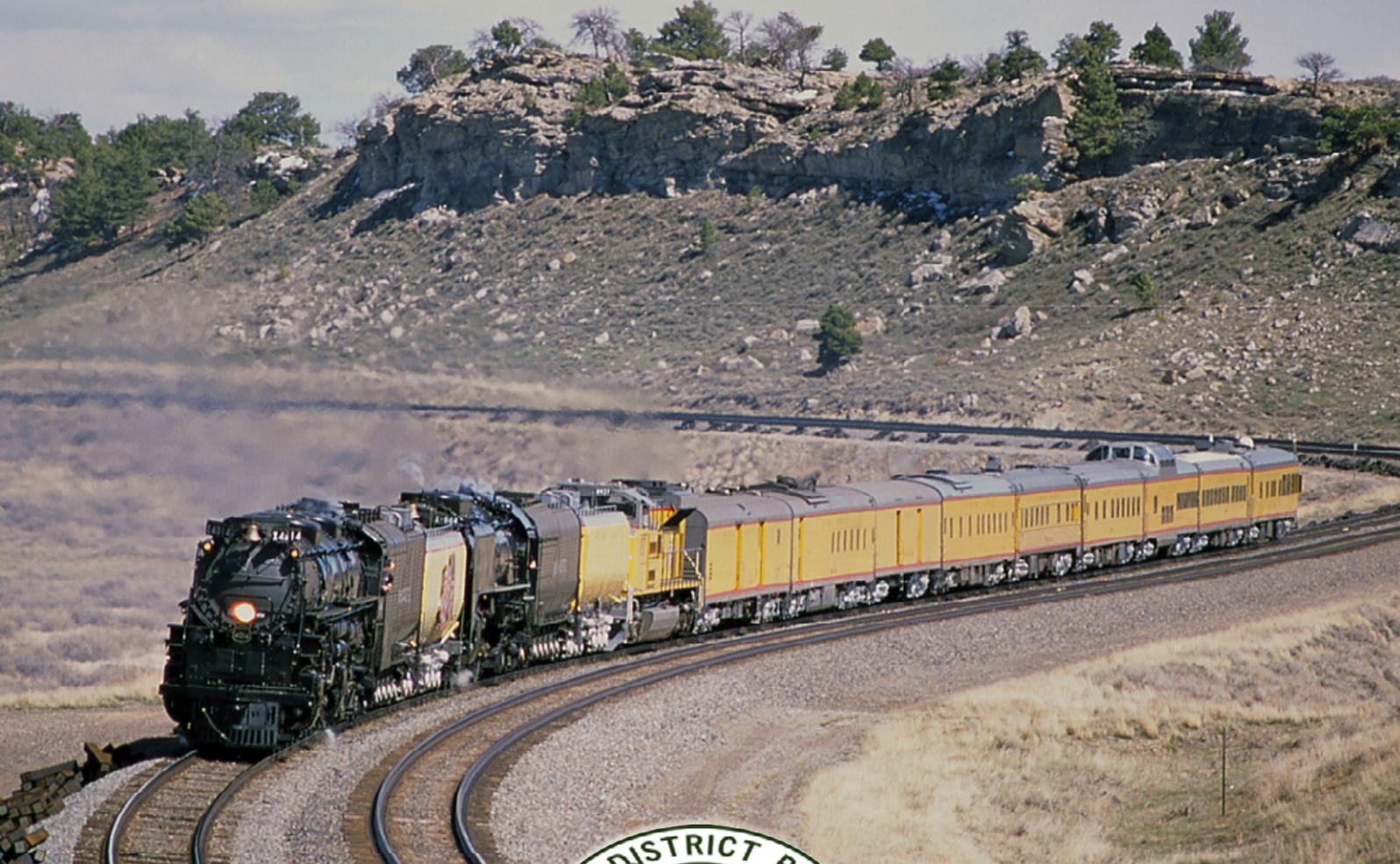


THE MARLOW DONKEY



Edition

165

September 2019



Contents:

All Four in Six Days in May 2019

Panel Boxes - Western Style

Preserving Swindon Panel

The Great Union Pacific 4014 Adventure

The Marlow Donkey

The Magazine of the Marlow & District Railway Society

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The contents of the *Marlow Donkey* represent the views of the authors and do not necessarily reflect the position of the Society

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Front Cover Photographs

Top: The world's largest operating steam locomotive Union Pacific RR "Big Boy" 4-8-8-4 4014 halted for servicing and public display westbound on its maiden trip at Wamsutter, Wyoming (WY) - 5 May 2019.

Photo: Col. Don Woodworth. Article Page 14.

Bottom: UP Big Boy 4014 and its short 9-car train descend an S-curve headed west about three miles east of the small hamlet of Rock River. - 4 May 2019.

Photo: Col. Don Woodworth. Article Page 14.

TIMETABLE

FORTHCOMING MEETINGS

All meetings are held in the Bourne End Community Centre, Wakeman Rd, Bourne End at 7.15 for 7.30pm

- Thursday 19 September **A 70's MISCELLANY - Part 4** Tim Speechley
Standing in for Carole Cuneo, Tim's presentation covers the last part of his "70's Miscellany" and features photos taken in 1979. Railway subjects from England, Wales, Scotland and Ireland, including mainline diesels and steam specials, industrial steam and preserved railways plus lorries, buses and the odd ship.
- Thursday 17 October **IBERIAN STEAM** Brian Stephenson
Brian's presentation on Iberian Steam will cover the locomotives, both broad and narrow gauge, in Spain and Portugal in the years 1960 to 1975. Photographs of RENFE and CP locomotives plus some private narrow gauge lines at rest and in action.
- Thursday 21 November **BROAD GAUGE JOURNEY Part 1 - Paddington to Bristol** Rev. Brian Arman
Brian's presentation on Iberian Steam will cover the locomotives, both broad and narrow gauge, in Spain and Portugal in the years 1960 to 1975. Photographs of RENFE and CP locomotives plus some private narrow gauge lines at rest and in action.
- Thursday 19 December **CHRISTMAS SOCIAL**

FORTHCOMING VISITS

- Saturday 7 September **STATFOLD BARN RAILWAY** by car
We are planning another visit to the Statfold Barn Railway for their Road, Rail and Ale Steam Gala. There has been much development at the site since our last visit so it's worth repeating. See page 3 for details.
- Saturday 9 November **SWINDON PANEL VISIT** by car
We are planning a private visit to Swindon Panel now housed at the Didcot Railway Centre. This will be your chance to see how trains are signalled and have a go yourself. Details on page 3.

CHAIRMAN'S NOTES

By the time you read this article a small bunch of members will have completed the almost annual visit to Statfold Barn. Whilst I did not go this year as preparing for a break in Spain I have been many times as have several members and I have always enjoyed it. I am sure this year's party will have, subject to the weather. Enough of the latter subject.

Times clearly have changed as far as days out by the society. We have in the distant past taken a coach load of members, families and friends to many railways but the numbers slowly reduced in recent years until it was not economical to hire a coach. Perhaps the venue was not popular or members had other plans. That has left your committee and Brian Hopkinson in particular with a problem. Should we abandon the idea of group away days and leave it to members to announce what visit they are making and inviting others to join them? In any event when we arrived at our destination it was normal for members to split up and do their own thing. So after a few years of disappointment we have reluctantly concluded that we should arrange no more group visits unless some unusual opportunity arises, for example, to go behind the scenes, and we simply share cars and costs. If you think differently we would be pleased to hear from you with constructive ideas.

We were naturally extremely disappointed to learn that Carole Cuneo is/was unable to attend in September with her talk on 'The Life and Work of Terrance Cuneo with particular reference to his interest in railways'. We all know his fantastic work, maybe have some of his prints and perhaps used his Christmas or Greetings Cards. We hope she may come to us later, meantime, someone you may have heard of, one Timothy Speechley, has kindly plugged the gap. A good talk and showing of interesting photographs is assured. We have other talks lined up this and

next year but please note our Christmas Social on 19th December. More details later.

With Tim remounting the front stage reminds me to remind you that by the time of the 2020 AGM in February, if not before, you will need to conjure up a new society Chairman to run things, only 'acting' as I am. Vacancies exist for interested members to join and contribute to the workings of YOUR society.

I have little to add this edition as I do not often venue out these days to all parts of the compass to seek photographic opportunities. However I take the easy way out and look forward to the DONKEY or more often Mike Walker's excellent Newsletters with contributions from several members. Recently the nearest I got to a rail trip was taking a party of U3A Members to Chinnor Railway for Cream Teas. That's what I call a good afternoon.

A little earlier I did have a break in Scotland so rode from KX to Stirling. The Overhead lines were brought down that morning so there was absolute chaos at KX. You will know that going north of Edinburgh means using an HST so we were fine except they tried to put 3 train loads in to our service and they rerouted us around Peterboro. We finally got our seats and the situation eased after York. We were planning to go to the Isle of Bute by 'The Waverley' but she is out of commission in Glasgow. So it was the ferry. We saw her on our return journey when we visited the Riverside Museum (of transport) which is well worth attending. The return journey to London from Glasgow was by Pendolino but as the ovens failed it was just sandwiches in First Class! Let them eat cake, say I, but keep the wine flowing. Wherever you go enjoy it and send in your railway pictures and stories please.

Mike Hyde

SOCIETY AND LOCAL NEWS

PREVIOUS MEETINGS

As usual we have enjoyed a shortened Summer programme of meetings.

Les Nixon returned for our annual joint meeting with the RCTS in June with further images from his 50+ years of railway photography at home and abroad.

Colin Meil gave us a surprisingly interesting look at North Korea in July, both its railways and the country in general.

SEPTEMBER MEETING CHANGE

Sadly Carole Cuneo has advised us that she is forced to withdraw from our September meeting due to serious medical problems.

In her place, Tim Speechley will give an illustrated presentation "A 70's Miscellany - Part 4".

SWINDON PANEL VISIT

We are offering the chance to visit the preserved Swindon Panel at the Didcot Railway Centre on Saturday 9th November commencing at 13:00. Participants will be able to see how the panel works and take control for themselves, signalling a variety of trains through the panel area. There will also be a guided tour of the Signalling Centre which charts the evolution of railway signalling - with a Western emphasis.

