Low-resolution version

Railway Photography

No. 19

2 July 2007

The complimentary e-magazine for the quality Railway Photographer

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On the Cover

Left: *SBB electric loco No. 460 034-2 has just crossed the Kander viaduct as it leaves Frutigen with the 11.41 Romanshorn to Brig on 5 June 2007. This is one service that will continue to run over the mountain section of the Lotschberg until December. See pages 12-15.* **Brian Stephenson**

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Submissions to Railway Photography

The publishers of *Railway Photography* - TheRailwayCentre.Com Ltd - welcome submissions for inclusion.

We are looking for high resolution, good clear, but above all sharp images of any railway subject. Submissions should be sent by email in the .jpg format to rp@therailwaycentre.com please make sure that attachments are no larger than 6mb. We are happy to receive high-quality scans of negatives and slides. With all submissions please make sure you include your name and full details about the picture, including camera and exposure details.

As *Railway Photography* is distributed free of charge, we are unable to offer reproduction fees.

We are happy to consider small editorial features on aspects of railway photography.

Editorial details

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Design: TRC Publishing
Railway Photography is published by
TheRailwayCentre.Com Ltd
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Dawlish, Devon
EX7 9XY
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E.Mail: rp@therailwaycentre.com
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The official announcement on 28 June 2007 that EWS the UK freight operator was in effect to be taken over by German rail business Deutsche Bahn AG (DB) came as no big surprise to the rail industry. It had been known for months that the ailing UK freight operator was 'on the market'. What lies ahead now is a huge shake up of the freight market in the UK. The new effective owner is likely to brand the new operation as either DB Logistics UK or Railion UK in keeping with their other non-German operations.

One can only assume that new branding will soon be seen on the UK fleet, as red is the core colour of DB and Railion it is unlikely that any wholesale re-painting will take place, but branding is most likely, out will go the animal heads and in will come a corporate name, one which is solid in quality of service and respected throughout the European Union.

It is very likely that some form of major drive will be undertaken to try and win back some of the freight flows lost by EWS within the UK, but the main push is likely to be the Cross-European flows, especially to try and increase the present low level of Channel Tunnel freight which is now down to about two trains per day.

With the recent escalation of terrorist activity in London, most police forces will now be using their powers under section 44 of the Anti-Terrorism Act, they have every power to stop and search anyone at railways stations without giving a reason and photographers are likely to be an easy target. The Editor was stopped at Newport this last week - but was thankfully not detained. Go careful this summer and do not be put off from your hobby.

Colin J. Marsden
Editor

Right: *EWS trains such as this, formed of just one steel wagon, do not generate much revenue for EWS. Taken at Newport on 29 June 2007, No. 66002 heads towards East Usk from Newport ADJ yard. The loco later worked to St Blazey with the daily freight service, this too was formed of just one wagon, a scrap carrying open.* **Colin J. Marsden**

Below: *Several people who have looked at the Starcross Webcam from the link on our website have asked where the camera is located, all is revealed here in this view of a Voyager passing through Starcross station. The webcam is mounted on the roof of the old Atmospheric pumping house tower and is ringed in red.* **Colin J. Marsden**

Electro Diesels to Corfe Castle

Over the weekend of 11-13 May 2007, the picturesque Swanage Railway in Dorset, held a joint Diesel Gala and Beer Festival which attracted a large number of guests interested in one or both activities. The stars of the show were two operational Electro-Diesels and 'Western' No. D1015 *Western Champion*.

