

INFORMED SOURCES e-Preview August 2016

A very mixed bag this month, with, I hope, something for everyone. And in the main magazine there is Part 2 of my article on the Great Western Electrification Programme (GWEP) focusing on the High Output Production System (HOPS). Which is my cue to say thanks for the complimentary comments and erudite responses on Part 1, where the general view was that the article finally explained what has been happening since GWEP was authorised.

TMS veterans miss the cut on NYL  
Class 700 – Siemens' people eater  
Brexit – franchising feels immediate impact  
Track workers warned - watch your step  
Token of affection

Network Rail's Digital Railway continues to provide a seemingly inexhaustible supply of innocent merriment. For a start, Lilian Greenwood, who has sadly resigned as Shadow Transport Secretary, put in a written question asking for the value of the Traffic Management System (TMS) First Deployment contract covering the Wales and Romford Rail Operating Centres.

'Circa £35,000,000 each, £70,000,000 combined' was the reply. Eh? When the contract with Thales was announced in May 2014, the value quoted was £28.8 million – and that was for the two.

Asked about this slight discrepancy, Network Rail told me that the difference 'is due to the fact that the larger figures quoted in the Parliamentary response 'include the costs of deployment and training costs over and above the specific installation supplier contract value'.

Written questions continue to be put in the search for the truth which, to judge by the level of obfuscation, may be inconvenient.

In the April 2016 column I drew readers attention to the cunning plan to test the integration of ETCS (Level 2) and TMS on the Wherry Lines (stroppy response in 'Forum' May 2016). This was based on the OJEU Notice, which had ETCS and TMS in separate Lots.

After the original procurement programme was binned, NR declared TMS an 'open market'. And, according to Informed Sources, pre-qualifiers for Lot 2 from this free-for-all are:  
Alstom, Indra and Siemens.

How intriguing. Of the three contractors who were awarded contracts, collectively worth £20 million, to develop TMS demonstration suites, only Alstom has made the cut on Wherry Lines. And Alstom was the only one of the three not to get a second contract.

Echt Siemens stayed clear of the original TMS procurement. Invensys, subsequently taken over by Siemens, got as far as the original shortlist of six.

Indra, is a Spanish company with a product range from smart ticketing to air traffic control systems via tablets for voting centres in Spanish general elections. Control centres are part of its signalling business.

Of course, I asked Network Rail to confirm the pre-qualifiers. I was told: 'This is a live procurement so it would be inappropriate for NR to comment on the process at this early (pre qualification) stage'. Given that DfT announces the firms who have pre qualified to bid for billion pound turnover franchises, this doesn't really stand up.

Wales ROC

Meanwhile, the future of Thales' TMS First Deployment scheme at the Cardiff Wales Rail Operating Centre, remains undecided. As reported back in the March 2015 Informed Sources, the original plan assumed that the four Siemens WESTCAD control stations for the Cardiff Area would be replaced with WESTCAD-E to provide 'Interfaced' TM. In parallel, the South Wales area out to Haverford West and Milford Haven would have 'Isolated'

Currently this first deployment scheme is caught in a multiple bind. Possessions for the Cardiff Area Resignalling Scheme (CASR) and Bristol Area Signalling Renewal & Enhancement (BASRE) take priority. With CASR, already late, the signalling contractor simply doesn't have time or the resources to rip out WESTCAD and integrate the signalling with the new WESTCAD-E.

As a result TM will not be available until 2017 and time equals money if you have to keep teams together. At Network Rail money, of course, is in short supply. So if you can't cancel the Cardiff TM (think of the reputational damage), and can't afford the original scheme, you are left with what sounds like First Deployment Lite. This would see TM Isolated covering the South Wales Main Line and Welsh Valleys through two workstations. Not a lot of benefit for £35 million.

Class 700 – first impressions

There was a brief report on the new Siemens Class 700 electric multiple units for the expanded Thameslink service in the July news pages. In this month's column there is an illustrated write-up of the passenger accommodation, plus a table of measurements, with the Class 365 as a comparator for those travelling from Peterborough, Cambridge and stations south.

As I walked through the train I unleashed the Fist of Quality. Although a crude assessment, I have found that thumping panels, seats, tables, doors and so on with a calibrated clenched fist, while listening for buzzes and rattles, is a fair indicator of build quality. The Class 700 is Siemens' best interior yet.

So, a nicely built train, but the interior is optimised for the high-density, high-frequency central core between St Pancras International and

London Bridge. Thus the accommodation is on the austere side for outer suburban users, one example being the lack of seat-back tables. Plus no Wi-Fi.