If you only wish to visit the Panel there will be no admission charge to the DRC and we suggest that you make a £10 donation to the Swindon Panel Society. However, if you wish to explore the whole site - it is a static exhibition day, you will need to buy a GWS admission ticket - £5.50 or £5.00 for seniors.

Make your own way to Didcot by train or car. If the latter, use the pay & display car park opposite the station, it's cheaper!

STATFOLD BARN VISIT

Don't our visit to the remarkable Statfold Barn Railway collection near Tamworth on Saturday 7th September when it is staging its Road, Rail and Ale Steam Gala.

The ticketing arrangements at Statfold have changed as the event is now a public rather than private one meaning we no longer have to apply in advance. Tickets can now be purchased on the gate for £12.50 or can be pre-booked on line for £10.00. Concessions for children and families are available. For full details go to: <https://statfoldbarnrailway.co.uk/events/road-rail-ale/>.

We have made our arrangements to travel but if you are a latecomer contact Brian Hopkinson and we can probably fit you in.

Since our last visit in 2017 the railway has continued to evolve and expand so it's well worth attending again this year. If you've never been you've missed a treat. Statfold is the home to an amazing collection of narrow gauge locomotives and equipment from around the world. As the event title suggests, there will also be an opportunity to sample a wide range of craft beers.

RCTS MAIDENHEAD MEETINGS

Our friends in the Windsor & Maidenhead Branch of the RCTS restart their meetings in September with the following programme:

- Mon. 23 Sept East Anglian Cameraman from the 1980s
John Day
- Mon. 28 Oct Preserving the HST
Gary Heelas, 125 Group
- Mon. 25 Nov Rail Freight Group
Maggie Simpson - DG RFG
- Mon 16 Dec Branch AGM
followed by members' presentations.

Meetings are held at the Cox Green Community Centre, Highfield Lane, Cox Green, Maidenhead SL6 3AX, commencing at 19.30. MDRS members are always welcome.

FORTHCOMING SPECIALS

At the time of writing the following main line specials are booked in our area. Updates will be shown in the weekly newsletters.

- Sun 22 Sept. Paddington - Reading - Littlehampton
Steam Dreams loco TBA
- Sun 29 Sept. Victoria - Chilterns/Surrey Hills - Victoria
Steam Dreams loco TBA
- Sat 5 Oct Bluebell Rly - Reading - Worcester
Steam Dreams loco 6233
- Sat 23 Nov Slough - Reading - Shrewsbury
Railway Touring Co. loco 60009
- Sun 1 Dec Paddington - Reading - Bath Spa
Steam Dreams loco TBA
- Tue 3 Dec Ashford (Kent) - Windsor
Steam Dreams loco TBA
- Tue 10 Dec Paddington - Reading - Cardiff
Railway Touring Co. loco 6233
- Thur 12 Dec Chinnor - Eastleigh
Steam Dreams loco TBA
- Sun 15 Dec Victoria - Reading - Stratford-upon-Avon
Steam Dreams loco TBA

ISSUE 165



As this is issue 165 it couldn't be allowed to pass without a photo of a Turbo so here's brand new 165001 on test at Maidenhead on 11th July 1991.

Photo: Mike Walker

CHINNOR JOINS THE BIG TIME

The Chinnor & Princes Risborough Railway broke new ground on 27th June when it ran its first through public train onto the national network in the form of a Steam Dreams excursion to Weymouth hauled by David Buck's B1 61306 *Mayflower*.

The locomotive and stock arrived at Chinnor the previous afternoon with *Mayflower* becoming the largest steam locomotive to work over the branch. Next morning it was being prepared for its journey which started at 06:30 and was diesel-hauled as far as Princes Risborough where the train reversed.

After a successful day out, the return working is seen approaching Culham in beautiful evening sunshine with West Coast 47245 on the rear.

photo: Phil Searle



two photos: Mike Walker



All Four in Six Days in May 2019

JOHN SEARS returned to the mainland from his adopted Northern Ireland in May and recounts the experience.

Thursday 16th.

Northern Ireland Railways' 4020, a CAF three-car on the 08:32 from Moira was three late leaving, full and standing, but right time at Great Victoria Street.

The 09:00 no. 600 from the Europa Bus Centre was not at the stand until 09:00, doors open at 09:02, and we left with 13 passengers a bit over five late. A typically long wait to get out of Glengall Street, the service's route to Great Victoria Street, it's about a hundred yards, but the section used also serves as a side entrance for the props to the Grand Opera House, and there are usually several tour buses parked. Three passengers off and two on at stops in the city centre, and finally 15 late at City Airport – the scheduled time of 13 minutes is completely impossible. The route is now only half-hourly, resourced with two vehicles. On Sundays it's down to one vehicle, operating a service every 45 minutes. Presumably a function of the closeness of the airport to the city centre? Would providing its own stop, with a "fancy" shelter/waiting room, at a good spot in the city centre, rather than continuing to the bus station make it more attractive, as well as more efficient to operate?

Flybe didn't cancel their 10:35 to Birmingham; we were on board by 10:16, but didn't take off until 10:47. Arrival was at 11:32, somewhat hard, and off-plane was 11:38, two early by the time advertised originally, seven by the revised arrival time quoted on check-in. 80% load?

The walk through the terminal at Birmingham to the platform for the shuttle to the station isn't far, but the signage could be more obvious. I've now done it enough times to be aware it's "upstairs", but first-timers could well be lost. Plenty of Virgin staff at the – er, well, what is it? booking point? – counter-less booking office, not many doing much except compare notes with each other.

Virgin West Coast's single Voyager on the 12:00 to Euston was one late leaving but on time into Coventry. Lots of building work going on at Coventry – a new bay platform and station building are going in. A 153 arrived from Leamington, and 22 passengers got off. It retired to a siding and returned to pick up 12 passengers as the 12:36 to Leamington. For some reason we were held north of Kenilworth and were five late leaving; about seven passengers off, and five on? Leamington half a minute late. Examples of very close timings at Leamington, with a southbound XC train booked into platform 3 three minutes before a train leaves number 4 in the opposite direction, and a Bournemouth to Manchester train due to leave and cross the path of an up train from Stratford two minutes after it is due to arrive.

CrossCountry had a four-car Voyager on their 13:38 (11:27 Manchester to Bournemouth), but there were empty seats. It ran to time all the way to Reading. I left there on the 15:10 to Newbury, formed by a single Class 387. Reading West has had its direct access from the Oxford Road to the down platform re-instated, but as steps, not a ramp. A couple of OLE masts appear to have blocked the route of the original ramp, which joined the platform where it widened as the landing at the foot of the footbridge, which has been removed for the electrification. The narrow pre-cast concrete platforms make installing a replacement difficult. The station is on a public route (not sure if it's a right of way, probably is by default) between the Oxford and the Tilehurst Roads.

I left the 387 at Theale to see how the new ticket office and footbridge were getting on. The new ticket office is complete, but of the footbridge there is not a sign. Network Rail have told me that the AfA funding has fallen through. As the new ticket office is a long way from the entrance to the station and would only make sense when the footbridge is built, presumably it sits as a monument to the tax-payers' beneficence. There is a portacabin at the foot of the stairs on the up side at the west end of the station, convenient for passengers arriving on foot from the town. The stairs climb to the footway of the road which crosses the railway; the footway is "bolted onto" the bridge, from which stairs descend to the up and the down platforms. Theale station, like many others on the GW network out of Paddington, is tired and needs a lot of tidying up and repainting.

Back to the down platform for the 15:53, the 15:06 Paddington to Bedwyn, on which I travelled to Newbury. It left five late and arrived Newbury eight late, where it picked up about 30 passengers, mainly school children. Newbury has a new footbridge, amazingly it's got a roof and full glazing, and provides clear views of all the plants that are growing in the ballast. I've no idea what species they are, but they are colonising the railway everywhere, from Newbury to Bristol to Doncaster. At Newbury some are so tall they almost reach the platform level.

Return from Newbury was on the 16:48, a 387, which runs to Paddington. It leaves five minutes before a Taunton to Paddington does, odd timetabling. About 27 joined at Thatcham, and over 50 at Theale. We were four late at Reading, delayed by something off the Basingstoke line. I caught the 17:33 from Reading to Maidenhead, formed of two 387s. It calls Twyford and Maidenhead only; a platform-length of passengers was waiting to join when we arrived there a few seconds late. There must be a sizeable commuter flow into Maidenhead from London. The 17:47 to Bourne End left about 30 seconds early, anyone off the train from Reading looking for it could well have missed it. "Doors are closed 40 seconds before departure" say the signs. Not passenger-friendly, and a practice that should surely be stopped at small junction stations.

The 18:46 to Bourne End left a minute late and left ten passengers at Furze Platt, but about 40 at Cookham. The 22:23 back from the biggest junction in South Buckinghamshire collected penny numbers of passengers, probably three aboard when it came in from Marlow, the same number joined, two more on at Cookham and one off at Furze Platt.

Friday 17th.

Two 387s took me to Reading, 11¼ miles, in 13½ minutes, including 1½ stopped at Twyford. Two five-car Class 800s formed the 08:57 to Bristol, and despite slow running from Cholsey to Didcot, were three minutes early into Swindon. Early arrivals followed at Chippenham and Bath, but, mysteriously, we were held outside Temple Meads and were two late arriving. It was my first trip seated in an IET – the first was standing in an overloaded five-car set from Swindon to Didcot fifteen months earlier – and the comfort of the seats was not an issue. Indeed their backs' lower height meant I could again see the length of the car of a GW inter-city train. The old sorting office at Bristol is a pile of rubble, and soon presumably the new "Temple Quarter Enterprise" campus for the University of Bristol will add to the cluster of new buildings around the station.

