
Shrewsbury Aberystwyth Rail Passengers' Association

Newsletter No. 76

July 2018



The KeolisAmey livery?

A CAF long distance DMU with end corridor connections. This is presumed to be the livery used across all rolling stock, with doors in red.

IT'S JAM TOMORROW (WITH TOMORROW BEING 2022 ONWARD) SAYS THE WELSH GOVERNMENT

KeloisAmey "win" the Wales and Border franchise contract

After waiting nearly 15 years for some common sense to be injected into the railways of Wales and the Borders, we finally got to find out the culmination of the Welsh Government's secretive procurement process for the franchise to replace Arriva Trains Wales much maligned operation on Monday 4th June. If you want to read the waffle about how great it all is and what jolly good chaps the Welsh Government and KeolisAmey are, then the official press releases and Ministerial Statements can be found online. Let's cut through their self-congratulation and look at what it means.

There are improvements planned on our line but the implementation timescale leaves a bad taste in the mouth.

- Bow St station is expected to open in March 2020.
- Investment in Machynlleth station in 2021: it will be a “Dementia Friendly” pilot scheme (no detail given).
- The full hourly service on the Cambrian Mainline is now promised for implementation in December 2022. The exact wording of the latest promise is **“A consistent 1 train per hour (tph) on the Cambrian line from Shrewsbury to Aberystwyth”**. Elsewhere 7 extra trains a day are promised, consistent with filling in the gaps in the timetable at Shrewsbury i.e. 0830, 1230, 1430 & 1630 (4) and Aberystwyth i.e. 1030, 1430 & 1630 (3). Note it doesn’t say that all these will be through trains to Birmingham or not.
- A complete replacement of the Class 158 DMU’s on our line by new DMU’s is also promised in 2022; that would provide extra seats on the busiest trains.
- On the Coast the Summer Sunday service will be expanded from 2023 onward and in 2025 there will be 1 train per hour between Tywyn and Pwllheli on Summer Sundays.

Whilst new rolling stock and extra trains are welcome, the four-year lead time has not been explained. Franchises let by the DfT have tended to get their new rolling stock and improvements in 18 months to two years from start date, and of course the Welsh Government has a history on promising the hourly service and not delivering. Let’s not cheer from the rafters just yet.....

In the meantime the Welsh Government are spending money making the Class 158 fleet become PRM (Persons with Reduced Mobility) Compliant by the deadline of the 1st January 2020, including fitting retention tanks on the units and emptying facilities at Machynlleth. Whilst no more flushing toilets on the track is welcome and long overdue, the whole plan hinges on acquiring additional Bi-mode rolling stock converted from ex Thameslink EMU’s to cover diagrams, so units can go off for conversion. So far these Class 769 “flex” units have yet to appear in working form from the factory. With the conversion programme supposed to have already started red faces and crossed legs could be the order of the day in 2020.

Franchise New rolling stock bonanza - eventually

Overcrowding has been one of the biggest complaints levelled at ATW, and a significant expansion of the rolling stock fleet is planned. Currently ATW have just 265 vehicles in their fleet; if the franchise plans come to fruition then by 2025 there will be 480 vehicles in the fleet, 421 of which will be new build and the rest cascaded stock. Of the new stock 241 vehicles will be for services in South Wales only. However, a 180 strong fleet of long distance DMU vehicles will replace the 119 vehicles of the current Class 158 & 175 fleets. They will be built by the CAF (Spanish) plant at Newport in South Wales, using the well-established Civity platform ordered by other UK operators. The pictures indicate that they will have end gangways to connect to other units like our current Class 158’s. 51 x 2 car units and 26 x 3 car units will be ordered. Will

there be an across the board 50% increase in train lengths? Unfortunately not, as these units will have to provide the stock for new services in the franchise, mainly running to Liverpool. However, there should be scope to increase formation lengths at peak times and shuffle units around to accommodate large events.

In the short term the plan is to replace all Pacers in South Wales by the end of 2019. Greater Anglia's fleet of Class 170 DMU's, 12 units (32 vehicles) will be cascaded as well as 5 single car Class 153 DMU's from Great Western. These, along with the 5 units (20 vehicle) Class 769's referred to above, 5 x 3 car Class 230 Vivarail battery/DMU hybrids, and acquiring 12 Loco Hauled Coaches from the East Coast Mainline, should see the 60 Pacers consigned to history. In theory the franchise will have a 9% increase in fleet size by 2020. Whether any of this will benefit the Cambrian is not said. [See p. 18 for a graphic illustration of the changes.]

Connecting at Shrewsbury

Services southward to Hereford, Newport and Cardiff will be half hourly all day, as will services along the Shrewsbury to Chester line by 2023. A new hourly service between Shrewsbury and Liverpool via Wrexham and the Halton curve will operate. Services toward Crewe and Manchester will be the same as today's; from 2024 Manchester to Swansea services will have a First Class section. Five through trains a day over the Heart of Wales line are promised.

Other things

A deep clean of all stations by the end of 2019 is promised. More ticket machines on platforms and a pay as you go facility that finds the cheapest fare on a mobile app (for older readers this is when someone runs around with a mobile phone desperately staring at it whilst mumbling they can't get a signal). Perhaps most interestingly free travel for under 5s will be extended to under 11s. Half-price fares will be extended to 16–18 year-olds and Under 16s will go free off peak.

More details will no doubt emerge over the coming months and years. KeolisAmey will officially take over the franchise on the 14th October 2018.

THE PROPOSED SERVICE ENHANCEMENTS TO 2024

The information below is taken from the following website:

<https://gov.wales/docs/cabinetstatements/2018/180604serviceimprovementsen.pdf>

The new Wales and Borders rail service takes the timetable from May 2017 as its baseline. The key changes being introduced under the new service year by year are summarised in the table below. Also included in this Appendix but not reproduced here are diagrams covering rolling stock changes and how capacity will increase in the years to come.

