

FLMJ-Nytt.

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The “Rc” Story.

Events and Outings.

Workshop Updates!

And much, much more...

FLMJ-Nytt



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Featuring news from SJ, from the model world, rumours and more!

On the back cover, we are testing your knowledge of Swedish railway signal aspects!

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Front Cover: Rc4 1197 in Green Cargo's green livery at Hallsberg on June 22nd, this year.

[Photo: Adrian Allum.]

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From the Editor...

Following my one week in Sweden, I decided to travel to Pwllheli in North Wales, to stay with some friends there. I travelled by train. At £61 return, this was cheaper than buying enough petrol to do the journey, and there are no long-distance buses that go anywhere near there. As you can imagine, the British railway system (in particular the Train Operating Companies) did its best to make this as unpleasant as possible.

The Virgin train from Reading was 20 minutes late starting because a lorry had hit a railway bridge near Didcot. OK, so this wasn't Virgin's fault; and they were quite pleased about that. In fact, they were too pleased about that, for once we had passed the accident site (at walking speed), they made no effort to make up for lost time, constantly reminding passengers that it wasn't their fault we were running late. It was a classic case of BSE - Blame Someone Else. All of the passengers would have appreciated it more if they had made some effort to make up for lost time; but we live in a culture where any inconvenience or disruption is OK as long as there is someone else to blame! (Within AJK, Virgin is called "Vermin!")

I missed my connection at Wolverhampton!

Arriva, however, were also incredibly dumb! I can remember being impressed when I first went to Sweden, and my reservation from Stockholm to Kalmar was on a train to Malmö. The train divided at Alvesta, and I was impressed with the simplicity of the service; and this was one of the influencing factors in choosing to model the railways of Sweden. Travelling to Pwllheli was different. I had to change at Machynlleth, where my reservation terminated. (The train went on to Aberystwyth and I was originally told to change at Dovey Junction, but I was later told that not all trains actually stop at Dovey Junction!) I would have to find a seat on the next local service to Pwllheli. Then, there was some confusion on the platform at Wolverhampton as to whether the train went to Aberystwyth or Pwllheli, as there were indeed, conflicting announcements. Can you guess the outcome? The 4-car train (comprising two 2-car sets) divided at Machynlleth and I had to get out of the second carriage there, and move all my baggage to the third...!

Adrian Allum.

The Swedish ASEA success story.

The name ASEA is associated with many industrial electrical concerns from Sweden. Until only a few years ago, this included locomotive building; and one of the most successful designs has got to be the “Rc” series, introduced for the domestic market from 1967, and exported to a number of other destinations. Here, Andrew Henning looks at the Swedish “Rc” story.



Rc5 1344 at Lövhöjden. According to the FLMJ's stock register, this is an “Rc6,” but it retains its “Rc5” decals (and orange livery with “meat-stamp” logo) to run as a “Heritage” locomotive, usually with the set of Roco brown coaches or epoch IV wagons.

[Photo: Adrian Allum.]

In 1967, the Swedish State Railways (Statens Järnvägar / SJ) put into service, a new design of locomotive, the “Rc,” which was later to become the “Rc1.” The design was developed by ASEA (Allmänna Svenska Elektriska Aktiebolaget) especially for the Swedish railways. At the time, it was probably the world's most advanced electric locomotive design, and it went on to become probably the most successful. The key factor in the design's success, was the thyristor control system - innovative at the time. It was designed for mixed traffic with a top speed of 130km/h, being

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equally at home on passenger duties as on goods duties. Derivatives of the “Rc” have gone to Austria, Norway and the U.S.



Rc6 1344 (left) as it is today, seen at Hallsberg, in the current blue livery. Rc1 1008 (right) with “Green Cargo” markings (instead of the usual SJ logo) is seen at Hallsberg. The red line extending up to roof level indicates that the loco is radio-control fitted!

[Photos: Adrian Allum]

The twenty locomotives were followed by 100 “Rc2” versions. These latter locomotives had improvements to the thyristor circuits and more sophisticated electrical filters. It had been found with the earlier locomotives that the thyristor circuits caused ‘harmonic ripples’ in the signalling circuits that were in the rails!

