INFORMED SOURCES e-Preview December 2014

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This is the time of year when it is easy to get tenses and sentiments crossed when writing Informed Sources. While this is the December e-Preview it is not the last of the year because Modern Railways is published in the last week of the month preceding the cover date.

So the 'Christmas' issue is, in fact, the January magazine which is published in December. When writing the January Informed Sources I have to remember to say 'last year', when referring to event that have happened this year so that it makes sense when people pull out their back numbers in future years.

Anyway, this month's column is nothing if not varied with a look at an alternative form of Alliance, an attempt to make sense of the Office of Rail Regulation's assessment of Network Rail's performance in Control Period 4, the unveiling of a D78 Stock DEMU conversion that is really happening and an update on a controversial signalling scheme.

Alliancing – Chiltern marches to a different drum

Network Rail underperformed in CP4

D78 Stock conversion is 'go'

Sub-Surface Lines signalling update

In the past 20 years Chiltern Railways' revenue has increased nearly seven-fold. Today High Wycombe station is reputed to turn over as much as the entire franchise at the start of privatisation.

On performance Chiltern is one of four TOCs, playing box and cox at the top of PPM league table. And in the last customer satisfaction survey Chiltern was second only to Merseyrail at 92% overall.

Clearly Chiltern has been getting it right consistently for approaching two decades. And in October I was invited in to discuss with Chiltern Managing Director Rob Brighouse and his opposite number Network Rail West Midlands & Chiltern Area Director Liam Sumpter how they are maintaining this consistency through what they call a 'collaborative alliance'.

While the South Western 'deep alliance' between South West Trains and Network Rail has received extensive coverage in this magazine, Rob Brighouse argues that the deep alliance is only one way of re-integrating a fragmented railway. Chiltern and Network Rail's London North Western Route have now been working 'quietly and closely' together in an informal alliance for some time.

Both Rob and Liam believe that this collaborative working has been behind Chiltern's ability to operate a busier railway while maintaining punctuality. Compared with the start of Control Period 4, Chiltern is running 19% more trains a day, while holding the Moving Annual Average PPM around the 95% mark.

It seems to me that the real value of this collaboration lies in what has become a rolling programme of linked infrastructure and service upgrades. Through the various phases of Evergreen, the opening up of the Birmingham market, the current extension to Oxford and now the East-West line, Chiltern and Network Rail have combined to grow the franchise.

Critically, with a 20 year franchise both operator and infrastructure provider, can take the long view. Indeed, the upgrades to date have been truly 'business led' by Chiltern rather than specified by civil servants in a High Level Output Specification.

This closely parallels, the current approach of the South Western Alliance to increasing capacity into Waterloo, driving schemes, such as new rolling stock and re-opening the International platforms, even though the benefits will not be felt until after the nominal end of the current SWT franchise.

Chiltern's initial requirements for an Oxford service could have been met with a single track Bicester-Oxford line. But discussions with NR, DfT and ORR on what the railway industry as a whole could require in the longer term resulted in Chiltern's 'line round the corner to Oxford', becoming part of the much larger East-West Rail project with double track.

But collaboration is not a deep alliance. Rob and Liam remain individually responsible for their separate activities. And contractual agreements are at the heart of the railway.

So I asked them what happens when hard cash has to change hands - in the form of Schedule 4 and 8 payments?

Rob Brighouse reckons that Schedules 4&8 have become less of an issue because of the way the two organisations are working together. Delay attribution is focused on 'who can do the most to prevent this incident happening again or reduce its impact'.

I had to point out that Schedule 8 transfers real money. If this makes a dent on their individual budgets someone may decide to replace them with managers who can cut the loss.

While agreeing that Schedule 8 is a hard measure, Rob Brighouse says that 'it doesn't affect what we're doing, because we work together to reduce that delay so everybody wins'. Mr Sumpter takes a similar attitude. 'I want satisfied passengers and to deliver a high performing railway safely. That's what I focus in and the Schedule 8 that tips out of the end of it will be what it will be'.

Writing a column more used to reporting on privatisation red in tooth and claw, I found this no-blame culture a trifle disconcerting, but togetherness is clearly working.

Grappling with Network Rail's efficiencies

Readers' lucky escape last month from the Office of Rail Regulation's latest 'Annual efficiency and finance assessment of Network Rail' was only a temporary reprieve, because it is important that we make the effort to understand how the railway's finances work. As I have mentioned before, with more austerity ahead it is vital that Network Rail delivers in the current Control Period 5 (CP5) if Government is to continue the current level of rail funding.