A three-car 158 on the 10:54 from Temple Meads to Cardiff (a Portsmouth train) was about 75% full. Not really much reason for it to call at Filton Abbey Wood – about 7 on, and 4 off. Tickets were checked before Newport, the first on board check

in nine GW journeys. Revenue protection on the Marlow branch must be non-existent once Maidenhead gates are left open. Has GW really analysed lost revenue against the wear and tear of conductors' shoes? A quick turn-round at Cardiff Central, where the discriminatory practice of having the Welsh departure announcements first continues. Let's hope Scotland doesn't follow..... The 11:56 was a nine-car IET, and lightly loaded. The reservation lights in car C weren't working. A trolley appeared before Swindon, reached about three minutes early. Just before Swindon we passed the 12:46 to Frome. 43 minutes later the next Trans-Wilts train left. Perhaps nine passengers joined at Chippenham, and one at Melksham, eight got off. There are eight trains a day on that route, the first is a Gloucester to Southampton train, the last one from Cheltenham to Southampton, a journey once possible on the Midland & South Western Junction Railway through the heart of the Cotswolds via Fosse Cross to Cirencester, and then on through Swindon, Marlborough and Andover. The "TransWilts" timetable has been bolted onto the existing network in a clumsy way, probably driven by the availability of resources. It's high time it and the Bristol to Weymouth service are re-designed to match passengers' needs better.

The set forming the train from Swindon left Westbury again 34 minutes later for Bristol Parkway. It was six minutes late – the conductor appeared to be returning a broom to a room on another platform. We don't need to pay attention to the timetable, do we? One of SWR's fairly new-fangled services to Yeovil via Castle Cary arrived from Waterloo and about 11 passengers got off. The 15:01, a Cardiff to Portsmouth 158, was a minute late leaving and was full. I stood to Salisbury, reached about half a minute early. SWR's 15:21 to Waterloo (13:25 from Exeter St. David's) left about 16 late after fitter's attention, but the 15:47 left right time. Patronage at the small stations thence to Basingstoke – Grateley, Whitchurch (Hants.) and Overton, was low. An up train on the main line delayed us from Worting Junction into Basingstoke, reached six minutes late. Tickets were checked after Whitchurch. A massive new estate – the council web site says 2,500 houses - is being built east of Andover; population growth alone should increase rail use. SWR's 16:54 up stopper from Basingstoke was 1½ minutes late after waiting for two "nude" (overall white, sans livery) five-car IETs to pass, presumably en-route to Eastleigh for some sort of "attention". More puzzling operating – why delay a train heading into Waterloo in the evening peak?

Saturday 18th.

A quiet start at Winchfield, one of the many rather remote stations in the territory of the old Southern Region. 10 passengers boarded the 10:35 to Waterloo, and I was the only person to join the 10:44 to Basingstoke. GWR's 11:05 to Reading was a lot busier, with additional passengers travelling for the racing at Newbury. The three intermediate stations to Reading generated a total of 32 passengers, with a ticket check between Bramley and Mortimer. My connection on to Paddington was planned to be the 11:46, but it appeared as only five cars, and full and standing. Little point GWR promoting "more capacity in our new trains" if only five cars turn up. I delayed departure until the late-running 11:55 (the 09:45 Great Malvern)) which left 14½ late after points trouble at Wolvercote north of Oxford, and, partly by dint of having its booked stop at Slough withdrawn, was 6¾ late at Paddington. It ran the 18½ miles from Maidenhead to Ealing Broadway in nine minutes – averaging 123 mph.

Then it was time to say good-bye to the inter-city HST on GWR services. The 13:00 to Bristol TM and the 15:30 back were both early. A raffle on the train for various trivial memorabilia made several hundred pounds for Macmillan – hopefully not the Paddington office block of that name. The train arrived in platform 1 at Paddington, the first of the four HSTs in use that day to arrive and form part of a line-up in platforms 1 to 4, before all four left again, for the final time. The last trains were the:

- 18.03 to Plymouth
- 18.15 to Cheltenham Spa
- 18.22 to Hereford
- 18.30 to Exeter via Bristol.

Large numbers of railfans were crowding the platform ends for the final chance to admire what is probably Britain's best-ever inter-city train in the stylish surroundings of Paddington.

The trip back to Bourne End was broken at Slough to view the four trains as three rushed through, and the 18:22 called for the last time. Forty-three years ago I'd seen the first HSTs – "Inter-city 125s" to the public – pass through Slough. Fantastic machines, "gone with regret" (GWR). Then on to Bourne End via the 18:57 from Slough, which reached Maidenhead in "even time", that is the same number of minutes as miles, sixty miles an hour average, and the 19:38 from Maidenhead, which gathered additional patronage from the "Rock the Moor" music festival on the eponymous area in Cookham.

Next to the Queen's Head in Little Marlow, scene of a drink for Morse in his last case, and supper.



Peter Robins and Mike Walker survey the final four HSTs lined up at Paddington.

Sunday 19th.

A visit to the Great Western Society's museum at Didcot, where the Swindon Panel Society has installed the panel, bought from Network Rail for £1, from the signal box at Swindon, which opened in 1968 and closed in 2016. Its work was taken over by the Thames Valley Signalling Centre, which is in a very large shed on the far side of Didcot's large car park. A computer runs an actual timetable, and trains present themselves as they did when the panel was in use, from the Didcot direction, Kemble, Badminton and Dauntsey. It is available for all who wish to operate, and was enthusiastically enjoyed by Jack, a four-year old. Setting a route is a matter of turning a small knob at its start, and pressing a button at its end. Stabled in the shed roads were several of the original Great Western's best, including the little tank engines used on the Marlow Donkey for the first two terms of my time in secondary school, and a "tanner-oner", a larger type of tank engine, numbered in the series 61XX, hence their nick-name, and used until the early 60s on the suburban services out of Paddington.

I deserted back to the real world and caught the 13:34 to Worcester Shrub Hill, a nine-car Class 802, one of the fleet bought by a leasing company for GWR. Their more powerful engines and larger fuel tanks are designed specifically for the longer and hillier routes to the West of England. Nine cars to Worcester on a Sunday were an extravagance. Will GWR fine-tune resources to demand better now that the IET fleets are in full use? Not one ticket check, despite the ungated stations. All the stations except the "parliamentary" halts have platform extensions, some yet incomplete, but the on-train PA clearly explains which cars will not be at the platform.



1450, currently on hire to the GWS, sits alongside the Didcot coal stage. It was, of course, a Marlow Donkey regular in the 1950s.



Another former regular performer in the Thames Valley, 6106 outside Didcot shed.

My return from Shrub Hill, the 15:26, a Hereford train, was displayed as 14 late, then 19, then 24, then 32. No reason, allowing one to ponder if the train was running with engines out, or if it was struggling in a way which would end with it sitting down in Adlestrop. We left 33½ late in another nine-car IET, this time one of the DfT's. After departure the train manger came through to check tickets and I asked her why the train was late. On its outward run someone had smoked in a toilet, triggering an alarm which, for some reason, affected the pressure in a system and delaying the train, as re-setting it takes 30 minutes. Whatever the fault, it had obviously been sorted, as we steadily regained time. Arrival at Oxford was 21¼ late, and by Reading it was down to 13 minutes.

Monday 20th.

Back to SWR's Class 450s, two of them on the 08:12 from Reading to Waterloo, a bit over 43 miles scheduled to take 84 minutes with 16 stops, including Longcross, where one passenger joined. The train's overtime at many stops, announced by the guard as caused by "passenger numbers", and what appeared to be a less than enthusiastic driving style, made the train over seven minutes late at Clapham Junction, but only four on arrival in platform 24 at Waterloo, one of the reinvented Eurostar platforms. The booked average speed of 31 mph from Reading is appalling; passengers from Wokingham and Bracknell deserve much better. The half-hourly service is also below par in frequency, due to be addressed by the new franchisee, but delayed "furno" as the railway code book had it (until further notice). The exit to Waterloo East is far from obvious, but I got to platform A in time to catch the two-minute late 09:45 to London Bridge. The reason for the trek from Reading via the heathlands of Berkshire was to avoid having to buy a full-fare Underground ticket. Infrequent use means I have yet to buy a privilege Oyster card. The annoyance of no on-demand priv Underground fares is even greater than the need to ask for staff to open ATGs.

A few minutes admiring the new London Bridge and I was on platform 5, for the 10:01 to Peterborough, the 08:55 from Horsham. We left two minutes late in a twelve-car Class 700, and were back to precisely right time by Stevenage, after running two or fewer minutes late. From Stevenage we were at most two minutes late, and four early into Peterborough. My counting made 36 the total number of boarding passengers at the five station between Hitchin and Peterborough - I was in the first car. I was the sole passenger in it on arrival at Peterborough. What are the economics of operating fixed-formation twelve car trains - is it really cheaper to provide such capacity all day, rather than assemble longer trains for the peaks, using the off-peak hours to maintain and clean some of the fleet?



Peterborough: LNER 800113 arrives on the 11:03 King's Cross to Leeds on 20th May, four days after the Azumas started public services on the East Coast.

Over to number four, using the unlovely northern footbridge, for the 11:53 to Doncaster. The CIS shows it as an Azuma, with the front of the train being where the first class is. So a walk to the south end of the platform to await the train, which was 800113, the last numerically of LNER's nine-car bi-modes. It wasn't in reverse formation, so walk back north. Luckily there were plenty of seats, pretty rare on the East Coast in my experience, and the seat reservation indicator lights were working in car J, the first standard class car, which made it so easy to find a seat. They also help brighten the decor, which, with its red seat covers, is already much more appealing than GW's dull green trim and seats. No ticket check as we rushed north, though there was a litter-pick. A Northern 150 heading off to Sheffield delayed our Doncaster arrival by a single minute.

Just under half an hour to wait for the 13:08 train, one of the hourly Sheffield to Hull stoppers. In that time the 12:47 to Adwick departed, a 142 with seven passengers. It's one of the hourly Sheffield to Adwick trains, whose role north of Doncaster is presumably to provide Bentley and Adwick with two trains an hour. "Provide the trains and the passengers will use them." Er, not unless they have a valid reason. Quite why Northern run the Doncaster to Adwick leg, with its capacity-consuming reversal on a busy stretch of main line, I'm at a loss to explain. It's surely not some political whim, politicians are all so careful of our money. Some of that money is paying for Northern's new "jam tomorrow" fleet, of which a four-car 331 was gleaming in the sidings, displaying its full UIC numbers, which are longer than the wait for the next train at Clifton.



Doncaster. 331105 on display, sitting in the vegetation.