During construction of the “Rc2,” an extra ten were supplied with gearing for 160km/h and classified “Rc3,” and another 16 were supplied to the Austrian Railways (ÖBB) as their class “1043.” The Austrians, however, decided that they could do better, and instead of ordering more “1043s” from Sweden, they built their own derivative, the “1044.” This new design has never been particularly reliable, and to avoid further embarrassment, they’ve now withdrawn the “1043s” so that there’s nothing to compare with! The “1043s” have mostly returned to Sweden, where reclassified as “Rc2,” they are now in active, reliable service with private operators.

In 1975, the design was improved further, with the “Rc4,” of which 150 were provided. This new version had a device to prevent wheel-slip during acceleration and was fitted with solid-state converters (instead of rotary) for the power supply

to auxiliary apparatus. During the construction of these locomotives, another 15 were made for the Norwegian Railways (NSB) and classified "E1.16." Also, during this time, one locomotive (Rc4 1166) was sent to the USA for trials, and proved so successful that the design was adopted initially by Amtrak as their class "AEM7," but further derivatives are now in operation with other train companies there. (As the U.S. has a strong "Buy American" lobby, ASEA allowed General Motors to build the locomotives under licence in the U.S.) Another variant during this time, was the Swedish "Rm," of which only six were built. These locomotives were to be used on the Iron Ore trains (in pairs), and were fitted with automatic couplings, lower gearing for 100km/h, more weight to improve adhesion, and better heating and insulation in the cabs. They were not wholly successful in this duty and they have been relegated to other duties.

In 1982, the "Rc5" appeared. These sixty (and subsequent) locomotives were instantly recognisable due to a different roof profile. Inside, however, they had a new motor (ASEA LJM 450 instead of ASEA LJH 108), better ventilators (hence the new roof profile), stronger bogies, and an improved cab with better accident protection for the driver, stronger windows and redesigned desk.

Then, in 1985, a 160km/h version of the "Rc5" appeared, classified "Rc6." These were the last forty "Rc" locomotives to be delivered. During the 1990s, all "Rc5" locomotives were converted to 160km/h and reclassified accordingly. In more recent times, a couple of these locomotives have been reclassified "Rc7" and marked for 180km/h, though this speed is only in theory, as they are still limited to 160km/h.

The "Rc" story comes to an end with the "Rz." This is not really an "Rc" at all, but it is mentioned as it is contained within an "Rc" body (but without the small round windows on the bodysides)! The "Rz" has asynchronous traction control (developed for the X2000), and as such, has brought the "Rc" technology to obsolescence. The solitary "Rz" has been preserved.

The Swedish locomotives are generally contained within two

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bodies. The latter roof profile distinguishes the “Rc5” and “Rc6” from the earlier members. There are other detail differences to look for, that are worth considering if converting any of the models of the design that are available. “Rc4” onwards had different roof fittings to the earlier locomotives and different underslung equipment between the bogies; though this equipment has been changed on several assorted earlier types! The “Rm” has different bogies with extra springing (for the extra weight) and the Austrian “Rc2” versions have a different lamp layout. All of the pre-“Rc5” locomotives have had their roof profiles changed with the retrofitting of the better ventilators - but not to match the “Rc5” onwards! “Rc1” has four large box-like affairs along each side. “Rc2,” “Rc3,” “Rc4” and “Rm” have two of these, but not along the full roof length (see pictures). Although these all look the same, note that on the “Rc4,” they protrude more than with the others! The “Rz” has the earlier roof profile, and the latest pictures suggest that it hasn’t been modified, still.

The Austrian class “1043” locomotives were identical to the “Rc2” and were even delivered in SJ livery! Over the years, there have been a few minor modifications to the locomotives, but the only readily notable difference is the different lamp layout. Returned to Sweden, there has been no apparent need to change the lamps’ layout. The “1044” is not an ASEA product, so we will not discuss it here!

The Norwegian class “El.16” locomotives are quite similar to the “Rc” in appearance, except for the cab ends and roof detail. The ends are pointed (and have toughened glass for dealing with icicles in tunnels)! Some of these locomotives have been returned to Sweden, and are in regular use with a number of operators.

The American class “AEM7” locomotives are quite similar to the “Rc,” but *not* similar enough to be able to just repaint a model! The cab ends have a different profile, the roof equipment is very different and the bodysides are slightly different also. But there is still something of a ‘family resemblance’ with them. (Despite a model at the FLMJ, there are none of these in Sweden!)

