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By e-mail

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Dear Janet,

Re: Abbey Line Surveys, Autumn 2015

We have now completed our latest counts of rail patronage on the St Albans Abbey branch, along the length of the line to and from Watford Junction. We undertook passenger counts over the last few weeks on Tuesday (14th September), Wednesday (15th), Saturday (5th and 19th) and Sunday (6th and 13th), covering all trains once in the process.

The only main operational problem encountered was the trial of a Class 319 unit for a return trip on Sunday 6th September; the train service was replaced by a substitute bus, but publicity about this was sufficiently poor that a number of passengers did not travel. A summary of our findings is provided in this note, while the full data collected can be found in the attached spreadsheet.

Surveying Method

The method used for the passenger counts has remained unchanged to that used in previous counting campaigns. Counts of passengers boarding and alighting at each intermediate station were combined with walk-throughs of the train approaching/departing from the stations at the ends of the line (Watford Junction and St Albans Abbey). As agreed, this exercise included only passenger counts, and no survey on passengers' travel purposes or ticket types.

Passenger Counts

We recorded 1890 weekday, 1182 Saturday and 742 Sunday passengers. In total, the number of passengers travelling on the Abbey Line has therefore increased by about 14% in the three years since our previous count in October 2012. This annual increase of 4-5% is broadly in line with national rail trends elsewhere, and corresponds roughly to 1 person per train per year. In fact, growth has been concentrated on weekdays and Sundays, whilst recorded Saturday traffic fell slightly, as can be seen in Figure 1.

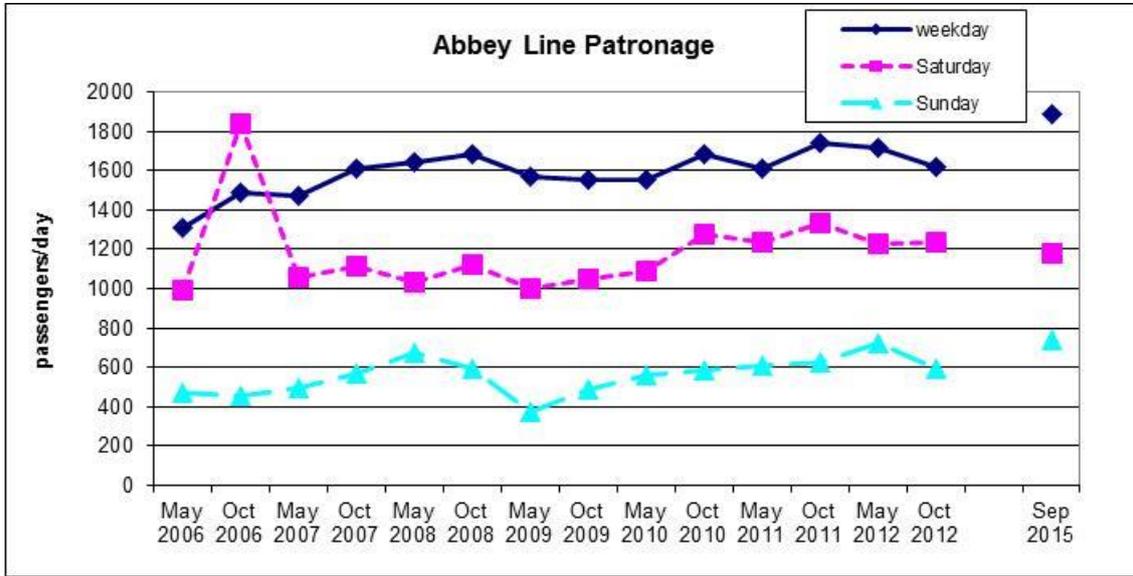


Figure 1. Comparison of Recent Abbey Line Patronage Figures by Day of Week

Weekday traffic

A 17% increase in total boarders from 1622 per day to 1890 per day has been observed between October 2012 and September 2015. However, this increase masks a change from a particularly-low count in 2012 to the highest-ever results just measured.

The average train load has risen to 27 passengers, but (as expected) this figure conceals a very wide range between the quietest trains and those in the height of the peaks. Three morning trains were particularly well-loaded on arrival at Watford Junction; the 07:14, 07:58 and 08:41 had 131, 144 and 142 alighters respectively. The evening peak services are less 'peaky', with the peak loads being 104 and 127 on the 17:21 and 18:10 from Watford respectively. One contributory reason for this is the number of schoolchildren being carried, who tend to travel with adult commuters in the morning but return before them in the evening.

