EFFECT OF HS2 ON EXISTING INTERCITY SERVICES

PREDICTED RESIDUAL INTERCITY SERVICES ON EXISTING MAIN LINE NETWORK WITH HS2 IN PLACE

Taken from:

Table 23, pp91-92,

***HS2 Regional Economic Impacts*,**

HS2 Ltd, September 2013

Table 23: HS2 services pattern and re-deployment of classic network capacity assumed in the August 2012 economic case

HS2 Captive Services	HS2 Classic-Compatible Services	Classic Network
3tph Euston-Manchester, calling at Old Oak Common and 1tph at Birmingham Interchange.	2tph Euston-Liverpool calling at Old Oak Common and Runcorn, one of which splits/joins a Euston-Birmingham service at Birmingham Interchange, also calling at Stafford. Second also calls at Crewe.	LM WCML services south of Birmingham - net 59 more per day, inc. 26 more Wolverhampton-Euston stopping services (via Birmingham, Coventry, Milton Keynes and other stations), between Milton Keynes/Rugby and Euston and within West Midlands (New Street to Coventry and New Street to Birmingham International).
3tph Euston-Birmingham, calling at Old Oak Common and 2tph at Birmingham Interchange.	2tph Euston-Edinburgh/Glasgow, calling at Old Oak Common and splitting/joining at Carstairs. 1tph calls additionally at Birmingham Interchange and Preston.	ICWC services/LM north of Birmingham - net 87 fewer per day, including merging ICWC Liverpool and Wolverhampton services by diverting Liverpool trains via West Midlands and adding station calls, 19 new Crewe-Euston trains and reduction from 50 to 11 ICWC Manchester-Euston services, excl. three peak services and eight extended

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HS2 Captive Services	HS2 Classic-Compatible Services	Classic Network
		to/from Edinburgh. (NB overall Manchester-Euston frequency increased.)
3tph Euston-Leeds, calling at Old Oak Common and two at Toton, two at Sheffield and one at Birmingham Interchange.	1tph provides second hourly service to/from Preston, also calling at Old Oak Common, Crewe, Warrington and Wigan.	MML/Thameslink via MML - net 4 more services per day, including new 16-train Bedford-St Pancras service and a reduction in longer distance MML services between Sheffield, Derby and Nottingham from 60 to 48.
2tph Birmingham-Manchester.	2tph to/from Newcastle, also calling at Old Oak Common and either York or Darlington.	ICEC, Great Northern and TransPennine - net 11 fewer services per day, new 16-train Peterborough-King's Cross service, from 1 to 16 Lincoln-King's Cross trains, reduction from 45 to 16 ICEC Leeds-London services (NB overall Leeds-Euston frequency increased) and 10 fewer ICEC Edinburgh-London services (note ICWC services via Manchester described above).
2tph Birmingham-Leeds, calling at Toton and Sheffield.	1tph providing a second hourly service to/from York, also calling at Old Oak Common and Toton.	CrossCountry services to North East and North West - no change in frequency, additional stops at Birmingham International, Coventry, Sheffield HS, Toton, Alfreton, Macclesfield and Congleton, and some services shortened from Edinburgh/Newcastle to Newcastle/York.
1tph Heathrow-Manchester, calling at Birmingham Interchange.	1tph Birmingham-Edinburgh or Glasgow (in alternate hours), calling at Wigan, Preston, Carlisle and Lockerbie, plus either Lancaster and Penrith, or Oxenholme.	East Midlands local services - no frequency changes, additional stops at Toton, some services to/from Nottingham extended to/from Leicester.
1tph Heathrow-Leeds, calling at Birmingham Interchange, Toton and Sheffield	1tph Birmingham-Newcastle, calling at Toton, Sheffield, York, Darlington and Durham.	Northern England local services - 64 new semi-fast local services per day including 32 Leeds-Doncaster trains, 16 Manchester-Crewe services and 16 Manchester-Stoke trains.

Figure A2.1 : Predicted Services on HS2 and Existing Network (HS2 Ltd, 2013)

UK INTERCITY RAIL NETWORK : ASSESSMENT OF IMPACT FROM HS2, AS SET OUT IN TABLE 23 OF HS2 REGIONAL ECONOMIC IMPACTS (*aka KPMG REPORT*)

