INFORMED SOURCES e-Preview January 2024

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My January column in Modern Railways is always shorter than usual. This is because January is our annual traction and rolling stock issue and my annual fleet reliability review takes up a lot of pages!. The review lists the reliability of every fleet on the network, as well as all the winners at the 2023 Golden spanners Awards.

However there is still space for extended coverage of two topics which have featured regularly in recent months.

£3.9bn for TRU while cost pressures continue

2022-23 data shows ridership and revenue recovery

Just over a year ago (Informed Sources September 2022) I highlighted the soaring cost per mile of the Trans-Penning Route Upgrade (TRU). At current prices, its £118 per route miles dwarfed such previous Network Rail project extravaganzas as the West Coast Route Modernisation (a mere £20.6 million) and, most recently, the Great Western Route Modernisation at £32 million.

One explanation for the cost was the DfT-led ‘scope creep’ on TRU. As with both Great Western and the West Coast, failures to manage scope and cost certainly were key drivers behind these projects going over budget.

On 4 December DfT announced that that the Treasury had agreed the release of a further £3.9 billion funding for TRU. This covers Contract W3 – Ravensthorpe-Huddersfield - and brought total funding authorised to date to £6.9bn.

The TRU Programme Team is already committed to reducing the out-turn cost of the project by 15% (£1.7bn). But in January 2023, DfT set up the TRU Cost & Performance Efficiency Challenge Panel, tasked with recommending options to save ‘at least’ a further 15% on top of the 15% already committed.

A report on the Panel’s work to date was presented to DfT in June 2023 and circulated widely within industry.

One of the malign effects of privatisation has been the separation of track and train. In the column I detail four aspects of the Panel’s 25 Recommendations which highlight the importance of a ‘total railway’ approach. One example is the relationship between aspirations in the timetable and the associated infrastructure upgrades.

Perhaps the best example of this is the Panel’s analysis of passenger flows, including data from mobile phone traffic, for both public and private transport journeys from key locations on the TransPennine network. This analysis indicates a mismatch between currently specified train services, both over the core and eastern routes, and real life journeys.

Whereas the proposed train service specification has focused on longer distance through journeys, the Panel’s work suggests that actual travel patterns are more likely to be journeys from smaller locations into centres and between adjacent centres. This has implications for both rolling stock and infrastructure provision.

While the mobile phone data highlights the social importance of the high frequency, high reliability stopping services over the Leeds-Manchester core, the panel challengers the proposed frequent through services east of the Pennines. It believes these may offer very low user benefits, but at high operational and rolling stock cost. Of particular concern is the is the sixth ‘semi-fast’ path in the proposed he TRU timetable.

Another total-railway recommendation features freight. The current proposals is for Westbound freight trains to approach Huddersfield on the slow line of the new four track section and then cross over to the westbound fast line in the station area. If, as seems likely, a freight train might be held waiting for an overtaking passenger service, it would lose further time restarting and accelerating on the climb after the station.

Preferring to keep heavy freight trains on the move, the Panel endorses a Rail Freight Group proposal that DfT should authorise a 50 mile/h single ladder junction in the Mirfield area (to the East of Huddersfield station), from the westbound slow to fast line. This would allow loaded westbound intermodal freight trains to cross over on the level, run faster though Huddersfield station and start the climb at speed, staying ahead of a following passenger train.

ETCS role

To date, resignalling with the European Train Control System (ETCS) has primarily been considered in terms of cost-effective renewal of existing life-expired equipment. Other benefits, such as operational flexibility and safety, are important, but currently the focus is on affordability in the face of the approaching bow wave of conventional signalling renewals.

But the Panel considers that ETCS installation on the route should be brought forward. Timetable modelling by the Panel’s consultants suggests that without full electrification, plus ETCS east and west of Leeds, a new timetable exploiting the benefits from TRU could not be delivered reliably, with even minor issues causing cumulative delay.

Nor, notes the Report, has a viable, safe, effective maintenance strategy been developed for the two track sections of the core route. With more restrictive rules on access for track workers, ETCS, together with other modernised maintenance practices and equipment, will be essential to allow overnight single line operation of electrified traffic.

TRU contracts were based originally on re-signalling the route with ETCS-ready conventional equipment. ETCS would then be retrofitted as an overlay, before removing the relatively new lineside signals in the early to mid-2030s after driver training was completed.

However, the Panel, reflecting its cost reduction brief, argues that the unit cost of going straight to ETCS would be significantly less, perhaps half, that of installing ETCS-ready conventional multiple aspect signalling (MAS), followed by ETCS overlay, followed by removal of the trackside MAS equipment.

While this is probably the most radical recommendation in the report, on service reliability, maintainability and cost, an ETCS first policy appears to add up.

Obviously with 25 recommendations the Report is much more wide ranging than space permits. For example the Panel revisited a 2020 analysis of the value for money of individual line speed improvements.

It concludes that the top five schemes together save 190 seconds. The remaining locations add around 65 seconds but at a cost estimated at £500m.

