

Final

# WCML Capacity Study 2019 Remit

Capacity Planning – System Operator

**Document Owner:**

Elaine Pocock

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***System Operator*** Planning a better network for you

# Part A: Introduction

## A.01 Background

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On 11 October 2019 ORR wrote to the industry setting out their approach to taking forward several aspirations to run additional services on the WCML. ORR asked for formal applications by Friday 15 November. The applications received were as follows:

- The new franchisee, First Trenitalia West Coast Rail Limited (FTWC), for rights, from December 2022, for additional London Euston- Liverpool Lime St services to increase its service from 1 to 2 per hour;
- Prospective Open Access Operator Virgin Trains (VT) for rights, from December 2022, for an hourly return service between London Euston and Liverpool Lime Street calling at Nuneaton, Tamworth, Lichfield Trent Valley and Liverpool South Parkway;
- Prospective Open Access Operator Grand Union Trains (GUT) for rights, from May 2021, for 4 return services per day between London Euston and Stirling, calling at Milton Keynes Central, Nuneaton, Crewe, Preston, Carlisle, Lockerbie, Motherwell, Whifflet, Greenfaulds and Larbert;
- Franchisee West Midlands Trains (WMT) for rights, from December 2020, to run an additional return service in certain hours between Northampton and London Euston; and
- Existing Open Access Operator Grand Central North West (GCNW) to turn the contingent right that it holds to run a fifth service on Wednesday every 8 weeks between London and Blackpool into a firm right.

ORR has asked Network Rail to carry out an appraisal of WCML capacity and the potential impact on performance that would result from additional services. ORR asked Network Rail to conclude this study by February 2020 and to consult this remit with industry before the end of December 2019.

## A.02 Aims and Objectives

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In order to deliver an output in the timescales required the analysis will be targeted around undertaking a 're-fresh' of relevant sections of the *West Coast Main Line and Trans-Pennine Capacity and Performance Assessment* that was undertaken in October 2013 for ORR. This re-fresh will focus on the following areas of investigation in order to answer the questions set out below.

Collate and categorise all aspirations

- What are the aspirations and which elements of each aspiration can be considered as 'similar' or 'different' for the purposes of the capacity analysis?
- How much additional capacity would be needed in order to accommodate all aspirations?

From the assessment that was undertaken in 2013

- To what extent is the baseline timetable different?
- What other changes have happened since 2013 which may have a material impact on the capacity of the timetable, including freight growth, plans associated with HS2 and available platform capacity at Euston?
- Could the additional paths that could be accommodated within the timetable structure in 2013 still be accommodated within today's timetable and if not what has changed?
- To what extent has the underlying performance of the WCML changed since 2013 and what are the implications of that change?

The above analysis will be pulled together and conclusions will be drawn about the performance and capacity of the WCML and the implications of this on proposals for running additional services.

There are a number of other changes to the timetable or infrastructure in various stages of development which do not form part of this analysis but are listed here as there may be dependencies between these and the proposed additional services that this remit will examine.

- East-West Rail
- Arriva Rail North franchise commitments in the Stockport area (additional 3TPH through Stockport)
- Transport for Wales franchise commitment for an additional service into Liverpool
- Ongoing work to improve performance on the Castlefield Corridor
- HS2
- Crewe Hub

## A.03 **Next Steps**

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Through discussions with ORR we have indicated the potential need for a further, more detailed piece of work following this short piece of analysis (dependant on outcome). These pieces of work will be agreed, as appropriate, following the completion of this piece of analysis. Suggested areas are outlined below

- Stage 1 - Extension of the geographical scope to include the following (*each geographical extension to take c. 4-6 weeks dependent on specifics of remit; work could be done in parallel*)
  - Euston Platforming
  - Weaver Jn to Liverpool (including Liverpool platforming)

- Carnforth to Stirling
- Stage 2 – the potential convening of an ESG or IPG in order to undertake further timetable development including the development of a timetable from scratch (if appropriate) rather than adding further services to the existing timetable structure. This may also need to include
  - More detailed pathing of freight services required above the level in the May 2020 timetable
  - Consideration of freight growth to 2033
  - Calculation of SRTs for rolling stock not included in this study

# Part B: Assumptions

## B.01 **Geographic Scope**

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West Coast Main Line:  
London Euston – Carnforth and  
Crewe – Heaton Norris Junction (just north of Stockport)

## B.02 **Timetable Scope**

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Off-peak standard hour, broadly between the hours of 1000 and 1600

## B.03 **Timetable Planning Rules**

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May 2020 V4

## B.04 **Timing Load Assumptions**

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The following timing loads will be assessed as part of this analysis

- LDHS 125mph capable stock: class 390 and class 221
- LDHS 110mph capable stock: Class 90 / 91 with Mark 4 vehicles
- Class 350 110mph

## B.05 **Source Timetable**

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The source timetable for the analysis is the December 2016 timetable as understood in 2013 (as used in the 2013 Capacity Study). This will be compared to the May 2020 timetable.