ROUTE tpd =train per day tph=train per hour	May 2017 Mon-Fri daytime frequency and calling pattern	Changes we will implement
Changes introduced in Dec 2018		
Chester—Liverpool Lime Street	None	1tph
Merthyr Tydfil and Aberdare Valley—Cardiff Central	n/a	Additional early morning service to Cardiff Central, Monday to Friday
Aberdare--Cardiff	Sunday timetable currently being trialled	Sunday timetable made permanent and will look at retiming final service
North Wales Coast	Sunday service currently had a large gap in the morning	Additional Sunday service between Llandudno Junction and Chester to bridge the gap between services in the morning
Bidston---Wrexham	n/a	Two additional Sunday morning services between Wrexham and Bidston, and
		two additional Sunday afternoon services between Bidston and Wrexham.
Changes introduced in 2019		
Most routes	n/a	Earlier first trains and more frequent services on Sundays. We will increase Sunday mileage by 22%.
Cardiff Central—Bridgend via South Wales mainline (all operators' services)	3 or 4 tph	Consistent 4tph
Cardiff Central---Holyhead	0,5tph	3tpd loco-hauled coaching stock included in 0.5tph; faster journeys
Aberystwyth--Shrewsbury	n/a	Stop at Bow Street from March 2020
Changes introduced in 2021		
Cardiff Central/Newport—Ebbw Vale Town	1tph Cardiff---Ebbw Vale	Additional 1 tph Ebbw Vale---Newport
Wrexham---Bidston (N Wales Metro)	1tph	2tph, 1tph fast, limited stops

Changes introduced in 2022		
Cardiff---Caerphilly	4tph to Caerphilly	6tph to Caerphilly
Swansea---Shrewsbury (via Heart of Wales)	4tpd (plus 1tpd on parts of the line)	5tpd
Cardiff Central---Cheltenham	1tph in two hours out of 3	Consistent 1tph all hours
Aberystwyth---Shrewsbury	1tph most hours	Consistent 1tph all hours
Cardiff---Coryton/Caerphilly	n/a	Crwys Road new station opens
Cardiff---Aberdare/Merthyr Tydfil/Treherbert	2tph each route	4tph each route with 2tph to Bay and 2tph to Central
Cardiff Central---Liverpool via Wrexham General	---	New service 0.5tph Cardiff---Liverpool, 0.5tph Shrewsbury---Cardiff
Crewe/Liverpool Lime Street---Holyhead/Llandudno and Manchester Airport---Chester	2tph made up of 1tph Manchester Airport---Llandudno; 1tph Crewe---Chester	3tph made up of 1tph Manchester Airport---Bangor; 1tph Liverpool Lime Street---Llandudno; 1tph Crewe---Chester
Changes introduced in 2023		
WCB routes		Further increase in Sunday journeys
Cardiff---Rhymney	1tph from Rhymney, 4tph only as far as Bargoed	4tph Rhymney---Cardiff Central
Cardiff Queen Street---Cardiff Bay	5tph	6tph. Extension to new station at the Flourish with an additional station at Loudoun Square
Cambrian Coast between Tywyn and Pwllheli on summer Sundays	3 irregular trains per day	1tph with new express service
Cardiff---Bridgend via Vale of Glamorgan	1tph	2tph
Changes introduced in 2024		
CLV routes	n/a	2tph on Sundays

<http://tfw.gov.wales/>

This is the url for the Transport for Wales page on the Welsh Government website.

It features an interesting diagram of Richard Trevithick's Pen-y-darren locomotive in action: the connecting rod expanding and contracting, and the crank moving to and fro, rather than rotating.

We hope this doesn't reflect the Welsh Government's expertise in this field?

WILL THE NEW TRAINS---WHEN THEY EVENTUALLY ARRIVE---BE LIKE THESE?

KeolisAmey intend to provide 77 new diesel multiple units based on CAF's Civity platform. It is intended that these will operate on the Cambrian lines from 2022. Will the interiors be like these? Points to note: the seats are of the infamous Fainsea "Iron Board" type, and there is a complete lack of tables.

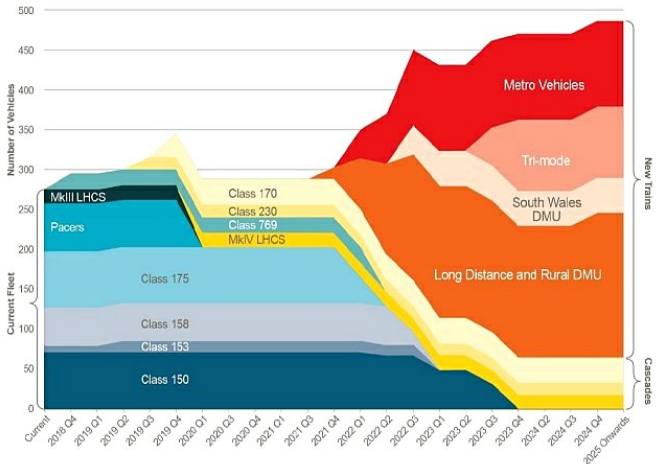




These mock-ups are of Vivarail trains, modified London Transport electric units, converted to diesel power. They show the new logo, with the title Cymni a'r Gororau. This is the logo of Transport for Wales, not strictly that for KeolisAmey.



How the rolling stock will change over the next six years of the new KeolisAmey franchise.



NEGES GAN Y CADEIRYDD

Ers y cylchlythyr diwethaf, mae sefyllfa'r Cambrian yn edrych yn dra gwahanol. Ar yr wyneb, rydym wedi llwyddo lawer iawn. O 2023, bydd trenau newydd sbon a gwasanaeth bob awr lawn ar y Cambrian ymysg gwelliannau eraill. Mewn cyflwyniad a roddwyd gan KeolisAmey i Aelodau Cynulliad, dywedwyd ar fap mai gwasanaeth lawn bob awr oedd yn ddyhead ers blynnyddoedd maith gan randdeiliaid (*stakeholders*). Felly gallem longyfarch ein hun yn fawr: mae'n bur bosibl na fyddai'r newidiadau wedi digwydd heb ein hymdrechion caled dros nifer o flynyddoedd. Diolch i bawb a fu'n helpu yn yr ymdrech.

