

INFORMED SOURCES e-Preview January 2025.

Hopefully, there something for everyone in this month's column. An update on the political situation; a further rant about discontinuous electrification; plus some traction and rolling stock stuff. And, it being the January issue, elsewhere in the bumper 116 page magazine you can also read my annual Rolling stock reliability review, with tables covering the performance of every train on the network.

- \*Passenger Railway Services Act launches SGBR
- \*EWR consults on Bedford-Cambridge section
- \* Fuel cell traction trials highlight operating issues
- \* Fastenings failures hit Class 777 fleet

On 28 November the Passenger Railway Services (Public Ownership) Act 2024 received Royal Assent, effectively ending 31 years of privatisation. The Act removes the legislation requiring the Government to franchise passenger services – enabling Shadow Great British Railways (SGBR) to start work without worrying about challenges.

Next day, the resignation of Secretary of State for Transport, Louise Haigh put on-hold an announcement on the practical implications of the Act. This had been planned for the following Monday 2 December and eventually took place two days later.

An early victim of the act was the Rail Partners lobby group which had announced on 14 November that it was winding down and would stop providing services after the end of the current (2024-25) financial year. In its valedictory announcement it noted that it had been set up in reaction to the 2021 Williams Plan for Rail, 'to help deliver a better railway for customers and taxpayers within the framework envisaged by the Conservative Government – a reinvigorated public-private partnership where Great British Railways would harness train companies to deliver services'.

Since Labour came to power, Rail Partners had continued to argue that simply changing who runs the trains will not fix the challenges the railway is facing. In itself, 'it will not reduce the burden on the taxpayer nor improve reliability'.

Well, who thought it would? The aim is to facilitate the restoration of a vertically integrated railway.

As emphasised in last month's analysis, the Owing Groups will continue to be important players as SGBR starts to get to grips with the immediate task of improving performance. And while the established Groups have remained a discreet silence during the passage of the Bill, newcomer Transport UK Group has, as they say, been putting itself about a bit.

Netherlands Railways (NS) sold off its Abellio UK rail and bus activities to Transport UK Group – a Management Buy Out led by Dominic Booth. I say 'buy out', but in reality NS was paying Dominic to take away what had become a drain on the Railways' resources (Informed Sources November 2022).

Dominic has been expressing reservations about the process of returning currently contracted TOCs to state ownership. While he is concerned that this should not be 'rushed', pointing to the smooth transition of ScotRail to Transport Scotland over 15 months, the focal point of this fighting retreat is the readiness and ability of DfT's 'operator of last resort' (DOHL) for the transition.

Rather unkindly, he describes DOHL's handling of its rescued TOCs as 'woeful' but, more to the point, Dominic believes that 'hasty reform could compromise safety and reliability. As a result he has written to the Office of Rail & Road (ORR) with his concerns that a 'rigorous and comprehensive assessment of the transition should be undertaken'.

Meanwhile, just as the column was going to press, DfT published the timing for the first three Train Operators to return to state ownership. Priority is determined by the expiry of existing National Rail Contracts (NRC), starting with South Western Railway in May 2025 followed by c2c in July.

Greater Anglia's NRC runs to October 2025, with the option of a further year. This option will not now be exercised and the operator is expected to revert state control in October.

DfT also revealed the new, uninspiring, name for DOHL. The new name is (pause for drum roll) DfT Operator Limited (DOL).

Ahead of DOL's functions eventual 'integration into Great British Railways', it will focus on 'improving operations and financial sustainability, and transforming Britain's railways into a more reliable, affordable, accessible system'. In this new role I expect DOL to exert a more direct control over its operators, as it morphs into a national passenger train operator sooner rather than later.

DfT expects to complete the transfer of all passenger services operated under NRC over the next three years.

Finally, an update on progress with GBR proper. The first 'write round' saw the Bill, which gives the new organisation its powers, returned for further work. Write-round is when a bill is circulated among the Government Departments for comment. A revised version is being prepared.

### EWR consults on Bedford-Cambridge section

In November, after the Chancellor had committed to funding Stage 3 of the new railway in the Budget, East West Rail (EWR) opened a 12 week consultation on the proposed new alignment between Bedford and Cambridge. The headline of the announcement of the consultation focused on EWR's plans for electrification.

EWR's 'preference' is for 'green traction power' in the form of 'discontinuous electrification with hybrid battery-electric trains'. Well, you know my views on what my fellow columnist Mr Walmsley calls 'disingenuous' electrification. But in its statement EWS put the boot into the real thing.

It noted that 'as well as the environmental benefits such as reducing carbon emissions, discontinuous electrification would mean overhead lines would only need to be installed along some sections of the route, which would significantly reduce disruption during construction and potentially decrease visual impacts in more sensitive locations along the new railway'. It would also cost less than full electrification, reducing the need to alter current structures and requiring less land for things such as mast foundations'.

