INFORMED SOURCES November 2023

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You can see why the Chinese curse wished ‘interesting times’ on people. This month’s column was written while the ‘Will they? Won’t they? Speculation raged over the cancellation of Phase 2 of HS2.

Although my policy has been not to cover the new line – it would have diverted me from the already all-absorbing task of tracking and analysing developments in the existing network – the implications of the cancellation of Phase 2 for the industry can’t be ignored. See, for example, this month’s opening item.

Rolling stock - decisions deferred cast a long shadow

Northern train requirements short on detail

Current rolling stock requirements update

£4,000 per minute and all that.

Captain Deltic’s Notebook

It is barely six months since Informed Sources revisited the state of the rolling stock manufacturing industry. This had been long overdue, since the previous analysis had been back in August 2018.

Re-reading that 2018 analysis brought home the fact that two of the three major orders expected then had failed to materialise. East Midlands Railway and Avanti West Coast eventually placed modest orders with Hitachi, now being delivered.

But after that nothing has been ordered for the national network, while HS2’s order for a fleet of 53 trains from an Alstom-Hitachi Joint Venture is subject to a variant of Heisenberg’s Uncertainty Principle. Following the cancellation of HS2 Phase 2, it is impossible to determine both the quantity and delivery timescale at any one time. DfT tells Modern Railways that it is still working through the ‘detailed changes’ to the programme.

Of course, Northern’s announcement in August that it was looking to acquire up to 450 multiple units got everyone very excited. Media reports suggested that it, and other recently announced requirements, offered salvation for the hard-pressed train manufacturers.

Sadly, this is delusory. What the media reports overlooked was that it takes time to procure trains. Were an operator to issue an Invitation to Tender (ITT) today, hardware would not start appearing on the factory floor much before 2027 at the earliest. And Northern is clear that the first tranche of its apparent bonanza would not enter service before 2028.

While Hitachi at Newton Aycliffe has work into 2025, Alstom at Derby will complete its Aventra contracts early next year. Decisions deferred in the past mean that it’s too late for new orders to prevent a long gap on these two factory floors.

However, there is a difference between the two sites. Derby is not just another assembly, fit-out and test facility. Litchurch Lane is home to a 500-strong design team, which, in addition to the HS2 trains, is currently working on Alstom EMU contracts in other countries.

Alstom also has its Innovia monorail system and Derby is now home to the group’s global Monorail Development Centre. So, there is no shortage of design work, but whether a design office can survive within a mothballed factory, and whether you could get the shop floor workforce back to restart production after a two or three year break, is debatable.

Meanwhile, Alstom is looking for opportunities in the refurbishment market to fill the gap. But, for a contract to be economic, it would require more technical content than the current refurbishment contracts at Alstom’s Widnes Facility.

Northern train requirements analysed

As already mentioned, Northern Train’s new train requirement raised hopes for the beleaguered train manufacturers. The proposal is to award an 8 year framework contract to a single manufacturer, with the aim of replacing ‘significant quantities’ of Northern’s ‘ageing fleet’.

In the column I analyse Northern’s current fleet and the implications for its replacement – such as reliability and cost. I argue that getting financial authorisation for replacement through DfT and the Treasury is going to require a lot of effort and a strong business case.

Of course politics will play a part and, in retrospect, Class 14x Pacer replacement was an early example of ‘levelling up’. Politically, new trains are a free hit: lots of kudos when the contract is announced; photo opportunities when the trains enter service. And all funded by the private sector (keeping the Treasury quiet). Then, when the bills start to come in, they should be increments to what you have been paying already.

Northern's intention is that the initial order will be placed at the same time as the framework contract is awarded – currently targeted for October 2024. Production timescales align with Managing Director Nick Donovan telling Modern Railways' 'Rail in the North of England' Conference in September that the first of the new trains would enter service in 2028.

After the initial deal the award of further contracts will be phased over the next eight years. And that is too far ahead for anyone's crystal ball to forecast. But making a case for replacement of the newer fleets will be much harder.

Northern's requirement is for 'multi-mode multiple units' with provision for future 'decarbonisation' by the supplier. This would involve the initial units being converted to either straight EMUs or Battery-Electric Multiple Units (BEMU) towards the end of the 2030s. Northern notes that after the initial order, later contracts could be EMUs or BEMUs.

The Invitation to Tender (ITT) was scheduled for 23 October.

Current requirements updated

While the Northern announcement created all the excitement, three other rolling stock replacement exercises are at various stages of the procurement cycle.

A year ago LNER's proposal to acquire 10 new trains – with 'self-powered' capability, aka batteries - to replace the current IC225 fleet was put on hold by DfT. Now the pressure is on from Whitehall for an early decision.

This pivot has been driven by a number of factors. First LNER has been bouncing in and out of subsidy in recent months. As Robin Gisby told the Transport Select Committee, LNER had been paying DfT a premium of around £50m a year before the pandemic. For next year a return to surplus is being forecast.