Ond mae dal llawer o waith i wneud. Does dim addewid y bydd unrhyw beth yn digwydd cyn diwedd 2022. Yn y cyfamser, mae'n debyg bydd prinder cerbydau, trenau rhy fyr a chanslo trenau'n parhau, ac efallai waethygu os na fydd Keolis yn cyflwyno newidiadau mwy sydyn. Yn hytrach na "big bang" yn 2023, byddai'n well cael o leiaf ryw faint o gerbydau ychwanegol, trenau newydd a gwasanaethau ychwanegol yn gynharach.

Mater arall yw dyluniad y trenau newydd. Mae SARPA wedi dadlau ers tro byd fod angen raciau mawr i fagiau mawr a chesys, ar lein sy'n cael llawer o dwristiaid a theithwyr sy'n mynd yn bell. Mae angen byrddau, seddi sydd wedi'u halinio â'r ffenestri a socedi plwg wrth bob sedd. Dydy byrddau na raciau mawr ddim yn ymddangos mewn o leiaf un o'r dyluniadau arfaethedig a ryddhawyd yn ddiweddar, felly mae angen pwysu am y fath bethau ar y trenau.

Mae'n werth nodi hefyd mai sawl peth yn digwydd yng nghymoedd y de yr ydym wedi bod yn galw amdanynt ar y Cambrian. Fel rhan o Fetro De Cymru, mae sôn am gysylltiadau gwell â gwasanaethau bws, yn arbennig y rhai sy'n mynd yn bell. Pam na allem ni gael hyn ar y Cambrian? Yn yr un modd, bydd yr ochr Amey o KeolisAmey yn adeiladu lŵpiau pasio ac ati: mae angen lŵpiau ychwanegol arnom ni i ganiatáu i'r amserlen atgyfodi yn dilyn gohiriadau.

Serch hynny, mae'r newyddion am y fasnachfaint yn galonogol iawn, ac rwy'n edrych ymlaen at siawns i ni drafod ein dyheadau gyda swyddogion y fasnachfaint newydd pan gawn gyfle. Mae llawer i ddathlu, ond hefyd mae dal lawer i frwydro drosti. Mae'n atgoffa rywun o hen slogan British Rail: "We're getting there"

Jeff Smith, Cadeirydd SARPA, Aberystwyth, Mehefin 2018

MESSAGE FROM THE CHAIR

Since the last newsletter, the situation on the Cambrian looks very different. On the face of it, we've achieved a lot. From 2023, there will be brand new trains and a full hourly service on the Cambrian, amongst other improvements. In a presentation that KeolisAmey gave to Assembly Members, a map was annotated to denote that a full hourly service on the Cambrian was a longstanding demand from stakeholders. Therefore we can greatly congratulate ourselves: it's entirely possible that these changes would never have happened without our hard work over a number of years. Many thanks to all those who helped in the effort.

But there is still a lot of work to be done. There is no promise of anything happening before the end of 2022. In the meantime, it's likely that a lack of carriages, short formations

and cancellations will continue, and perhaps worsen, if Keolis do not make earlier improvements. Rather than a “big bang” in 2023, it would be preferable to have at least some additional carriages, new trains and additional services sooner.

Another matter is the design of the new trains. SARPA has argued for many years that large luggage racks are necessary for large bags and cases, on a line that sees many tourists and long-distance passengers. Tables and seats aligned with windows are needed, and also plug sockets by each seat. Tables and large luggage racks do not appear in at least one of the proposed designs that was recently released, so we need to push for these on the trains.

It's also worth noting that several things are happening in the valleys that we have been calling for on the Cambrian. As part of the South Wales Metro, there is talk of better connections with bus services, in particular long distance buses. Why can't we have this on the Cambrian? Similarly, the Amey side of KeolisAmey will be building passing loops and so on: we need additional loops in order to allow the timetable to return to normal following disruption.

Despite this, the news about the franchise is very welcome, and I look forward to us getting a chance to discuss our aspirations with the officers of the new franchise when the opportunity arises. There's a lot to celebrate, but there is also a lot to fight for. I'm reminded of the old British Rail slogan: “We're getting there”.

Jeff Smith, Sarpa Chair, Aberystwyth, June 2018



Winter 2017/2018 was one of the hardest of recent years with several different periods of snowfall. Services were worst effected at the beginning of March with the line closed for a day and half. Snow drifts were reported as being chest deep at Talerddig. On 11th December 2017 a late running 0625 Birmingham New St to Aberystwyth arrives at Newtown in the snow. Photograph: Gareth Marston

NEWS

ARRIVA TRAINS WALES ANNUAL ADOPT A STATION CONFERENCE

Held at Plas Dolguog Hotel, Machynlleth on May 30, this was the fifteenth meeting and, of course, the last that Arriva Trains will host. The welcome and introduction was by Jez Williams, Head of Stations, while Bethan Jelfs, Customer Services Director provided a review of 2017 and plans for the future. The station managers' regional review was given by David Crunkhorn with contributions from Network Rail (George Collinson) and the Cambrian Lines Community Rail Officer Claire Williams.

Arriva Trains called this a conference of reflection and achievement and again praised and clearly appreciated all the work that adopters have done and are doing. Bethan Jelfs provided a bit of history reminding those present that there were five different train companies operating the area covered by Arriva Trains Wales in 2003. The harmonisation of these was not easy: for example, with regard to stations 48 grades were reduced to 4. Claire Williams concentrated almost entirely on accessibility and in particular on making stations dementia friendly.

RAILFUTURE WALES

The Cambrian Division AGM was held in Machynlleth in March. A key presentation was that on the proposed re-opening of the Aberystwyth—Carmarthen line. This is reproduced in their latest *Newsletter* and available on the website at Railfuture Wales.

