

INFORMED SOURCES e-Preview April 2016

How embarrassing. Due to pressure of work e-Preview is about 12 hours late, which isn't much, BUT, with the print elves playing a blinder to get Modern Railways out before Easter, subscribers may have already received the April issue in the post. So welcome to e-Review.

Control Period 5 rolling stock bonanza
Underground – financial squeeze trims numbers
GWEP target dates and cost – official
Pilot scheme for Digital Railway integration
Network Rail explores critical asset sales

Leading the column is a comprehensive table listing the rolling stock due to be delivered in CP5 (April 2014-31 March 2019). And the numbers are very impressive.

To put the grand total in context, in the 10 years either side of 1994, British Rail and the newly-privatised railway each ordered roundly 5,000 passenger vehicles. Today, approaching that number is due to arrive in just five years.

Actually, because it takes time to order trains and fill up the subcontractor supply chains, around 570 trains – some 4000 vehicles – are going to be delivered in the last 27 months of CP5.

While nearly 60% of the vehicles are in the 'big three' state-procured contracts – the Intercity Express Programme, Thameslink and Crossrail – my latest update reveals the growing influence of the new approach to franchising driven by the Department for Transport's Managing Director Passenger Services Peter Wilkinson. His new bid evaluation regime takes passenger benefits into account and additional rolling stock is an unambiguous benefit.

To differentiate them from the 'big three' I call these new deals 'franchise orders'. Generally in the range of 150-200 vehicles they are an ideal size for financial institutions looking for a new home for their money. There's a breakdown of the new funders entering the market and the source of their finance.

Mind you, it is a bit early to write off the three Rolling Stock Companies who so far in CP5 have funded two thirds of the 'franchise' vehicles. And they offer more than money, such as substantial engineering resources and unique experience of operations, maintenance, overhaul and re-engineering.

Also listed are future prospects where all the manufacturers see Anglia as the big one to go for. How big?

At the least this should see the replacement of the loco hauled Intercity trains with 110 or 125 mile/h EMUs. However this could be combined with the replacement of some, or even all, of the outer suburban Class 31x units.

Underground – austerity biting

London Underground's Jubilee & Northern Lines Additional Trains (JNAT) programme drags on. Having delayed and complicated what was ostensibly a simple repeat order, procurement may now be undone by the onset of austerity.

When bidders were invited to prequalify back in August 2014, the base quantity was for five trains to augment the existing Northern Line fleet when the Battersea extension opened. To this was added an option for 'up to' 18 seven-car additional Jubilee Line trains to raise peak service frequency, plus further options for up to 45 units for the Northern Line.

Two years on and the requirement, due to go out to negotiation this month, is for either 10 trains for Jubilee Line Upgrade 2 (JLU2) or 27 trains – the 10 for JLU2 plus 17 for Northern Line Upgrade 2 (NLU2). And the NLU2 sets are at risk after the 2015 Comprehensive Spending Review cut back central government funding for Transport for London.

JLU2 now takes precedence over NLU2 because it has a better business case. However, delaying procurement of the NLU2 fleet would also weaken its financial case because the pay-back time is determined by the remaining life of the existing trains which were delivered in 1998. A 'go/no-go' decision on the NLU2 fleet will be taken this autumn.

Official dates for Great Western electrification

I had an intensive day out at Swindon on 19 February, hosted by Network Rail's Great Western Electrification Programme (GWEP). The aim of the day was to put the current situation in context and explain how Network Rail is working to restore order.

Piles of foil-wrapped bacon butties on the conference room table at the HOOB (High Output Operations Base), hinted at serious business ahead and the briefing was still going strong when my digital recorder ran out of memory three hours later and I had to revert to my mobile. The visit was rounded off with a tour of the base to see the OHLE hardware in close-up and inspect the modules which make up the High Output Plant System (HOPS)

All this will be the subject of my next feature article. Meanwhile, the column concentrates on the electrification commissioning dates which are determining Great Western Railway's rolling stock and timetabling strategy.

Trains

GWR's 16 mile long IEP 'test track', between Reading and Didcot has top priority. It should have been energised in September last year and is now scheduled for September this year.

