INFORMED SOURCES e-Preview May 2024

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Like last month, the latest Informed Sources saw me writing yet another lead item while new developments were emerging up to the last minute. The topic was the threat of rolling stock factory closures due to lack of orders. But there was also room for a return to the issue of HS2 West Coast journey times, plus a look at the controversial subject of third party ticket retailers.

Kittens coming home to roost

West Coast performance – modelling versus measurement

Third party retailers – bête noire or white knight

It was back in 2017 that I warned that when the, then current, high demand for rolling stock ended, there would be more firms with UK assembly plants threatening ‘give us a contract or we shoot the kitten’. Since then, ‘Kittens’ has become industry verbal shorthand for UK rolling stock assembly plants.

And this year, the workload crisis long foretold came to a head. In March Alstom celebrated the roll-out of the last of the 2,600 plus Aventra vehicles at its Litchurch Lane plant in Derby.

Then, at the beginning of April Alstom warned that it would ‘mothballing’ the production facilities at Derby and restarting its redundancy programme. The kitten-threat was in play.

This was despite Alstom being offered the prospect of a follow-on contract for the Elizabeth line in the form of five 9-car trains plus a possible of five more. An Alstom spokesman commented that discussions with the Department for Transport (DfT) had focussed on identifying packages of work ‘that could fill a circa 27-month production gap’.

For ‘such a small order’ to be viable for the Litchurch Lane plant and its supply chain, production would need to run in parallel with another, unspecified, potential requirement for a further 50 vehicles. However, DfT had warned Alstom not to expect a decision on this second opportunity ‘for at least another four months’.

I was surprised that another 90-100 vehicles was a sufficient to justify keeping a large plant open until the HS2 contract generates significant workload on the Derby shop floor in mid-2026. A batch this size would represent less than six months work for a single Derby production line working flat out. However, in a subsequent interview with the Green Signals Podcast, Nick Crossfield, Alstom’s Managing Director UK & Ireland, explained that the Elizabeth line follow-on order would also be supplemented by work brought in from elsewhere in the Alstom Group.

For subsequent developments at Derby see my blog at the end of this e-mail.

Meanwhile Hitachi is still assembling trains at Newton Aycliffe, largely trains which were scheduled to have been in service over a year ago. Of course, Covid has had an impact, but slippage seems endemic. Entry into service of the first of the Class 810 ‘Aurora’ bi-mode multiple units for East Midlands Railway, ordered in July 2019, is now expected in ‘early 2025’.

My best estimate is that, depending on the beat-rate of the production line at Newton Aycliffe, outstanding deliveries represent around a year’s work.

Obviously, Alstom and Hitachi have been ‘kittening’ the Government. And the Government had been making the predictable reassuring, but vague, statements.

This resulted in Labour’s Shadow Transport Secretary Louise Haigh entering the fray, claiming that there is ‘a simple solution that the government could explore. ‘With a stroke of a pen the Secretary of State could vary the existing contracts and give the manufacturers the flexibility and certainty to keep these factories open’.

This wound-up Transport Secretary Mark Harper, who responded with a blunt summary of the facts of train procurement life. He noted that train operators are subject to procurement law as they operate under contracts directly awarded by the DfT. Thus ‘any potential contractual arrangements, as well as contract variations, must follow procurement law’.

This means ‘it’s simply not true that existing contracts, or variations, can be changed “at a stroke of a pen” as you have suggested’. Mr Harper added, perhaps gratuitously ‘You know, or ought to know, that’s simply not how public procurement law works’.

I also mention the financial losses and reputational damage suffered by Hitachi and Alstom in the UK market.

For Hitachi, the biggest blow was the onset of fatigue cracking with the AT300 design, better known as 800 Series. Then, last year, Hitachi announced that it was writing down the value of the Newton Aycliffe plant. The company emphasised that the impairment ‘should not be interpreted that Newton Aycliffe is entering into a period of cessation, instead it should be viewed as an illustration of the current challenges within the industry and will not have any operational impact on its ability to deliver current or future orders’.

As for Alstom, the Group is still recovering from the expensive €5.5bn acquisition of Bombardier's rolling stock business in 2021. Over the following two years contracts inherited through the deal have cost Alstom €1.7 billion – leading to last October's cash flow crisis which saw changes in top management. A third of the losses were attributed to UK contracts.

The column also includes a table of rolling stock contracts placed since 2013, which explains how the current situation came about.

2013 was the year that the evaluation of franchise bids changed to include a quality factor. And the best way to give a franchise bid that 'quality sparkle', was to promise the replacement of life expired existing rolling stock.

Bidders for replacement franchises got the message that offering new trains to the max was a winning strategy. In addition to Pacer replacement, 'mass extinction' bids also won the Greater Anglia and South Western replacement franchises.

In 2016 for example 1,700 vehicles were ordered. That was equivalent to about four years demand based on a steady-state replacement rate for the 15,000 vehicles in the national fleet assuming a 35 year service life.

More on West Coast performance

My piece in the March column on the impact of the cancellation of HS2 Phase 2a on West Coast journey times concluded with the suggestion that Pendolinos running at 140mile/h on HS2 could reduce current schedules. This generated a positive response from expert readers.

I had estimated that the Class 390 would save around 15 minutes on the current 67 min timing between Euston and Handsacre Jct, where HS2 will join the WCML. A reader's simulation made the saving just over 11 min starting from HS2's Euston Station, but not stopping at Old Oak Common.