SHREWSBURY ABERYSTWYTH RAIL PASSENGERS LIAISON COMMITTEE

The Committee met at Welshpool Town Hall on Friday May 11, 2018. The full minutes of the Meeting are available on the Committee's website, but reproduced below are a few highlights. A discussion took place around freight on the Cambrian Lines with the main points being: i) The survey carried out via the Town Council and the Industrial Estate returned a poor response with only 3 replies. Two were negative and one was positive. ii) Ann Elias informed the meeting of the work being done by the Marshes Group on freight and it will be much clearer as to the need when this is completed. iii) Double handling was recognised as one issue to overcome. iv) Robin Smith (Freight) is to be invited to the next meeting. Ben Davies reported that 158 and 150 trains are being altered to toilet retaining tanks. New facilities are being installed at Machynlleth, with assistance from Welsh Government for cleaning the toilets. Dates of the next meetings are: Friday 19th October 2018 in Welshpool Friday 8th February 2019 in Welshpool Joint Meetings: Friday 13th July 2018 in Machynlleth.

TICKETING

At the meeting of the Shrewsbury Aberystwyth Rail Passengers Liaison Committee the matter was raised regarding the policy to enforcing purchasing a ticket before boarding the train. An order to travel was suggested so that the issues with ticket machines could be alleviated. After discussion it was agreed that the signage is not clear and that the true situation is that 'passengers should purchase a ticket at the first opportunity, including when the conductor guard is passing down the train and not trying to avoid such payment. The signage is to be changed to reflect this more clearly. In fact SARPA *Newsletters* No.73 and No.74 contained a

considerable amount of information regarding the purchase of tickets given the apparent desire to avoid them being purchased on board.

UP AND DOWN THE LINES

BARMOUTH

By late March rail tickets were again being sold in what was the Tourist Information Centre but now appears more of a gift shop.

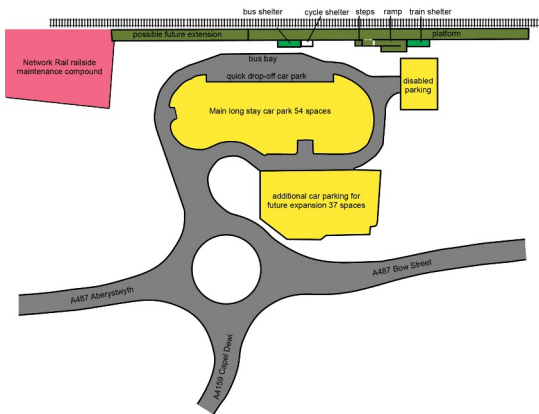
BISHOP'S CASTLE RAILWAY(closed 1935)

Progress continues on the Weighbridge Project with the Society having a lease on the site from April as well as its own access from Station Street. The building has been stabilised and the roof made weather proof. The proposal for a Lottery grant is expected to go before the Society's Committee by the end of June.

BOW STREET

Undoubtedly the main gain which will be claimed for the Cambrian lines early in the new franchise will be the reopening of Bow Street station. The *Cambrian News* of April 19 carried a lengthy article on the proposals and also details of the public consultation which was to be conducted by Ceredigion County Council. Councillor Alun Williams said to the *Cambrian News* "The Consultation is aimed at providing information to the public and provides an opportunity for everyone to respond" A key aim was accessibility.

The proposed station, road access and parking are shown in the diagram below, simplified from that published by Engineering Design Services (Ceredigion and Powys County Councils).



GOBOWEN

Severn Dee News (the Newsletter of the Shrewsbury to Chester Rail Users Association issue 86, Spring 2018) reports that "following the purchase for the community of the station buildings, progress continues to be made with refurbishment. The northbound buildings have been made generally weather proof and listed building consent has now been obtained to carry out internal and external works which include essential maintenance and repair plus some partitioning and installation of a disabled toilet. These will enable the building to be subdivided into units for lease. Funding is in place for the initial work and this will then hopefully generate an income stream to undertake external renovation of the building." The Gobowen Area Improvement Project has produced an attractively illustrated fundraising brochure entitled *SOS Gobowen Station*. Anyone interested and wishing to help should contact gaipgroup@gmail.com or GAIP, c/o The Booking Office, Gobowen Railway Station, Gobowen, SY11 3JS.

More recently the local press (e.g. *Oswestry & Border Chronicle* May 24) has reported a proposal to create a one million pound tram link from Gobowen Station to the Robert Jones and Agnes Hunt Orthopaedic Hospital by the Cambrian Heritage Railways Group. The idea is to operate the line on a basis similar to that of shuttle between Stourbridge Junction and Stourbridge Town. The long term aim of the group remains opening the line from Gobowen to Oswestry and beyond. [See SARPA Newsletter No.73, Aug. 2017.]

MACHYNLLETH

The new shelter on Platform 1 is now in place but is not yet open. Elwyn Jones, familiar to many as Booking Clerk, retired on April 5. Elwyn joined the railway in 1999 and during his years at Machynlleth has given much valuable assistance and advice to passengers, always in a courteous manner but often with a puckish sense of humour. SARPA wish him a happy and active retirement.

PENHELIG

Penhelig reopened on time on April 1, but work on the pedestrian steps was still incomplete. These steps are only partly in place requiring a scaffold construction to temporarily link to the platform.

WELSHPOOL

Welshpool Station is still plagued by sawdust and debris from the adjacent recycling plant. This is often accompanied by very unpleasant smells making the station environment less than appealing. The Secretary of the Shrewsbury Aberystwyth Rail Passengers Liaison Committee is in touch with the relevant business.

A new notice has been erected giving directions to the town and bus details.



The last *Newsletter* contained details of proposals for the development of



Welshpool station. The Shrewsbury Aberystwyth Rail Passengers Liaison Committee at their last meeting received a short report on the initial proposals. Meetings have been held and initial designs tabled. Further design drawings are being prepared for the next stage along with investigations into land availability for more car parking

Welshpool Town Council is now working on the enhancement of the old railway livestock docks (where the dual gauge railway is still *in situ*) and the Motte and Bailey Castle. Funding is now in place for the first stage of the livestock docks and tenders are now being sought for the works. It is hoped the works will be completed by the end of the summer months.

