

This month's column in Modern Railways continues my analysis of the 'known unknowns' in the Williams-Shapps Plan (W-SP). These are the simply-stated aspirations which sound straightforward until you run a mental reality check.

Fares reform is a classic example. I have been avoiding it because fares has always been one of those arcane subjects which are the province of a few experts, able bring decades of experience to their specialist subject.

But, I can't put it off any longer. So, this month, I have had to go back to basics and the result is one of my blockbuster pieces of analysis.

For some lighter reading, there is also a review of equipment that caught my eye at Railtex, plus an update on the latest new train woes in TIN-Watch.

True fares reform - feasible or even possible?

Hardware to the fore at Railtex

New Train TIN-Watch

The Williams-Shapps Plan has a lot to say on fares reform and I provide a handy cut-out-and-keep list of the various statements. The central premise is that, 'Great British Railways will use its leadership role to simplify the current mass of complicated fares and tickets'.

So I start by describing how we got to the current situation. Today's fare structure is the result of nearly 60 years of tweaks, amendments and enhancements to the system of selective pricing introduced by British Rail in 1965.

Before then fares were distance-based. The changeover to selective pricing took a long time. Not until 1973 was there a network-wide reduced fare structure. Distance-related fares, did not disappear completely until the arrival of the new National Fares Manual in May 1985. This supports my contention that true fares reform, as opposed to yet more tweaking, is not going to be quick or easy.

Dominating the design of the future fares structure is the Treasury requirement that it should be 'revenue neutral'. Clearly the new fares can't bring in less revenue. But does that apply from Day 1 of the reform process, or would the Treasury grant a grace period while it bedded in?

Assuming the Treasury can be brought on board, we come to the expectations in the W-SP. These are two fold. Of course, the new fares structure has to be 'simple', but, equally, walk-on long distance anytime fares have to be 'affordable'. I explore the concept of affordability, with some current examples.

Then there is 'simple'. Comparing fares from 1965 with the present day, it is clear that with the current fares structure there is no logical reason for the cost of a ticket, let alone the cost of providing a seat between A and B.

Over 60 years of selective pricing, 'charging what the market will bear', means that journeys of similar length, which had a similar ticket price in 1965, can now show a 75% difference.

One of the last sectors to convert to selective pricing was London & South East commuting. And the cost per mile of current season tickets for a selection of journeys of similar length is pretty well constant. Seasons are likely to be the least of the problems with fares reform.

Of course, fares are one side of the railway's financial triangle. The other sides are the total costs, not just train operator's costs, and the subsidy the government is prepared to pay.

Historically, governments have aimed for the fare payers to cover around 70% of the cost of the railway. The actual percentage has bounced up and down over the years and became meaningless during the pandemic. As ridership recovers, the question of how much subsidy the government will be prepared to pay and what type of railway fares plus subsidy will buy will become more urgent.

I've made a stab at forecasting fares revenue in two years' time when, notionally, GBR will be embarking on fares reform. This is completely unscientific, with the length of the current cost-of-living crisis one of many unknowns. However, I come up with a more optimistic figure than the current assumption of a £2bn revenue 'black hole'.

Having dived into the specialist world of fares for the first time, I emerge with more questions than answers. But, I hope, at least, to have established the scale of the challenge.

Genuine fares reform is not going to be a quick or painless process. Allowing for a progressive rollout, a reformed structure by 2030 might be feasible.

But that is a couple of governments away. Which means that GBR will have to come up with some short term tweaks to

the current fares structure to give the appearance that, at least some of the promises in the W-SP, are being delivered.

Railtex miscellany

Within the innovation industry, the word that wins the funding is that awful neologism 'digitalisation'. As a mechanical engineer by training, my response is that railways are all about moving large, heavy objects around, safely and reliably at speed. Digital data simply facilitates and enhances this physical world.

Which is why I always enjoy visiting the Railtex exhibition, with its stands full of hardware to study, discuss and, sometimes, try out. This year, with Innotrans in Berlin returning in September, the major groups were saving their exhibition budgets for the big show, but their Tier 2 suppliers filled a hall at Olympia and kept my notebook and camera busy.

