

CUSTOMER RESEARCH TECHNOLOGY LTD

Audit Report

Client: HS2 Action Alliance Ltd

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1 THE STUDY

We were asked to oversee an initial study into loadings on all peak time (16:30 – 18:59) long distance Virgin trains from Euston which serve Glasgow, Liverpool, Manchester, Holyhead, Wrexham, Birmingham and Wolverhampton. CRT staff reviewed the procedures and met with all volunteers to ensure integrity of the counting methodology and process.

The methodology was to use a team of volunteers to count passengers onto each train using a clicker, on Thursday 17 and Tuesday 22 Nov 2011. When significant differences were noticed in the loadings for destinations on these two days a third count took place on Thursday 24th November 2011, just for these services.

Over the two days 66 trains were counted. Although the sample is small, we believe this gives a fair reflection of mid-week loading, away from a holiday period, on two normal working days.

The loading figures are for both first and standard class carriages as volunteers were unable to board the trains and separate the two classes. All trains were formed of 9 car Pendolino's except the Holyhead and Wrexham services which were formed of 10 car Voyager trains

CRT were commissioned to conduct 3 audit counts on the three platform access ramps on Tuesday 22nd November 2011 in order to verify the accuracy of the counts being taken.

CRT Audit comments (Tuesday 22nd November 2011)

CRT Audit Counts			
Train	Team Count 22 Nov 2011	CRT Audit 22 Nov 2011	Comments
	Total	Total	
1657 Glasgow	309	305	4 people alighted train before it departed
1710 Holyhead	361	360	train had an extra stop at Milton Keynes
1733 Liverpool	175	175	

The table of the full counts on both days (17th & 22nd November) plus the further validation counts on the 24th November are attached in section 3.

2 FINDINGS & CONCLUSIONS

Findings & Conclusions:

- There were no exceptional events or circumstances that we were aware of and in our opinion results will be accurate to a level of 1 (one) error in 100 (hundred) passengers counted.
- We were surprised that the average loading across all peak trains (16.30 – 18.59) was only 56%.
- Even more surprising were the loadings on the peak Manchester and Liverpool services, which were on average less than 45% full.
- There was a significant difference between trains making an extra stop at Milton Keynes (average loading 107%) and other trains. Milton Keynes trains appear crowded.
- The first trains after 19.00 (7 trains from 19.00 – 19.30) - when much cheaper off peak tickets are allowed - had higher loadings (average 67%).
- Comment: If there is crowding in standard class this could potentially be dealt with through reconfiguring the carriage mix. (We also understand that two extra carriages will be added from 2012 which will cut the total load factors even further.)

Summary: Peak Trains Only (16.30 Glasgow to 18.43 Wolverhampton)			
	Av. Load Factors	Av. Passengers per train	Comments
Manchester (7 trains)	44%	197	
Liverpool (4 trains)	42%	186	
Birmingham/Wolverhampton - (7 trains)	72%	322	including Milton Keynes passengers
Birmingham/Wolverhampton - (7 trains)	66%	294	excluding Milton Keynes passengers
Glasgow & Preston - (6 Trains)	63%	284	
Wrexham & Holyhead - (2 Trains)	50%	261	
All peak trains	56%	254	

3 COUNT RESULTS

3.1 Euston Count – Summary of Counts on 17th, 22nd and 24th November 2011

COUNT SUMMARY CRT FINAL

Train	Count Thursday 17th Nov 2011	Count Tuesday 22nd Nov 2011	Validation Count Thursday 24th Nov 2011	Average 17th & 22nd Nov only, except where noted in comments		Comments
	Total	Total	Total	Total	Load Factor	
1630 Glasgow	270	193	326	263	59%	average taken of all 3 counts (17th, 22nd & 24th Nov 2011)
1633 Preston	451	214	293	254	57%	17th had extra MK stop. Validity check confirms 22nd count, so average of 22nd and 24th used
1640 Manchester	277	256		267	60%	
1643 Birmingham	231	484	288	260	58%	22nd had extra MK stop. Validity check confirms 17th count, so average of 17th and 24th used
1657 Glasgow	422	309	377	369	83%	average taken of all 3 counts (17th, 22nd & 24th Nov 2011)
1700 Manchester	240	203		222	50%	
1703 Birmingham	327	341		334	75%	
1707 Liverpool	264	214	236	238	53%	average taken of all 3 counts (17th, 22nd & 24th Nov 2011)
1710 Holyhead	311	361	292	302	58%	22nd had extra MK stop. Validity check confirms 17th count so average of 17th and 24th used
1720 Manchester	156	160	173	163	36%	average taken of all 3 counts (17th, 22nd & 24th Nov 2011)
1723 Wolverhampton	298	337		318	71%	
1730 Glasgow	432	176	366	325	73%	average taken of all 3 counts (17th, 22nd & 24th Nov 2011)

1733 Liverpool	203	175		189	42%	
1740 Manchester	246	208	237	227	51%	validity check reconfirms loading from 17th & 22nd
1743 Birmingham	283	239	324	282	63%	average taken of all 3 counts (17th, 22nd & 24th Nov 2011)
1757 Glasgow	250	291		271	61%	
1800 Manchester	215	139	183	179	40%	average taken of all 3 counts (17th, 22nd & 24th Nov 2011)
1803 Birmingham	360	336		348	78%	
1807 Liverpool	152	170		161	36%	
1810 Wrexham and H'head	225	188	247	220	42%	average taken of all 3 counts (17th, 22nd & 24th Nov 2011)
1820 Manchester	137	162		150	33%	
1823 Wolverhampton	242	235		239	53%	
1830 Glasgow	300	144		222	50%	
1833 Liverpool	143	166		155	35%	
1840 Manchester	179	165	160	172	38%	validity check reconfirms loading from 17th & 22nd
1843 Wolverhampton	412	542	597	477	107%	validity check confirms train very crowded. Stops at MK where approx 200 alight train.
1900 Manchester	441	400	350	421	94%	OFF PEAK
1903 Birmingham	350	360	400	355	79%	OFF PEAK
1907 Liverpool	315	310		313	70%	OFF PEAK
1910 Holyhead	224	219		222	42%	OFF PEAK
1920 Manchester	326	215	239	260	58%	OFF PEAK average taken of all 3 counts (17th, 22nd & 24th Nov 2011)
1923 Wolverhampton	188	179		184	41%	OFF PEAK
1930 Glasgow	432	247	326	335	75%	OFF PEAK average taken of all 3 counts (17th, 22nd & 24th Nov 2011)

Notes:

1. 9 car pendolino capacity = 447 (300 std = 147 first)
2. 12 car pendolino capacity = 705 (604 std + 101 first)
3. Holyhead & Wrexham trains are 10 car Voyager's with a capacity = 524
4. Disruption on London Midland services on 17th November due to signal problems at Wembley, thus some of the earlier trains departed late.