WHAT ENERGY SOURCE/POWER PACK SHOULD POWER CAMBRIAN TRAINS?

You may have noticed the recent furore around cancelling electrification schemes, bi-mode trains and plans to eliminate diesel powered trains by 2040 (along with petrol and diesel cars). Government will of course say that it knows best and will sort things out – cue laughter all round given successive Government's track records? One has only to look at how the Welsh Government ignored warnings given several years ago about rolling stock in Wales in relation to Persons with reduced mobility - PRM TSI regulations. Commuters in South Wales now face the almost certain prospect that their trains will not be compliant by the deadline on 1st January 2020. So, the future source of train propulsion is actually a long-term planning issue that has a direct bearing on the future of the Cambrian lines, which passengers and all concerned with the lines future should take an active interest in - it can't be left to chance or the current fancy of the Minister temporarily in charge of transport.

Currently Cambrian passenger trains are early 1990's-built Diesel Multiple Units. As the names suggest they are powered by diesel fuel, they have engines underneath the carriages and are noticeably noisy and occasionally black smoke can be seen coming from the exhaust. The multiple unit arrangement saves having a separate power unit or locomotive that attaches to coaches on smaller trains, as this is more cost effective to run at train lengths beneath 6 coaches. More modern diesel engines are quieter and less polluting, but are still seen as producing damaging nitrogen dioxides. Back in the 1950's and 1960's diesel propulsion on rail was seen as a stop gap until network electrification. For various reasons which we won't go into the % of the network electrified in the UK is low by European standards.

The advantages of electric traction over diesel are-

1. Better acceleration/deceleration – reduced journey times possible.
2. Less track wear; trains are lighter as they don't have to carry around heavy diesel engines and fuel so there are long term maintenance costs savings.
3. Reliability - typically electric trains cover 2 to 3 times the distance in service between failures compared to diesel.
4. Potentially fewer units needed (see 1 & 3) so fleet costs lower.
5. Regenerative braking can generate current to put back in the system.
6. Quieter.
7. No emission of pollutants (by train anyway).
8. At today's prices electric trains are cheaper to run than diesel ones.
9. Seen by public as attractive and modern "sparks effect" more customers attracted = more revenue.

All this has of course to be weighed against the capital cost of installing either catenary or third rail to make it happen. Government has taken against further electrification partly due to massive cost overruns of current projects. Secretary of State Grayling claimed that Bi-Mode trains give passengers all the benefits of electrification. So, what are Bi-mode trains? So far in the UK these have been trains that can run on overhead catenary where it exists, and then switch to onboard diesel engines. At first glance this sounds attractive as a train can run where

there are wires and then switch to the other power source, so passengers don't have the inconvenience of changing trains (or locomotives). But, there are several down sides to diesel bi modes.

1. Bi Mode trains have to carry around diesel engines and fuel 100% of the time as well as pantographs and other equipment for electric traction this makes them heavier than electric only trains, so the advantage of lower track maintenance costs are lost.
2. All the extra kit in them and the gadgets to swap over mode mean they cost more to buy than normal trains.
3. When in diesel mode they:
 - 1) Have slower acceleration/deceleration.
 - 2) Are less reliable.
 - 3) Noisier.
 - 4) Emit pollution.
 - 5) Still need that more expensive diesel fuel.
4. They also have smaller diesel engines than conventional DMU's/Diesel locomotives, meaning they struggle to sustain high speeds (90 mph plus) for long distances.
5. And of course, they are banned after 2040!

They are a hybrid and therefore a compromise, though there does appear to be a role for limited quantities of them to operate to maintain through links to less busy parts of the network. We must learn to accept their limitations: they are not the magic wonder train DfT tried to pretend when it cancelled electrification projects in the summer of 2017. Though the Hitachi IEP has a single button in the cab that engages the swap mode capability, a bit like the buttons on the Batmobile which was probably the clincher for the Politicians.....

However, there are other sorts of fuel sources and combinations of bi and tri modes on the way! The two alternatives are battery's and hydrogen fuel cells.

Batteries

These have been with us a long time and the technology is relatively mature. The basic limiting factor is that the power source has to have enough power to do what it needs to do and having expended that stored energy have enough of it to have the range required for the train's diagram. So far for mainline rail on the whole we've put batteries underneath existing small size multiple units in the same space formally occupied by the diesel engine and fuel tanks, and found that we can amble along at speeds up to 50 mph speeds and get about 30 miles operational range before the batteries need a recharge. This clearly has limitations on their use, so using them in combination with other power sources (mainly overhead wires) as bi-modes have been favoured. The most promising use has been in Light Rail cars where the batteries are used for short stretches of on street running or in tunnels, negating the need for expensive ground works or for aesthetic reasons such as in historic city centres where they would spoil the visual make up of areas. Elsewhere on the network the pantograph is raised charging the batteries up as you go along from overhead wires. With closely spaced light rail stops there has even been developed a system where the tram is recharged for 2 seconds at every stop and has super capacitors for additional power boost – it all works, but is apparently more expensive than sticking up wires. Replacing a mainline diesel engine bi-

mode that runs a short distance off the wires with batteries is also an option – but batteries are not light and you have to carry them under the wires, the same as with diesel engine bi-modes.

Hydrogen

This is being experimented with in Germany and an Austrian narrow-gauge tourist line, and not in the Lake District as the Minister tried to tell the Transport Select Committee. This does appear more promising particularly in regard to range, and the German version also carries batteries to provide extra power when needed – a flashy “booster button” will have the Politicians salivating. It seems that sustained high speed running will not be a feature.....however the two big issues are with thermal efficiency and the location of the fuel cell. Hydrogen Cells are a fuel source, however the hydrogen has to be created in the first place, and this involves electricity, and the stored hydrogen then has to be burnt so by the time a wheel is turned the % loss of what was generated at the power station compared to an all-electric unit using a pantograph from overhead wire is horrendous. Due to fears about hydrogen leaking the fuel cells are stored on the roof - something you can't do with the UK's more restrictive loading gauge. The relative costs are not yet known but it's clear that fuel costs will be higher due to the poor thermal efficiency.

