INFORMED SOURCES e-Preview May 2020

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In these troubled times, the first thing to say is that I hope that subscribers, their families and colleagues are well. Living close to the ECML I can hear the trains racing through WGC, a daily reminder of all those in our industry who are keeping the essential railway running for workers and freight.

It's another varied column this month, with the lead item, predictably, focusing, on the immediate and longer-term impacts of the Government's response to the corona virus epidemic.

COVID-19 – emergency support up to £900 million a month
East Coast ETCS is go
Transport decarbonisation consultation starts
New Train TIN-Watch

On 23 March Transport Secretary Grant Shapps announced that his Department was providing franchise operators with 'the opportunity' to temporarily transition onto Emergency Measures Agreements (EMA). All the train operators signed up.

Under an EMA, DfT will take all revenue and meet all costs. This is similar to the management agreement which currently applies to the Thameslink franchise.

Financial commitments, in existing Franchise Agreements or Direct Awards, have been suspended for an initial period of 6 months. The deal includes options for further extensions or earlier cancellations of the emergency measures.

Open access operators, as private companies, are reliant on the support being provided by the Chancellor, such as covering 80% of staff wages.
DfT did its best to promote the new arrangement as just a 'temporary solution'. Nothing to see here, move along please. Perish the thought that it is a 'new model': its aim is to ensure that current events have 'as little impact as possible on the railway in the longer term'.

With revenue down by around 95%, the usual approach of incentivising commercial performance by linking the management fee to revenue was not available. Instead, it will be set at a maximum of 2% of the cost base of the franchise before the COVID-19 pandemic began.

Even at an unprecedented time of national crisis, the civil servants still managed to insult the railway managers struggling to hold services together. DfT has found it necessary to structure the management fee 'to incentivise operators to meet reliability, punctuality and other targets'. Who do they think we are? In fact PPM is at record levels.

With DfT effectively paying franchised train operators the difference between revenue and costs, I have calculated this difference for each TOC on the assumption of a 95% fall in revenue. However, this excludes the Fixed and Variable Track Access Charges (VTAC) each TOC pays to Network Rail.

VTAC are supposed to be a surrogate for the wear and tear on the infrastructure caused by running trains. They are charged on the basis of pence per vehicle mile.

This means that with reduced timetables in operation, VTAC should be less, perhaps by as much as 50%. VTAC represents around 85% of total TOC access charge payments to Network Rail.

So my headline estimated cost to government of the EMA of £900 million a month should be seen as the worst case.

Looking to the future, what happens to ridership as the restrictions on movement are relaxed is impossible to predict. Passengers will return, but how quickly and in what numbers?

To judge by the announcement of the new Direct Award for Great Western, the Department of Transport may have some idea. In its press release announcing the award FirstGroup said: 'At the conclusion of the EMA period, GWR will operate services as a franchise with revenue risk shared with the DfT through a Forecast Revenue Mechanism ('FRM') governed by today's agreement.

Since the Direct Award was being hammered out well before the current crisis, I expect that the 'revenue rebasing exercise' will adjust the starting point for revenue, and the subsequent profile, to match emerging real-life rail travel market conditions as the emergency ends.

For TOCs in general, I imagine EMA payments will reduce in step with increasing fare-box revenue. When the EMA Period is declared over is likely to vary between franchises. Meanwhile for the various Zombie franchises, the ending of EMA will herald the arrival of that nice man from the Operator of Last Resort.

When it comes to determining how fast rail traffic will recover, there are precedents, although nothing to match the current situation. I analyse some examples including the recession in the early 1990s and the Hatfield derailment.

I also consider the prospects for recovery in each of the three business sectors, where, historically, Regional services have seemed the most resilient in the face of external economic forces. London Commuting was already in a state of flux, highlighted by DfT's Central London Employment (CLE) revenue share/support mechanism for TOCs inverting.