Next, according to Informed Sources, the new ECML timetable may have finally been signed off for introduction in December 2024. While the IC225 replacement trains would not be available by then, the order will demonstrate political commitment to exploiting the expensive, but as yet unused, additional capacity provided by the ECML infrastructure upgrades. And with an election less than a year away you can stick a 'levelling-up' vinyl on the contract announcement.

Next, there's Chiltern, which in August issued a notice seeking expressions of interest in the supply of 20-70 'new or converted' low emission multiple units. This followed a similar requirement, published in September 2022, for between 30 and 70 'battery electric multiple units, either already in existence, or created from the conversion of an existing fleet'.

Puzzled? Well Chiltern faces more uncertainty than many operators and has to cover a range of known unknowns.

There's the question of developing its 'Intercity' or, at least, inter-urban markets in Birmingham and Oxford, while establishing the new normal in its commuter services. There's also the longer term impact of HS2 services. And, finally, where the route sits in any putative electrification programme.

New trains seem unlikely on cost grounds, and this is reflected in the inclusion in both requirements of 'conversion' of existing stock.

But in its 'Right route 2030 vision' prospectus, Chiltern argued that investment from government and Chiltern would help fund new battery-hybrid trains on its commuter routes, combined with the necessary infrastructure upgrades. An estimated 45% of the current fleet could be upgraded, under the first wave.

Assuming the go-ahead in the current financial year (2023-24), Chiltern claimed that new trains could start entering service in 2027-28. That seems optimistic.

Last but not least is Southeastern, currently working on how to replace another Network SouthEast legacy - the Networker fleet. Currently providing a third of the operator's fleet mileage but half of its failures, replacement of the 174 Class 465 and 466 EMUs has been a long standing aspiration.

Hope for a new build to replace all the Networker sub-fleets seems to be evaporating, but with so many relatively-modern EMUs off lease Southeastern will not have been short of offers of refurbished pre-loved cast-offs from the ROSCOs. Not that this is straightforward, since most of the units potentially available have 25kV overhead line electric traction equipment and Southeastern needs third rail dc.

Rail subsidy claims analysed

Subscribers may have seen the recent piece in the Independent by noted travel writer Simon Calder claiming that the railway was receiving an extra £4,000 a minute in subsidy. Regular readers will not be surprised that I could not resist following up this figure.

I did ask Simon where the 'extra' £4,000 per minute came from, but as a star of TV, radio and the printed page, he is obviously a very busy man. However, the annual equivalent looks very close to the accepted £2billion a year 'black hole in the passenger railway's fares revenue.

Meanwhile Government ministers continue to refer to the £20 billion spent on the railway since the start of the pandemic as if it were a generous give-away for which the industry, and its striking workers in particular, should be grateful. In truth, of course, during the pandemic, public transport operators were funded to maintain services, despite little or any revenue coming in, to maintain travel for workers in vital service.

In the column I analyse the history of these emergency payments and show how they have been falling since the Covid year of 2020-2021. I have characterised that year as ‘lockdown’, when payments were £8.6billion. In 2021-22 payments fell to £5.2bn which is my ‘recovery year’. Finally, while the most recent DfT data covers only the first 9 months of 2022-23, with payments of only £1.5bn, and several operators already paying DfT a premium, I reckon these counts as ‘revival’.

So why have I bothered with this analysis? Well, the prevailing perception among Treasury and Transport ministers, and the mass media, of a financially doomed railway has to be challenged. We mustn’t let Government beat up the industry as if it is suffering from some form of ‘long lockdown’, when the key to revival is going for growth.

Captain Deltic’s Notebook

I hope you are finding my new ‘Notebook’ feature in the column useful. Topics thus month include Network Rail’s funding for enhancements and a preview of the company’s debt interest payments in the 2022-23 financial year..

There’s also a reminder that 5 November will be the 30th anniversary of the Railways Act 1993 receiving Royal Assent. This marked the official start of the privatisation of British Rail.

Roger’s blog

My decision to leave detailed coverage of HS2 to other members of the Modern Railways team, meant that I could get on with this month’s column while the mainstream-and-social media storm over the cancellation of Phase 2 raged. Of course, the cancellation will also affect aspects of the rail industry which I count as my journalistic beat, so there is more analysis to be done, for example on future West Coast journey times, which I last visited a few years back.

Apart from that, there is a busy time ahead. The rolling stock reliability data for Reporting Period 6 has just arrived, which means I can start the analysis for this year’s Golden Spanners Awards, to be held on 24 November, plus the associated fleet reliability review in the January 2024 Modern Railways.

A major development this year will see the reliability metric change from Miles per Technical Incident (MTIN) to the more comprehensive Miles per 701D (Mp701D). I won’t know what effect this will have on the Spanners results until I click ‘sort’ on the first fleet table.

Then there’s my contribution to the 2024 edition of Modern Railways’ annual The Modern Railway, to write. My keynote article forecasting what to expect in the year ahead is going to be an interesting challenge.

Roger