The official line from the Department for Transport when these limitations are pointed out is that technology is progressing rapidly, and these issues will be overcome: don't worry it will be OK. Or will it? Those of us with long memories will recall that this was essentially the line DfT were taking as to why further electrification shouldn't happen about 12 years ago. This rapidly changing technology expected in the mid 2000's has so far yet to appear by the end of the following decade.....and High Speed 2 has been planned with overhead catenary! The Department had decided to cancel electrification and has then sought to find a plausible excuse to make it itself look in a good light afterwards and as usual is coming unstuck. It's clear that the technology currently is simply not there for fast mainlines or busy suburban networks needing to draw plenty of power to run intensive frequent services with long trains. Only electrification can give you the power needed.

How about applications for Hydrogen or Battery trains on quite secondary routes or branch lines? With the Cambrian west of Shrewsbury covering some 135 route miles with sections of it currently running at speeds up 85mph and a very steep incline at Talerddig and other places on a UK loading gauge, then the only way to carry around enough hydrogen fuel cells and booster batteries would be to have locomotives equipped with them or hybrid multiple units where a 3-car unit has only 2 available for passenger use as space is needed for the fuel. This of course then costs more £s, and is where the intent has dangerous consequences if it increases the cost of operating rural railways. We mustn't rush headlong into poorly thought through bad policy conceived as a face save over broken promises.

Gareth Marston May 2018

ALL TICKETS PLEASE WITH NEWTOWN STATION TRAVEL

Advance Purchase Tickets - the curse of the privatised railway?

Those who have read our critique of the problems with the UK rail fare system, and our suggestions how to improve it in the last SARPA Newsletter, will have noticed that continuing with what's known as "Advance Purchase fares" was not part of it. You may well ask why? The narrative from the Rail Delivery Group is that these great value fares are popular with the public, but the reality of them is that they are a deeply ingrained part of the complexity and confusion of the UK rail fare system, and most people do not understand how they work.

One of the biggest misconceptions that passengers have is that by buying your ticket in advance you are guaranteed a discounted fare - you're not. Anytime, Off Peak and Super Off Peak tickets which make up 55% of all ticket sales can all be bought before the date of departure for **exactly the same price as on the day**. Season tickets make up 40%, Advance Purchase fares account for just 4% of sales, and various Rovers and other tickets 1%. Seasons and Rovers can also be bought on the day of travel for the same price as beforehand. The reality is that only around 1 in 33* passengers travelling at best have saved anything at all by buying ahead of the date of travel, and that comes with a loss of flexibility.

People simply don't understand how these bespoke fares work. A common customer at the counter here is one who says on Tuesday morning "We're going to London on the train Friday and back on Sunday afternoon", they then expect a discount as they're "buying in advance". We then have to go through the rigmarole of asking what trains they're travelling on, checking prices and more often than not finding that the AP fares still available are in fact more expensive than the Off Peak Returns. Of course, what's happened is that the cheap AP tickets have been on sale for weeks, and the ones at more popular times like Sunday afternoon when everyone who's been to London for the weekend comes home have long since been sold. As we often explain it's like going home and telling a family member that Tesco have that morning some really cheap Easter Eggs for sale, and then the family member goes there that evening and can't find any. As you can see it can be time consuming and futile looking for savings unless you know how the system works.

So, what are the key features of "Advance Purchase Fares".

- Booked trains only no flexibility.
- They are normally available 12 weeks in advance of the date of travel.
- Buy ahead of the day of travel subject to availability - they can and do sell out; unsurprisingly for the trains at popular times these go first!
- Prices vary and can be more expensive than open tickets – a tiered system is used as after the small quantities of really cheap tickets are sold they put the prices up for the next tier available and so on.
- Generally, only available on long distance journeys and TOC specific.

There are also differences in terms and conditions and availability between different TOC's just to confuse things even further, but we won't go into that here.

So as well as not realising they can sell out and you don't get discount on flexible tickets by buying in advance, people don't realise the AP fares are not flexible, the higher tiered tickets can actually be more expensive than flexible tickets, you can't get them on local journeys, prices seen one day might not be available the next and you can't buy them on the day of travel! Given the bad rap that UK rail fares have, more and more people look for savings by booking ahead, but the complexity, limited availability and bespoke rules mean that Advance Purchase fares are more part of the problem than a solution. The Advance Purchase tickets just consume time for passengers (and staff); they are a complete curse and user unfriendly to less frequent/knowledgeable travellers due to their complexity. How much time is consumed by people trying to get cheaper rail fares? If every one of the 1.7 Billion journeys per annum had the buyer spend just one minute extra searching for a better deal, then 28 million hours of time a year is consumed and that's just for those that buy! Apply cost benefit methodology and the opportunity cost to the UK economy of the UK rail fare system must run into close on £100 Million.

So, what's behind it? The TOC's don't offer discounted tickets out of the goodness of their hearts in today's fragmented railway. There's often a financial benefit to individual TOC's in doing so – one of the reasons is by having a ticket that's only available for use on their own train they don't have to share the revenue with anyone else! If you travel between Newtown and Birmingham New St, as far as Shrewsbury only ATW operate, but between Shrewsbury and Wolverhampton West Midlands Trains and Virgin Trains operate as well, and ATW only run around 50% of the trains. Once you get to Wolverhampton ATW are only a small player to Birmingham. The rail industry allocates revenue from open to use on any operator's trains tickets via a system called ORCATS, originally devised under BR. This roughly allocates revenue between different operators based on a formula of fare divided by mileage and what percentage of services are run by an operator on any given section and train size. Roughly around two thirds of the fare paid for a return from Newtown to Birmingham New St will end up with ATW. So with an off-peak return from Newtown to Birmingham at £27.10 only around £18.00 is allocated to ATW but by selling two advanced purchase ticket to someone who thinks they're getting a bargain for £23.00, ATW are actually getting to keep £23.00 instead of £18.00.