By Colin Elliff BSc CEng MICE, Civil Engineering Principal, High Speed UK

PROPOSED NEW HS2 SERVICES		ASSUMED SERVICES ON EXISTING NETWORK
HS2 Captive Services	**HS2 Classic-Compatible Services**	**Classic Network**
3tph Euston-Manchester, calling at Old Oak Common and 1tph at Birmingham Interchange. A	2tph Euston-Liverpool calling at Old Oak Common and Runcorn, one of which splits/joins a Euston-Birmingham service at Birmingham Interchange, also calling at Stafford. Second also calls at Crewe. B	LM WCML services south of Birmingham - net 59 more per day, inc. 26 more Wolverhampton-Euston stopping services (via Birmingham, Coventry, Milton Keynes and other stations), between Milton Keynes/Rugby and Euston and within West Midlands (New Street to Coventry and New Street to Birmingham International). C
3tph Euston-Birmingham, calling at Old Oak Common and 2tph at Birmingham Interchange. D	2tph Euston-Edinburgh/Glasgow, calling at Old Oak Common and splitting/joining at Carstairs. 1tph calls additionally at Birmingham Interchange and Preston. E	ICWC services/LM north of Birmingham - net 87 fewer per day, including merging ICWC Liverpool and Wolverhampton services by diverting Liverpool trains via West Midlands and adding station calls, 19 new Crewe-Euston trains and reduction from 50 to 11 ICWC Manchester-Euston services, excl. three peak services and eight extended to/from Edinburgh. (NB overall Manchester-Euston frequency increased.) F
3tph Euston-Leeds, calling at Old Oak Common and two at Toton, two at Sheffield and one at Birmingham Interchange. G	1tph provides second hourly service to/from Preston, also calling at Old Oak Common, Crewe, Warrington and Wigan. H	MML/Thameslink via MML - net 4 more services per day, including new 16-train Bedford-St Pancras service and a reduction in longer distance MML services between Sheffield, Derby and Nottingham from 60 to 48. I
2tph Birmingham-Manchester. J	2tph to/from Newcastle, also calling at Old Oak Common and either York or Darlington. K	ICEC, Great Northern and TransPennine - net 11 fewer services per day, new 16-train Peterborough-King's Cross service, from 1 to 16 Lincoln-King's Cross trains, reduction from 45 to 16 ICEC Leeds-London services (NB overall Leeds-Euston frequency increased) and 10 fewer ICEC Edinburgh-London services (note ICWC services via Manchester described above). L
2tph Birmingham-Leeds, calling at Toton and Sheffield. M	1tph providing a second hourly service to/from York, also calling at Old Oak Common and Toton. N	CrossCountry services to North East and North West - no change in frequency, additional stops at Birmingham International, Coventry, Sheffield HS, Toton, Alfreton, Macclesfield and Congleton, and some services shortened from Edinburgh/Newcastle to Newcastle/York. O
1tph Heathrow-Manchester, calling at Birmingham Interchange. P	1tph Birmingham-Edinburgh or Glasgow (in alternate hours), calling at Wigan, Preston, Carlisle and Lockerbie, plus either Lancaster and Penrith, or Oxenholme. Q	East Midlands local services - no frequency changes, additional stops at Toton, some services to/from Nottingham extended to/from Leicester. R
1tph Heathrow-Leeds, calling at Birmingham Interchange, Toton and Sheffield S	1tph Birmingham-Newcastle, calling at Toton, Sheffield, York, Darlington and Durham. T	Northern England local services - 64 new semi-fast local services per day including 32 Leeds-Doncaster trains, 16 Manchester-Crewe services and 16 Manchester-Stoke trains. U

Notes C & F relate to changes to WCML intercity services as premium Liverpool/Manchester/Birmingham to London traffic transfers to HS2, and services to bypassed intermediate stations along the route regress to 'regional' status as frequency of fast services is reduced, and other services are slowed with more stops added. 'Capacity' is increased by reducing the speed differentials between fast intercity trains and slower stopping services/freight. Reductions in intercity services to London are as follows:

Stockport:	3tph reduced to 1tph
Stoke:	2tph reduced to 1tph
Wolverhampton:	1 tph service slowed
Coventry	3tph reduced to 1tph

Note I details a 20% reduction (from 5tph to 4tph) in intercity services along MML. Biggest issue here is blight to Leicester and to central Derby & Nottingham as regional development focuses on new hub at Toton.

Note L details a reduction in ECML intercity services. Leeds to London (2tph) and Edinburgh/Newcastle to London (2tph) will both be cut to 1tph. Bypassed intermediate cities eg Doncaster & Wakefield will see intercity service levels halved, and probably made slower.

