

INFORMED SOURCES e-Preview September 2018

It seems to be all timetables this month. First a technical threat to First MTR's South Western Trains December timetable, which has now been deferred anyway following the Great May Timetable Meltdown. Then I focus on the production of the GTR May timetable itself and where and when it all went wrong. But New Train TIN-watch has an update on the East Coast Main Line signalling interference problems.

Traction power supply threatens SWR franchise
Countdown to chaos
New Train TIN-watch – Azuma update

When Richard Bowker took over as Chairman of the Strategic Rail Authority in December 2001, waiting on his desk – hot from the presses – was a copy of the January 2002 issue of Modern Railways, open at Informed Sources. As my lead article explained Richard had stepped straight into a major crisis.

No one had thought about the increased traction power supply demands which would be created by the new Electrostars and Desiros in order to replace the Mk1 slam door stock which had to be out of service by 2004. Railtrack had warned the potential tenderers for the replacement units that power supplies would be a major issue, so that the need for additional power was not exactly a surprise. Mind you, as I remarked helpfully at the time, neither had it been obvious that the new trains were going to be 'power hungry lard-butts'.

Anyway, it was eventually resolved, sort of. And you would have thought that this high profile embarrassment would have stuck in the corporate memory, but apparently not.

When First MTR South Western Trains (FMSWT) took over the South Western franchise from South West Trains in 2017 it inherited the existing Track Access Contract which would expire in December 2018. It therefore applied for a new Track Access Contract to run from that date.

However, due to Network Rail's reservations, the application was under Section 17, rather than Section 18 which applies when the operator and Network Rail are agreed on the rights being sought. Network Rail had been unable to agree to all the rights requested. Explaining its concerns, Network Rail paraphrased the aims of the new FMSWT timetable, which met DfT's Train Service Specification (TSS) for the new franchise, as 'the operation of earlier first and last trains, more Sunday services across the network and the introduction of new trains. The combination of the re-cast of the December 2018 mainline timetable and the delivery of the new train fleet for suburban lines by December 2020 forms the basis of the plan to deliver the stated improvements'.

While Network Rail's evaluation of the First/MTR timetables developed during the bid process had concluded that the 'broad level of capacity required existed from a train planning rules point of view', it had not looked in detail at the implications on engineering access, train performance, safety or traction power supply. But 'on-going concerns' over these four issues were raised in Network Rail's specialist technical reports submitted to DfT during bid evaluation.

Yet the franchise was awarded on the basis of a timetable based on the TSS.
Traction power

While power supply is only one of these contentious issues, the 2001 crisis means that there was no excuse for not seeing it coming. In an echo of 2001 Network Rail claimed that information provided by FMSWT did not include such parameters as the length and type of units which will operate the services and their electrical characteristics. There also seems to have been a basic misunderstanding. In its Section 17 application FMSWT referred to specific traction power upgrades in Network Rail's Enhancements Delivery Plan (EDP) for Control Period 5, the assumption being that these should be capable of supporting the proposed new timetable.

Network Rail responded that whether these upgrades could support the timetable would have to be confirmed by modelling of the power supply. Until that modelling is carried out there is the risk that further upgrades may be required before the enhanced timetable can run.

Network Rail's comments did not go down well with FMSWT who responded vigorously to ORR in October 2017. The letter 'emphasised' that the rights sought for the December 2018 timetable involved only 'minor changes' compared to the rights existing in the May and December 2017 timetables.

On top of which the rights sought were in line with the DfT TSS for the new South Western franchise, 'which was issued to all bidders and now forms part of our Franchise Agreement'. Well, yes, but according to Informed Sources DfT required bidders to take the risk that the capacity needed to run the timetable, including sufficient power, would be available.

Having been bitten once on the ECML, rival bidder Stagecoach was conscious of the risk of infrastructure upgrades not being available. With its South West Trains franchise having effectively developed and led the CP5 HLOS Waterloo capacity enhancements, Stagecoach had a clear view of the power supply issue. As a result it qualified the TSS when preparing the timetable in its bid, effectively disqualifying itself.