Obviously I was noting progress during my journey to Swindon and between Reading and Didcot all the bases and the majority of OHLE structures, were in place. Registration arms were being installed and I was told that around 20 1-1.5 km tension lengths of wiring had been installed. I reckon that September energisation date may be conservative.

December 2018 is now the date for the completion of electrification between London and Cardiff. The political attractions of opening an electrified 'two capitals' service just over a year before the next election are obvious.

There's a chart in the column showing the build-up to the 50 IEP daily diagrams in the IEP contract, which leaves something in hand ahead of the 2018 timetable. The first five car bi-mode diagrams become available in June 2017.

Because of the delays to energisation DfT has taken the decision in principle to issue a variation order to Agility Trains West, the train service provider, to deliver GWR's 21 Class 801 electric multiple units as bi-modes.

Cost

As of now, £2.8 billion, is still the official Anticipated Final Cost (AFC). This is at current prices. While the Treasury is biting the bullet on GWEP, significant cost reduction is essential if electrification schemes are to survive ordeal by Benefit: Cost Analysis in future. GWEP know this and a lot of work is being done on value engineering and improving installation efficiency.

Digital Railway for the Wherry lines

As readers may have noticed I have had severe reservations about Network Rail's Digital Railway programme for some time. And now it has confirmed all my doubts.

Imagine you are running Digital Railway and want to test the integration of the European Train Control System (ETCS) Level 2 with a Traffic Management(TM) system and a Connected Driver Advisory System (C-DAS) before rolling it out across the network. Where would you run your pilot scheme?

Well, you would want a route with trains at close headways and a couple of busy junctions so that the TM could work out pathing strategies and the C-DAS transmit these to drivers so that they maintained the optimum speed. And after much thought your obvious choice would be the Norwich-Lowestoft/Great Yarmouth Wherry Lines.

You disagree? Well an OJEU Notice issued by Network Rail on February 25 says that Wherry Lines is indeed the route selected by the Digital Railway team to demonstrate the integration of ETCS Level 2, TM and C-DAS at an estimated cost of between £35 million and £50 million.

Yes, £35-50 million spent on a line currently struggling to justify replacing its mechanical boxes with even a value engineered version of Modular Signalling. The integrated system is expected to be commissioned by December 2018.

Doesn't that date ring a bell. Oh yes, that's when Thameslink Project Director Paul Bates and his signal engineers hand over not only ETCS Level 2 plus TM, but ETCS Level 2 with an Automatic Train Operation (ATO) overlay, collectively capable of running 24 train/h through the Thameslink central core.

If Siemens and Hitachi deliver the goods on Thameslink, the Wherry Lines scheme will be redundant before it enters service.

In the column I also describe the current plans to replace the mechanical boxes on the route. A classic Modular Signalling set-up is proposed, with six independent 'islands'.

Signals and points within each island would be controlled from two remote workstations using data transmitted over the NR Fixed Telecommunication Network. Bi-directional working between Lowestoft and Oulton Broad station would be eliminated, nor would Automatic Route Setting be required. Level Crossings would be manually controlled barriers (MCB) with CCTV monitoring rather than obstacle detection.

Phased implementation would see final commissioning in October 2018. The stakeholder presentation on this scheme was made a month before the Digital Rail OJEU was issued.

More assets up for sale

On March 4 Network Rail announced that, following a market testing exercise, it was exploring the possible sale of its electrical power assets. I checked that this included the Overhead Line Equipment (OHLE) and it could (but probably won't).

NR Chief Executive Mark Carne told the Daily Telegraph that with 'a highly complex integrated network', there was a 'whole range of different possibilities' open to participation by the electrical market. This came with the caution 'I'm not going to sell any of this unless I can demonstrate, firstly that that it's value for public money, but secondly that (potential bidders) can also demonstrate to me that they can operate those assets in a way that is superior and better to the way we operate them'.

NR describes this exploration of new sources of capital and expertise (expertise in what not specified) as 'a key part of (the) strategy to benchmark its competitiveness against the market, maximise commercial opportunities and inject private capital into the railway to help fund investment. I could understand private funding for grid supply points, but monetising the physical interface between power supply and trains would be a goldmine for lawyers and consultants. And we all know what happened when Railtrack contracted out OHLE (non) maintenance.