Above: *An excellent view of activities on the Swanage Railway obtained from the hillside opposite Corfe Viaduct. Train 2N21, the 15.45 Harmans Cross to Norden shuttle is headed by black-liveried Class 20 No. D8188 and formed of Class 423 4VEP No. 3417* Gordon Pettitt. *On the rear of the train are a pair of GBRf Class 73s, Nos. 73208 and 73136 (E6043). The 4VEP unit was on loan from South West Trains, while the Class 20 is a Swanage Railway resident.* **Jules Hathaway Photographic details: Camera: Canon EOS300D, Lens: Sigma 28-70mm zoom at 28mm, ISO: 200, Exposure: 1/400 @ f7.1**

Right: *On 12 May 2007, electro-diesel No. E6043 or 73136, departs from Corfe Castle powering Class 423 4VEP No. 3417 forming train 2H06, the 11.30 Norden to Harmans Cross shuttle. The ruins of Corfe Castle form one of the most dramatic backdrops for any preserved railway in the UK. The loco carries the former BR Swanage branch '98' headcode, a nice touch by the local staff.* **Jules Hathaway Photographic details: Camera: Canon EOS300D, Lens: Sigma 70-300mm zoom at 70mm, ISO: 200, Exposure: 1/500 @ f8**

On Sunday 10 June 2007 Metronet Rail handed back to London Underground 1921-built Metropolitan Railway electric locomotive No. 12 **Sarah Siddons.** *The occasion was marked with a special one-off service from Harrow-on-the-Hill for a round trip to Amersham.* **Sarah Siddons** *leads the returning tour from Watford on the curve near Moor Park. With the amount of foliage, its hard to believe this is a London Transport line.*
Kim Fullbrook
Photographic details: Camera: Canon EOS 5D, Lens: Canon 50mm f1.8, ISO: 400 , Exposure: 1/1000 @ f5.6

Is that image actually SHARP

An area which seems to cause many railway photographers problems during editing is 'Sharpening'. In software packages such as Photoshop CS and Photoshop Elements a number of different sharpening tools are available, all have their relevance in photographic work, but used with the wrong settings it can have dire results with an image and in many cases make the picture unsuitable for reproduction.

In this issue we will look at the interestingly named Unsharp Mask tool in Photoshop.

In most cases the basic 'Sharpen' tool works fine (more about that in another issue), but sadly, the real world is more complicated, in some illustrations the photo editor needs to be able to control the amount of sharpening that is done and how it is applied, and for that you need to use the 'Unsharp Mask'.

Do not be put off by its name, it does actually sharpen your image. 'Unsharp Mask' gets its name from the fact that back in film days, a small piece of glass was placed between the original negative and a positive mask to exaggerate contrast along dark/light areas; the glass put the positive mask slightly out of focus from the negative (in other words, an unsharp positive mask was used to 'sharpen' an underlying image).

The Photoshop version tries to reproduce that effect. In areas where there is not a lot of detail, there would not be much difference (the 'Threshold' value controls how much it considers to be a significant difference), so the function will not try to change values (changes are controlled by the 'Amount' in the 'Unsharp Mask' settings). In areas where there was detail, the original data and the blurred data would be significantly different, and thus the function senses there is detail or an edge there.

Without doubt the biggest problem in using the 'Unsharp Mask' is determining how to set the three controls ('Amount', 'Radius', and 'Threshold').

Amount: This selection determines the aggressiveness of the 'sharpening' action. For the average well lit, good contrast railway picture, I would suggest an amount setting of 90, much higher than this and white 'ghosting' and a form of image breakup might well occur. (have the Preview box checked in the 'Unsharp Mask' dialog box, so you see the changes as you make them, it is also helpful to be viewing at actual pixels size).

Radius: This setting determines how wide an area at the transition is affected. I usually start the ball rolling at between 1.8 and 2.9 depending on how unsharp the image is. (If for experiment you move this slider to say 5 or 6 you will see just how drastic the effect on the image is).

Threshold: This determines how much difference there must be between two adjacent pixels for any change to be made. I usually use a threshold figure of 1.

Once you have selected these settings, press the OK button and your changes will be applied to your image. Two things to remember here, one is you can reduce the 'Unsharp Mast' effect by going to the 'Edit>Fade' control or you can go to 'Edit>Step Back' and undo your changes and start again. You may well need several tries at this tool before you are happy with its results, my suggestion is to start with the settings shown and then increase slowly, checking the results each time carefully.