The Long Distance Operators into London and Cross Country have to contend with many other services to share revenue with over the length of their routes, and flexible tickets to London are to "London Terminals", a legacy from BR days when sensibly in a unified system you could leave from a number of London Termini to travel to/from your country destination. Your London Terminals open tickets from the Cambrian entitles you to travel to Euston, Marylebone and Paddington via Oxford and Reading, and other operators as well as ATW and Virgin West Coast get a cut via ORCATS. It's not just trying to undercut other operators that drives the practice, but also the morally dubious practice of yield management, whereby tiered sales draw some people into getting deals in advance, but ever-increasing prices as the tiered quotas sell out draw people into distress purchase prices nearer the date of travel. The existence of regulated Off Peak Returns provides some protection from this practice. Unsurprisingly given their airline background Virgin-owned franchises are the worst for this.

Government, worried by the fare system being in disrepute, have insisted that the new Northern Connect services due to be introduced next year have Advance Purchase tickets. So, is this game of fragmented railway finance snakes and ladders, price gouging and frightened

politicians of any overall benefit? Allowing a tiny percentage to benefit from discount whilst pretending it's a panacea to the fare system and sowing mass confusion in the travelling public's minds? We think not, any sensible reform of ticketing would see these fares abolished.

The Rail Delivery Group are to launch a consultation on ticketing reform in June. Will the operators be looking for reform that benefits their finances or those of their customers?

Newtown, May 2018

*Whilst 4% of tickets sold might be the AP type some of these are more expensive than other tickets or combinations, so the unwary pay more believing they've got a discount.

SEVERN BRIDGE JUNCTION BOX

Mike Walker

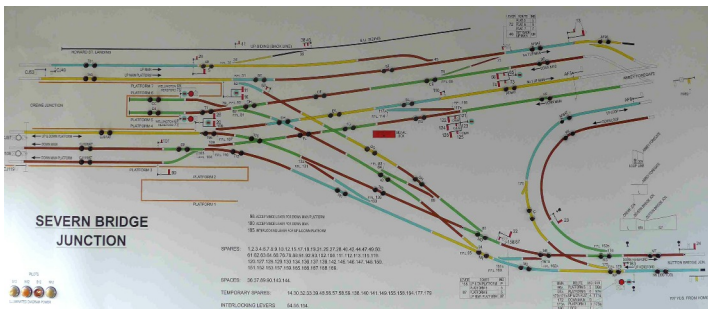
I went to a Rail Future meeting in Shrewsbury on Saturday 14th April, and they had arranged a trip to the Severn Bridge Junction signal box. As you know, it is the largest mechanical signal box on the entire British Rail network (180 levers; 90 operational) and, with the closure of the 190 lever box in Melbourne, Australia, is now the largest in the world! It was a fascinating trip, and we all had a go at pulling the levers - some, especially the points, were really heavy - and you can see!

Right upper: A Cambrian lines train is pulling into Platform 5. There are point rods running in various directions, some crossing over others. The skyline is dominated by Shrewsbury Castle on the left, and the prison on the right.

Right lower: the white levers are the spares, contributing to almost half the box's length.

Below: the up starter signal on Platform 3, a fairly recent addition, is controlled by lever

99.





LETTERS TO THE EDITOR

Dear Editor,

A great new Newsletter. I'd no idea changing trains at Smethwick Galton Bridge had such potential. I've often sat in a train stopped at a lower platform, yet never seen from there that the higher platforms even exist.

The analysis of the present ticket-pricing structures ("All tickets please ...") is most impressive, and it's good that it suggests simple and sensible steps towards reform. Surely SARPA has an opportunity here to do some real campaigning. Having agreed on its 'official' policy on ticket-pricing, it could write to the DfT and ATOC, to Westminster DfT ministers and their shadows, to all Westminster MPs with seats in Wales, to their main rivals in other parties, to the Welsh Government Economy & Transport Secretary, to other AMs, to the main railway pressure groups, to the two local newspapers, and to the transport correspondents of the main national papers stating its policy, and enclosing the "All tickets please ..." article (if its author agrees) by way of background. (If this means a hefty postage bill, I'd gladly chip in.)

A meeting of an English passengers' group that I attended long ago was addressed by a manager of the local TOC. I asked him later to justify the vast gulf between the highest and lowest available fares for the same journey on the line. He said smugly that things were fine as the cheap fares were available to all. I asked if he felt the resulting variations were 'fair'. Now looking less smug, but amazed at my daft idea that fairness might be relevant, he repeated his first reply. I then told him of someone who'd been almost put off going to her mum's funeral when she learnt at the ticket office how much she must pay for her trip. Her feelings of sudden bereavement were not helped when in the train she found she was sitting by a group of four adults on a shopping trip to the same destination as her, and that they had paid less in total than she'd paid just for herself. I don't know what he felt at this as he'd lost interest in me and walked off to his car.

Coming back home, cannot SARPA suggest ways whereby the Mach to/from Aber timings can be speeded up, so that the projected stop at Bow Street can go ahead without the overall reliability of the timetable suffering? You're right to doubt that it can happen at present without causing timing problems. But there must be local stretches of line where time can be saved, e.g. by relaying track so that maximum speeds can go up? Having identified these, SARPA could campaign accordingly, writing to the folk listed above and all the relevant county councillors and members of the Aberystwyth council and the local community council.

SARPA's work should be rational and based on evidence; and include as much constructive campaigning as possible.

Adrian Thornton, Machynlleth

Dear Editor,

It is with some despair and frustration that I read the letter from Gareth Marston regarding Carno station in the SARPA Newsletter 75. Clearly he did not understand my letter in the previous Newsletter so I will re-iterate it and try to make it clearer.

We have produced a draft timetable to allow Carno stops on the current, enhanced timetable **without reducing the service at any other station on the line**. This is achieved by adjusting the departure times slightly for trains at the beginning and the end of the day. Not all trains will stop at Carno, but all currently timetabled trains will still stop at Caersws.