In this game of Box and Cox, Network Rail replied to the points in the FMSWT letter in December 2017. On power supply, the letter reiterated that previous enhancements have been scoped to provide additional capacity 'based upon a specific timetable and (traction) power characteristic'. Any deviation from these parameters would introduce the risk of further power supply upgrades being required, upgrades that Network Rail was not funded to provide.

In fact, power supply is a secondary concern in the December 2018 timetable, compared with capacity and engineering access. It really kicks in only with the arrival of the new trains during 2019.

Even so, the all day peak service to Reading and Windsor proposed for 2018 would require the modelling for the existing 10-car PSU to be revisited to review the continuous rating of the equipment against the new demand.

I do find this complete non-meeting of minds on the issue of what the current PSU will handle puzzling, given that the Section 17

process requires the parties to work together to resolve issues 'to identify agreeable elements from the application that may be progressed as a Section 18 application'.

Anyway all these issues were overtaken on 9 July, when the Rail Delivery Group announced that SWR was one of the operators which would not be implementing a new timetable in December 2018 in the wake of the May timetable meltdown. It appears that the intention is to make the next timetable change in May 2019 at the earliest.

This means that DfT now has to renegotiate the South Western franchise agreement since FMSWT can't introduce the new timetable which was intended to bring in more revenue. This is likely to blow a hole into an already fragile revenue line.

If FMSWT really believes that power supply is not an issue, then negotiations can continue with Network Rail on a new track access agreement for May 2019. But were I the operator I would use this hiatus to renegotiate infrastructure risk back onto the ultimate infrastructure owner and specifier – DfT.

GTR timetable chronology.

Having covered the May 2018 timetable meltdown in our Railtalk and news pages, plus some pithy observations from my colleague Alan Williams, it seemed there was not a lot for me to write about, pending the ORR inquiry into what went wrong. But while it is agreed a combination of factors contributed to the collapse of the GTR Thameslink timetable after it was introduced on 19 May, as I pieced together the sequence of events from informed sources and the various parliamentary committee hearings it became clear that the key 'failure factor' was the production of the timetable itself.

When I laid out the timetable production process as a timeline it led inexorably to failure. So in this month's column I contrast what actually happened with what should have happened according to the timetable change process as laid out in the Network Code. This is specified in terms of T-x weeks, where T-0 is the introduction of the timetable.

In relatively stable times, timetable production starts around 16 months before the introduction date for the next change. At T-55 operators alert Network Rail to any significant changes to their current timetable. Having combined these outline requirements with its possession plans, Network Rail provides operators with a Prior Working Timetable at T-45.

At this point the bidding starts. Operators submit their bids for the paths required by their new timetables at T-40. At T-26 Network Rail offers the base timetable, including details of the bid feature it can't provide. Iteration between TOCs and Network Rail to resolve these differences follows and at T-22 the Working Timetable is ready for operators to start translating train services into stock and crew diagrams. I'm aiming to go into more detail on the timetable process in next month's column, but this is enough for now. According to Informed Sources, Govia Thameslink Railways' T-40 Thameslink timetable offer in November 2017 came back with 'hundreds of services' in the bid rejected. Normally GTR would have had four weeks to go through each of the rejected paths, understand why it had been rejected and rebid. Network Rail would then have seen how that fitted into the overall timetable and made a new offer.

This would have been complicated enough because of GTR's interaction with other train operators' timetables, notably East Midlands Trains and LNER. But then it got even more complex.

Chris Gibb had been tasked by Transport Secretary Chris Grayling to investigate the problems with the Southern. His report was delivered in December 2016 and the recommendations included the formation of an Industry Readiness Board (IRB) to monitor and coordinate the introduction of the new Thameslink service. For his pains Chris was asked to Chair his creation.

One of the IRB's early concerns was the viability of the proposed 'big bang' approach to introducing the new Thameslink services. In Chris Gibb's experience, 'big bang' timetable changes were not a good idea.

As a result, in April 2017, GTR had recommended to DfT that the implementation of the new timetable should be phased. But by August 2017 (T-40) the 'big bang' GTR May 2018 timetable bid had been submitted and was being processed

DfT didn't accept the phasing recommendation until 22 October (T-29). At the IRB meeting on 17 November 2017, phasing was discussed and agreed to be achievable. But by now it was T-26 and the offers had come back. So in addition to having to process the large number of rejected bids, the GTR and Network Rail timetabling teams also had to incorporate the new phased approach.