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On Investment there was some good-ish news in CP4. Expenditure on enhancements was £1.4 billion greater than expected. This was due largely to an additional £3.0 billion of schemes which were not funded in ORR's Final Determination back in 2008. New schemes included Crossrail and the electrification programme.

You may be puzzled at how £3 billion of new schemes can increase expenditure by only £1.4 billion. This is down to a new phenomenon 'Control Period Doppler Shift' (CPDS), where the future arrives faster than expected and the past goes on interminably.

CPDS is a function of work funded to be done in CP4, but which subsequently had to be deferred to CP5. For example Thameslink rescheduled £900million of investment in this way.

Spending up

Now for the not-so-good news. Compared with the regulatory settlement for CP4, NR spent £1.2 billion more on Operating, Maintaining and Renewing (OMR) the network plus Schedule 4 & 8 payments and financing costs.

Here we get into the arcane world of 'efficiencies' which as far as I can see is a non-judgemental way of talking about overspends and underspends. For example under the Final Determination for CP4, NR agreed to improve the efficiency of Controllable Opex – signallers' wages and similar stuff, by 15.3% over the five years.

In practice, efficiency fell by 0.9%. I take this as meaning that NR was expected to spend 15.3% less on Opex but ended up spending 0.9% more.

Even where NR has reported efficiency gains above target, ORR remains in Mr Grumpy mode. For example, while conceding that NR achieved 'significant savings' in maintenance during CP4, ORR reckons those savings are probably less than claimed.

Even worse, ORR's consultants Arup were either unable to form an opinion on the claimed savings based on the information NR could provide, or had found 'material uncertainties'. Overall Arup concluded that 67% of NR's reported £339m maintenance efficiencies – read savings - 'may be uncertain'.

Worse, again, this is the fourth year in a row that Arup has provided a qualified opinion for regulatory financial statements. Well if Arup can't work out what's going on after four attempts, what hope for the rest of us?

Let's see if DfT and the National Audit Office can do any better now they're in charge.

In the column I also cover Renewals, Schedule 4 & 8 costs, and the malign timing of the Periodic Review process which has added another 2.5 percentage points to the already demanding efficiency savings required over the next five years.

And it's not looking good for CP5. NR has already raised concerns over track unit costs. According to ORR, in 2013-14, track renewal unit costs were around 35% higher than Network Rail had budgeted. And that's not all. With signalling renewals 'almost half of the assumed efficiencies' were not achieved.

What price a call for an Interim Review after the May General election?

Vivarail launches the D-Train

At the beginning of August I was invited to the launch of the Wrexham & Shropshire history. As I was leaving, Adrian Shooter took me to one side and said, conspiratorially, 'put the 8th October in your diary for a meeting to discuss our D78 conversion plans'.

Naturally, I expressed a certain scepticism and asked why that day? It was when the new venture would know if its bid to buy D78 stock from LU had been accepted and how many trains it had acquired.

So I confirmed the time and place and forgot all about it until, on 5 October, I got an e-mail from Adrian saying 'I trust our meeting on Wednesday is still on'. Attached was a highly detailed 43 page brochure describing the engineering and operations of the Vivarail 'D-train'.

This put me in a bit of a quandary. When the conversion of redundant London Underground D78 stock into Diesel Electric Multiple Units to replace Pacers was reported by Alan Williams I regarded it as a non-starter. Given the pressure on space I left a technical critique of the proposal to my colleague Ian Walmsley who ruffled some feathers within and without.

But Vivarail's board is made up of eminent engineering chums who I have known and respected for decades. In that time they have been involved with major rolling stock projects in the UK and around the world and I have learned a lot from them.

Vivarail has acquired all 150 D78 Driving Motor cars plus enough vehicles to form 75 units. Funding is coming from the Railroad Development Corporation of Pittsburgh. This is the company run by another highly respected long-standing chum Henry Posner III

So in total, Vivarail has bought at least 300 vehicles and plans to have a demonstrator running by the end of May 2015. I'm going to reserve judgement, and a full write up, until I have ridden in the demonstrator D-train. But in the column I do run through the key technical features and there are some artist's impressions of the proposed interiors.

Power.

