

INFORMED SOURCES e-Preview December 2017

It's yet another table-rich Informed Sources this month as I analyse future rolling stock demand after the present glut of orders is delivered and then go out on the high wire without a safety net and try to break-down DfT's global figure for Network Rail's expenditure in the next Control Period.

Rolling stock factories - over-capacity threat  
Alstom-Siemens - merger of UK rivals  
Unravelling the CP6 SoFA

With the new CAF plant at Newport, Gwent already under construction, a second Spanish train builder Talgo has committed to a local plant should it win an order in the UK. Alstom's new Widnes facility, which will replace Strand Road Preston as the Group's UK traction and rolling stock centre, has begun re-painting the Virgin West Coast Class 390 Pendolino fleet. This plant has been planned for future expansion to accommodate rolling stock refurbishment or assembly.

Add in Bombardier and Hitachi busily out-shopping existing orders at Derby and Newton Aycliffe and that is five potential factories to meet UK demand from 2020 onward. But what will there be to build?

My lead item this month tries to answer that question. And the provisional answer is 'not enough to keep five factories open, let alone busy. Since DfT insists that only new franchises can buy trains, my analysis starts with those franchises coming up for replacement.

By common consent, Southeastern's Networker's are going to be replaced, but after, that there are fairly lean pickings. Assuming DfT's franchising policy continues to encourage mass replacement through the quality factor in bid evaluation, you could make a case for replacing the Cross Country Voyagers, plus the handful of IC125s, with an homogenous fleet. But a fleet of what?

Obviously DfT would favour more bi-modes. But as I keep on pointing out, a bi-mode is either an underpowered DMU or an overweight, over-expensive EMU. Similarly with the East Midlands Trains' Meridians and IC125, where Transport Ministers have promised bi-modes (make unspecified) by 2022.

In a classic of disconnected thinking it is only just dawning on DfT that if a) only replacement franchises can commit to new trains and b) EMT is set to run to August 2019 and possibly into 2020, then c) an incoming operator can't procure new trains and have them delivered for 2022.

According to Informed Sources, now that the light has dawned some means of letting EMT procure the trains is being bodged up.

Finally there are Virgin West Coast's tilting Class 221 Voyagers. Here we run into the complexities of the new West Coast Partnership which will run an integrated Intercity West Coast and High Speed 2 service from 2026.

My colleague Mr Walmsley has suggested that the alternative is to convert the 22x units to bi-modes. This was the premise of Bombardier's Project Thor touted in 2011. Also known as e-Voyager, this would have seen a new build of intermediate unpowered vehicles equipped as Pantograph/Transformer cars to be inserted into Voyager/Meridian formations, powering the existing electric transmissions.

Urban

So much for the main line operators. In addition to the proposed Cardiff Valleys Metro, both the Docklands Light Railway (DLR) and the Tyne & Wear Metro are planning replacement of their Light Rail Vehicle fleets. Once again, the numbers are relatively small.

Which brings us to London Underground. Alstom was banking on London Underground's Jubilee and Northern Additional Trains (JNAT) programme to get new train assembly started at Widnes. This useful little order has now been cancelled. While the general tightening of Transport for London's finances is the primary cause, the fact that the bids from Alstom and CAF were higher than expected, can't have helped.

That leaves LU's Deep Tube Upgrade Programme (DTUP) as the order every manufacture needs to keep production going. Bombardier and Hitachi will be bidding in Joint Venture. Siemens and Alstom might also team up if the merger goes through.

With the nominal base quantity of 1720 cars, according to TfL's rounded fleet sizes, plus the prospect of a further 1300 vehicles, DTUP this sounds like a bonanza on wheels. However deliveries are stretched out, with only the Piccadilly and Waterloo & City trains fitting into the 2025 time frame of the analysis.

While not wanting to spread alarm and despondency, DTUP is also showing signs of 'sliding to the right'. And while within DTUP Piccadilly Line has the strongest business case, procurement has gone suspiciously quiet. Back in March a decision on the supplier of the new trains was due to be made in Quarter 4 2017. Announcement of a preferred bidder is now expected next year.

Similarly, three potential suppliers of the new DTUP signalling, Alstom, Siemens and Thales, were shortlisted in 2016 and were supposed to have received the official Invitation to Negotiate in Spring 2017. This has yet to appear.

All of which suggests that when you compare capacity against potential demand, the UK is not an ideal place to have a factory. And that's before the Chinese decide to do more than display model trains on the largest stand at Railtex.

Alstom-Siemens merger

The official announcement of the proposed merger of Siemens and Alstom claimed that the two businesses are 'largely complementary in terms of activities and geographies'. But in the UK rail market they compete in rolling stock, signalling, electrification and rolling stock maintenance

In the article I give the historical background to the two Group's current UK activities. In rolling stock Alstom is attempting its latest comeback, while Siemens is banging out an eight or 12-car Thameslink Class 700 unit a week from its German factories.