For heaven's sake, talk about asking for trouble. Had the furore over the Great Western Electrification Programme's unsightly structures in the Goring Gap Area of Natural Beauty failed to register with EWR? The last thing the industry needs to do is apologise in advance for creating a modern railway.

Another of my gripes about EWR is that it has always promoted itself as a local line linking two university cities, when it is really a new section of main line linking GWR, MML, WCML and ECML, four routes electrified, or in the process of being wired.

Meanwhile, the freight operators can't wait to get their trains onto EWR, initially with diesel traction, of course. And while the Consultation announcement stated, 'EWR's primary purpose is to provide connectivity between communities and support economic growth as a passenger service', it then continued, 'alongside this, and noting that freight already runs on sections of our route, Government has asked us to consider how we:

- Maintain existing freight services that already run through commuter hubs including Oxford, Bicester, the Marston Vale and Bedford.
- Plan for increased future freight demand to enable wider economic growth'.

So, a rare three cheers from this column for the folk in New Minster House. And when you get into the Consultation's supporting Technical Report, you find that freight potential is actually being given serious consideration. This includes accommodating new services from Felixstowe and Southampton via Oxford.

### More to hydrogen fuel cell traction than range

Tucked away in an article on Porterbrook's Class 799 HydroFLEX hydrogen fuel cell powered Class 319 conversion (Modern Railways October p68) was a rare nugget of information. Gas consumption was around 0.7kg per mile.

Out of interest I used this to work out the efficiency of the train's fuel cell/battery hybrid traction package which was higher than I expected. Although, in overall energy terms, it is hopelessly wasteful. Even with 'green hydrogen' electrolysed from renewable electricity, that power could be used more productively if fed to trains by copper wire!

Anyway, according to the article, it takes a couple of hours to refill the hydrogen tanks. Combine this with the nominal range of 350 miles and how does the Class 799 stack-up as a commercial Diesel Multiple Unit replacement?

Here the key is the range between refuelling. Class 15x DMUs typically average between 250-500 miles a day, with a range between refuelling of around 1,000 miles. A Class 158 extends this to around 1,500 miles.

With these ranges DMUs do not need to be refuelled every day and, following the Sprinter revolution of the 1980s, operators have exploited these characteristics in the search for greater efficiency. This has influenced many current features of the operational railway.

These include the number of depots and fuelling points required, depot staffing, rolling stock availability, the size of fleets and more besides. For example, the TfW network requires only five regular fuelling location.

Potential DMU replacements will have to fit within this environment. So while replacing Class 15x DMUs on a lightly-used Regional line with hydrogen fuel cell powered trains has been seen as a potential solution in various railway decarbonisation reports, these have assumed parity in performance. But the simple disparity in range and the need for more frequent refuelling would generate a complex chain reaction, reversing the efficiencies outlined above. This, on top of the cost of the trains themselves and the need for more than one-for-one replacement.

### Class 777 fleet fixing problems

In November Mersey Rail Electrics issued a National Incident Report (NIR). This revealed that during a station stop the driver of a Class 777 reported smoke from the underframe of the unit. When inspected at the Depot, it was found that the motor on one bogie had come loose and was resting the axle.

This failure triggered an inspection of motor fixings on the other units in the Class 777 fleet. The first unit inspected was found to have fixings missing.

So the next stage was to use a torque spanner to check the tightness of all the motor fixing bolts. According to the NIR, all units that underwent the torque check had fixings fail the test.

Obviously a Depot Engineer's skill-set includes keeping trains with a technical problem running in service safely. Think of those engineers measuring and managing crack propagation on Hitachi and CAF yaw damper attachments.

So successful torque checks have allowed units to remain in service for up to 28 days, with subsequent torque checks mandated every seven days. It looks as though the solution will be to torque all the traction motor fixings up to the design figure and then maintain a watching brief to ensure that all remains tickety boo. A lot less trouble than monitoring crack propagation!

Roger's blog

It seems as if I've been chained to my word processor for the last couple of months, with a day off for good behaviour to MC the Golden Spanners Awards. As ever, this was the highlight of my working year, with another record attendance and the chance renew acquaintances and make new friends. Someone even asked for a selfie with me to show their depot colleagues!

After the presentations I was asked to stay on the platform and Mark Molyneux, the Rail Delivery Group's Fleet Performance Manager, after saying some nice things about me and the contribution of the Spanners to improving reliability, presented me with model Deltic locomotive to mark 20 years of the Awards.

This time of year is always slightly odd, because it is still 2024 but I am now embarking on the February 2025 column. And there are some hard choices to be made from a wealth of meaty topics to be covered.

Finally, as a turbulent year for the railway ends, it is time to wish subscribers to e-Preview a peaceful Christmas. Thank you for your many e-mails of support, questions, challenges and corrections. Having the best informed readership in the industry continues to be this column's greatest strength.

As for the New Year, we are all entering new territory, As ever, I will continue trying to explain, month by month, what is happening and why - and what is likely to happen next.

Roger

[EZezine Company Terms of Service Privacy Policy](#)