



Northern Rail leads the way in improving the GSM-R System

Quite often, due to the varying length of trains, drivers can't see the relevant signal and have been either relying on pocket reminders, memory or using the wildcard to register the GSM-R in-cab radios.

Northern Rail has made good progress in supporting drivers with the GSM-R radio registration process through the tactical placement of small blue and white signs on platforms, which means the signal number will now be much easier for drivers to read. These repeater signs have been implemented successfully at Carlisle, Sheffield, Hull and Bradford Interchange so far.

Northern Rail have been able to effectively prioritise the implementation of these new signs where they are most needed, thanks to feedback directly from drivers. Northern Rail has communicated the initiative on their employee Facebook page and are encouraging feedback

via Driver Training Managers, meaning that everyone is working together for a better GSM-R System.

Merseyrail GSM-R registration problems at New Brighton station

The initial introduction of GSM-R in Merseyside highlighted an urgent requirement to identify and resolve the fundamental reason for frequent GSM-R related train delays at New Brighton station. GSM-R registrations were failing due to: in-cab radios attaching to a wrong cell, driver initiated GSM-R registration attempts occurring before the requisite signaller initiated TD interpose and in-cab radios were locking up.

Collaboration between Merseyrail, Network Rail Operations and NRT resolved GSM-R registration rejections through: a reduction of transmitted radio power by two interfering Public Mobile Network Operators, physical changes being made to the serving GSM-R mast antenna orientation, software configurable parameters

being modified and signaller and driver briefings on GSM-R registration and implementation of Bulletin 21.

Empowering Merseyrail to take the lead on this cross industry collaboration to improve GSM-R performance resulted in a very strong sense of 'we are in this together'. Trustworthiness allowed trusting relationships to develop, enabling participants to communicate openly and honestly without the fear of reprisals.

It was this specific development that enabled the team to rapidly identify, develop and deliver its action plans to improve GSM-R performance at New Brighton station. An initiative by Merseyrail drivers to recover the GSM-R network via their in-cab radio menu resulted in the national introduction of GSM-R Bulletin 38.