TELECOMS TRAINING
NATIONAL TRAINING ACADEMY MEETING GROWING DEMAND

Technology on the railway is advancing rapidly, and this is certainly true of the signalling and telecommunications sector. New systems are being introduced, the Digital Railway programme is advancing, but all the while the sector faces a skills shortage. Appropriate training is therefore in high demand, and Linbrooke Services has established a dedicated facility to help meet these needs.

Linbrooke is a fibre-optics and telecoms specialist with an annual turnover of £45 million. Network Training and Resource Solutions (ntrs) is a wholly owned subsidiary of Linbrooke, and provides solutions to meet the company's requirements for highly skilled telecoms engineers while also catering for the needs of the wider industry. Its facilities are centred on the National Training Academy near Sheffield.

Training focuses on three key areas – telecoms, low-voltage power (with high-voltage power soon to be added) and signalling. Of course, telecoms and rail are inextricably linked, and the requirement for signal works testers in particular is growing. There is an element of cross-training between the areas, as dictated by the specific requirements of each course, and by training on peripheral aspects staff will be able to fix multiple faults.

All courses are clearly structured and designed to offer progression through a series of levels. Individual telecoms courses last from two days up to six weeks, while those for signalling tend to be shorter at a maximum of five to 10 days. It can take 15 years to reach full qualification in the telecoms sector, but by building skills gradually over time students are given a road map, helping them to see an end goal.

Up to 300 students per year can be trained at the academy, mostly in the telecoms and signalling sectors, with the emphasis on familiarisation with equipment. Training is therefore a mixture of theory and practical work, with assessments also reflecting this balance. The practical element is especially important, with the hands-on approach to the fore. Students can work in a live but safe environment, and are encouraged to wear full personal protective equipment (PPE) to make the situation as realistic as possible.

The typical instructor to student ratio is 1:6, which meets Network Rail's preferred levels. Ntrs is accredited with City & Guilds and has EAL-approved National Skills Academy for Rail (NSAR) training providers, the content of all courses is independently verified and all trainers are independently coached and assessed for continuing professional development (CPD).

RESOURCES
A unique feature of the academy is how equipment is sourced. Many companies, some of them Linbrooke's competitors, offer decommissioned equipment to the site in return for ntrs providing training for their employees. Others send equipment to the academy for testing in a safe environment, meaning that ntrs can be at the forefront of technology before it goes live. Industry

Training academy: ntrs has a wealth of equipment covering the fields of signalling and telecommunications. Courtesy Linbrooke

Signalling specialist: ntrs has a mixture of new and legacy equipment. Courtesy Linbrooke

partners who have worked with the academy include Colas, Siemens, Thales and Network Rail. By building a relationship with the supply chain, Linbrooke gains the benefit of equipment which can be used to train its own staff, but as ntrs is a separate company, there is no conflict of interest. The view taken is that it is better to share resources for the benefit of the industry as a whole.

In terms of telecoms, there is a mixture of legacy, current and long term evolution equipment. The academy has a 240km fibre-optic network which is live 24 hours a day, while outside there are real ballast-link telephones and location cabinets. A particular source of pride is the sub-sea repeaters, which were recovered from scrappage at the end of their life and enable a live network to be simulated. The aim is to simulate actual field conditions where

possible – for example, gantries allow students to practice working on equipment at height.

A wealth of signalling equipment has been gathered at the academy and covers both legacy and new systems, recognising that while technology is advancing, the older systems will need to be retained for some time yet. Driver only operation (DOO) training can be offered using computer screens designed for the purpose, along with Automatic Warning System (AWS) training. Ntrs has been supplied with a Euro Balise transponder, enabling learning for European Train Control System (ETCS) and European Rail Traffic Management System (ERTMS) and the requirements of the Digital Railway programme. Customer information screens are also simulated, attached to the nearby station at Chapeltown, along with public address systems, so all communications aspects are covered.

RECRUITMENT
From the outset, the facility has had a strong affinity with the Ministry of Defence, led by Linbrooke's CEO Lee Hallam, who comes from a forces background himself. The company actively recruits from this sector, including people who have had to leave through injury, equipping them through ntrs with the skills needed to start a new career. After successfully completing a course, ntrs supports students to source employment, via Linbrooke or other organisations.

Ntrs is also working with the Department for Work and Pensions to recruit redundant miners and steel workers, helping to support individuals from dying industries, while Linbrooke has built a partnership with a local school, exposing students from challenging and deprived backgrounds to the business with the possibility that they may be given an apprenticeship later.

While there is recognition that there remains a huge skills gap within the signalling and telecommunications sector, the unique arrangement at ntrs is helping to make inroads. mr