My train was another 142, with two-plus-two seating and about ten passengers in the front car. A rough count suggested that four passengers joined and somewhat over 12 got off at the four stations we called at before Gilberdyke, where I was the only person to leave or board the train. Gilberdyke is a large village, and the station is conveniently located, with trains to Hull, York, Doncaster and Sheffield at, generally, hourly or better intervals. Despite that provision, use in the early afternoon was minimal. A new TVM has been installed on the Hull-bound platform near the only entrance to the station. It faces south and acts as a mirror. Northern have said that a canopy is on order, but until then, maybe even after then, it appears that using the machine will be far from easy.

At 14:20 the 13:53 Hull to Sheffield train left, having left one passenger and gained two. The 14:29 to York was a Class 155, a type I first encountered back in the 1980s on the line through Trowbridge, where two-car trains replaced four or five coach loco-hauled trains, and capacity became an issue that continues to this day. Having gained one, non-fare paying passenger, and leaving none, the 14:29 moved on to Howden, for one person to get off, and two to get on. Howden acts as a mini railhead for Hull Trains, and its car park was full. Selby next, change for Leeds. Probably ten passengers joined, and five got off; the



Northern 144013 arrives at Gilberdyke on the 13:53 Hull to Sheffield on 20th May.

connection to Leeds waited for custom in the bay platform. Next stop was York, via the East and North Junctions at Hambleton, rather than Church Fenton. The conductor checked for tickets after each stop, and agreed with my brilliant conclusion that the train was lightly loaded. Typical for the off-peak, he said, whereas the peaks were crowded. He'd been on the railway for four years, and had recently moved from Leeds. We arrived slightly early, having had a "race" with another train on the approaches to York. The restricted capability of various parts of York's layout meant that one or the other would be held, we weren't. The 155 returned to Hull at 15.47, with a far bigger load, at least 50% full.

800110, another LNER nine-car bi-mode arrived in platform 8, raised a pantograph, and sat. It was still there when TPE's 16:02 (14:17 Manchester Airport to Newcastle) departed a bit over three minutes late. Its rear car was sans working air-conditioning and PIS, presumably a fuse or two had blown. Tickets were checked and a trolley lumbered through the almost full train. It reached Newcastle a minute late at 17:05. While I waited for my musician nephew (The Tea Pad Orchestra – "western swing, country blues, ragtime hokum or whatever else") I observed the trains. A couple of ex-ScotRail 156s were in use on the Tyne Valley route; earlier in the day another ex-ScotRail 170 was on a Sheffield to Bridlington train. CrossCountry's 17.32 to Southampton waited departure in bay platform 12. Its Derby-based driver, Steve, invited me into its cab, which was imposing and rather intimidating. Unfortunately departure time arrived, preventing more chat, but I asked about the routes they cover. Apart from Newcastle, they work south to Bristol, with the diversion via Newport. Unlike certain TOCs, XC has retained the sensible practice of running some trains over diversionary routes to maintain crews' knowledge. Such is extremely passenger-friendly, of course, allowing instant diversion round an incident, for example via Worcester.

Tuesday 21st.

The ATGs were all locked open again, as they had been the previous evening. LNER's 06:15 from King's Cross roared into Newcastle behind 91118 *The Fusiliers* and left a minute late at 09:48. It had plenty of seats on the scenic, east side, for the maximum benefit of passengers wanting to refresh their souls by looking at the glorious views as they head north. The train is non-stop to Edinburgh, time enough for the full range of ticket check, trolley and litter-pick. We arrived a bit over four minutes early. More platform end train watching, this time at the west end of Waverley, with plenty of empty seats in plenty of Class 385 trains. A couple of ScotRail's "Inter7City" mini-HSTs were in use, including one on the 11.32 to Aberdeen; its coaches were unrebuilt. More were seen at Haymarket depot, and another at Eastfield, Glasgow. Rather puzzling that so many were simply stabled.

I caught the 12:30 to Glasgow Queen Street, which arrived with about 60 passengers aboard its seven cars. The driver seemed to

be still getting used to the new traction, as we didn't manage to meet the timings after Haymarket, and arrived a couple of minutes late. One of the Inter7City sets should have formed the 14:25 from Queen Street to Aberdeen, perhaps that seen at Eastfield, but a Class 170 sat in number 7 of the building site that Queen Street is again. When I first knew it, in the late 60s/early 70s, it had been completely rebuilt from steam days, and was a very pleasant medium-sized terminus. The 170 growled up the incline, much as steep as 1 in 41, climbing 150 feet up to Cowlairs. It wasn't a busy train, luckily, as there were no reservation labels, because, the conductor announced, of a fault on the booked train. It was right time at Stirling, where I left it to await the following train, which was heading for Alloa. That line's another of the network that has recently been electrified. Another new, four-car, 385 was working the train, which took about 30 passengers to Alloa. I returned on it to Queen Street. It called at all five stations en route, and collected something over 50 passengers. The conductor came through a couple of times for tickets. Three late at Queen Street and then the walk to Central's expansive, wood-panelled, concourse. Another 385, a three-car this time, formed the 16.03 semi-fast to Edinburgh via Shotts.

This was the Caledonian Railway's route between Glasgow and Edinburgh, in competition with the North British from Queen Street. It's now just one of the five routes ScotRail can offer between the biggest two of Scotland's cities. We left two minutes late, and despite running rather slowly, were back on time by Bellshill, the first stop, where nine or so waited to join. The 11 miles had taken a bit under 15 minutes. The next 9/4 miles to Shotts took only 10 1/2 minutes; there seven people got off, and one got on. We passed Breich, with its new platforms and new access to the eastbound platform, and stopped twice more, at West Calder and Livingstone South, for another ten pax, and ran to time until coming to a stand at Haymarket East Junction. Haymarket itself was reached at 17.15, two late. The station was busy with the rush hour, and a Class 68 arrived with six or so cars on a Fife train. The new concourse's roof drummed with rain, just in time to discover that the tram stop's TVMs were thoughtlessly without a shelter. The issuing instructions are clear, but the machine was card-only, with a very unclear request to "follow instructions on the screen". Nothing on the screen – ah, must mean the small display just visible above the card key-pad, which is low down.

The street was a mass of vehicles and the CIS was promising two westbound trams a minute apart, a sure confirmation that Princes Street was also clogged. Trams kept heading east. Finally after 10 to 12 minutes an airport-bound tram arrived, very full, and, of course, the waiting passengers squeezed aboard. Sure enough the next tram arrived immediately, with empty seats. We caught up with the preceding tram several stops out

from the airport, and had to wait for it to clear stops before we could call. A revenue protection man appeared and confirmed that the service was regularly disrupted in the peaks by the volume of traffic on Princes Street. He specifically blamed the number of buses in the peaks. The rain continued, reminding passengers that the canopy over the tram stop isn't continuous with that over the walking route to the airport, which canopy has a gap just before the airport. Oh for joined-up planning.

Flybe departed on time, and arrived about 15 minutes early, enough for me to discover that there is an hour's gap in my local late evening service, so I wouldn't be home 30 minutes early. The eventual connection did get into Moira a minute early, as a sort of consolation.

Summary

Ticket checks still rare – very rare on GWR.

Too many stations are scruffy, with a sort of palimpsest of previous franchise colours, semi-abandoned kit and weed-grown track.

The tracks are typically liberally strewn with long lengths of rail, partly dismantled safety barriers, bushes, weeds.

Lots of empty seats on the Northern and ScotRail trains I saw or travelled on: advertising and work to rebuild trust are perhaps two of the solutions.

No cancellations, no failures, little delay over a few minutes.

TOC	no. of trains	early		time no.	late	
		no.	mins.		no.	mins.
GTR	1	1	4			
GWR *	21	9	19.32	3	8	37.25
LNER	2	1	4.25	0	1	1
Northern	2	1	0.33	1	0	
NIR	3	1	1	1	1	1
ScR	5	0	0	1	4	9.5
SE	1	0	0	0	1	2
SWR	4	1	5	0	3	11.83
TPE	1	0	0	0	1	1
WC	1	0	0	1	0	
WMT	1	0	0	0	1	0.5
XC	1	0	0	1	0	
1 arrival n/r	43					
		trains	mins.	trains	trains	mins.
total		14	34.9	8	20	64.08
% of overall total		33.33%		19.05%	47.62%	
av. mins.		2.49			3.20	
		mins				
net total delay		36.18				
av. delay		0.86				

385120 on the 14.02 Dunblane to Edinburgh arrives at Stirling, on 21st May.



PANEL BOXES: WESTERN STYLE

Mike Walker

Among other things, the BR Modernisation Plan of 1955 proposed the introduction of colour-light multiple aspect signalling to most main lines. This would be controlled from centralised Power Signalling Centres incorporating what are known as NX (eNtrance-eXit) route-setting panels.

Whilst the other regions procured these schemes from outside contractors such as Westinghouse or General Railway Signals, the Western, as in so many other ways, ploughed its own furrow and called upon its long-established signal works at Reading to provide the required equipment.

The Reading works were established by the GWR and like the loco works at Swindon were capable of manufacturing almost any item of signalling.



In the case of the WR the modernisation involved the resignalling of the main lines from Paddington to Bristol, Oxford, Gloucester and South Wales controlled from eleven 'Panel Boxes' commissioned in as many years. A remarkable achievement when one considers the amount of work involved. Compared to the recent resignalling projects, those of the 1960's also saw extensive remodelling and rationalisation of trackwork.

Whilst these eleven Panel Boxes differed in architectural style, they incorporated a standardised design of both panel and the interlocking developed at Reading. In contrast, the other regions let contracts for the supply of these schemes to outside contractors who delivered their own designs with the result that neighbouring Panel Boxes could be wildly different.

Although Reading could have manufactured the panels from scratch, it was decided to use commercially available components from a company called Henry Williams of Darlington who were the UK licensee for the Swiss Integra system of modular control panels which were widely used in situations such as power plants and distribution systems, steel works or oil refineries. They were also routinely used for railway signalling in Europe and beyond but the WR were the only users in the UK. A feature of the Integra system is that the actual control panels are made up of 40mm square steel tiles called Dominos which have the great advantage of being easily removable in the event of failure or to allow the layout to be amended with minimal disruption to the rest of the panel. The other regions didn't use these.