The Rc in model form.

Fleischmann, Lima and Märklin have produced the “Rc1-3” design, and Roco the Rc5-7 design. Here’s a brief review of the models.

Fleischmann introduced their model in 1973 as Rc2 1091. The only major change to the model was a new “drive” fitted from 1994 onwards. By 1970s standards it is a very fine model. It is slightly over-scale and the cab end windows are fitted the wrong way up (check the moulded-on windscreen wipers to see what I mean). Running performance is good. As the “Rc” is not a German locomotive, Fleischmann have no plans to improve it.

Lima introduced their model in 1974 as Rc2 1035. It has had a number of cosmetic changes over the years, the most notable being the new blue livery in 1991. It is a very basic model (more akin to a toy) even by 1970s standards, and as a ‘rule of thumb,’ you could buy three Lima models for the price of one Roco model - and have some change left over! Performance is poor to middling!

Märklin introduced their model in 1968 as Rc 1010. (Note, this is not a typo; it was “Rc” not “Rc1” - see earlier notes.) In line with all Märklin products, however, this model was designed to operate on their antique 3-rail system. It has undergone a number of cosmetic alterations, but it is only recently that the roof profile has been modified to current standards (but it retains the non-heated mirrors!). Starting in 1969 Märklin licensed Hamo to produce 2-rail versions of their model, though this agreement no longer exists. There was hope of a fresh agreement of this nature with Trix, but it doesn’t appear to have materialised! Most recently, their model has been advertised as an “Rm,” but it is inauthentic in that it is only an “Rc” with “Rm” markings (check the bogies)!

Roco introduced their model in 1984 as Rc5 1323; but it actually came with a sheet of transfers so that the purchaser could apply one of four numbers (or chop them about to make even more numbers - see FLMJ’s “1407”)! Roco’s model is the only one to represent the newer roof profile. Different

versions of the model have been issued over the years in both of the main liveries and with a selection of more numbers. The only major alteration to the model is that the most recent ones are DCC-ready. This means that in addition to being able to fit a DCC chip, the headlights don't work except dimly at full power (unless you do fit DCC)!



The American AEM7 in model form by Atlas, the Norwegian El.16 and the Swedish Rc6 by Roco; side by side at the stabling point at Lövhöjden.

[Photo: Adrian Allum]

Below Left: The early (left) and revised (right) design of the red line on the blue livery; Märklin and Roco models.

Below Right: The prototype Rc7 1421 in the newest blue livery, at Stockholm Central.

[Photos: Adrian Allum (left) / Dennis Hage (Right)]



In the next edition, I shall look at some special edition models and at the FLMJ's fleet, paying particular attention to the desired modifications, and how they can be done. 🚂

The Missing Reports!

In edition 2/04, we announced that we would have a look at the state of some of our models, RETB for Steninge and our Publishing History - in the following edition; and we didn't! The Publishing History will wait until the next edition, and the RETB until edition 1/05 or 2/05 - for reasons that will be revealed below.

The X2000 models were featured in our previous edition (so we did get that bit in). But what of the other models that we mentioned?

- The X10 is still troublesome, and this is being put down to the Tenshodo Spud motor bogie. We will be making some modifications to the bogie, probably later this year, in accordance with current EMC regulations, and it is believed that these modifications will improve performance also. We are looking at the possible purchase of one or two more sets!
- The Y1 is presently under construction, and it will emerge in the original SJ orange livery. It will be fitted with two Tenshodo Spuds (already in stock) and it is hoped that it will be running before the end of this year.
- The Z68 is nearing completion. The motor is not a very good fit, and some modifications are being made right now. Then, the only outstanding work will be decals buffers and couplings. Again, we're expecting to see this running later this year.
- The SSLidJ locomotive is a more longer term project, so that has been put away for now.

The problems with the Tc have been identified, and it is hoped that this will be able to return to service later this year. Quite simply, a screw has dropped out of the chassis, causing the gears to slip! Finding a replacement that fits... 🛠️

The RETB situation is being held back because of a bigger signalling update (especially affecting the FLMJ) to appear in a later edition, but see the "News in Brief" in this edition also!

Events and Outings.