By far the most interesting feature is the underfloor diesel power pack. Each DM car will have two fully-enclosed modules each housing a 200hp automotive diesel engine driving an alternator and compressor

Also housed in the module will be the cooler group, battery and compressor, driven from the engine via the alternator shaft. Each module will power the two traction motors on a bogie.

Power from the alternator will be fed to an inverter giving a 750V dc output. The DM's existing camshaft control equipment will be replaced by a new solid-state DC chopper system, designed and supplied by Strukton Rail of The Netherlands.

Strukton is descended from Holec Traction which supplied the three-phase drives for the Hunslet TPL Class 323 EMU. The chopper will supply the existing Brush LT118 traction motors. Rheostatic braking will be retained.

According to Vivarail D78 stock already has formal approved for operation over Network Rail. The conversion to D-train, will follow the official guidance for 'Operating non-Mainline Vehicles on Mainline Infrastructure' which was issued this year. Only modifications made to the D78 will need to comply with the relevant Technical Standards for Interoperability, the Notified National Technical Rules, and project entry under the EC Common Safety Method for Risk Evaluation and Assessment.

Performance

Maximum speed will remain at 60mile/h. Provisional run-time simulations for the Huddersfield- Sheffield route, have indicated savings in sectional running times compared with Class 142 and 150 DMUs.

I haven't gone into great detail about interiors and seating layouts. That can wait until hardware hits the test track at Long Marston and potential operators experience D-train in action. Which brings us back to the quandary.

If anyone can make D78 stock conversion commercially viable it is this battle hardened bunch of veterans. For me, the potential show stoppers are those highly rated Ford diesels hammering away in their little boxes under the floor. Interesting times ahead.

Sub-Surface Lines signalling latest

As mentioned in last month's blog, on 7 October I met London Underground Director Capital Projects David Waboso for a briefing on the various capacity improvement and other schemes under way. Of course, the elephant in the room was going to be the Sub-Surface Lines resignalling which I left until last

Now no project in recent years has generated so much feedback from its engineers and managers past and present as SSL resignalling. So I knew that LU's aspiration had been to finalise the new SSL deal with Thales by October 31.

But when I raised the (missed) decision date, David told me 'That may have been a date we communicated, we're still talking to them (Thales)', pointing out that LU 'has always made it clear' that it will let the contract 'when we've got a solution we're comfortable with and we're still trying to get the deal nailed'.

As for the likely timescale for contract signature, 'it's close, but it will take what it takes, frankly'. He added 'there's no point in going for an artificial deadline and getting the wrong solution'.

Commissioner Sir Peter Hendy had the same message for the 5 November TfL Board meeting. 'Negotiations continue in relation to a new Automatic Train Control signalling contract, but a satisfactory conclusion has not yet been reached'.

When the previous contract with Bombardier was cancelled at the end of last year, LU was firm that 'at this stage' delivery by 31 December 2018 was unchanged. But at our meeting David Waboso conceded that the deadline now is 'December 2018, or as close as practical'. 'We are still driving for that', he told me, adding 'there may be parts we can bring in earlier and parts later'.

Roger's blog

No complaints about not getting out enough this month. At the end of October there was the Chiltern interview reported above followed by a super trip to Wabtec with East Coast.

Outbound my train was scheduled to average a shade over the ton between Stevenage and Doncaster, including a call at Grantham, and 102.8 mile/h on the way back. By the time you read this the award of the new Intercity East Coast franchise will be imminent: and on the basis of my trip East Coast MD Karen Boswell and her team are going out on a high!

Then on 13 November, while my colleague Keith Fender was in Japan inspecting the first Hitachi bi-mode IEP, I travelled the 20 miles to Kings Cross to unleash the fist of quality on Eurostar's new Siemens Velaro e-320 train. Superb Siemens quality, great attention to detail and only one serious criticism.

This coming Friday it's the Golden Spanners awards. I've worked out the results and there are new fleets and new depots among the winners in the three categories. I've had to whistle up an extra trophy because of a dead heat. Guest speaker is Steve White, LU's Operations Director – Sub-Surface Railway, who picked up a few spanners in his previous job heading up Siemens' train maintenance organisation.

It's a bit late, but if you would like to attend, phone Chris Shilling on 07736635916 for price and availability and he'll try and squeeze you in.

Only two events in the December diary at the moment. The Rail Freight Group Christmas Lunch marks the start of the festive season and then we have the Modern Railways Christmas 'do'. But things being as they are no doubt there will be some serious events to cover.

Hope to see you at the Spanners.

Roger