With the exception of Oxford, the panels were located on the first floor along with a kitchen and toilet facilities. The ground floor was largely occupied by the interlocking. Again, the Reading works designed and developed its own design which was known as the E10000 system - normally called the E10k. This again differed from those of other regions in being what is known as a "free-wired" system rather than the "geographical" interlockings used elsewhere. The WR system grouped the critical and non-critical relays in standardised positions within each building which made things much simpler for the technicians who, as a result, could go from one Panel Box to another and quickly locate the appropriate part of the interlocking.

www.mdrs.org.uk

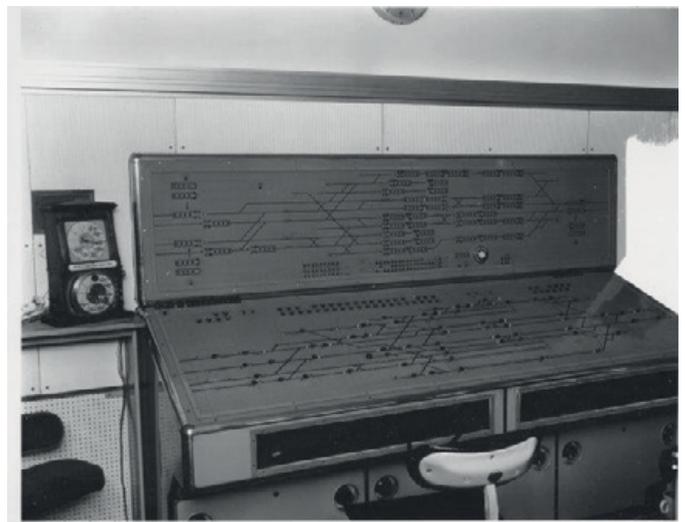
The WR-style turn-push entrance-exit panel from Swindon now displayed at the Didcot Railway Centre. The extension added in the early nineties is clearly visible.

Photo: John Sears

The remainder of the ground floor was occupied by stand-by generator sets to provide uninterrupted supply in the event of a mains power failure and a workshop for the S&T (Signals and Telecommunications) technicians.

THE MARCH OF PROGRESS

Following some experiments in the Ealing area and Twyford, the first of the WR panels was commissioned at Birmingham Snow Hill in September 1960. This was non-standard in many ways in that it was located in a former waiting room and controlled just the station area. Events would ensure it was short-lived with the rundown of Snow Hill it was decommissioned in March 1968. The carcass was reused for an emergency panel at Swansea.



The Birmingham Snow Hill panel. Communication with neighbouring traditional boxes was by conventional block instruments and train describers.

Photo: British Railways

The second panel to be commissioned was at Plymouth in November 1960. Although slightly non-standard it was much closer to the production versions and again controlled the relatively confined area around the station. In the 1970s its area was extended east almost to Totnes and westwards to Menheniot. There are no plans at present to resignal the area so it looks as if Plymouth will become the first and last man standing!

Resignalling of the main line started with the opening of Old Oak Common panel in August 1962. Despite its location, it only controlled Paddington station and its approaches - the first London terminal to be controlled remotely. Subsequently, a second building was provided alongside the first at The Common to control the lines as far as Dawley between Hayes and West Drayton which came into use in October 1967. Both OOC panels were the first "production" examples to be retired when they were replaced by Slough New IECC (Integrated Electronic Control Centre) in October 1992 to facilitate the Heathrow branch and its associated electrification.

Progress westwards was far from sequential. Newport Panel was commissioned in December 1962 followed by Port Talbot (which also covered Swansea) in September 1963 and Slough a month later.

There was a pause the following year but April 1965 saw the commissioning of the largest Panel Box to date at Reading. Initially this controlled from Sonning through to Challow with the Twyford area and Henley branch being added in 1972. The Berks & Hants Line as far as Lavington came under the control of Reading in 1977-79 with its own panel. On the debit side, the Didcot area was transferred to a new IECC at Swindon (Swindon B) as part of changes required to allow Didcot Power Station to receive supplies from Avonmouth rather than the East Midlands. Incidentally, the power station also had its own WR-style panel but it is not included in the main schemes.

The next scheme to be commissioned was that at Cardiff in March 1966. In addition to the main lines from Marshfield (fringing to Newport) to Llanharan (Port Talbot) Cardiff also controlled the Valley Lines through Queen Street out to Cathays and almost to Barry.

As mentioned above, 1967 saw resources committed to the London area but two further schemes were commissioned in 1968, Swindon in March and Gloucester in May. As part of these adjoining schemes it was proposed to single the whole line between Swindon and Standish Junction. In the event only the Swindon-controlled section was so treated and it reverted to double track when Swindon Panel was closed in 2016.

The largest WR scheme of all came in 1970 at Bristol. This project fringed with Swindon at Corsham and Hullavington, Newport at the English end of the Severn Tunnel and Gloucester at Berkeley Road Junction. It included two panels, one for Corsham through Bristol towards Taunton and a separate panel for the South Wales Main Line centred on Stoke Gifford.

The final scheme based on the WR equipment was at Oxford in October 1973. In some ways this was non-standard being in a single storey building whilst the panel employed push-push controls rather than the usual WR turn-push - terms which will be explained later. This was probably in response to increasing pressure from the BRB for the WR to "fall in line".

Indeed, the final two schemes on the WR, at Westbury in 1984 and Exeter in 1985, were both supplied by Westinghouse using their proprietary panels although the interlockings continued to be based on the E10k type.

It has been suggested that at least for the later WR schemes such as Bristol, Swindon and Gloucester, the WR had been under pressure from the BRB to get competitive tenders from outside suppliers. They did, then simply "leaked" the results to Reading who submitted their own, lower, bids!



The Maidenhead portion of Slough Panel. The dominos are clearly visible along the tracks illuminated in white to indicate selected routes - these turn red when a train is present. Also visible are the knobs for selecting the route entrance and pushbuttons for the exit. They are coloured red for main routes and yellow for shunt moves.

Photo: Mike Walker

SIGNALLING TRAINS

The WR panels have the controls on the lower, sloping part of the panel; the upper section carries the Train Describers more of which anon.

The panel carries a schematic representation of the trackwork along with the signals shown in a simplified form. Those which can be controlled are lit, red if 'on' or green if any proceed aspect is being displayed - signallers do not need to know if the signal is actually showing, for example, a yellow or what route indications are being shown. Automatic signals on plain line are represented by solid black "lollipop" symbols.

At each controlled signal there is a knob with a red arrow on it and a red pushbutton. There are also some knobs and buttons which are yellow and refer to shunting signals.

To set a route the signaller does not need to set each signal and sets of points as in the old mechanical boxes. Instead he turns the knob at the start of the route he wants in the direction of travel and then follows through the route to the next controlled signal where the button is pushed - hence the term "turn-push" applied to the WR panels.

Once the route has been selected the initial interlocking checks that the request does not conflict with a previously selected route and if all is well, the points are moved as required. Whilst these are moving white lights on the point ends on the panel track diagram flash. Once the points have moved and been proved locked the required route lights up in white lights. The signals also change from red to green although some may remain red if they are "approach locked" - meaning the stay red to slow an approaching train to a safe speed to negotiate the junction. The signaller can, of course, set any number of sequential routes along the length of the panel as required to route the train.

Once the train enters the route the white lights change to red to indicate its progress - reverting to white when it has cleared. However, this only tells us there is *a* train present not *which* train - that's where the train describers come in showing the unique headcode.

Originally, the WR panels had track layout repeated on the upper panel with electro-mechanical indicators at each "berth" to identify the train. These were notoriously unreliable, the slightest piece of dirt could jam them with the result a headcode put in at one end of the panel could be something totally different by the time the train got to the far end! As a result they were replaced by dot-matrix LED displays when available.



Part of the former Stoke Gifford panel in Bristol PSB showing the original style of train describer panel with the track layout and berth indicators - LEDs in this case. Compare with the final pattern seen in the shot of Swindon Panel on page 10. The white buttons on the TD panel are to answer calls from signal post telephones. These were replaced with concentrators when VDUs were installed.

Photo: Mike Walker

Later still, this style of train describer was replaced by plain panels with VDU screens. These had the advantage that a greater area could be displayed allowing to signallers to see where trains were before they entered their patch - with the original system there were simply a series of berth indicators which indicated the order of approaching trains, not where they were. The downside was they weren't quite so easy to read and relate to the indications on the operating panel. Eventually, all the WR panels with the exception of Bristol and Cardiff got VDUs.

INTERLOCKINGS

Just as with traditional mechanical signal boxes, the interlocking is the most important part of the signalling system preventing signallers from making mistakes by setting incorrect routes or clearing signals prematurely.

In a Panel Box the interlocking is performed by a complex system of relays whose operation determines what is or is not possible. There are several levels of interlocking and without going too deeply into the technical side, they can be divided into Non-Critical and Critical terms which should be fairly self-explanatory.

The Non-Critical areas are those which control initial route



Part of the relay interlocking at Swindon Panel - this didn't get preserved and at Didcot is replicated by a pair of PCs! In the foreground are Critical interlockings with their solid case relays, beyond is a section of Non-Critical interlocking with transparent cased PO relays.

Photo: Mike Walker

selection, panel and train describer displays. They use Post Office type relays (originally used in telephone exchanges) which can fail in either their energised or non-energised positions. The Critical interlockings cover the setting of the routes and signalling including proving detection and use a different type of relay which can only fail in its non-energised position thereby maintaining the industry's fail safe traditions.

Despite the apparent complexity of the interlocking within the panel building, it does not represent the complete installation. If all the interlocking were to be in the main building it would not only require a much larger structure but also there would be a need to run a complex of cabling to outlying junctions, etc. within the operating area. This would be expensive, inefficient and prone to failure.

Instead, at each remote junction there is a remote relay interlocking usually housed in a windowless building at the site. These control the appropriate local pointwork and signalling, communicating with the main panel and its interlockings through a TDM (Time Division Multiplex) signal transmitted by a single pair of cables. Depending on the extent and complexity of the Panel's area there can be many remote interlockings, Swindon, for example, had ten.

THE RUNDOWN BEGINS

Apart from the premature closure of Snow Hill and Old Oak Common already noted, it was the decision to electrify the main Great Western routes that spelt the demise of the WR Panels. This is mainly down to the 1960s era equipment being incompatible with 25kV ac electrification which generates electrical radiation interfering with unimmunised signalling equipment. The WR equipment was in any case rapidly becoming life-expired.