DfT claims that the train was specified back in 2008 when passengers didn't need tables for electronic stuff. But given that the contract with Siemens wasn't signed until 2013 it is obvious that DfT considered seat back tables expendable as an economy measure, as opposed to unnecessary, no doubt hoping that no one would notice their absence.

Fat chance!. And, in a written answer on June 30, Rail Minister Claire Perry conceded that DfT has proposed contract variations to introduce seat back tables and 'Wi-Fi infrastructure' throughout the Class 700 fleet.

While Wi-Fi is relatively easy to install, a 12 car Class 700 has 666 seats. The existing Standard Class seats are a stock design which should include a variant with seat back table.

This should mean that most of the additional cost, as new body shells arrive on the assembly line, will be the difference between the two seat styles. But in these total train provision private finance contracts, change is always going to be expensive. Which reminds me, yet again of the old Metro-Cammell adage that variation orders turn a net loss into a gross profit.

One person who was really happy with the Class 700 was my old chum, and disability sparring partner, Anne Bates, who was delighted to demonstrate that the layout of the Universal Access Toilet allows her wheelchair to make a 360 degree turn, avoiding the inconvenience of driving in and having to reverse out. 'This is the way forward' Anne told me.

#### Franchising under pressure

I was not alone in confidently expecting the award of the replacement East Anglia franchise to be announced as soon as the European referendum was out of the way. For some time the industry consensus had been that incumbent Abellio had retained the franchise with a commitment to replace most, if not all, of the existing rolling stock fleet (Informed Sources June).

But following the result of the referendum, Informed Sources were reporting that it had thrown the East Anglia procurement into confusion, making an early announcement unlikely. Brexit has created a triple threat to bidders: first, uncertainty over the British economy; second, Abellio's status as a Dutch company with Britain leaving the EU; and, finally, the effect of the Pound-Euro exchange rate on the cost of all those new trains.

Let's get the trains out of the way first. At the current Pound-Euro exchange rate I calculate that the cost of a plain vanilla EMU has gone up by 10%. That's a lot of money if you are planning to replace the entire Greater Anglia fleet.

This may be good news for the Rolling Stock Companies (ROSCO) who are still clinging to the hope that a cheap shiny refurbishment will still beat a cheap shiny new train. East Anglia was going to finally disprove that theory.

According to Informed Sources Stadler was in the mix for the new East Anglia fleet, but various sources had tipped one or other from the usual suspects to supply the rest. What no one knew was that Alstom really have made their long promised return to the UK rolling stock market.

Given that all the rolling stock suppliers identified East Anglia as the biggest rolling stock procurement around, perhaps we should have expected Alstom to make a pitch - while distracting us with double deck train proposals for HS2. And the Alstom offer includes a new 125mile/h EMU.

#### South Western

Moving on to the replacement South Western franchise, this is set to stress-test the refurbished-vs-new argument in the post-Brexit market. Two headline requirements for rolling stock in the SW Invitation to Tender are air-conditioning and a maximum peak-period dwell time at Clapham Junction of 45 seconds. SWT's Class 455 fleet can meet neither.

But ROSCO Porterbrook is currently retro-fitting the Class 455 fleet with three-phase traction equipment under a £40million upgrade. If the air conditioning/45 second rule applies the Class 455s could be gone in five years' time.

Discussing this possibility, one ROSCO chum expostulated 'who in their right mind would do that'? I had to point out that Informed Sources First Law states 'never assume that railways are rational organisations'.

#### Impact

So much for rolling stock. However, the real impact of Brexit will be on franchise bidding.

These bids are a punt on the future of the UK economy. All bidders will say their combination of innovation, marketing, customer service and whizzy new timetables will bring in the passengers - and the money.

But in the end, growing ridership depends on the passengers having the disposable income to buy the tickets. And that's down to the economy.

In the recent past the Intercity East Coast franchise has provided ample evidence of what happens when the economic stars don't align. And we are now seeing an action replay.

In its latest set of results, Stagecoach reported revenue growth at Virgin Trains East Coast (VTEC) of 5.2% compared with the 8-9% expected.

It's not only bidders who are betting on the economy. In evaluating bids DfT also has to take a view on whether they are credible, and this evaluation hinges on DfT's own view of what is going happens to the UK Gross Domestic Product. For a commuter franchise like East Anglia and South Western, another TLA is equally important - CLE or Central London Employment

But these are as nothing compared with the uncertainties and risk surrounding Intercity West Coast (ICWC). Brexit on top of HS2 represents a shed-load of risk for ICWC. If anything needed the stability of a management contract, it is the West Coast.

Short reports

Boots, boots, boots, boots (Kipling)

An intriguing notice was issued by Network Rail back in March, instructing all persons on or near the line 'to keep a minimum of 1 metre clear of all axle-counter heads at all times unless their duties require them to work on the equipment itself'. Apparently the steel in the toe cap and mid-sole of safety boots will cause the axle counter to register a 'partial traverse' if the boot is close enough.