In the column there is an illustrated review of hardware that caught my eye and made me stop for a chat to find out more. This ranges from the welding on a simple bracket to a new 'bio-reactor' train toilet.

I also caught up with some old chums in the rail hardware business including steel founders William Cook Rail, busily supplying bogie for an export contract, and seat makers Fisa, now firmly established in the UK market, six years after they started marketing here.

Of course, it was impossible to avoid digital technology and Hitachi gave me the chance to put the notebook down and get 'hands-on'. This was a touch-screen based virtual Entry/Exit (N/X) control panel for training signallers. In the column I explain the clever bit of this digital tech.

New Train TIN-Watch

Class 769

Propping up the bottom of my monthly new train reliability table have been the two fleets of Class 769 bi-mode conversions of the Class 319 EMU. This persisting poor performance was bad enough, but at the end of April one of the Northern units caused electronic havoc when it arrived at Manchester Oxford Road Station.

Running under 25kV ac electric power, component failure in the traction equipment generated high levels of electrical interference. Most serious of the resulting phenomena were multiple wrong-side failures of reed-type track circuits.

Subsequently train crews were told that 'due to on-going issues with Class 769 units running in ac overhead mode', they were to run in diesel mode only over all routes and not change to ac mode 'at any location and under any circumstances'.

Initially, it was thought to be failure of an electronic component in the electric traction package. But it subsequently emerged that the problem was in a malfunctioning Vacuum Circuit Breaker (VCB) – an electro-mechanical component.

Class 345

Failure of a capacitor in the traction converter case of one of the Elizabeth Line's Alston Aventra Class 345 EMUs in May caused an explosion with sufficient force to blow-off an access cover weighing 7kg. This could have been nasty for anyone at track-level walking past at the time.

As a result Alstom issued a safety notice banning anyone from working within 2 metres of the outside covers of Aventra EMU converter cases if the train was drawing power. This applied only to people at track level. Access from platform level was unaffected, allowing the fleets to remain in service.

Alstom's formal response to my query on the maintenance restrictions emphasised that 'at no point have passengers or members of the public been placed at risk. A detailed Safety Risk Assessment supports the continued operation of all train fleets.'

According to Informed Sources, exploding capacitors come under the 'stuff happens occasionally' category and is not an Aventra-specific problem. Which is not to say that that you want to be alongside when it happens. Alstom is fitting stronger clamps to secure the covers.

Roger's Blog

Last month I was looking ahead to a full morning at the screen for the Department of Transport's 'Rail reform 1 year on' series of presentations. As I was fruitlessly trying to log on, an e-mail dropped into my in-box, informing me that the event had been cancelled 'due to ministerial availability'. Non-availability, more like.

Anyway, a few days earlier the Editor and I had been able to quiz the Transport Secretary in person on progress with the creation of Great British Railways, among other current topics. The invitation to meet Grant Shapps had come out of the blue and it seems that DfT wants to engage more closely with the specialist press. There's a report on the meeting in this month's news pages.

My briefing with the British Transport Police on cyber-crime was enlightening and there will be a report in a future column. I even had some practical advice on my own on-line security.

This week I was a virtual observer of the live event at Derby updating contractors on progress with the next stage of the

Midland Main Line electrification programme. The key message was that getting cost and delivery right was the key to giving the government confidence to proceed with the rolling programme under the Traction Decarbonisation Network Strategy (TDNS).

The coming week starts with Network Rail's latest briefing for the railway press with the Chief Executive. This will be face to face once more. However, I have had to postpone my visit to see Siemen's Traffic Management at Liverpool because of the strikes.

June ends with a busy week, starting with Modern Railways 60th anniversary event at the Houses of Parliament. This is followed by the roll-out of a new freight wagon and, finally, a meeting of the Panel deciding the winners of the Railfuture annual awards.

So, plenty going on, plus the just-released consultation on the proposed Transport Bill to analyse. Still, I'm sure I can find something technical to write about as well.

And, finally, my thanks to all those readers who responded supporting, and adding to, the challenging items in last month's column. As I always say, on any topic there are Informed Sources readers who are the experts', experts and it is their willing to share their expertise that has made this column.

Roger

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