Currently both Siemens and Alstom are reported to be bidding for the 60 additional vehicles to augment the c2c fleet. Contract award is expected to be announced by the end of the year. In a rational world (Informed Sources First Law refers) the obvious solution would be to cascade some Class 350s displaced by the replacement West Midlands franchise to Essex: common sense might yet prevail.

Obviously HS2's new train fleet looms large for the two would-be partners. In the split of responsibilities within Siemens-Alstom, rolling stock will become the responsibility of the Alstom organisation in Paris. Determining Siemens-Alstom's bidding strategy for HS2, could be interesting.

Both groups have recently been shortlisted. Assuming the merger goes to plan bids will be submitted two months before the merger is ratified in December 2018, with contract award a year later.

## Signalling

In signalling, Siemens has recently had the stronger performance in the UK, as you can read in the supplement in this month's Modern Railways. In contrast, Alstom's UK Systems, Signalling & Infrastructure Division is about to start consultation on a proposal to reduce the size of the signalling workforce, with the focus on Engineering and Operations.

So some difficult decision to be taken.

## SoFA – how will the £47.9bn be spent?

When it comes to the Department for Transport, this column's default setting is that cock-up trumps conspiracy every time. But with the publication of the Statement of Funds Available (SoFA) for England & Wales in Control Period 6 (2019-2024), I think I have detected a new binary choice – arrogance or ignorance.

Compared with previous SoFAs the 2017 offering is so devoid of useful information that one can only conclude that either DfT doesn't want us to worry our pretty little heads about the railway's future funding, or they don't have a clue what to do.

According to the DfT press release 'around £48 billion will be spent on the network over a five year period, from 2019 to 2024, including more maintenance and a huge uplift in renewals to increase reliability and punctuality for passengers'.

While the SoFA includes funding for the early stages of developing new rail schemes, 'in a departure from the previous approach, the Government will allocate funds separately for major upgrades following a new process to ensure they are deliverable and secure the best value for money for the tax payer'. We await more detail on this new process promised for 'later this year'.

Starting point for my attempt at backwards engineering the SoFA is the allocation of Network Rail's spending for the current control Period. To this you have to add new money, like the £2.5bn for enhancements in the Hendy Review. You also have to subtract money from the CP6 SoFA to allow for the £3.7bn of renewals deferred from CP5 to CP6.

Sundry schemes were cancelled, paused or deferred to CP6 under the enhancements review. To allow for this I have had to stick a wetted finger in the air and come up with a credible Suspiciously Rounded Number for the value of this work.

Having done this I make it that there will be around £10bn of new, not spoken for, funding in CP6. The second part of the analysis is an attempt to work out how Network Rail will allocate the money.

This exercise leaves around £7bn floating around, which I reckon will go on committed enhancements, like Didcot-Oxford electrification. I publish the Hendy Review's list of the enhancement projects which either started in CP5 and will be finished in CP6 or are being planned in CP5 for implementation in CP6.

Some of the major projects in this list have since died the death, but many, though minor, are essential and could add up to £7bn. When ORR publishes its assessment of Network Rail's expenditure in a year's time I promise to republish my Table and we can all have a good laugh.

## Roger's Blog

As usual, the meeting of the judging panel for the Railfuture awards was a lively occasion, with some very high quality entries to assess. We are an eclectic bunch, but it was interesting how quickly agreement was reached.

Unfortunately, I couldn't make the anniversary celebrations at Hitachi's Ashford Depot because of a family visit, however, the coming week is all rolling stock, with Waterfront's second rolling stock procurement conference on Tuesday.

On 1 November I was invited to make a written submission to the Parliamentary Welsh Affairs Committee's investigation into the cancellation of the Cardiff-Swansea electrification. You can read my submission at:  
<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/welsh-affairs-committee/the-cancellation-of-rail-electrification-in-south-wales/written/73604.html>

I'm also giving oral evidence on Tuesday afternoon at Westminster.

Friday is, of course, the Golden Spanners. The results are all worked out and trophy production is in full swing. With the introduction of a separate class for 2nd generation new trains, there will be 19 trophies to hand out.

This is the 11th year of the Spanners and it interesting to look back and see the progress. In that first year, the most reliable trains were eligible for the 25 thousand miles per failure '25k club'. This year it's the '90k Club'.

Next week I'm finding out about some innovative composite doors for trains and, so far, the only items in the diary for December are an

IMechE meeting on new trains vs life extension and the legendary Rail Freight Group Christmas lunch.

Now it's time to brush off my best suit and prepare to do battle for the electric railway before the Welsh MPs.

Roger

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