A 'partial traverse' is when the axle counter thinks a single train wheel has passed when, in fact, what it has detected could be the small amount of steel in your safety boot. Given that the counter's head generally has to spot several hundredweight of steel passing a couple of inches away, the sensitivity to a steel toecap at a range of up to a metre is both impressive and surprising.

According to an experienced informed source, axle counters are indeed sufficiently sensitive to register a steel spanner, or a toecap passing through the magnetic field, but you would have to be up close and personal, like a wheel, to achieve that effect. Which is not the same as someone walking by.

Can any readers throw light on this new phenomenon? E-mail is [roger@alycidon.com](mailto:roger@alycidon.com)

21st Century token block.

It's always fun to visit the Park Signalling Stand at Infrarail. The only trouble is that with so much practical innovation on show it is hard to choose what to write about.

But this year, one exhibit stood out like a sore thumb. You'll have to wait for the magazine to see why, but imagine a piece of solid 19th century hardware among beep-beep 21st century signalling electronics panels on the stand. Deliberately 'styled' to look just like a traditional electric key token machine, a look inside revealed that the DiBloc is an ingenious modern solution to the age old problem of running single track lines.

Classic electric token block machines require end-to-end wiring to communicate and on-board equipment. DiBloC is designed to communicate digitally (wireless is an option) through IP based systems. .

With token block signalling a physical token gives a driver authority to enter a particular section of line, say between passing loops. As there is only one token, a driver knows the line is clear. This is fine until you want to send more than one train through a section in succession in the same direction.

DiBloC machines at each end of a section both have a bank of identical tokens locked inside them. However, because the machines communicate, the software ensures that only one token can be released at any time. So the driver of the first train removes a token from the machine at one end of the section, runs through to the next passing loop and puts the token in the second machine.

Since the section is now clear, a following driver can remove another token from the first machine to travel the line in the same direction. I should mention that there is a mechanical interlocking to prevent more than one key being withdrawn from both machines.

So if anyone needs a simple, very cheap, low maintenance token block system for the 21st Century, here it is. Having taken me through DiBloc, Park's John Slinn admitted with a grin that it would need someone adventurous to take it on, which probably rules it out as a replacement for Network Rail's remaining token block machines. However, a heritage railway might find the operational flexibility and low cost/low maintenance useful.

Roger's blog

It's been one long social whirl since the last e-Preview, starting with the Modern Railways Innovation Awards. We had some very strong shortlists, worthy winners and a typically responsive railway audience.

At these awards we also raise funds for the Railway Children Charity and to reinforce the appeal we played a recorded phone message from my colleague Tony Miles, made at 4.00 that morning after he had come down off Snowdon in pouring rain taking part in this year's railway Three Peaks Challenge.

The following week it was the Stagecoach Summer Reception. It was busier and the hub bub noisier than ever. In line with the rules of Informed Sources lots of people didn't speak to me and I didn't speak to lots of people either.

But it was serious business the following week when John Smith of GB Railfreight hosted a working lunch with the railway press to discuss the future of the freight business. Lots of hard common sense and real world experience. More paths out of Felixstowe is the priority.

But who should I see a couple of days later at the InterCity 50 Anniversary celebrations at King's Cross but John Smith. The naming of a Class 91 'InterCity 50', and the following celebratory lunch, had been organised by John Cronin, the renowned Bounds Green Depot Engineer and Ray Loft - InterCity Fleet Resources Manager.

John Cronin always believed that the railway engineers of the future should have a solid grounding. He picked his protégés carefully and in the InterCity glory days I used to refer to BN as the 'Cronin Academy'. What I hadn't realised was that John Smith was one of its alumni.

John Cronin had assembled nearly 100 ex InterCity folk, including the last three Sector Directors Cyril Bleasdale, John Prideaux and Chris Green. Since some of the collective experience is still being tapped by today's railway lunch was a blur of reminiscence and topical gossip. Oh yes, and I was invited to name 91128 - a real honour in such exalted company.

This coming week, on Tuesday, I'm having an update on the rolling stock market with a ROSCO, followed by the Rail Delivery Group's summer reception where there won't be any shortage of things to talk about. The big question is whether DfT will have got the East Anglia franchise away by then

A couple of days later it's the Hitachi summer event where we are going to be taken back to '1920s prohibition London'. Sounds like Bugsy Malone with fish & chips and sake. Must look out my black double breasted suit and give a rendition of 'We could have been anything that we wanted to be', or perhaps not.

After that the rest of July and August is clear - at the moment.

Roger

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