Note O details Birmingham-Derby-Sheffield XCountry services diverted via Toton to connect with HS2. This will add ~30 minutes to journey times from South-West to Yorkshire & North-East. XCountry services will generally terminate at Newcastle rather than Edinburgh, greatly reducing Yorkshire/Scotland connectivity

Note R details distortion of local East Mids services to accommodate new Toton hub

Note U details improved local services to Doncaster & Stoke but fails to mention reduction in intercity services to these communities

Reduction in ECML & XCountry intercity services detailed in Notes L & O indicate Newcastle to Edinburgh services reduced to circa one third of current levels

CONCLUSION

The table above details the proposed new HS2 services and reductions in intercity service levels on the existing classic network which have been considered by KPMG in their assessment of HS2's regional economic impacts. Noting the general disconnection between HS2 and the existing 'classic' network, and the reductions in intercity services to the major intermediate communities that are bypassed by HS2 (as detailed above and on the diagram on the following page), it is clear that HS2 does not achieve significant improvements in national intercity connectivity. On the contrary, it would appear that the intervention of HS2 will have the opposite effect, of damaging national intercity connectivity. It is therefore difficult to understand how a reputable consultant such as KPMG could have inferred the massive benefits to regional economies set out in their 2013 report *HS2 Regional Economic Impacts*. (All these adverse impacts are avoided with the better balanced and fully integrated High Speed UK proposals www.highspeeduk.co.uk).

Table 2 : 2013 Assessment of HS2's Impact on Existing Intercity Services

HIGH SPEED 2:

CONNECTIVITY IMPLICATIONS OF 2013 HS2 PROPOSALS AS SET OUT IN 'HS2 REGIONAL ECONOMIC IMPACTS' (BY KPMG)

DIAGRAM NND 2A

© NETWORK 2020 MAPPING 2013

KEY

- Principal intercity route
- New high speed line as 'Y'
- Projected extension of 'Y' to link all primary cities
- Primary/interchange hub/ secondary centre
- Regional centres bypassed by HS2 with intercity services significantly worsened
- Airport directly connected to high speed network

	LO	BI	NG	SH	MA	LI	LS	NE	EH	GL	LHR
LO											
BI											
NG											
SH											
MA											
LI											
LS											
NE											
EH		2									
GL		2									
LHR											

Direct HS2/ Heathrow/ other link at hourly or better frequency

Intercity link made worse

2 2-hour frequency

Segregated terminus or parkway stn

HIGH SPEED 2 (2013)
LINKS BETWEEN PRIMARY CENTRES

EDINBURGH-GLASGOW HIGH SPEED LINK VIA CARSTAIRS AS PER SCOTTISH GOVERNMENT PROPOSAL (32min E to G)

SERVICES E,Q: Σ3tph

REF NOTES L & O

HIGH SPEED 2: DEDICATED HIGH SPEED LINE IN 'Y' CONFIGURATION PROJECTED NORTHWARDS TO LINK ALL PRIMARY REGIONAL CENTRES OF MIDLANDS, NORTH & SCOTLAND TO LONDON AND BIRMINGHAM

SERVICES K,T: Σ3tph

HS2 NETWORK PERFORMANCE HUGELY RESTRICTED BY POORLY CONNECTED TERMINUS STATIONS IN LEEDS, MANCHESTER & BIRMINGHAM

REF NOTE L

REF NOTES C & F

SERVICES G,K,M,N,S,T: Σ10tph

REF NOTE O

SERVICES A,B,E,H,J,P,Q: Σ12tph

REF NOTE I

REF NOTES C & F

SERVICES D,J,M,Q,T: Σ9tph

SERVICES A,B,D,E,G,H,K,N,S,P: Σ18tph

REF NOTE O

NOTE THAT 18tph IS THE MAXIMUM CAPACITY OF HS2's 2-TRACK ROUTE. EXTRA SERVICES TO BYPASSED COMMUNITIES ARE NOT PRACTICIABLE

HS2 LINK TO HEATHROW EITHER VIA CHANGE AT OLD OAK COMMON OR VIA DEDICATED HS2 SPUR TO T5

INVERNESS, ABERDEEN, PERTH, DUNDEE, GLASGOW, EDINBURGH, CARLISLE, NEWCASTLE, SUNDERLAND, DARLINGTON, MIDDLESBROUGH, BLACKPOOL, PRESTON, BRADFORD H'F'D, LEEDS, YORK, HULL, WARRINGTON, LIVERPOOL, M'C'R, WAKEFIELD, GRIMSBY, HOLYHEAD, BANGOR, S'PORT, DONCASTER, CHESTER, SHEFFIELD, CREWE, STOKE, NEWARK, TOTON, DERBY, NOTTINGHAM, SHREWSBURY, WALSALL, WOLVERHAMPTON, LEICESTER, PETERBORO', NORWICH, BIRMINGHAM, COVENTRY, NORTHAMPTON, CAMBRIDGE, LUTON, MK, IPSWICH, STANSTED, SWANSEA, CARDIFF, NEWPORT, OXFORD, READING, BRISTOL, SWINDON, LHR, MEDWAY TOWNS, LONDON, GATWICK, HS1, SOUTHAMPTON, BOURNEMOUTH, EXETER, PLYMOUTH, TORBAY, PORTSMOUTH, BRIGHTON

Figure 3 : 2013 Assessment of HS2 Intercity Connectivity correlated to Table 23 of *HS2 Regional Economic Impacts*