However, with an Old Oak common start, the time saving for Pendolino increases to 16.5 minutes. This would bring the current London-Glasgow journey time, with seven stops, down to 4hr 22 min.

For an HS2 train running at the current 110 mile/h Permissible Speed (PS) north of Handsacre Junction, the projected London-Glasgow journey time, with eight stops, is 4h 27min – a six minute saving on the current journey time.

But, as explained in the March item, the 110mile/h PS for the HS2 trains is an artificial restriction. Assuming Avanti's new line-speed uplift to 125 mile/h EMU Permissible Speed (also as described in the March column) is applied north of Weaver Junction, this has the potential to cut the HS2 train timing by a further five minutes, a total saving of 11 min on the current Pendolino London-Glasgow schedule.

And, what a coincidence, that is what a Pendolino would save with a flying start on HS2 to Handsacre Junction. Of course, all this is a long way in the future, but I thought it worth publishing, if only to show the potential for conventional stock on a high speed line.

I also received some expert feedback on the controversial issue of the impact of train acceleration on journey time reduction. As I noted in the original article, while trains like the Hitachi Class 80x and Stadler Class 745 provide sparkling acceleration, drivers will not necessarily use the power controller as an on-off switch. I provide some real-life examples to support this view.

Third party ticket retailers

Social media is inevitably an echo chamber. You follow people with similar interests. People with similar interests may follow you.

This can result in a group 'feedback howl': one such frequent topic is the Trainline, which attracts two criticisms. It charges a booking fee and, like other third party ticket sellers, receives a 5% commission on sales, now renegotiated to 4.5%.

In the case of the booking fee, it is suggested that ignorant 'normals', for lack of a better word, are being duped. They could save money by booking tickets directly on-line through the individual Train Operating Company web-sites. As for the commission, this is yet another example of the private sector 'taking money out of the railway'.

I thought it was time to look into the third part retail market, and this was a real eye-opener. According to Trainline's preliminary results, its UK ticket sales in 2023-24 were £3.5 billion.

My current estimate of total passenger fares revenue for 2023-24 is £10.4 billion. So Trainline is responsible for a third of ticket sales by value.

Obviously, either a lot of people are being duped, or are happy to pay the booking fee. And the fact that a third of passenger fares income comes through a third party seller suggest that Trainline must be doing something right and contributing to the industry's revenue recovery.

But, apart from cost savings, what is the secret to Trainline's success? Two family members are enthusiastic Trainline App users, despite me having warned them that they have to pay a booking fee.

So, I asked them round, sat them down in the lounge, got out my notebook and tape recorder for some serious research.

And they both highlighted the convenience of the Trainline's smartphone App. That said, when Chinese owned rival to Trainline, TrainPal, entered the UK market it assumed that UK travellers would reflect the Chinese market where the smartphone App is now the first choice for buying tickets.

They soon found out that this 'smartphone first' habit had still to sweep the UK and TrainPal had to set up a classic web-site as well. Perversely, web-sites highlight the advantages of using the App.

With apologies for only just catching up with the phenomenon of third party retailers, I would like to make just four points.

First, they will play an important role in driving revenue growth. As my family interview showed the combination of savings on fares plus the facilities within the App encourage travel by train – which is what is needed.

Second, with national coverage they make buying a ticket a relatively straightforward process for the general public, compared with the National Rail website which has to re-direct travellers to a TOC web-site. The value of their annual ticket sales suggests that they are meeting a genuine need.

Third, they flourish only because of the current Byzantine fares structure. This is unlikely to change anytime soon, whatever happens after this year's election.

Roger's blog

One of the original aims of e-Preview, now in its 18th year, was the ability to report developments since Informed Sources went to press.

As I am writing this, the latest news on the Derby closure story is that DfT has 'approval in principle' to support the run-on order for 10, Class 345 trains for the Elizabeth line. However, this is dependent on development of a business case that represents 'value for money for the taxpayer'.

The Transport Secretary claims that these 90 vehicles would be enough to keep Derby open until HS2 arrives in the factory floor in 2006.

All this followed a meeting with the Alstom Group CEO as well as Nick Crossfield. And the Minister was clearly playing hard-ball.

In the Green Signals podcast Nick said that if Derby remained open it could become the Alstom Group's Centre for the design and development of the new Adessia EMU platform - successor to the Aventra which was also a Derby Design Office product. Sensibly, DfT now wants this commitment in writing, if not signed in blood.

Meanwhile, there are a couple of items in the Notebook at the end of the column worth noting. I mentioned last month that official data was now available for my chart of quarterly passenger revenue since January-March 2022. I've up-dated the chart, but this doesn't affect the argument that revenue has plateaued in 2023-24.

I have also included a little table comparing the breakdown of Train Operators' costs in 2023 with 2017. This shows the sources of cost savings and cost increases.

Then in the New Train Reliability Monitor I have two charts. One from the past showing Siemens Class 350/2 reliability growth alongside a shorter chart of Merseyrail's Class 777 reliability over the first year in service.

This is another reminder, together with the lack of progress shown in my monthly new train reliability table, that some serious investigation of why the latest fleets are no match for their predecessors is overdue.

Anyway, while future rolling stock demand continues to dominate the news, my to-write-about list never seems to get any shorter. The question is not what to write about, but which of the potential topics is the most important, and interesting to Modern Railways' readers.

Feedback always welcome to roger@alycidon.com. Or follow me on X (formerly Twitter) where @captain_deltic has been described as one of the two grumpiest posters on the platform.

Roger