In effect a timetable already in trouble would have to be restructured on the fly. Leading participants agree that November was the final moment when the timetable change could have been aborted.

Views differ on why, to quote Network Rail South East Route Managing Director John Halsall, the industry didn't 'put our foot on the ball and say, "No, stop," and raise a flag at a moment when it would not have caused complete national mayhem'. But at that point the members of the board and their respective teams believed they could deliver the Timetable.

These delays meant that instead of GTR having the Working Timetable for T-12, let alone T-22, it did not arrive until T-3. Rostering did not start until the Thursday night (17 May) before the timetable changed on the Sunday (19 May). At that point GTR found they needed another 50 drivers.

Yet, when the IRB had met on 4 May, according to Chris Gibb, it had been believed that the new timetable was ready to go on 20 May, with only 'Tens of cancellations'.

So why did all these highly experienced railway managers not see disaster coming at T-26? Perhaps another BR veteran, Ian Brown, writing in the Railfuture magazine has got it right. 'It seems that everyone was so invested financially and reputationally in the May 2018 timetable, and all that it represented for stakeholders, that 'group-think' set in. With no-one daring to challenge the project other than to claim mitigation was possible to whatever new risk or problem emerged, the project team sleep-walked to disaster'.

New Train TIN-watch

This month the good news is that both the Desiro City fleets topped 10,000 MTIN in Period 3 and the Great Western Hitachi Class 800 Intercity Express Trains (IET) were over 8,000 MTIN. However, as they say in the investment pages, MTIN Period figures can rise and fall, which is why MTIN MAA is what counts.

Azuma update

In last month's e-Preview I reported that a solution appeared to have been found to the signalling interference problems with the LNER Hitachi Class 800 Azuma Intercity Express Trains running in electric traction mode. A ban had been imposed between Northallerton and Berwick.

Well, it's a bit more complex than that. The ban on electric mode operation has been extended south to Colton Junction, although some test running has been permitted.

Informed sources have confirmed that the problem is electromagnetic interference with the Trackside Functional Modules (TFM) which link line-side equipment such as points and signals to the Solid State Interlocking (SSI). Network Rail is trialling a temporary fix, replacing an isolating transformer in the track-side cable connecting the interlocking to the TFM. This has been tested successfully at the trial site with one train and was due to be tested with two trains passing as this was being written.

Hitachi told my Editor last week that the existing isolating transformers were optimised for the Class 91 locomotive, with its direct current traction equipment. The solution will be for Network rail to up-grade the isolating transformers, as was the case when the Class 390 was introduced on the West Coast Main Line.

But whatever the cause there is the potential to delay service introduction and on 15 August LNER convened a 'summit meeting' of all the parties involved to review confidence levels in the IET entry into service in December this year and for the May 2019 timetable.

Roger's blog

With the holidays in full swing it's been a quiet month for visits and conferences, but it picks up next week when I have an update with Porterbrook on the rolling stock market and then visit Swindon to see Resonate's Integrated Traffic Management (TM) system in action. With luck I may also get my first ride on a Class 800 in service

There's been a fairly muted reaction to last month's write-up on Network Rail's first operational TM. This may reflect the inconvenient fact that Resonate has done in 12 months what nine years and over £120 million has yet to achieve at Cardiff, Romford and Three Bridges.

September is fairly quiet too, but will no doubt pick up as the holidays end. Not that I'm complaining because I have to start writing my contributions to our annual publication The Modern Railway. By tradition my keynote introduction has the headline 'Year of'. This year's headline was '2018 -Year of delivery'. Having failed to deliver, and failed spectacularly, plus the decision on funding for Control Period 6 imminent, I see 2019 as 'Year of reckoning'.

One trip I did make in August was to visit my sister in Lincoln. When I looked up train journey times I was pleasantly surprised how competitive they were with driving. But these times involve two or three changes with tightish connections.

Shocking confession from someone who earns a living from the railways, but with the current unstable timetable I decided to drive the hundred odd miles each way. I suspect the next set of ridership figures will show that I was not alone. Even my business trips to London seem invariably to involve a delay or cancellation mini-drama.

That's all for this month
Roger