As for the Long Distance Operators, Informed Sources suggest two post EMA scenarios. First, business travel will be slow to return and not all of it will come back, with industry likely to be fighting a recession.

On the other hand, after months of shut-down, people will want to get out and about. Subject to them having the disposable income, leisure travel could boom.

East Coast ETCS schedule published

As part of the Network Change process, the East Coast Digital Programme (ECDP) has written to those affected setting out the schedule for resignalling the East Coast Main Line (ECML) south of Stoke tunnel with ETCS. ECML(South)) also includes the Hertford Loop and the Moorgate Northern City Line (NCL) branch.

According to ECDP, ECML(South) 'is the only single digital deployment able to deliver sufficient benefits to bear a significant part of the upfront, one-off costs required to progressively roll-out digital signalling across the wider network'. Without this scheme, the national roll-out of ETCS cannot make a business case and will not start.

South of Peterborough Station, ETCS Level 2 will be installed with no lineside signals (known as 'signals-away'). Through Peterborough Station and north to Stoke Tunnel, the planned implementation will be ETCS Level 2 plus lineside signals. This will allow non-ETCS fitted trains to run conventionally.

Implementation of the programme is planned in five 'tranches'

Tranche 1 covers the conversion of the Northern City Line (NCL) between Moorgate and Drayton Park. The transition to ETCS Level 2, signals-away is expected in 2022.

Tranche 2 covers completion of the remaining ETCS train fitment, including software upgrades for fitted trains. Most passenger rolling stock used on the East Coast Main Line South area was supplied fitted with ETCS equipment. Two exceptions are the Class 365 and Class 387 trains in use by GTR.

In parallel, Tranche 2 will equip a dedicated section of ECML(South) with ETCS Level 2. This will allow the start of dynamic integration testing of all rolling stock and infrastructure, followed by large-scale practical driver training.

Tranche 3, the implementation of an Integrated Traffic Management (TM)system at York ROC, is at an early stage of development (Informed Sources April). The implementation date has yet to be determined.

Assuming Tranche 2 is successful, Tranche 4 will see the progressive roll out of ETCS along the remainder of ECML(South). Operations will cut-over to signals-away as sections are commissioned, allowing the benefits of ETCS to be exploited as the phased implementation progresses.

Finally, Tranche 5 will ensure that the full benefits from the ECDP will obtained, drawing on experience with the use of ETCS in everyday operations. This is likely to includes changes to timetable planning rules and the optimisation of railway operations.

Transport decarbonisation plays down electrification

In march the Department for Transport published ‘Decarbonising transport – setting the challenge’. This paper marks the start of the development of DfT’s Transport Decarbonisation Plan which will ‘set out the policies and plans needed to tackle transport emissions’.

References to rail and electrification in the report still reflect former Transport Secretary Chris Graylings zero-electrification mode, as applied to East West Rail. Here’s an example

‘We recognise that electrifying more of the railway is likely to be necessary to deliver decarbonisation’

Likely? It will be blooming essential.

Here’s more Graylingism. ‘Take-up of new technology will be important in decarbonising the railway and we are investing accordingly. We have recently funded, through Innovate UK and RSSB, competitions that provided over £4 million for projects to drive decarbonisation across passenger and freight. With our support the industry is developing hydrogen and battery solutions for use in rail that will play an important role in future decarbonisation’.

A useful role, perhaps, but the leading role can only be played by electrification.

DfT reminds us that Network Rail is currently preparing a cross-industry Traction Decarbonisation Network Strategy (TDNS). You can argue whether Network Rail, for whom electrification is a pain in the overhead, is the right home for this report. I can remember a former Chief Executive arguing that electrification was a bad thing because it introduced more assets to maintain and the potential for unreliability.

Anyway, the TDNS will consider ‘where overhead electrification, battery or hydrogen trains might be most effectively deployed. Note the conditional ‘might be usefully deployed’. Based on the TDNS, DfT will develop a decarbonisation programme for the rail network which will inform the deployment of electrification and new technologies over the next 30 years.

