, it must be linked to London and other European capitals by a high speed, frequent, reliable, and punctual modern railway – the "Capitals United".

## **General Findings**

### **Cardiff – London Timetables**

- increased weekday frequencies have provided a half hourly service all day
- fastest journey times have worsened, between 1987 and 2002 by 20 minutes in one direction and six minutes in the other
- more stops between Cardiff and London
- last train from London 23:45/00.45 in 1997; 22:10 in 2002
- last train from Cardiff remains before 21.30
- average speeds have fallen

### **Bristol – London Timetables**

- increased weekday frequencies have provided a half hourly service all day
- fastest journey times have worsened, between 1987 and 2002, by 11 minutes in one direction and seven minutes in the other
- last train from London remains at 23:45 (since 1987)
- last train to London has improved from 21:25 (1997 similar to Cardiff) to 22:45
- average speeds have fallen

### **Leeds – London Timetables**

- improved frequency
- later HST introduction, and subsequent electrification, resulted in better fastest journey times (31 minutes in one direction, and 23 minutes in the other)
- last train from London at 23:30
- last train to London 20:40
- gradual improvement in average speeds

### **Nottingham – London Timetables**

- improved frequency
- later HST introduction, and subsequent class 170 introduction, resulted in better fastest journey times
- last train from London 23:40
- last train to London 20:33
- little change in average speeds since 1987

### **3. Study Objectives**

- To compare journey times and average speeds between London and Cardiff, and between London and other cities similar in size to Cardiff, and with similar roles as regional capitals, namely Bristol, Leeds, and Nottingham.
- To make this comparison over a 25 year period using 1977, 1987, 1997 and 2002 published timetables.
- To carry out the same analysis for services between London, Cardiff and Swansea.
- By comparing provision to Cardiff, and other cities of comparable size, to consider whether the level of service for business and leisure travellers to and from south Wales matched other important centres.
- To consider the impact of current and planned service provision on the competitive position of Cardiff and the rest of south Wales and its prospects for retaining and attracting investment, tourists, conferences and exhibitions, sport, cultural and other events.