You will have to determine settings for each of your pictures, no two are exactly the same and the figure suggestions are only a guide.

Some credence exists in the suggestions that two applications of a lower 'Unsharp Mask' settings are better than one higher value application, although Adobe usually refute this suggestion, it is in fact better (in a small way) to use say a radius of .5 twice to apply a level 1, this is because any value exceeding .5 starts to affect more than one pixel beyond the transition point, and this starts to produce visible halos, especially if you need to use aggressive 'amount' values. If you are printing with an inkjet printer, the dot gain you get from the ink spreading on the paper often masks these halos, but if you are submitting your work for publication be warned.

Although I usually use a 'Threshold' figure of 1 in many cases it is better to select a very small level in this control of say .1 to .8 as on some images depending on their make up a form of grain can be rendered, this especially applies if the original image has any noise in one of the RGB channels

Sharpening Rules

- Perform all other changes - colour correction, saturation changes, contrast changes, distortion correction and straightening - before performing sharpening - sharpening MUST be the last action you make before saving the file.
- Save a copy of the corrected, but unsharpened file, I hope you also have a copy of the original file and are not working on the only copy!
- Apply 'Unsharp Mask' for basic sharpening, as it provides more control than the other related filters.
- If submitting your images to a magazine, either printed or for PDF screen display, or to a professional design studio, please submit the original unsharpened version. Several problems exist if you do not, for one your screen may not be fully colour corrected and not displaying the full sharpness of your image, secondly when material is 'printed' all images have what is known as 'Dot Gain' that is the amount of spread the ink has on the printed page, the designer or editor will know this (they change with different presses and paper stock) and the amount of sharpening might be different from what you like to see on a screen.
- If you are printing on an inkjet printer, edge on the side of slight oversharpening, the printed results are usually better.

- In a subsequent issue of *RP* we will look at the other pre-set sharpening tools available in Photoshop - Think you are confused now, then just wait.

CJM

This image of a Voyager powercar at Reading has been set at deliberately too high 'Unsharp Mask' settings to show the adverse result, we gave this Amount 190, Radius 22 and Threshold 2, as you can see the image is covered in halo effects especially where colour/ contrast areas change.
Some photographers have actually submitted work for reproduction with these levels of correction.

Above: *Now this could be the way forward in moving school children around the USA, loading their school buses on flat cars hauled by a pair of UP locos. This amazing train consist powered by Union Pacific SD70 No. 4445 C40-8 No. 9025 is seen heading east through Rock Springs, Wyoming on 25 October 2001.* **Phil Cotterill**
Photographic details: Camera: Pentax K1000, Lens: Pentax, Film: Fuji Sensia 100ASA, Exposure: 1/250 @ f8

Railway Pictorial

Railway Photography **looks forward to receiving your pictures for inclusion in these pages, please send high-resolution images to RP@therailwaycentre.com and share your work with others.**

Below: *Black-liveried FirstGBRf/Medite Class 66/7 No. 66709 hauling a complete rake of new FirstGBRf bogie hoppers powers train 6H90 from Tyne Dock to Drax Power Station and is seen passing Dawdon on the Durham Coast line on 26 June 2007. Often it is best to remove modern buildings from illustrations, but in this case the use of a wide angled lens to include all the building and the fence in the foreground had enhanced the images composition.* **Ken Short**
Photographic details: Camera: Nikon D200, Lens: Nikon zoom at 18mm, ISO: 320, Exposure: 1/1000 @ f7.1