A new centralised all-electronic signalling centre, the TVSC, was established at Didcot and now controls from Paddington to Bristol, Pilning on the South Wales line, Lavington, Kemble, and Heyford north of Oxford.

Reading was the first WR panel to go in this scheme in December 2012 largely because it stood in the way of the station rebuilding. Newport closed in October 2012 (replaced by the Wales Railway Operating Centre in Cardiff) followed by Slough in April 2015, Swindon in February 2016; Bristol (Stoke Gifford), August 2016; Cardiff (replaced by the WROC), December 2016. After a pause, more of Bristol - as far west as Flax Bourton and excluding Bath - migrated to the TVSC in May 2018 with the Bath area following a year later. Oxford was replaced in July 2018. The western half of Port Talbot's area moved to the WROC in February this year.

As of this writing the only WR Panels left operating are a small part of Bristol - the old A Panel, a part of Port Talbot, Gloucester (which remains largely intact apart from losing some of its area towards Bromsgrove) and Plymouth. Apart from Port Talbot these are all expected to remain for some time as Network Rail has scaled back its ambitious plans for national resignalling in the face of rapidly escalating costs. The two non-WR installations at Exeter and Westbury also appear to have a future.



The very different appearance of the Westinghouse panel at Exeter. Westbury is similar. Photo: Mike Walker

PRESERVING SWINDON PANEL

Mike Walker

Like many of the best ideas in railway preservation, the idea of preserving a WR-style panel was conceived over a few pints in a pub. Danny Scroggins and Tom O'Flaherty had been out chasing *Tornado* and, both having an interest in signalling, the subject came up at the end of the day.

Whilst most heritage railways have traditional mechanical signalling and will often permit 'box visits if asked, there has been no way to allow the general public to see how the more modern railway is operated and with the panels themselves rapidly being eliminated by the march of modernisation, it was felt that this was a now or never chance to preserve a panel. To make it meaningful, it would have to be in working order but Tom, with a background in computer signalling simulations, and Danny, a Network Rail signaller, thought it would be possible.

As the idea grew, the various panels were considered for a likely candidate and after due consideration Swindon was selected. This was based on its size, the geography of the area it controlled, its likely availability and the fact it was the first panel Danny operated! He approached his employers and found them remarkably receptive to the idea and agreed the panel could be acquired for the nominal sum of £1.

It was, however, beyond the scope of two individuals so the idea of a preservation project was born and publicised in the railway media. An inaugural meeting was held in September 2013 hosted by NR at their Swindon offices which included an opportunity to visit the panel then still fully functional. An encouraging number of like-minded individuals turned up and the Swindon Panel Society was the result.

The next challenge was where to locate the panel. The original idea of the SPS founders was to house it in a shipping container or Portacabin with access to members only and invited guests. All the heritage railways in the WR area were approached with a view to hosting the project but only one expression of interest was forthcoming, that was from the Great Western Society at Didcot and that was way beyond what we'd hoped for.

It's fair to say the GWS weren't over-impressed by our container/Portacabin proposal. They had in their collection a large amount of signalling equipment for which they had no suitable means of displaying. Therefore, their proposal was for a purpose-built new building on the Didcot site which could house and display that collection along with the panel. Detailed discussions between the two groups led to a formal agreement which, among other things, committed the two groups to constructing the new building with the costs shared. Inevitably as the project progressed the projected cost almost doubled (in part due to the GWS increasing the scope of the project) but to their credit, they took on the extra cost with the SPS only paying its originally agreed share.

Work started on the new building in 2014 under the direction of GWS Chief Civil Engineer Richard Antliff with labour supplied



The exterior of the Signalling Centre building at Didcot located next to the existing museum building. The nameplate is the original whilst the pile of rocks in the left foreground is the genuine WWII depot air-raid shelter!

Photo: Mike Walker

by both groups with some professional outside assistance in bricklaying and roofing.

Down at Swindon, the Society had duly paid the £1 to Network Rail and it had become our property. However, the well-publicised delays in the GWML modernisation meant that it wasn't finally decommissioned until February 2016 - for the last 2 years of its service life the panel was "on loan" to NR. Out of respect to the help they'd given us we felt it unwise to charge them rent!

At this point it is worth recalling that not only NR but other industry partners were generous in aiding our endeavours not least GWR who were most supportive of our fund-raising. In addition P&D Specialist Services of Derby undertook the movement from Swindon to Didcot at no cost to the SPS.

Once NR had finished using the panel we quickly moved in, removing all the dominoes, disconnecting the wiring and preparing the panel for movement - a whole story in itself. The delay worked in our favour as it meant that by the time the panel arrived at Didcot the building, although not complete, was weather-tight and ready to receive it.

There then followed the daunting task of replacing all the dominoes and wiring the whole thing up. The relay interlocking wasn't preserved, so to make it operational a series of four interlinked computers were installed, two replicating the interlocking functions, one the train describers and the final one the moving trains. Some impressive bespoke software was created along with specially designed electronics. Much of the tedious wiring was undertaken by Siemens trainees (Peter Woodbridge, one of our members, is a senior Siemens engineer). Internally, the panel is a lot more complex than it used to be.

It was finally opened to the public in summer 2018 and has proved a popular addition to the Didcot venue with the public being allowed to operate the panel for themselves. Former Swindon signallers have visited us and say that there's no difference from how it was - an accolade indeed!

The Great Union Pacific 4014 Adventure

Part One

A True Account of Col. Don Woodworth's Fantastic Grice of the 4-19 May 2019 Journey of Union Pacific Railroad 4-8-8-4 "Big Boy" in the United States between Cheyenne, Wyoming and Ogden, Utah and Return



The Bible recounts in John 11:1-44 the story of Jesus raising Lazarus from the dead after he had been entombed for four days with the words "Lazarus come forth." In May of 2019, the Union Pacific accomplished the same feat, returning their 4-8-8-4 Big Boy 4014, currently the world's largest operating steam locomotive, to operation after a hibernation of over 50 years.

The #4014 was out-shopped by Alco in Schenectady, NY in December 1941, thus antedating your author by some 15 months. It served the Union Pacific RR until being retired in December 1961 after 20 years of hauling heavy freight between Ogden, Utah (UT) and Cheyenne, Wyoming (WY) – a distance of 435 miles in which the locomotive climbed some 3,715 feet from the basin of the Great Salt Lake (the largest inland body of salt water in the Western Hemisphere) at Ogden, UT (elevation 4,300 ft.) up Weber and Echo Canyons to the rolling plains of Wyoming and then over the UP's 8,015 foot summit of Sherman Hill before descending again to Cheyenne, WY (elevation 6,063 ft.). Denver, Colorado is not the only "Mile High" city in the United States!

The 4014 was removed from service in December 1961 after providing 1,031,205 miles of service for its owner and donated to the Rail Giants Museum in Pomona, California (CA) in the southern part of the Sunshine State where (like Sleeping Beauty) it slumbered for 52 years in the hot California sun. This may have inadvertently been the engine's salvation because it was deemed the most worthy of its seven other siblings on display in other more climatologically hostile areas of the United States to be returned to steam.

Bless those in the ranks of Union Pacific senior management who made the decision sometime prior to 2013 to re-acquire this most emblematic symbol of the Union Pacific RR and return the Big Boy to steam in conjunction with the 150th anniversary of the completion of the United States' first transcontinental railroad on 10 May 2019. A surprising number of 8 locomotives

Here is a portrait of Union Pacific RR "Big Boy" 4-8-8-4 4014 halted for servicing and public display westbound on its maiden trip at Wamsutter, Wyoming (WY) at 10.53 on 5 May 2019. Behind it is the UP's famous 4-8-4 844, in continuous service with the railroad since it was out shopped by the American Locomotive Co. (ALCo) in Schenectady, New York (NY) in Dec. 1944. Fittingly placed behind the steam locomotives is Union Pacific SD70AH #8937, placed in the consist going west to provide additional braking power for the 8 car train – which would have been child's play for just the big Northern.

of an original class of 25 were preserved at various locations around the United States. A survey was begun to determine which locomotive was in the best state of preservation toward facilitating a return to service and what arrangements would be necessary to obtain the locomotive.

Of the surviving locomotives, it turned out that the 4014 best met these criteria and in 2013 the Big Boy was removed from its long-term home in Pomona, CA and moved to the Union Pacific's steam shop in Cheyenne, WY where the railroad's dedicated and talented team of steam specialists were tasked with bringing the locomotive back to life. The move to Cheyenne was as classy as the Union Pacific RR's decision to restore the locomotive. After suitable preparation, to include disconnecting piston rods from the main rods so 4-8-8-4 Big Boy 4014 could safely be moved in a low-speed road freight, it was top and tailed for the Journey by Union Pacific SD70M diesels 4014 (lead unit) and 4884 (trailing unit). How's that for class!

These engines had originally been built as coal burners. It was decided during the course of renovation to convert the engine to an oil burner in order to better deal with the modern day logistics of operating a steam locomotive. This, in fact, was not a particularly sacrilegious idea as, during the steam age, other classes of UP locomotives were converted from coal to oil or vice versa as circumstances dictated. So with considerable ceremony and publicity, the engine was towed dead in freight

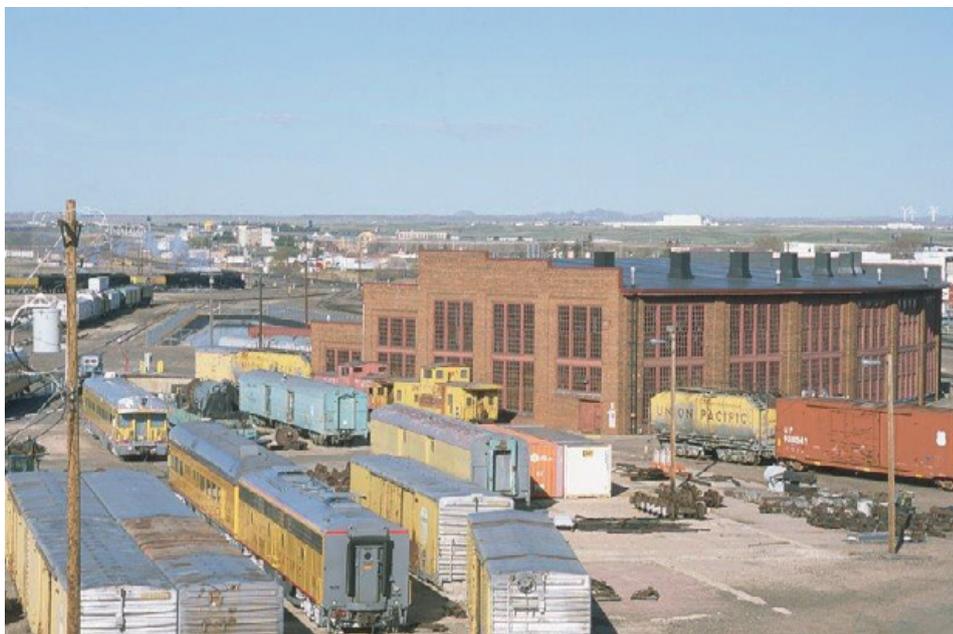
trains to the UP's wonder-working steam shop that exists within a segment of the once much larger roundhouse that once stood in Cheyenne, WY.

