

INFORMED SOURCES e-Preview September 2016

A really varied range of topics this month, including the long-awaited update of 'Who runs the railway'. And in the magazine's News section there's also an 'Informed Sources Special' on the total replacement of the rolling stock fleet in the new East Anglia franchise.

Waboso pricks Digital Railway bubble  
Romford delay highlights heroic expectations  
Who runs the railway 2016?  
Captain Deltic's traction and rolling stock round up

In the May column I reported Network Rail's appointment of David Waboso as Managing Director Group Digital Railway. David has worked on some of the highest profile signalling schemes, starting with the Dockland's Light Railway resignalling in the early 1990s. Would he bring a battle-hardened signal engineer's eye to what I, and many others, have considered a distraction?

Well, I didn't have long to find out. David took over the new job on 27 June and on 21 July phoned me with an update on matters digital.

And the first good news is that the Digital Railway Programme's (DRP) proposal to use the Norwich- Great Yarmouth - Lowestoft (NYL) 'Wherry Lines' as the pilot scheme for the integration of the Level 2 European Train Control System (ETCSL2) with Traffic Management has been abandoned. With replacement of the mechanical signalling required by 2019, plus signallers coming up to retirement, David had reviewed the situation with the Route and asked himself, "do I really want to put ERTMS in the middle of that really important renewal"?

Of course the answer to this rhetorical question was 'no'. So, the NYL pilot is cancelled and replacement with Modular Signalling will be commissioned by 2019. In addition to de-risking this vital renewal, binning NYL will also allow Network Rail to focus Traffic Management 'where it solves real railway problems now'.

DRP dismissed my argument that by the time that NYL was integrating ETCS and TMS, Thameslink signalling would be handling 24 train/h each way through the central core with not only ETCS, but Automatic Train Operation and, hopefully, TMS. But having talked to the project team David considers Thameslink signalling to be one of 'the best led and executed projects I've had the pleasure to be involved with'. With its ETCS, ATO and TMS, 'this tells me that I've got this thing (digital) coming my way' he told me.

He is also encouraged by the new Romford Rail Operating Centre (ROC) where Thales is installing one of its two 'First Deployment' Traffic Management Systems to take over c2c from Upminster Integrated Electronic Control Centre (IECC). David had been to Romford and been impressed. I'll cover Romford TMS separately so as not to interrupt the flow.

David Waboso clearly views Digital Railway as an integral part of Network Rail's signalling policy, rather than an independent programme. As Kevin Robertshaw, Programme Director, Infrastructure Products Signalling briefed staff subsequently 'it is vital that Digital Railway is focused on addressing critical issues on the network to deliver benefits for users of the railway. This must be part of an integrated national systems based approach to ensure it is achieved efficiently and collaboratively with the supply chain'.

Note the reference to the supply chain. There was a breakfast meeting with signalling suppliers on the day of my phone call. Following the meeting, which he had hosted, David told me, 'I'm involving my supply chain partners and they are going to come and be part of this team (Digital Railway) and they are going to help me make my mind up about what I can do and where I can do it'.

Connected Driver Advisory Systems (C-DAS) are also on David Waboso's to-do list. 'You can fit trains for a fraction of ERTMS and when you put traffic management in you start to get some real performance benefit' he enthused. The addition of C-DAS at the Marylebone IECC was under discussion when I wrote my description of the newly upgraded control centre back in July 2015. There are already signs of a new impetus for this add-on to IECC Scalable following the new inclusive approach.

So it looks as though DRP reached peak loopiness with NYL. But at a cost. A Freedom of Information request has revealed that in 2015-16 alone DRP spent £5.9 million on consultancy service. Of that Ernst & Young were paid £2.8 million for providing 'support services in the development of a business case for the Digital Railway'.

As a Train Operating Company Managing Director commented when I quoted these figures 'You could be on your way to a modest C-DAS scheme for that money. I suspect that David Waboso would agree.

#### Romford First Deployment TMS delayed

As explained in the June column, the Thales First Deployment Traffic Management System being installed at Romford Rail Operating Centre (ROC), will be accompanied by a radical new approach to operating and controlling the railway. Known as 'Pod working', the operating model aims to bring together Network Rail and c2c train operators to improve decision making for the Thameside route.

When the contract was awarded in May 2014, Romford was originally to go live by December 2015. At 19 months this was an heroic combination of aspiration and execution. Commissioning was subsequently deferred to November 2016 because of what Network Rail refers to as 'resource issues'. Must look that up in my copy of 'the Ladybird Book of Railway Euphemisms'.

It appears to have dawned only recently that, as conceived, the Pod system has a significant drawback, especially for a first-in-class. Although I'm not convinced that it is an insuperable obstacle, NR is claiming that switching over to Pod is irreversible.

Making two major changes simultaneously is always risky. Here both the technology and the way it is used are being changed. But the real issue is the lack of a fall-back.