Above: *Where the rail network passes alongside the canal network, some wonderful pictures can be obtained of the two forms of UK transport in the same photographic frame. The UKs West Coast Main Line has a number of suitable photographic locations, one being where the Oxford Canal and the line meet near the villages of Ansty and Shilton in Warwickshire. A passing narrow boat is superbly framed with RES-liveried Class 90 No. 90019* Penny Black *as it propels a Euston-bound express on Sunday 3 August 2003.* **Phil Grain**
Photographic details: Camera: Mamiya 645 Pro TL, Lens: Mamiya 80mm f2.8, Film: Fuji Provia 100f, Exposure: 1/1000 @ f4

Below: *Another view which shows multi-transport modes is this illustration of the shuttle train which links the passenger terminals at Newark Airport. New Jersey, USA. In addition to the six-section 'train' the photographer has included aircraft and road transport. The view was taken on 21 October 2001.* **Phil Cotterill**
Photographic details: Camera: Pentax K1000, Lens; Pentax, Film: Fuji Sensia 100, Exposure: 1/250sec @ F8. Scanned on Epson 4870 at 800dpi

Above: *The choice of a 'letterbox' format for this 'train in the landscape' picture has worked well. It was taken on the preserved Chinnor & Princes Risborough Railway on 3 June 2007 and shows Class 31 No. D5581 'top and tail' with Class 37 No. 37116 which was making its first outing on the line in Transrail BR blue.* **Chris Holt**
Photographic details: Camera: Canon 30D, Lens: Canon zoom @ 30mm, ISO: 200, Exposure: 1/1000sec @ f5

Left: *Despite recently announcing completion of a £25m refurbishment programme, 'one' railway still use ex-Virgin DVT No. 82131 in frontline service, to cover for the 'one's own DVTs that are still receiving retro repairs at Wabtec Doncaster. The DVT, which still sports red unbranded Virgin livery, retains window stickers advertising a Euston - Birmingham service when seen at Ipswich on 20 June 2007, coupled on the rear of the 15.06 service to London Liverpool Street.* **Oli Smith**
Photographic details: Camera: Nikon D80, Lens: Nikon 18-135mm zoom @ 48mm, ISO: 250, Exposure: 1/400sec @ f10

Above: *As its mid-summer (at least here in the UK), we have a look at an excellent winter scene, showing Austrian 4010 class electric unit heading for Innsbruck near Hopfgarten Berglift on 21 January 1992.* **Phil Cotterill**
Photographic details: Camera: Pentax K1000, Lens: Pentax, Film: Agfa 100 (slide), Exposure: 1/500sec @ f8, slide scanned on Epson Perfection 4870

Above: *I am quite convinced that some of our photographers should have been born as mountain goats, or at least have one leg shorter than the other to cope with standing on hill sides to capture illustrations such as this at Harlech. On 20 June 2007 Class 158 No. 158836 is seen forming the 09.05 Machynlleth to Pwllheli service.* **Ken Brunt**
Photographic details: Camera: Canon EOS10D, Lens: Canon 28-70mm zoom at 36mm, ISO: 400, Exposure: 1/500sec @ f5.6

Below: *Busy depot scenes these days are almost a thing of the past, with high demands for resources. However on 4 June 2007, this was the view at Exeter FGW Local depot at 09.45 in the morning, with no less than six units parked around the depot, with this number of trains out of service, it was unlikely that all advertised passenger trains were running in the West Country. On the far right is a Class 47 with a pair of FGW powercars en route from Laira to Brush Traction, Loughborough for refurbishment.* **Colin J. Marsden**
Photographic details: Camera: Nikon D200, Lens: Nikon 28-70mm zoom at 31mm, ISO: 200, Exposure: 1/500sec @ f9

Above: *Our photographer having just been to Serbia and Bosnia, where regular steam still operates in Coal Mines and Steel Works has provided this atmospheric illustration. The lines use mainly USA 0-6-0T locomotives of Class 62, these are much the same as the USA tanks that shunted Southampton Docks in the 1950s and 1960s. The design was very popular and Jugoslavia acquired over 100 after World War II and a further 25 were built in the late 1950s. The photographer records "the picture was taken in black & white as the light was poor, and I believe portrays the scene that we knew not so many years ago". No. 62 020, built by Davenport in the USA shunts at Kakanj Colliery north west of Sarajevo in Bosnia on 30 May 2007.* **Robin Patrick**
Photographic details: Camera: Fuji Finepix S9500, ISO: 400, Exposure: 1/250sec @ f4