<i>Train arriving in Watford at:</i>	<i>c. 07:15</i>	<i>c. 08:00</i>	<i>c. 08:45</i>	<i>c. 09:30</i>
Passengers alighting Oct 08	58	151	127	30
Passengers alighting May 09	60	145	104	29
Passengers alighting Oct 09	71	140	84	38
Passengers alighting May 10	59	134	106	40
Passengers alighting Oct 10	87	130	118	31
Passengers alighting May 11	83	117	110	43
Passengers alighting Oct 11	73	164	119	48
Passengers alighting May 12	117	133	124	43
Passengers alighting Oct 12	82	135	105	35
Passengers alighting Sep 15	131	142	144	38

Change Oct 08 – Oct 09	+13 (+22%)	-11 (-7%)	-43 (-34%)	+8 (+27%)
Change Oct 09 – Oct 10	+16 (+22%)	-10 (-7%)	+24 (40%)	- 7 (-18%)
Change Oct 10 – Oct 11	-14 (-17%)	+34 (+26%)	+1 (+1%)	+17 (+55%)
Change Oct 11 – Oct 12	+9 (+12%)	-29 (-18%)	-14 (-12%)	-13 (-27%)
Change Oct 12 – Sep 15	+49 (+60%)	+7 (+5%)	+39 (+37%)	+3 (+9%)

Table 1. Peak arrivals at Watford Junction

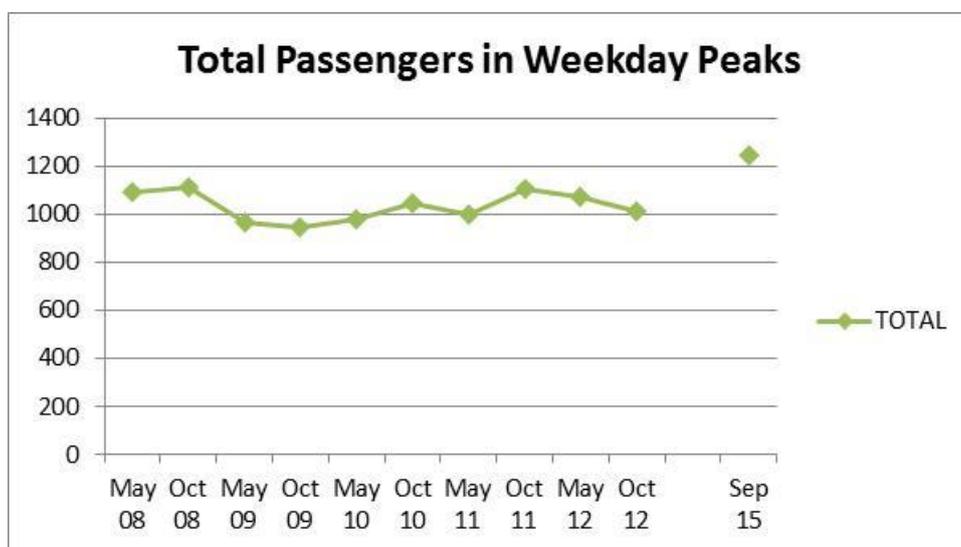


Figure 2. Comparison of Total Peak Passengers

Despite the variation in loadings between different trains, peak traffic overall has increased to its highest recorded level, recent growth perhaps reflecting the wider growth in the economy.

The off-peak analysis shown in Figure 3 also shows a general (if erratic) rise in patronage over the years, with again the highest recorded values being the most recent ones. In fact, peak and weekday offpeak demand have increased broadly in line over the years. Some trains remain very quiet, but are generally more than balanced by demand for other services throughout the day. However, for all trains, there is a turnover of passengers along the route so that the number of people using a train is usually considerably greater than its maximum load.