Major signalling projects are usually organised so that they can be introduced incrementally. The Thameslink signalling team can wait until the trains have stopped running, then switch over to the new ETCS system and run Class 700 EMUs through the central core unhindered before switching back for the morning peak.

But, according to an internal note, with the Pod TMS at Romford such 'technical rehearsals', are not available. In addition, the detailed review of what NR calls 'this complex programme' identified a number of risks that still need to be mitigated before final commissioning.

So deferral was inevitable. Anyway, the sanitised official message following the review is that while the Romford TMS is 'close to completion', more time is needed to 'iron out the final software bugs, complete the training of staff, carry out trial operations on the simulator 'and enable the development of our staff's capability and confidence in using the new system'.

As of the end of August the simulator 'had been fully installed at the Romford ROC' with NR 'working with our integrated team, including our supply chain', to get it fully commissioned. So if the simulator is still to be commissioned that November 2016 commissioning date for the ROC was never on.

According to NR, the Pod simulation suite is the first of its kind and represents 'a step change in simulator provision'. It includes seven workstations with 48 screens and integrates 14 separate software components and systems on a single server. All workstations are synchronised and work in conjunction with each other including integrated voice communications, fully replicating the national GSM-R system.

It will provide a training environment 'that is identical to the future operating environment in every way'.

So what about the cost of all this? Last month we left Lilian Greenwood MP asking for a breakdown of the estimated costs incurred for supply, installation and operation of the two First Deployment schemes at Romford and Cardiff. The eventual written answer admitted. 'The Department for Transport does not hold this level of detail on Network Rail's costs'.

Hang on a mo! DfT Permanent Secretary Philip Rutnam is the Accounting Officer for Network Rail, accountable to Parliament and the National Audit Office. Surely one of his team could phone up their opposite number at NR and ask for the latest cost breakdown for Cardiff and Romford?

But, for once, I don't think DfT is being deliberately obstructive. Perhaps no one really knows the answer.

#### Railway professionals still in charge

This year marks the 20th anniversary of rail privatisation which was supposed to see a new breed of private sector management brought in to invigorate the railway. Testing this theory has been the role of 'Who runs the railway', which has tracked the managers in charge of the passenger Train Operating Companies (TOCs) since 1997. It last appeared in 2012, when I added Network Rail Route Directors.

From the start I introduced colour coding to denote a manager's origin. For 'old-BR' I chose blue. One year I mentioned that the TOC MD's column remained 'a sea of blue'. As with 'boiling frogs' for costs 'sea of blue' has become industry shorthand for the continuing dominance of experienced railwaymen – and women, of course – in the leadership of our industry.

#### New blues

One thing Railtrack got right was to maintain the British Rail Graduate Trainee scheme. So dark blue came to denote both old and 'new railway'. Three of the current Network Rail Route Managing Directors are New Railway while a fourth is Old Railway.

But as I updated the table I realised that after 20 years 'old' and 'new' railway is too limiting. A manager joining the railway from outside since privatisation will have had ample time to gain experience in the progression to the top job. If this includes experience overseas, it can even involve running what would now be called a vertically integrated railway. .

In recognition of this alternative career path, those late entrants to the industry are shown in pale blue, denoting a railway career in a number of posts before entering this chart.

So, after 20 years, top management in the passenger railway remains a sea of blue, in various shades. Only three TOCs are currently run by managers who have come directly to the role.

Before starting this update I shared the perception that Network Rail lacked the railway experience among its Route Directors found in TOC management. That was partly true in the 2012 survey, but as of today only one Route Director is a direct entrant. A multi-coloured sea of blue all round, indeed.

#### Rolling stock developments

##### 1 - Bombardier & Hitachi

While there has been no official announcement, Bombardier Transportation and Hitachi Rail Europe have formed a joint venture to bid for London Underground's New Tube for London (NTfL) rolling stock programme. Both companies had already pre-qualified for the contract along with Alstom, CAF and Siemens. Bids are due to be submitted on 26 September.

Neither company would say any more than that vehicles will be assembled in parallel by Bombardier at Litchurch Lane Derby and Hitachi at Newton Aycliffe. But while nothing explicit has been said, several Informed Sources have reminded me of the reliability of the Hitachi traction packages, which replaced the original Brush equipment on the Derby-built South Eastern Class 465 fleet.

So what has brought the two rivals together? The basic NTfL requirements is for 250 trains which, on a like-for-like replacement basis, equates to around 1500 cars. However bidders I have talked to see the potential for up to 3000 cars allowing for growth. Presumably the two firms think that an alliance gives them a better chance of sharing a large pie.