On July 10th & 11th, the FLMJ was open to invited guests. As open events go, this was a very quiet weekend, due no doubt, to the abysmal weather! Despite another fault on the Siljansbanan block instruments, the railway worked very reliably, and AJK may gain a new member from all their efforts.

On July 17th, four AJK members visited the Backford & Stanton Light Railway in Enfield. This is an O-gauge garden railway based on Colonel Stephens' practice, and made for a pleasant day out - with a member placed at each station, and with full block working, an enjoyable afternoon was had by all. Even the weather was nice!

Then, on August 7th, four AJK members (and a brother) had a social day out on a boat (owned by the family of one of the members) on the River Thames. With the weather as it was, there was a little bit of sunburn(!), but it was a most enjoyable and refreshing day out - though only two members took to swimming! 🏊



↖ V 803 with a short train at Lövhöjden on the FLMJ's open weekend.

↑ A scene from the BSLR, O-gauge in the garden.

← Three of the four participating AJK members on the social outing.

[Photos: A. Allum.]

Video Review.

Kiruna-Narvik från Förarplats.

LEG Video, Ö. Storgatan 59, SE-293 33 Olofström, Sweden.

Tel: +46 (0)454-998 68 / Fax: +46 (0)454-911 50 / Web: www.legvideo.se

VHS, 130 minutes, hifi/stereo, © 2002.

How do you present a seven hour journey across 474 km of Arctic tundra on Video? 15 years ago, John Cocking did it by editing the journey down to just the interesting parts ("passing" places, especially stations), but this newer attempt by a Swedish producer is perhaps a more appropriate effort. Instead of starting at Boden, this journey starts at Kiruna, and the 160 minute journey is edited down to 130 minutes.

The journey is with passenger train number 94, headed by TKAB's Rc6 12 (formerly SJ Rc6 1334 - all TKAB-owned locomotives have been renumbered from their original SJ numbers - just to confuse people!) at the beginning of August, 2000. The mountainous and austere scenery is evident in this program, and just as it says in the books, it gets more dramatic, the further you go!



As is becoming a habit with LEG cab-rides, there is a fair amount of narration, including explanation of signal aspects as well as various other effects passed on route - great if you understand the Swedish language! There are also many scenic shots ... and in this area, we're not complaining!

An excellent map of the route is provided (drawn by Peter Löf and Catarina Östlund) inside the case.

For reasons beyond explanation, we have a duplicate of this video, unopened (and therefore, unused), which is for sale for a modest £9.

First come = first served. 🚂

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Website Questions.

The website at www.adnalm.org.uk continues to ask for your opinion on a number of subjects, and we have some more to report from. If you would like to look at the poll, it is toward the bottom of the home page, just read the question, select an answer (from the drop-down list) and 'click!'

In June, we asked:

How many of Heljan's rumoured new releases will be produced within, say, the next ten years? (T21 diesel, D, F, Ma, Mg electrics, F steam loco, assorted 1930s coaches (counts as one item), X10 and derivatives (counts as one item).)

4 people said, "1-2." (44%)

5 people said, "3-5." (56%)

Nobody said, "6+."

Since the poll went up, we received a leaflet produced by Heljan, mentioning all of the models except the X10 and derivatives.

In July, we asked:

Swedish Parliament has resolved to sell off "Green Cargo." Is this a good idea?

Nobody said, "Yes, this is the best way forward."

Nobody said, "Yes, but the industry should be regulated."

4 people said, "No, but something needed to be done." (57%)

2 people said, "No, Green Cargo is the best way..." (29%)

1 person had no opinion. (14%)

A few weeks ago, a museum train hit a lorry on a level crossing, whilst the driver (of the lorry) had stopped to read his map! This sort of madness is almost beyond belief! August's question asks what penalties should be imposed on idiots who behave in this way (and one of the options is "Death Sentence")!

For September, we will be asking, "Will there ever be an 'Rc8'?" There will a selection of answers - not just 'yes' or 'no.' Questions beyond September have still to be decided upon. We have received a few suggestions for questions - do keep sending them in; although not all of them are suitable (unfortunately), we particularly enjoy the selection of topics that are suggested. 🚂

Signalling...

We'll keep quiet about this no longer! The signalling for the FLMJ has priority over all else, as it is being done as part of a University project, and needs to be completed by next Easter! Yes, that's right, "completed." More about this in a later edition!