When it comes to decarbonising the railway we must apply Occam’s Razor to the solution. This states that ‘Entities should not be multiplied without necessity’. Simple electrification will solve the bulk of the problem, yet DfT is obsessed with multiplying entities to avoid facing this truth.

Meanwhile, when it comes to the elephant in the room, or rather on the motorway, DfT is completely stumped by the challenge of decarbonising road haulage.

Emission standards regulations for Heavy Goods Vehicles (HGV) came into effect in July 2019. These new regulations set binding CO2 emission reduction targets for HGV manufacturers of 15% by 2025 and 30% by 2030. Manufacturers face fines for non-compliance.

But that is reducing emissions, not decarbonisation. So what is DfT doing? Well, there’s a research project to ‘identify and assess zero emission technologies suitable for HGV traffic on the UK road network’. An operational trial of longer semi-trailers is propose, which is mitigation not decarbonisation. The Government is also working to understand the potential for demonstrator projects to overcome some of the hurdles associated with the implementation of novel freight decarbonisation technologies.

In other words, the focus overall is on more funding for the silver bullet solution boffins. And as Elvis Presley nearly said, ‘a little less demonstration, a little more action please’. Mr Presley was, of course, a noted proponent of a rolling programme of electrification.

New Train TIN-Watch

Each month I try to add value to the basis data in the new trains fleet reliability Table. This month I have a look at how quickly reliability is improving.

A couple of additional columns show the Miles per Technical Incident Moving Annual Average (MTIN MAA) for six months ago and the difference with this month’s figures. As you will see, it looks as though we are going to have to wait a long time for most fleets to get to the bottom of the bath-tub curve.

I haven’t shown the percentage improvement, because even 100% of not much, is still not much. For example, the Greater Anglia Stadler Class 755/4 bi-modes have improved by a massive 103%, but 2,662 MTIN MAA is not exactly the full Toblerone.

At the top of the Table, percentages do give a limited guide to improvement. ScotRail and Hitachi continue to shine with a 77% improvement for the Class 385 fleet over six Periods. But the 8% gain for the long established Govia Thameslink Railway Siemens Class 700 fleet suggests that some reliability issues are proving recalcitrant.

Last month’s TIN-Watch referred briefly to the availability issues caused by LNER’s mix of nine and five-car and electric and bi-mode trains under DfT’s Intercity Express Programme (IEP). I followed this up with the ever-helpful LNER media team, who provided me with details of the future deployment of each sub-fleet, plus the IC225s. Timetable references have obviously been overtaken by the COVID-19 crisis, but I hope readers will find it of interest.

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COVID-19 UPDATE
In spite of current challenges, distribution of Modern Railways continues and subscribers should receive copies as normal, albeit there may be delays in some areas if postal services are affected. If you usually purchase the magazine from the shops but are unable to do so you can also buy via the Key Publishing website at https://shop.keypublishing.com/issue/list/publication/MR: the May issue will be available to buy on Thursday, and the website also includes details of how to subscribe.

We remain grateful to all who continue to support the Modern Railways portfolio at this challenging time.
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Roger’s Blog

Well, obviously, I haven’t been anywhere since the last e-Preview and, not surprisingly, I haven’t anything planned for the coming month either. But there is plenty to write about plus research to be done, since it wouldn’t be Informed Sources without the odd table and chart!

Despite the lock-down stuff is still happening and new items keep shouldering their way into the top of the Informed Sources prospective items list. The latest is another example of poor application of Safety Critical Communications.

There was one bit of fun last week when we recorded a short promotional video for the May magazine using Zoom. Editor Philip Sherratt gave a brief run down on the contents of the May magazine and my Colleague Ian Walmsley and I summarised the features in our columns.

This will be on the Modern Railways Facebook page from Thursday. You will note that I am the only one with jacket and tie! We are also recording a longer version for You Tube.

Meanwhile, until next month, keep safe.

Roger