

# Network Rail 4 Leaves 0

Network Rail National Delivery Service's Norman Roberts describes the success in combating the annual problem.

Last year's annual battle with leaves on the line and slippery rails was a win for the railway industry in general and, in particular, Network Rail which reduced its delays because of leaf-fall by 42%! The previous year had reversed the trend of deteriorating performance, but everyone felt that with the right equipment, processes and people, an even better performance was achievable.

So it turned out to be. In terms of train punctuality, Autumn 2004 was the best for many years. Key to this were the special trains deployed by the National Delivery Service. These consisted of 14 new multi-purpose Railhead Treatment Trains (RHTTs) equipped with both sandite and high-pressure water-jetting capability. These supplemented

the existing 32-strong fleet of Multi-Purpose Vehicles (MPVs) and six earlier RHTTs.

This long overdue modernisation of the fleet enabled 20 less reliable 'heritage' units to be scrapped. The new fleet has a much greater delivery capability. Water-jetting capacity has been increased by 105% (850,000 litres) and sandite delivery by 6% (10,000 litres). The core fleet of MPVs and RHTTs were used on 93% of planned circuits. Other circuits in North Scotland and the West Country were covered by EWS Class 37s modified to deliver sandite only, while Chiltern Railways used DMUs with sandite and water-jetting capability.

## RHTT - our flexible friend

The RHTT consists of three types of

interchangeable modules mounted on KFA bogie container flat wagons. The train is loco-hauled and for flexibility of operation is usually 'top-and-tailed' with a locomotive at both ends. The three demountable modules are:

- A 1,400 litre capacity Sandite delivery module. The application of the Sandite is radio-controlled with variable flow rates ranging from 2 to 6 litres per minute. The equipment was manufactured by Socofer and was developed from the original MPV equipment.

- A radio-controlled high pressure water-jetting module manufactured by Woma. This operates at 1,000 bar pressure and delivers 132 litres per minute to the railhead via bogie-mounted jets.

- A 17,100 litre capacity water tank manufactured by Protran. Each tank gives a RHTT an effective range of over 60 miles. For high mileage circuits trains can operate with more than one tank.

## Planning and control

The weather decides when the leaf-fall programme starts and stops. The autumn period is actually defined in a Line Standard (currently being reviewed). Last year it began on Sunday 3rd October and ran until Saturday 11th December. A small number of circuits were run earlier in Scotland and LNW due to special local circumstances. A real step forward this year was the real-time reporting to Route Controls on the success of individual treatment circuits. Performance was consistently good, but when there were problems, real-time reporting enabled Route Controls to put alternative arrangements in place.

NDS operations were co-ordinated by its 24-hour control organisation based





in Prudential House, York.

Although the circuits were established in advance, the actual operations changed from day to day in the light of changing local circumstances. In spite of the variability in the plan, and all the resourcing problems that entailed, 90% of the intended sites were successfully treated.

The statistics of what was achieved are impressive. There were 4,897 planned train circuits, which totalled no fewer than 169,230 individual sites treated. Around 250 additional circuits were operated under control arrangements for unplanned additional treatment. Of the circuits that operated, the vast majority ran on time or early.

### Technical innovation

In addition to the introduction of 14 new RHTTs, a lot of specific technical innovations were undertaken:

- Trialling upgraded laser units on two MPVs.
- Battery boost charging for MPVs.
- Ancillary component modifications.
- Water-jetting nozzles reconfigured to improve railhead cleaning.
- An advanced Train Data Logging System trialled on some MPVs.

To deliver such a big improvement on the 2003 results was a tremendous achievement. As well as being the result of a lot of hard work by NDS staff and their suppliers, it is also proof of the close working relationship established between NDS and the Route teams around the network.

Two NDS managers were key to the achievement. Nathan Cator, who is Senior Operations and Performance Manager in Alan Bone's production team and Paul Woodiwis, who is a Senior Engineer in the Fleet team led by myself. The day to day effort was managed by Nathan's shift controllers who all did an

excellent job. Sadly, passengers often remember the delayed train journey rather than the one which ran on time. If that is the

measure of our success, we gave our customers a lot less to remember us for in Autumn 2004!