Y2 no more!

Heljan's model of the "Y2" set arrived at the FLMJ ten years ago. It has never worked properly. Part of the problem was the fitting of fine scale RP25 wheels into unsprung bogies. Then there was no room within the coupling mechanism for negotiation of gradient changes. Both of these problems cause the set to derail at every opportunity. Being fitted with one Tenshodo Spud for traction didn't make matters any better. Then, earlier this year, damage was found to have been caused to one of the bogies, and fearing

NEWS IN BRIEF.

SJ News.

Millions of Swedish Crowns are currently being spent across Sweden on digging new railway tunnels, but they'll be out of bounds for many of the trains currently being used in the country. Tunnel designers have come up with a list of features that trains must have if they are to be allowed to go underground. For many tunnels, for example, diesel trains are blacklisted, trains will have to carry fire extinguishers, smoke detectors, have fire resistant fabrics and have modified emergency brakes, which prevent the train from stopping in the tunnel if someone pulls the lever. Many of today's rolling stock don't meet those demands, but train operators still have a few years to buy new trains. Most of the new tunnels won't be finished for at least five years.

A Somerset (England) engineering firm has developed a moose-proof device to help a Swedish train company keep its trains running to time. W & J Tods of Crewkerne designed the detachable nose-cone protector to fit on to the front of trains. Every year, trains on the Arlanda Express go out of service after hitting Moose. 20 nose-cones have been ordered.

Model News.

Roco have now added Swedish liveries to their models of the Danish MY, thus TMY. This locomotive is available from Heljan also!

Next Edition.

We conclude Andrew Henning's report about the Rc locomotives, have a review of a cold trip to Sweden last February, and look at 25 years of Publishing History!

STOCK REVISIONS.

Lgins-w 42 74 443 0 820-4 New.

Lgins-w 42 74 443 0 410-4 New.

These two wagons are container flats with "Green Cargo" containers on. Made by Märklin, they were unable to run until the wheel-sets had been replaced.

Y2 1372 Withdrawn.

AB7 4359 Under Construction.

AA1B 13943 Withdrawn.

AJ41 1652 Withdrawn.

higher levels of stress being caused by this model, it was withdrawn as a classic case of "cutting our losses." The newer re-tooled version runs a lot better, but there are no funds to justify a replacement set for quite some time, yet.

RUMOURS.

It now looks as if the Roco Rc2 and Rc3 have disappeared altogether! Many Roco products that are produced especially for the Swedish Market are commissioned by Jeco - and the conversion kit for Roco's Rc6 to Rc4 is produced by Jeco!

(Andrew Henning will be looking at this conversion kit in our next edition; though it will be much too early for any of the FLMJ's models to have been converted by then!) 🚂

And Finally...

Not long after their inclusion on the FLMJ's stock register, the four H0 scale British coaches have been withdrawn! Behind this decision was the fact that they are of very poor quality, and it was unlikely that they would ever operate upon the railway! Also, a set of three Fleischmann British coaches in H0 scale have arrived, but privately owned (and therefore, not on the register)! If we desire to demonstrate the British Loading Gauge, these newer "better quality" coaches will be brought into service. They comprise:

5146 S5751S Composite Corridor

5147 S130S Second Open

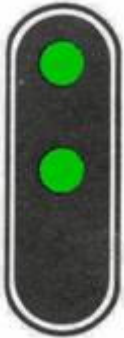
5148 S4279S Second Open/Corridor + Luggage

All three coaches are of the Southern "Bullied" design, but are of different variations, noticeable by different window and ventilator depths - no two follow the same pattern!

The Fleischmann British Diesel locomotive in H0 scale has been ruled out as it is not actually the correct type for these coaches, and the FLMJ has no real desire for it! 🚂

How well do you know Swedish Signal Aspects?

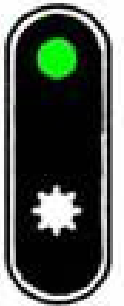
We have provided a number of Swedish Signal aspects below, and we wonder how many of them you know the meanings of? Although this is not a competition and there are no prizes, we'll hold the answers back until the next edition! 🚂



A



C



B



D



Steady Aspect

Flashing Aspect



E