If a full hourly service were to be introduced at some future date, then we have developed another draft timetable to include Carno stops. This would involve some of the **additional** trains not stopping at Caersws, but would be no worse than the current enhanced service. Of course by the time a full hourly service is introduced (if at all), we will have a new franchisee, maybe improved rolling stock, and maybe other enhancements which will make a full hourly service possible to all stations.

In addition I would like to point out that we have always supported a station at Bow Street and certainly did not feel "gazumped" by the announcement last year. We were frustrated by the lack of any information from the Welsh Government regarding the Bow Street application for funding, and we continue to be frustrated by the speed of the current WG Stage 2 process for assessing potential new stations. But to suggest our group is venting some frustration by cutting services to Caersws is both disingenuous and plain wrong.

So we are not "suggesting cutting services at a well-used station", we are continuing to work hard to find ways of adding a new station to the line without affecting the current service at any other station. On that basis I would hope that SARPA will continue to offer its support for our campaign and work with us to improve the service for rail travellers along all of the line.

Jeremy Barnes

Carno Station Action Group

SARPA MEETINGS 2018

August	Tuesday 7th	7.15pm	Welshpool (The Royal Oak)
September	Saturday 8th	11.45am	Tywyn (Talyllyn Railway)
October	Saturday 6th	2.15pm	Machynlleth (The White Lion) AGM
November	Tuesday 6th	7.00pm	Newtown (The Sportsman)
December	Saturday 1st	11.45am	Aberystwyth (Royal Naval Club) (TBC)

This is the quarterly newsletter of the Shrewsbury to Aberystwyth Rail Passenger Association. Contributions are welcomed from members and non-members about the mid Wales rail scene.

Views expressed in it are those of contributors and not necessarily representative of the Association and its Officers as a whole. Information provided is published in good faith, but the Association cannot accept responsibility for any loss or damage arising therefrom.

The Editor reserves the right to abridge or amend copy.

USEFUL ADDRESSES

Arriva Trains Wales:

St Mary's House, 47 Penarth Road, Cardiff CF10 5DJ. Tel 0845 6061 660

Email: customer.services@arrivatrainswales.co.uk

Network Rail:

Community Relations, Kings Place, 99, York Way, London. N1 9AG

Newtown Station Travel

The Railway Station, Old Kerry Road, Newtown, Powys SY16 1BP. Fax. 01686 621966

E-mail newtownstation@btclick.com

The Association of Train Operating Companies:

ATOC, 2nd Floor, 200, Aldersgate Street,, London. EC14 4HD

London Midland

London Midland, PO Box 4323, Birmingham B2 4JB. Tel. 0121 6342040

Association of Community Rail Partnerships

The Old Water Tower, Huddersfield Railway Station, St George's Square, Huddersfield HD1 1JF

Virgin Trains

Virgin Trains, Customer Relations, PO Box 713, Birmingham, B5 4HH. Tel. 0870 789 1234

Traveline Cymru for all public transport information

www.traveline-cymru.org.uk Tel.0870-6082608

Rail Franchise Performance Manager Rail and New Roads Division, Transport Wales, Welsh Assembly Government, Cathays Park, Cardiff, CF10 3NQ. Direct Line (029) 2082 6849

Public Transport Users' Committee for Wales Secretariat

Welsh Government, Cathays Park, Cardiff CF10 3NQ. E-mail ptucwales@wales.gsi.gov.uk

For Train Times and Fares Call:

08457 48 49 50 (24hrs)

0845 60 40 500 (Welsh Language Service)

0845 60 50 600 (Textphone)

For ticket reservations please call: 0870 9000 773

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WANT TO JOIN SARPA?

The membership fee is currently (for membership up to 31 December 2018) £8.00 per annum for individuals and for organisations. Please make any cheques payable to SARPA. Donations are of course welcome.

- SARPA will lobby for better rail services.
- Act as a watchdog to safeguard the lines future.
- Meet in public once a month.
- All members will receive our quarterly Newsletter free of charge.
- Members with access to e-mail can be included in our electronic network if they so desire.

The majority of our expenditure goes towards the cost of publishing and distributing our newsletters. We occasionally pay for room hire. Any surplus is held as an emergency fund for the future. None of the officers gains financially in any way from SARPA.

Please send cheques, payable to SARPA, to:

SARPA Membership Secretary: 23 High Street, Welshpool, Powys, SY21 7JP. Make sure to include full name, address and telephone number and also e-mail address if you wish to become part of our electronic network.

WEBSITES

Our website <http://sarpa.info>

Webmaster Angus Eickhoff. Website host is <http://www.redboxinternet.com/>

Other sites of interest:

A useful alternative to the National Rail Enquiries site:

Arriva Trains Wales

National Rail Enquiries

London Northwestern Railway

West Midlands Railway

Virgin Trains

Chiltern Railways

Network Rail

Railfuture/Railway Development Society

Cambrian Rail Partnership

The Association of Community Rail Partnerships (Acorp)

Passenger Focus

North Wales Coast Railway

Circular tour of North Wales by rail

Ffestiniog and Welsh Highland Railways

Vale of Rheidol Railway

Talyllyn Railway

Welshpool and Llanfair Railway

Welsh Highland Heritage Railway

Fairbourne Railway

Borth Station Museum

Rail Photographs by Richard Jones including many of the modern Cambrian scene

traintimes.org.uk/

www.arrivatrainswales.co.uk/

www.nationalrail.co.uk/

www.journeycheck.com/londonnorthwesternrailway/

www.westmidlandsrailway.co.uk

www.virgintrains.co.uk

www.chilternrailways.co.uk/

www.networkrail.co.uk/

www.railfuture.org.uk/

www.walesonrails.com

www.acorp.uk.com

www.passengerfocus.org.uk/

www.nwrail.org.uk/

www.penmorfa.com/Cambrian/

www.festrail.co.uk/

www.rheidolrailway.co.uk

www.tallyllyn.co.uk/

www.wllr.org.uk/

www.whr.co.uk/

www.fairbournerailway.com/

www.borthstationmuseum.co.uk

www.mylordz.com

Copy deadline for the next newsletter is 22nd September 2018