I should stop here and provide readers a thumbnail sketch of the size of the locomotive that the UP had undertaken to bring back to life. Engine and tender are 132 ft. long and weigh 1.2 million pounds. Rated tractive effort is 135,375 lb. produced with 300 lb. of boiler pressure delivered to the rails by sixteen 68 in. drivers. The dimensions of the Big Boy's firebox are 96 3/16" wide by 235 1/32" long – comfortably large enough in which to easily park a Mini Cooper with considerable room to spare! The railroad had originally intended to name the type the Wasatch class in honor of the mountain range they were built to conquer but some unknown wag at the Alco works chalked the words "Big Boy" on the smoke box of the first locomotive and the name stuck. This was highly appropriate as these wonderful locomotives could deliver a sustained 6,000-7,000 horsepower at speed.

By way of comparison, I thought it might be interesting to include a few comparisons with some of the largest steam locomotives to my knowledge known to have operated in the UK. The largest and most powerful locomotive would have been Gresley's one-off 2-8-0+0-8-2 of 1925, but its operation was highly localized and not replicated. I realize it is heresy to talk about LMS locomotives in GWR Land but I believe that the series of 33 successful 2-6-0+0-6-2 Garratts operated by LMS were the largest practical steam engines of the Garratt type to have routinely operated in the UK. There is no doubt that with a length of 87 ft 10½ in., a weight of 170.8 short tons, and tractive effort of 45,620 lb., these were respectable beasts. However, they were built at a different time (1927 and 1930) and for a different purpose within a more constricted loading gauge so they would have been simply dwarfed by a Big Boy, as would have most other engines in the United States as well. Alternatively, consider that a Big Boy was 6" longer than two BR 9Fs coupled.

Restoration of a Big Boy to service was something that steam enthusiasts like me all over the world had hoped for dreamed of for many years. I was in my late 60s when this news became public and my wish, like that of many of my friends, was to see the Big Boy in operation before I went to the Great Roundhouse in the Sky. It would be a major understatement to say that the UP steam team was faced with an arduous task but, almost miraculously, they accomplished it in time for the 10 May 2019 deadline – just barely. The 4014 was scheduled to depart from Cheyenne, WY at 10.00 on 4 May 2019 and to operate in stages

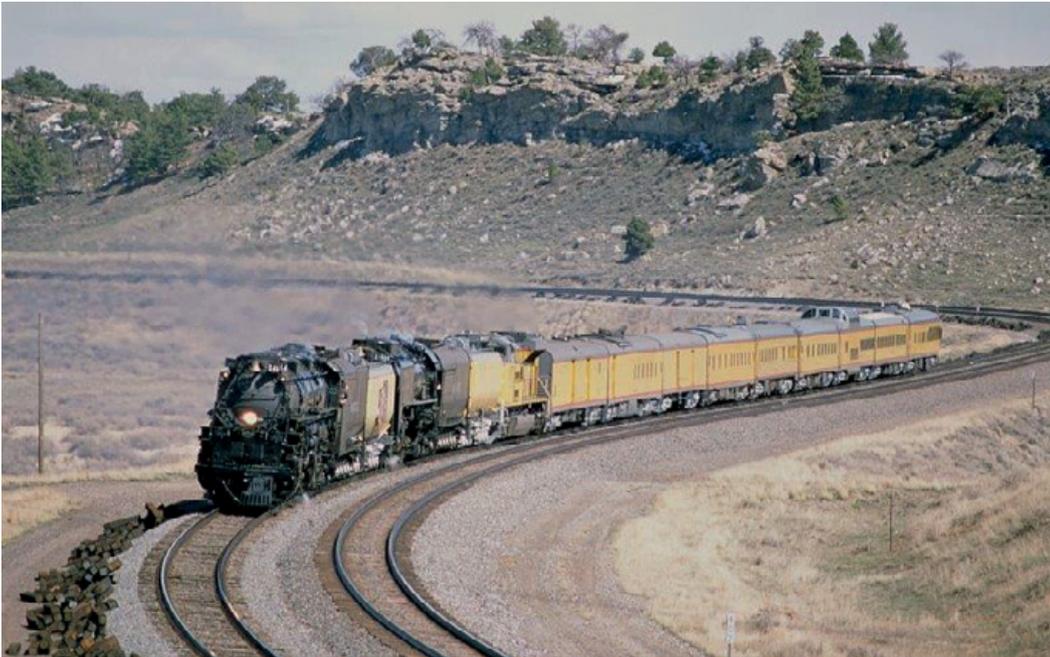
Where the magic happens – the remaining 7 stalls of the UP's once large 48 stall roundhouse at Cheyenne, Wyoming and where the railroad's steam shop is housed. This is where 4-8-4 844, 4-6-6-4 3985, and (now) 4-8-8-4 4014 are now maintained. Largely unseen and unknown to most enthusiasts, inoperable 4-8-4 838 and 2-10-2 5511 also reside at the roundhouse. No other railroad in the world can lay claim to a stud of engines like this! The morning of 4 May 2019 dawned clear and bright – perfect for departure of #4014 on its inaugural run from Cheyenne, WY to Ogden, Utah. The engine can be seen in the background moving from the yard where it was stabled to the main line to be positioned in front of a grandstand just west of the former UP Cheyenne railroad station for a dedication ceremony prior to its departure.



with a similar ceremony to be celebrated about 52 miles west on 10 May away at Promontory Summit, UT. The National Park Service operates the Golden Spike National Historical Park at Promontory Summit where replica Central Pacific RR and Union Pacific RR 4-4-0s were scheduled to participate in a ceremony on the actual site of the original junction of Central Pacific RR and Union Pacific RR rails. The work schedule to return the Big Boy to operation was so tight that there was time only for a very brief shake down run on the Thursday evening prior to the locomotive's scheduled departure for Ogden on 4 May.

It was a two day drive to cover the 927 miles from my home in Illinois to Cheyenne, WY. The trip was complicated by heavy flooding in the Missouri River plain running 183 miles from Omaha, NE to Kansas City, MO, with all of the usual east-to-west highway crossings being flooded and a long section of the interstate highway between these two cities being closed to flooding as well. This forced a considerably longer detour that I'd have preferred and cut into the gricing time that I'd anticipated having once into the state of Nebraska and headed west toward Wyoming. The foul weather that had accompanied me for some 300 miles out of Illinois finally broke around St. Joseph, MO and it then stayed nice all the way to Wyoming.

After an overnight in central Nebraska, I had blitzing sun all the way from Kearney, NE to Cheyenne, WY. Instead of the interstate highway (motorway), I elected to use US 30 (akin to a British A-road), which closely follows the Union Pacific mainline for the entire distance. This is the Union Pacific's principal east-west mainline which carries all of its traffic from the West Coast to Chicago and it should have been teeming with traffic. Sadly, it wasn't! Blitzing sun gone to waste. Whilst waiting on a highway overpass in Maxwell, NE with the objective of photographing an eastbound train in perfect morning sunlight, I got to meet my first of many policemen during this trip. As it turned out, the spot I selected was not only popular with gricers but also with poor souls wishing to end it all and the officer was just checking to ensure I was one of the former instead of the latter. After a wait of over two hours on this ostensibly busy main line, I began thinking about jumping myself – when a headlight finally came into view and I was able to get a reasonably acceptable shot of the eastbound that I'd wanted – though (of course) the sun had now gone around to a less than optimal position. See my award-winning article: *Mr. Sod – Please Meet Mr. Murphy* which appeared in the *Marlow Donkey* in December 2016.



UP Big Boy 4014 and its short 9-car train descend an S-curve headed west at 15.15 on 4 May 2019 about three miles east of the small hamlet of Rock River, WY. A lay-by where US Route 287 narrows from four to two lanes just opposite the photo location proved to be a magnet for at least 60 people to gather at this scenic location. Given a fairly heavy police presence all the way along the line across Wyoming, it was a bit surprising that an officer didn't materialize at this point to shoo off a gaggle of about 15 gricers who had crossed over the railroad line at this point and climbed a small hill just up from the mile marker seen opposite the rear of the train.

Journeying west, it was my goal to pick up a west-bound train in the early afternoon and follow it all the way into Cheyenne – a perfect theory except for the lack of such a train. As it turned out, a west-bound freight had failed at Dix, NE (some 32 miles east of the NE/WY state line) for a ruptured brake line and this was plugging up the entire mainline. I finally managed a few good shots of westbound trains after this cripple had been repaired and started to move but, by this time, the best light of the day was gone and I had to run for Cheyenne in order to get to my motel and be set up for the next day and the debut of the UP's Big Boy, 4-8-8-4 4014.

The morning of 5 May dawned brilliantly in Cheyenne. In due time, the 4014, leading UP's famous 4-8-4 844, and backed by UP EMD SD70H diesel 8937 and its train were positioned in front of a grandstand immediately west of the former UP passenger station in Cheyenne for a short dedication ceremony at 9.30 before its scheduled departure west at 10.00. Photography was made difficult because public access to the event was on the north side of the train – making photos of the back-lit black locomotives problematic at best. I thus elected to contrive to get a better lit photo through the horrible chain link fence of the previously open bridge that once allowed wonderful photos of eastbound trains passing through Cheyenne.