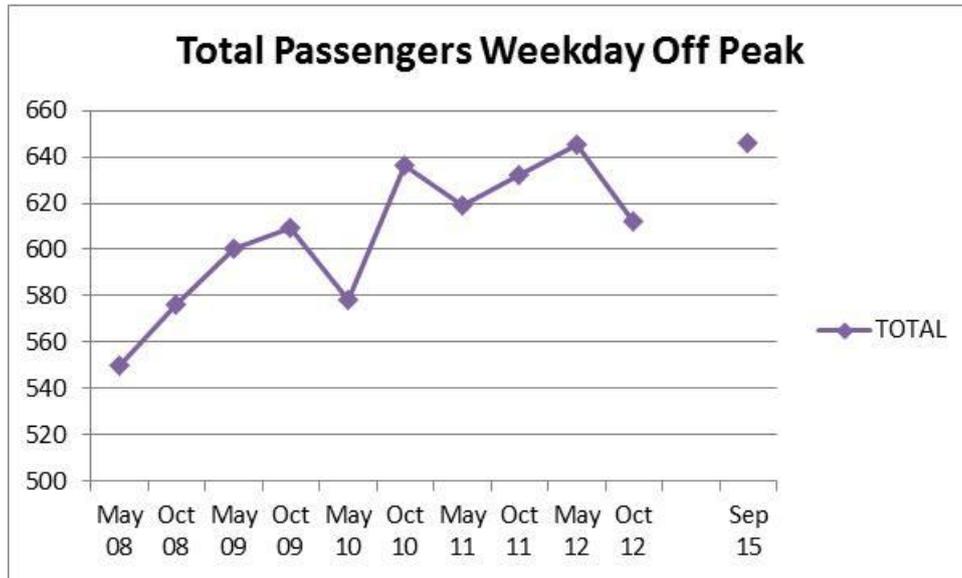


Figure 3. Comparison of Total Off-Peak Passengers

Figures 4 and 5¹ show the allocation of weekday passengers to trains arriving at the two key stations; note how St Albans functions as both an origin and a destination, whilst Watford Junction is overwhelmingly a destination, partly as the main interchange point for London.

As noted above, St. Albans alighting traffic shows two peaks. The figures show that the morning peak at St Albans Abbey has not changed very much since previous surveys, but that there has been a large increase in alighters in the evening. This would suggest that part of the increase in morning peak alighters at Watford Junction is of passengers travelling from St Albans Abbey.

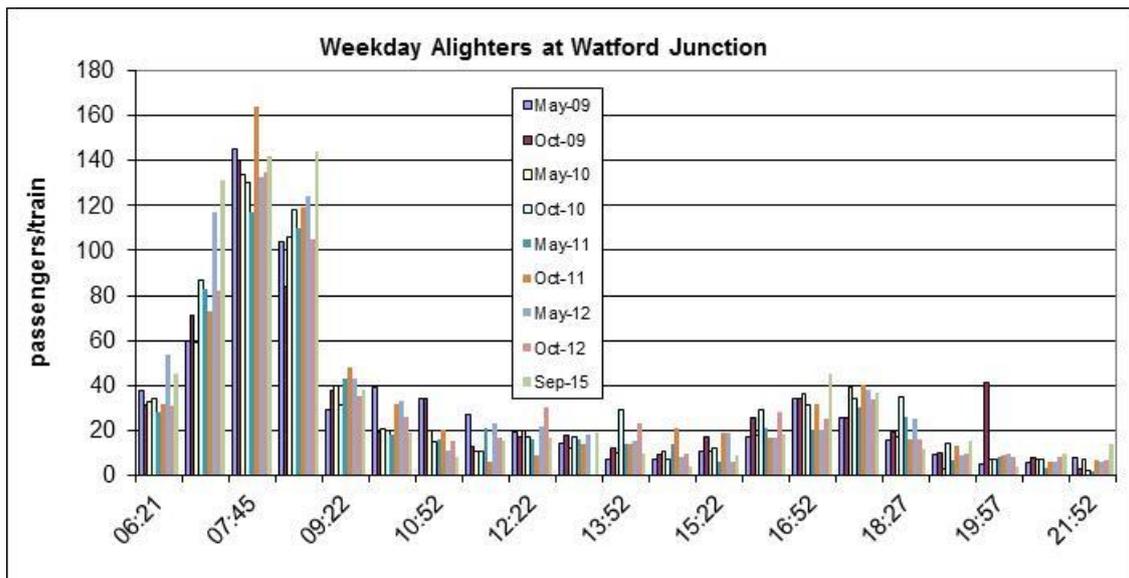


Figure 3. Comparison of Weekday Abbey Line Alighters at Watford Junction

¹ Train times for figures 4 + 5 may have slight variations over the years (e.g. Leaf fall timetable)