##### 2 - CAF

Train builders seem to be falling over themselves to have a local assembly plants to support current or potential new train orders in the UK. CAF, of Spain, said in July that it will open a UK assembly plant to support its recent rolling stock contracts. The new facilities will carry out rolling stock assembly and testing, plus maintenance, supported by a new headquarters 'at a strategic point on the Northern network'.

##### 3 - Alstom

With the lease on Alstom's Preston Plant expiring, the move to the new Widnes plant has been confirmed. As described in the February column, construction at Widnes will be phased, with ultimate provision for train assembly as well as re-engineering work.

Should Alstom win the Central Line retractioning contract there would be some manufacture at Widnes. Preston has been making parts for

the Class 323 traction upgrade . If the NTfL jackpot followed assembly could also be accommodated in the new plant.

Note that I always referred to 'assembly' and not 'manufacture'. No one, at least not in Western Europe, builds complete trains – although Siemens probably comes closest. But even then different factories build different parts which come together for assembly.

#### 4 - Siemens

So when Siemens says that if it wins NTfL, or the HS2 rolling stock, it, too, will set up a plant in the UK, it is talking assembly. That said, the Siemens factory at Hebburn on South Tyneside is already exporting electrical systems and components to Germany for installation in the Class 700 Thameslink units.

While almost all the high valued added components used at the existing UK train plants are imported, local assembly should not be sniffed at. It represents 10-15% of the cost of a vehicle and 10-15% of a new fleet worth several hundred million can only be good news for the local economy.

I'll be covering these issues in an item I have had to hold over to next month because of the Digital Railway revelations.

IEP – more short term puff?

Nervous about the reliability requirements in the Intercity Express Programme (IEP) total train service provision contract, Hitachi are running the MTU engines in the Class 800 electro-diesels at 560kW (750hp) compared with the commercial rating of 700kW (940hp).

This de-rating doesn't matter in the intended Class 800 duties, running beyond the wires on 100 mile/h lines. But the delayed Great Western Electrification Programme means that for the Class 800s to start replacing IC125s from next July they will have to be able to slot into the existing IC125mile/h timetable. However, as built, an 800 will have an inferior power-to-weight ratio to a GWR IC125.

Seeing this coming DfT asked Hitachi if they would run the Class 800 engines at their commercial rating pending completion of electrification. This would give at least parity with IC125 performance.

However, according to Informed Sources this request was declined because of the difficulty of getting approval from IEP's multiple funders. But with the 35th Class 800 already in build by the middle of July, the potential political embarrassment from sidings full of shiny new trains lying idle is dawning. The most recent word from Hitachi is that there is 'no reason', why the IEP fleet should not operate at the engines' full commercial rating until electrification is completed. Watch this space

Roger's blog

At the end of this month's column you'll find a black and white thumbnail of the first page of an article in the September 1966 Modern Railways. The title is 'Strong case for "Super Deltics"'. This was my first feature article to be published in the magazine – under a pseudonym since I has only just left English Electric and was working at British Standards as a press officer.

Ten years later, when I became a full time writer and joined the Modern Railways team, the first feature article under my own name appeared in the January 1976 Modern issue and was about, er, Deltics. Anyway, given Network Rail's current ageist purge I am maintaining a low profile with these anniversaries. But for those readers with a full set of Modern Railways back numbers, see if you can spot the editorial I wrote in 1966.

Meanwhile, last month's blog left me looking forward to a couple of industry social events. At the Rail Delivery Group reception everyone was waiting to see what newly appointed Transport Secretary Chris Grayling would say. The main message is that Transport Secretary is the job he wanted. We had a brief chat but you don't get much from politicians. Other guests were much more informative – but, to crib from the film 'Fight Club', the first rule of informed sources is that there are no informed sources.

Two days later, after my afternoon phone call with David Waboso mentioned above, it was off to Hitachi's summer party in a prohibition speakeasy in EC2. Well, that was the theme. There was the chance to exchange notes on matters of current moment with the Hitachi management and gossip with the many guests. While normally I'm busy filling my notebook at these events, Hitachi had hired a brilliant 'vintage singer', think Post Modern Jukebox for those into this sort of thing, and I took time out to sit and listen during her two sets. Must be going soft.

The following week it was off to Docklands for a briefing by Thales and London Underground on the first year of the 4 Lines resignalling. What do you mean, 'never heard of it'? Please keep up: 4 Lines' is LU's new name for what we used to call the Sub-Surface Lines resignalling but has now been wiped from LU's corporate memory for reasons that escape me.

And the most recent event was a session at SWT with my editor James Abbott for an update on the current Waterloo capacity upgrades. This ended with a quick walk to Waterloo where we were able to stand on the mezzanine floor while the changes to the International platforms were explained.

For the rest of August the diary is empty but I'm hoping to start September by attending the monthly meeting of the Retired Railway Officers Society which has elected me a member, despite my not being a) retired or b) a railway officer.

Meanwhile, enjoy the summer while it lasts.

Roger