Photography was problematic between Cheyenne and Laramie

due to limited access to the right-of-way and huge crowds. I passed on the one easy location at Tie Siding as the train would have been coming almost straight out of the sun and I don't enjoy what I refer to as kamikaze photography – dark locomotives coming directly out of the sun. Instead, I drove about 39 miles west of Laramie along US 30 (roughly equivalent to an "A" road in the UK) and set up for a shot with about 70 of my closest friends just east of the tiny hamlet of Rock River. Because of a traffic queue that had become easily a mile or so long after I had taken my photo, I was only able to make zero to perhaps 40 mph on a road passed for 70 mph and this was the only photo opportunity I had between this location and Medicine Bow, WY, where the train was scheduled for a 45 minute stop to oil around the engine and allow local people to view the engine and train.

I elected to skip stopping at Medicine Bow and carried on some 20 miles farther west to Hanna, WY. There is a local highway bridge over the tracks at this location that permitted a decent telephoto shot of the train westbound passing beneath a signal gantry that spanned the tracks – a perfect location except for the miserable 40 mph+ wind and spotty sun. Mr. Sod never sleeps and he went to the trouble of ensuring the presence of a stinking cloud at the precise 1/500th of a second when I needed sunshine. Result: grotty shot of 4014



Hanna, WY is a rather desolate little town that once enjoyed considerably more prosperity than it does today when its mines served as a source of coal for the Union Pacific's steam fleet and when it served as a crew change point for UP's trains. Today, its main claim to fame is an excellent signal bridge just east of the Adams Street (WY Hwy 72) railroad overpass near the center of town. The wind rarely stops blowing in Wyoming and on the late spring afternoon of 4 May 2019 it was blowing at a miserable, chilly 45 mph as 4014 and its train passed west beneath the signal bridge at 17.45.

I joined the intimate queue of 100+ cars and carried on (slowly!!) west to the outskirts of Rawlins, WY, where the engine was to be stabled overnight. The sun broke though at Sinclair (site of an oil refinery) about three miles east of Rawlins and I was able to get a few good westbound shots there. The engine was tucked away in the yard at Rawlins for the night and I didn't attempt to enter the premises for any shots.

I set out the next morning to find a location west of Rawlins for a suitable shot. It had to be at a location that provided a fairly broad-sided view as the engine would otherwise be coming straight out of the morning sun. Finding a suitable location on Wyoming State Highway 789 at Creston Junction, I pulled off to the side of the road and set up for a photo along with about 50+ other enthusiasts from a highway overpass. We got a few well-lit shots of east-bound diesel-hauled freights and everything was going along swimmingly until about 10 minutes before the late-running steam train was to appear. At that ill-timed juncture, a Wyoming Highway Patrol state policeman came along and told everyone that they had to clear off the bridge and both sides of the road leading to/from it – immediately! – or he would start writing tickets.

Needless to say, there were a lot of very unhappy people! I discussed the subject very pointedly with the officer. He said he had strict instructions from his colonel and there was no room for debate. So, I left like everyone else. He may well have had such instructions but might have done well to have emulated the example demonstrated by some of his ever so much more sensible colleagues a day later and 150 miles west closer to Rock Springs, who positioned their patrol cars at either end of a highway bridge full of gricers and left them parked there with lights flashing to protect the people until the train passed. This sensible, rather than officious, approach generated a lot of good will that helped replace the bad taste left in many people's mouths the day before.

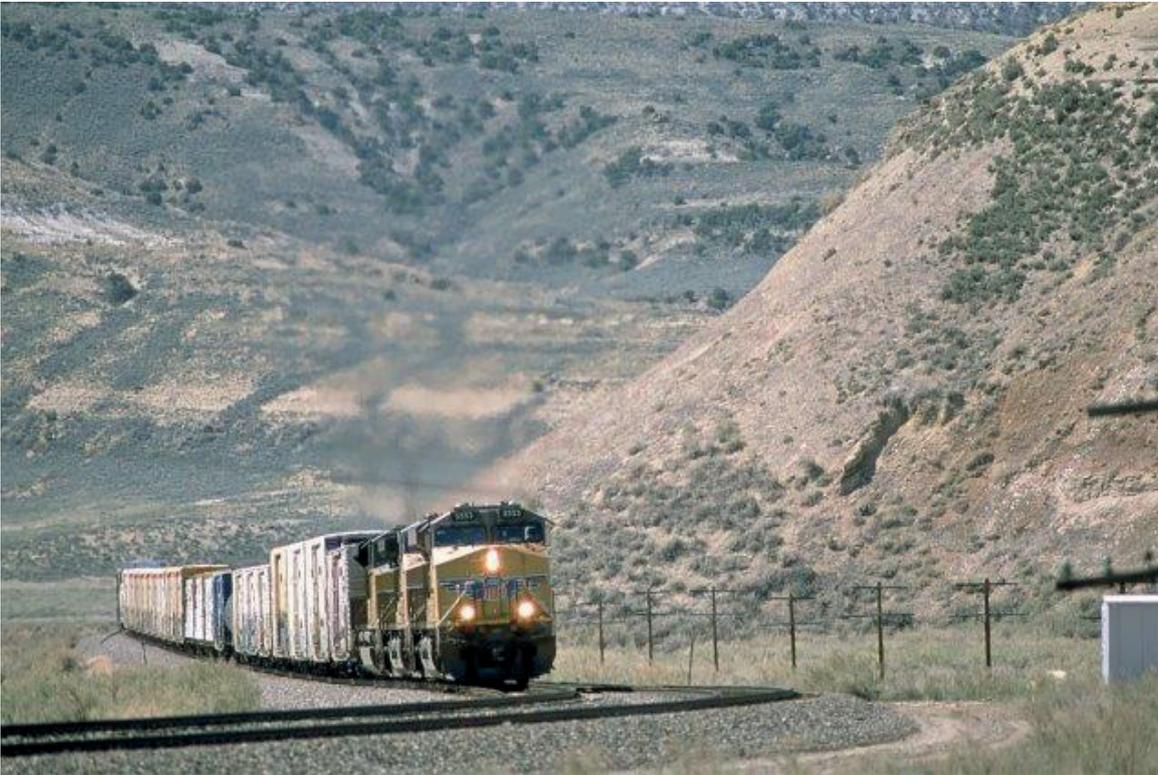
At any rate, fighting a silly situation such as this would have resulted in a Lions 1: Christians 0 fiasco, so our huge caravan of

cars reluctantly departed for points west in the hope of finding a suitable replacement location for a shot. A race west on the interstate and down some rough dirt roads to the south of it produced one semi-acceptable location followed by a better second one just on the outskirts of Rock Springs, WY. Train speed was happily limited to about 45 mph, likely in deference to the railroad's inability to run a full shake-down inspection program prior to the #4014's scheduled departure date for Ogden. The lower speed, plus frequent scheduled (and some unscheduled) stops for lubrication and to inspect bearings, made it just possible for the accompanying swarms of gricers to get ahead of the train and set up for photographs.

The 4014 and its train were scheduled for a two-day stop in Rock Springs so I used the opportunity to grice the UP main line in the area around nearby Green River, WY (about 15 miles to the west). Green River is the site of a small shop complex, a railroad yard, and a crew change point where all east and west bound trains stop to change crews. There is a pedestrian bridge over the entire railroad yard and it affords wonderful opportunities for photography

This is the location just east of Rock Springs, WY where the Wyoming Highway Patrol elected to exercise greatly appreciated common sense instead of bureaucratic officiousness and protect the many people who had gathered at Wyoming Highway 370 overpass to observe the westbound passage of #4014 and its train bound about 5 miles west to an extended layover in Rock Springs, Wyoming's 5th largest city. The police officers very thoughtfully positioned police cruisers with flashing lights at both ends of the bridge where a large number of spectators were located in order to slow passing traffic. It would have been too simple for all the spectators to gather on the bridge where the majority of gricers and local citizens gathered so the landscape was strewn with daisy-pickers spoiling what would have otherwise been a very nice photo location. Through the magic of my computer software, the worst of the offending pratts have been removed to "bit bucket" heaven!





This shot is of an eastbound freight emerging from the canyon that stretches east from Green River to within just a few miles of Rock River. The freight is led by a General Electric 4,400 hp ES44AC locomotive (called a C45ACCTE by the Union Pacific).

There is a beautiful canyon located between Rock Springs and Green River. The only problem with the canyon is that it is inaccessible to motorists. You can photograph eastbound trains leaving the canyon but it's impossible to get into the canyon itself without trespassing on railroad property – most frustrating, since lovely views can be seen from the parallel interstate highway where stopping is illegal and the light poor most of the day as the highway is north of the railway. I drove some 15 miles out of my way over roads so bad (for the final three or four miles) that I genuinely feared getting stuck and being unable to extricate myself in order to try and reach a summit that should have allowed photos from the sunny side of trains passing through the canyon. Alas, as I reached the apex, the road was closed and gated, complete with closed circuit cameras, so I

muttered a few choice words of which my mother would not have approved and retraced by steps to the railroad line – having wasted half a morning of blitzing sunshine in the process!

All was not lost however. All trains stop for a crew change in Green River that takes approximately 15 minutes. The pedestrian bridge which crosses the entire railway yard complex affords excellent shots of east and westbound trains. Westbound trains face a long stiff climb up Peru Hill west of Green River. There are numerous locations along the way between the town and the crest of the grade that provide excellent vantage points for photos and I took full advantage of them while waiting for the 4014 to again move west.

To be continued...

Freight trains crawl up and down Peru Hill just west of Green River – they crawl up due to the steep grade; they crawl down in order to maintain safe speed and in order to negotiate the curve at the bottom as they prepare to halt for a crew change near the center of town by the former railroad station. UP SD70Ace 8811 and kin are approaching the cutting at the summit of the hill westbound with the rolling Wyoming countryside spread out behind them.



THEN AND NOW: KINGSWEAR



Tim Edmonds provides two views of Kingswear for this edition. The first, above, was taken on 23rd July 1971 and shows a GRCW Class 119 Cross-Country leaving the run down station only months before BR transferred ownership to what was then the Dart Valley.

Today, not only does the station appear more well cared for but the old harbour has become a busy marina accessed by a new level crossing. 75014 *Braveheart* waits to depart for Paignton with the former *Devon Belle* observation car behind the tender.