Below: *Trouble at London King's Cross, on 10 May 1976 Class 31 No. 31174 became derailed at the entrance of the station during a light loco move between the loco yard and platforms. The problem caused chaos to station workings for hours and here the rerailing operation is performed by a steam crane.* **Charlie Robbins**
Photographic details: Not supplied

Above: *The wonderful Settle & Carlisle route still offers some excellent photographic potential, with a good mix of passenger (although multiple unit) and freight trains operated by several different operators every day. EWS grey No. 60013* Robert Boyle *passes Blea Moor on 18 April 2007 with train 6M20, the 04.30 Drax Power Station to Newbiggin gypsum train.* **Neil Harvey**
Photographic details: Camera: Canon EOS10D, Lens: Canon zoom @ 35mm, ISO: 200ASA, Exposure: 1/1000 @ f5.6

Below: *This amazing exhaust from ex-GWR 'Hall' No. 4965* Rood Aston Hall*, makes for a quite outstanding picture. On 2 June 2007 it is seen on the charter to Holyhead passing Park Lane Junction Birmingham on its outward run at around 07.00 with the early morning low sun glinting on the loco and smoke. The 'twinkle' from the locos headlight adds an extra dimension to the picture.* **Jim Mosley**
Photographic details: Camera: Nikon D50, Lens: Sigma 17-70mm zoom at 52mm ISO: 400, Exposure: 1/200sec @ f11

A visit to the Lotschberg route

One of several major railway engineering feats to be completed in 2007, is The Lötschberg Base Tunnel (LBT) this is a 34.577 km (21.5 mile) long new railway tunnel, cutting through the Alps of Switzerland some 400m below the existing Lötschberg Tunnel. It is the longest land tunnel in the world, accommodating both passenger and freight trains, and runs between Frutigen, Berne and Raron, Valais. Breakthrough of the tunnel was made in April 2005, and construction completed in 2006. An opening ceremony for the tunnel took place on Friday 15 June, 2007 and a full service should commence in late 2007. European rail expert **Brian Stephenson** recently made a visit to the 'old' route to capture these outstanding views.

Above: *German Railways (DB) Class 185 No. 185 119-5 and a Crossrail Class 185 pass Blausee-Mitholz station with a southbound freight as they climb from the northern Lötschberg ramp at Frutigen to Kandersteg on 7 June 2007.* **All photos taken on Nikon D200**

Below: *BLS Class Re 485 No. 485 006-1 and another of the same class are seen soon after passing Kandersteg and start the descent of the northern Lötschberg ramp to Frutigen with a northbound container train on 6 June 2007.*

Above: *A super view of Kander viaduct at the approach to Frutigen with a pair of BLS Re 4/4 (now Class Re425) Bo-Bo electric locos powering the northbound Hangartner train on 7 June 2007. A southbound freight can be seen behind on the newer viaduct. These Re4/4 locos were built as 'universal locos' from 1964 and 30 are now in use on freight duties.*

Below: *Owned by European Leasing company Mitsui Rail Capital Europe (MRCE)Class 484 Bo-Bo electric No. E 484 901-4 SE (RE 484 901-4) together with a DB Class 185 climb the northern ramp of the Lötschberg line from Frutigen and are seen approaching Kandersteg with a southbound 'Crossrail' freight on 5 June 2007.*

Above: *BLS-operated Class 185 No. 185 527-9 and a BLS Re 485 have just passed Kandersteg with a northbound Lötschberg freight on 5 June 2007. These locos are operating on the 15kV overhead system fed at 16.7Hz. The blue liveried 185s (as leading in this view) are hired from Angel Trains Europe and six locos are presently on the roster. 20 of the green and silver liveried 485s are in traffic.*