## B.06 **Freight Services**

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The baseline for Freight services will be the volume of train paths in the May 2020 timetable.

There are a number of HS2 Materials By Rail services that will be considered as part of this analysis which are included in the May 2020 timetable base.

Freight growth (see Appendix A for further detail) – examine + 1 TPH for a CI 4 1600T freight train (in line with freight growth forecast for the end of CP6 for ‘Wembley – Crewe’ and ‘Crewe – Mossend’) on the areas of study where freight and FL passenger trains interact

- Wembley – Crewe growth
  - Brinklow Jn – Attleborough South Jn
  - Colwich - Stafford
- North of Crewe growth
  - Winsford South Jn – Warrington
  - Wigan – Balshaw Lane
  - Preston – Carnforth

# Part C: Appendix A – Freight Growth

## C.01 The baseline freight position for May 2020

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The current baseline freight position, which should be as per May 2020 Timetable, is:

**3 x Wembley Yard – Crewe Basford Hall Yard & return (at least one path per hour must accommodate a Class 6)**

**1 x Wembley Yard – Daventry & return**

With one Class 4 freight per hour running to Trafford Park and two of the freight paths per hour continuing through Weaver Junction, with 1 to Ditton/Seaforth and 1 through to Mossend Yard.

All HS2 Materials-by-Rail paths, already offered in the May 2020 Timetable, are also included in the baseline data for this study.

## C.02 CMSP industry position on freight for the end of CP6

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An additional 13 freight per day, in each direction, corresponding to an additional 1 freight per hour in each direction. The expectation is for the split to be 10 additional Class 4 Intermodals and 3 Class 6 bulk services as follows:

**4 x Wembley Yard – Crewe Basford Hall Yard & return (at least one path per hour must accommodate a Class 6)**

**1 x Wembley Yard – Daventry & return**

Of the four services from Wembley Yard to Crewe and beyond each hour, one freight per hour should run to Trafford Park, and three freights per hour continuing to Weaver Junction, with 1 to Ditton/Seaforth, 1 through to Mossend and the third freight running to either (whichever is best fit).

For the Class 6 services, although we are stating between Wembley Yard and Crewe Basford Hall Yard, it is worth trying to extend these three additional bulk services through to/from Farington

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Junction (to be able to serve Clitheroe Cement Works for example, and other terminals in the North West dealing with aggregates and building materials).

Class 4 spec. = 75C66S16 with 775m train in both directions

Class 6 spec. = 60H66S24 in each direction, although more important southbound

Royal Mail services, timed at 100mph, still need to be accommodated, as present.

### C.03 **CMSP industry position is on freight is at 2033**

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Beyond 2024, over the period through to 2033, on top of the one additional Wembley Yard to Crewe Basford Hall freight path per hour, there is a further expectation of two additional freight paths per hour to support growth, with the following requirements:

**4 x Wembley Yard – Crewe Basford Hall Yard & return (at least one path per hour must accommodate a Class 6)** planned as above spec.

**1 x Wembley Yard – Daventry & return**

**1 x Bletchley – Crewe Basford Hall Yard & return (Class 4 service off East-West Rail)** Class 4 spec. = 75C66S18 with 775m train in both directions. Trains to run to/from Ditton/Seaforth.

**1 x Nuneaton – Crewe Basford Hall Yard & return (Class 4 service off F2N2 Route)** Class 4 spec. = 75C66S16 with 775m train in both directions. Trains to run to/from Mossend Yard.

Note that this is below the updated Freight Market Study forecasts (which are unconstrained), and this projection of growth is consistent with the industry position as outlined by RFG (<http://www.rfg.org.uk/wp-content/uploads/2018/03/WCML3.pdf>)

Royal Mail services, timed at 100mph, still need to be accommodated, as present.

By this point, the terminal locations are less certain, and could be altered, but this is our considered opinion at present.