But I have selected proposals which reflect the importance of a 'joined up railway' approach to project specification. This is what Great British Railways was intended to provide, but has been overtaken by time and political inertia.

2022-23 data show ridership and revenue recovery

With the delays in producing industry financial and ridership data, any analysis is the equivalent of driving using the rear view mirror. For example the Office of Rail & Road (ORR) has only recently published its report on Industry's fortunes in the 2022-23 financial year which ended on 31 March. In the nine months since then, recovery from the pandemic has clearly continued.

And while the Department for Transport's ridership statistics use March 2020 as its basis, the reality is that the railway is still finding its way in a new, and uncertain, transport market. So making comparisons with the pre-Covid world is no longer relevant. Clearly, service patterns and levels will have to change to reflect the future new reality, whatever that may be.

Currently, an annoying trope on social media is the image of a full-and-standing train with a sarcastic comment along the lines 'yeah, nobody's using the trains any more'. This stems, in large part, to the delay in allocating sufficient capacity to the growth sectors of the market, exacerbated by DfT's direct control of rolling stock policy in its drive to cut train operators' costs.

With new fleets still being delivered and storage sidings bulging with idle EMUs, to paraphrase Eric Morecambe, it seems that we have a case of having enough trains, but not necessarily on the right services. A quick check showed that in April 2019, the approximate number of vehicles in the UK passenger fleet was 14,390. As of September 2023 the total was 13,900 – a drop of 500.

Of course, these four years saw a period of massive change at some Train Operating Companies, with extensive replacement of existing fleets, albeit complicated by delayed deliveries and frustrated cascades. In the column I list the 'winners and losers in terms of fleet size.

Overall, my 'quick and dirty' analysis seems to confirm that there is no short term shortage of vehicles. And delivery of current orders will release stock for cascade. But having dipped into fleet sizes, this is clearly a subject for more detailed, and considered, analysis in a future column.

Demand

After that diversion it is time to return to ridership statistics. Here DfT has woken up to the distortion due to the success of the Elizabeth line, and rail journey data now exclude Elizabeth line traffic. The latest ridership figures oscillate in the range 80-85% of pre-Covid - presumable depending on which TOCs are affected by industrial action.

In the column I have a table comparing the ridership at each train operation in the three months April-June 2024 with the same period of 2019-20. The average current ridership is around 80%, but individual TOCs can vary widely – usually lower.

Here, the data is more frequent, with ORR publishing quarterly passenger usage statistics. These include growth rates which also vary considerably, in part depending on when the operator went into 'recovery mode'.

For example, LNER got its recovery in early, and after a rapid rise, growth is now in single figure percentages. ScotRail made a later start and topped the ORR Table with 30% growth in a recent report.

Of course, with DfT under pressure to cut support for the passenger railway, what really matters is revenue. A big table in the column attempts to sum up where we are in terms of revenue, ridership growth plus their impact on government support.

These is an important point to note when it comes to revenue. While the total figure for the 2022-23 year was £8.4bn, this is the sum of steadily rising month-on-month growth.

For example, actual revenue in Period 3 of 2023-24 (28 May-24 June 2023), was the equivalent of £10.4bn a year. This emphasises the drawback of driving with the ‘rear view mirror’.

And while percentage increases tell you the business is growing, what really matters is actual increase in money terms. And in the column I try to put these into the context of a full year of revenue growth. Note that research by the Great British Railways Transition Team puts the value of the currently untapped potential passenger market at around £2.3bn.

Meanwhile, as we hurtle into the unknown of an election year, the latest quarterly results from ORR to appear in the rear view mirror cover the summer months of 2023. I think that analysis of recovery will have to be the subject of a running commentary in the column in 2024.

Roger’s Blog

I’ve been out and about quite a bit since last month’s blog. First of all I was on the stage as MC for the 2023 Modern Railways Golden Spanners Awards. I had to put down the microphone, briefly, to hand over my personal ‘wild card’ golden spanner for the most reliable loco-hauled fleet.

This event continues to grow in popularity, I suspect because it honours the men and woman at the depots who keep the trains running. This year we sold out at the Award’s traditional home, with an attendance of 460. A new venue beckons in 2024.

Readers will know that some time back I attempted to create the much-discussed ‘whole industry Profit & Loss Account’. The professionals at GBRTT have been working on something related, but much more complicated. This is computer model of whole industry management accounts going down to individual lines and their passenger services.

Given my interest in whole industry finances, I was invited in for a presentation by GBRTT on their model and was highly impressed. You’ll be able to read about this work in a future column.

Although it will confuse readers going through our back numbers in future years, our January issue appears in December, so this is the time of year where I wish e-Preview readers a happy Christmas and a peaceful New Year.

My New Year’s resolution is to continue to try and leaven the heavy duty analysis and often depressing news, which seems to be an inevitable feature of today’s railway, with more up-beat reports celebrating success, plus the occasional attempt at humour. And, my other New Year’s resolution is NOT to start a podcast!

Roger