Below: *Another mixed pairing of blue and green liveried BLS locos. BLS Class 185 No. 185 527-9 pilots Class 485 No. 485 011-1 on the approach to Kandersteg and the end of the climb from Frutigen with a southbound container train on 6 June 2007. As a point of interest, this train was being banked by sister loco No. 185 535-2.*

Above: *SBB 460 051-6, in advertising livery, approaches Kandersteg at the end of the climb from Frutigen on the Lotschberg north ramp with train No. IC867, the 10.00 Basel SBB to Brig on Wednesday 6 June 2007. The piles of stone in the valley are from excavation of the Lotschberg Base Tunnel.*

Below: *Cisalpino Re 484 dual voltage Bo-Bo electric No. E 484 018 SR passes Blausee-Mitholz station with train EC130, the 06.25 Milan Central to Bssel SBB (Basle) on 7 June 2007. It was expected that these trains will be routed through the Lotschberg Base Tunnel from summer 2007. Cisalpino operate a fleet of six Re484 locos which are hired from SBB Cargo, they were built in 2004 and can operate from 15kV and 3000V supply.*

From a different viewpoint.....

Above: *The vast majority of railway photographers would never even consider taking an image directly into the sun, however here our cameraman has chosen to photograph the sun and obtain the light shapes generated by high power light striking the elements of the lens. By using the cameras automatic exposure feature, the railway subject has formed a silhouette. The location of the picture is Bradford Junction, Melksham and the exposure date is October 1988.* **Craig Shurmer.**
Photographic details: Camera: Canon T90, Lens: Canon 28-80mm zoom, Film: Kodak Extachrome 100, Exposure: not recorded, scanned slide.

Left: *Very few illustrations of trains are taken from a back angle looking forward, with the centre of focus and subject being the train, nearly all have the center of interest of the locomotive. Here the photographer has selected a very different viewpoint. Taken at Abbey Street Junction near Nuneaton it shows FirstGBRf Class 66/7 No. 66710 powering train 4L22 from Hams Hall to Felixstowe Intermodal terminal on 6 June 2007.* **Steve Lawrence**
Camera: Nikon D50, Lens: Nikon 70-300mm zoom at 255mm, ISO: 200, Exposure: 1/640sec @ f5.6

Above: *With a number of stations now having mirrors in which train crew can observe the passengers alongside trains, comes the chance to use these mirrors to produce reflection images. Here a c2c 'Electrostar', No. 357225 is reflected at Benfleet on 17 May 2007. After the image was taken, it was 'flipped' in Photoshop to allow the train to 'appear' to be travelling in the correct direction.* **Brian Morrison**
Photographic details: Camera: Nikon D200, Lens: Nikkor 28-70mm zoom at 28mm, ISO: 320, Exposure: 1/500sec @ f8

Right: *Taken from the rear of an Autocoach on the South Devon Railway and using the Monochrome setting on the camera, Class 25 No. D7612 is seen heading light engine towards Buckfastleigh through Bishops Bridge loops. The monochrome setting gives an authentic 'period' look to the image.*
Brian Garrett
Photographic details: Camera: Canon 5D, Lens: Canon zoom at 25mm, ISO: 400, Exposure: 1/320sec @ f8

A Midland Mainline tangerine & green liveried HST passes the dominating cooling towers of Ratcliffe-on-Soar power station and Ratcliffe Junction, near to the village of Ratcliffe-upon-Soar, Loughborough, Leicestershire in October 2002. Taken from the land atop of Red Hill tunnel, the train heads south for London St Pancreas. Special permission was granted from Thrumpton Hall to photograph the train at this location. **Phil Grain**
Photographic details: Camera: Mamiya 645 Pro TL, Lens: Mamiya 80mm f2.8, Film: Fuji Provia 400ASA, Exposure: not recorded