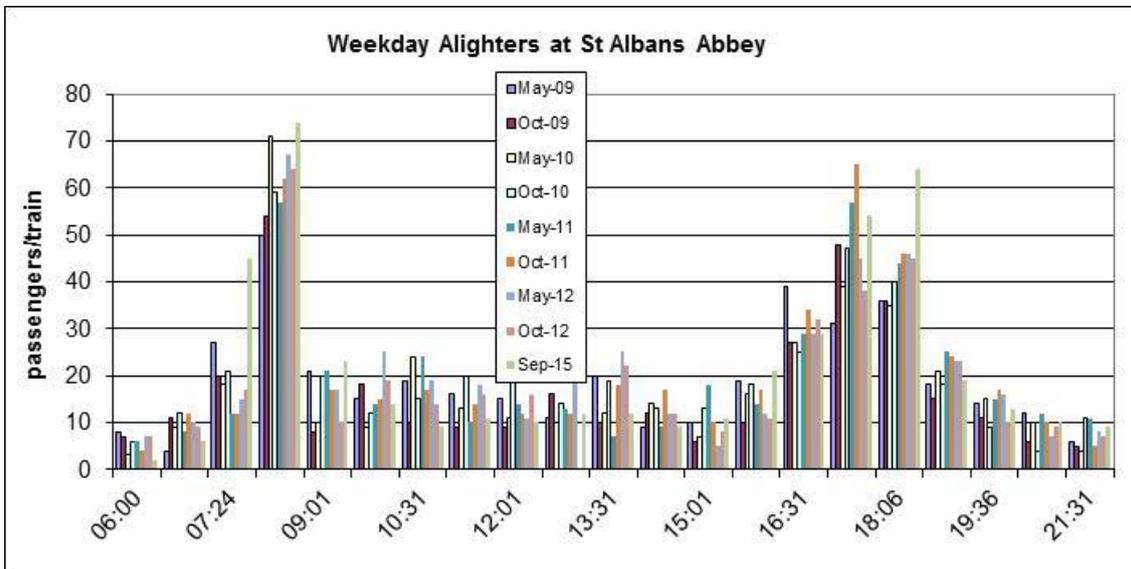


Figure 4. Comparison of Weekday Alighters at St. Albans Abbey

Saturday traffic

Other than the obvious ‘spike’ in demand of the fireworks/football events in November 2006, Saturday traffic has been historically fairly stable over the years (see Figure 1), albeit with a seasonal variation. This is to be expected, with Winter Saturdays normally having more sporting events. However, despite the football season having started, there were no home games for Watford on either 5th or 19th September this year, so our counts are probably somewhat of an under-estimate. Loadings were relatively uniform, with the exception of the 16:07 from St Albans; here, 30 passengers (in two groups) boarded at Bricket Wood, probably after an event; this highlights the ability of the railway to deal with random surges in demand.

Sunday traffic

The continuing increase in the number of people travelling on the line on Sundays (to 742) probably reflects the general increase in economic activity on Sunday. Although average loads remain fairly low, the 14.07 from Watford Junction once again proved particularly popular, with 46 alighting at St Albans.

Other Comments

The service issues we have raised in the past continue to be problematic. The trainset on the line (321413) was dirty, and many passengers travelled without a ticket, having been unable to purchase one. Although a security guard was present on some trains, travelling incognito as a passenger does not provide the reassurance potentially wanted by other passengers, and this does not prevent groups of youths hanging about at the stations, particularly Garston. However, punctuality was maintained at a high level, with the only problem being the deliberate bus substitution to permit the testing of a Class 319 unit on the branch – although it is unfortunate that that had to be done in such a way as to disturb passengers.

The relative importance of the different stations has changed over the years, with St Albans Abbey now equalling Watford Junction in providing 37% of traffic; this increase may be due to the increased level of development (including retail) around the Abbey station. Park Street is the quietest station.

Annual Patronage Estimate

Our best estimate of current annual patronage is as set out below. Factors are required to gross up one-off counts to the annual figures. A factor of 245 has been used for weekdays, which is slightly less than the actual number of weekdays per year, because a number of these (e.g. between Christmas and New Year) are particularly quiet. A factor of 56 has been used for Sundays, which includes the 6 Bank Holidays on which a service is operated, but also allows for some loss of demand on those Sundays when a substitute bus is used. The annual estimate is therefore as follows:

Weekdays = $1890 * 245 = 463,050$

Saturdays = $1182 * 52 = 61,464$

Sundays = $742 * 56 = 41,552$

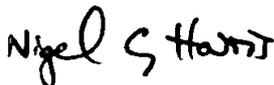
This gives a total annual figure of over 566,000 but there are obviously inevitable inaccuracies involved in the surveying and calculation process. Our judgment would be that Saturday traffic is probably slightly under-estimated (no football traffic was encountered) whilst weekday traffic is probably overstated by around 5000 trips p.a. (given the number of schoolchildren travelling for only 39 weeks per year). The estimate for Sunday traffic may be fairly accurate, balancing out an occasional impact of weekend engineering works at other times of year, against our recording a return trip with a substitute bus, which certainly depressed demand. The Autumn is also one of the busiest times of year. We therefore recommend that you take a figure of 550,000 as the best current estimate of demand on the line. This is a 39% increase on the annual patronage estimate of 395,000 derived from our first surveys in May 2006, even though the train service itself is more or less unchanged.

Conclusions

With passenger counts having been carried out 15 times now over the last ten years, trends in patronage are relatively clear. Autumn traffic is generally higher than that at other times of year, but there is an overall increasing trend, mirroring that seen nationally on the rail network, and reflecting macro-economic conditions. Within that overall picture, Sunday traffic has increased most quickly. Cumulative growth since the beginning of our survey programme in 2006 has been over 4% p.a., equivalent to an increase of around one passenger per train per year.

Our best estimate of patronage is now 550,000 passengers per annum (ppa), a 39% increase since our first surveys in 2006.

Yours sincerely,



(Dr) Nigel G Harris,
Managing Director

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