A list of potential asset sales in the press release included 'telecoms assets'. Given that Railtrack, DB and SNCF tried this in the 1990s and have all now brought telecoms back in house prompted me to describe the idea as 'madness' in a comment to the Financial Times.

That article appeared in the FT on Saturday 12 March. The very same evening the railway press received an e-mail from NR with some corrective helpful quotes from the Chief Executive including the message 'We are not selling the telecoms network. However, we do have unused capacity in our fibre optic network. It is commercially sensible to see if we can sell this capacity to telecoms companies - we don't need it and they do'.

Now I suppose spare capacity on NR's Fixed Telecoms Network (FTN), currently being upgraded to IP, could be described as an asset. But why did it take a week to clarify what 'telecoms assets' meant?

Or, to put it another way, should I seek clarification of any statements which appear self-evidently bonkers? That could keep me busy

A first (and last)?

Finally, we come to a first for Informed Sources – an Open Letter. I have always regarded open letters written by journalists as telling us more about the self-importance of the writer than the subject of the missive. However an interview in The Times with NR Chief Executive Mark Carne left me so exasperated that I have broken the habit of over 30 years. I am sure readers will take me to task if they think I am being presumptuous.

What was so special about this particular article? In portraying the railway as technically backward it also disparaged the achievements past and current of the signal engineering profession.

The comment that really got my goat came when Mark told The Times that digital signalling technology had already been introduced on parts of the London Underground such as the Victoria Line, adding 'You compare that to the way we run our Overground trains – we are in the dark ages'.

So the letter gives a potted history of the UK rail industry's pioneering applications of digital technology, followed by a couple of examples of current state of the art stuff like Thameslink. It ends with a plea for Mark to start celebrating the technical achievements and challenges of our real 21st Century railway which has been exploiting digital technology for almost as long as I have been writing for Modern Railways.

Will it have any effect? Who knows? But I'm sure Informed Sources readers will take me to task if they think I should have stuck to my long standing abstinence.

Roger's blog

Well, as you can see, I did get round to updating my CP5 rolling stock orders spreadsheet. Now, I suppose, there's no excuse for not getting on with up-dating 'Who runs the railway'.

Last week, there were two Virgin events, the catch-up dinner for the railway press mentioned last month plus the launch for the Virgin East Coast IEP fleet at Kings' Cross. The Virgin livery certainly enhances the IEP's lines. I was amused by the 'credits panel' on the side of the nose which included 'DfT'.

The big topic at both the dinner and the livery launch was what Virgin can do about the 'outer-suburban' interiors which I saw in the GWR IEP at North Pole Depot. Defensive Virgin managers jump in to claim that, unlike GWR, they at least have argued a buffet bar out of DfT.

But they know we are talking about rock hard seats packed into 26m long drab tubes. Coincidentally, also at the Cross was Virgin's first refurbished IC225 set. And while I think the leather trimmed seats in First Class are a bit 'boy racer' compared with GWR's gentlemanly 'Jaguar', getting passengers to see IEP as an upgrade within the constraints imposed by DfT won't be easy.

Of course Virgin East Coast is really 90% Stagecoach. This Wednesday it will be 100% Stagecoach when we have another 'launch' of the CP5 Waterloo Capacity programme – now priced at 'over £800m'. Bulldozers will be involved, I am advised.

Looking ahead to April, it's Infrarail time again and I will be pounding the aisles at ExCel on Wednesday 13th. As ever, do stop me for a chat and an exchange of gossip (and a chance to rest my legs). The Modern Railways stand is F74

The following week it's the Fourth Friday Club's Rail in the North conference held at the National Railway Museum in York. With the recent award of the North and TransPennine Express franchises it could not be more topical. And at the moment all of us in the Modern Railways writing team are working flat out on the Northern Rail Supplement for the May magazine which will set the scene for the conference.

So what with the regular stuff plus the supplement to write, the next few weeks are going to be busy. And on top of that there's my submission to the Transport Select Committee's inquiry into Network Rails signalling and traffic management programme to prepare. I'll be ready for a day out come Infrarail

Roger