

# Rail Innovation & Development Centre carries out its first ETCS retrofit train tests

May 19, 2022



A train retrofitted with onboard digital signalling equipment has undergone the first tests of its kind to be carried out at **Network Rail's** Rail Innovation & Development Centre (RIDC).

The train is a Class 180 owned by Angel Trains and operated by Grand Central. It has been retrofitted with European Train Control System (ETCS) equipment – with tests made possible thanks to recent upgrading of the RIDC facility in Melton Mowbray.

Following the upgrade, First in Class (FiC) ETCS trains can undergo dynamic testing to support the approval and authorisation process for operation on the GB rail network. This will enable the readiness of all trains for the Government funded East Coast Digital Programme (ECDP), which will ultimately see traditional signals removed from the tracks on the southern part of the East Coast Main Line.

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- **New equipment set to be commissioned for East Coast Digital Programme**
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The Class 180 arrived at RIDC at the end of April. Alstom supported by partners at [Network Rail](#), Grand Central and Angel Trains completed FiC testing and accumulated endurance running to prove the reliability of the Alstom ATLAS 2 ETCS onboard system. The trackside ETCS system installed at RIDC has also been delivered by Alstom's expert signalling team in the UK.

Alstom's Onboard ETCS system fitted to the Class 180 is the first onboard system tested at RIDC that is compliant with ETCS standard Baseline 3 Release 2 (required standard for ECDP roll out). The onboard system is the first to support Packet 44, which enables operation with GB specifics such as miles per hour. This is a major milestone achievement by the project team.

The teams are currently reviewing the results from the testing and undertaking detailed planning for the next key project milestone which will be to commission the Class 180 into ETCS Level-NTC (National Train Control) operation later this year, the next step towards supporting full ETCS operation on the East Coast Main Line in the near future.

Toufic Machnouk, Network Rail's Director, Industry Partnership for Digital Railway, said: "The availability of RIDC to commence the testing of the first retrofitted train is a key corner stone in GB digital capability and the network master plan. It provided the proving ground for ETCS trains that will enable the migration to ETCS operations on the network. This is a national capability for the industry that will serve the ECDP as the vanguard scheme and the broader application of digital signalling technology in this country".

Jason Baldock, Alstom Digital & Integrated Systems (D&IS) UK Managing Director said: "This is a hugely important milestone not just for Alstom and our partners on the Class 180 project, but also the wider industry, as we have now tested in the UK the most up-to-date ETCS Onboard technology at the state-of-the-art RIDC Melton test track, which has also been delivered by an Alstom team. This is a huge step forward for the future roll-out of ETCS in the UK, and is a testament to the hard work and collaboration of the participating businesses in delivering this technologically challenging project".

Richard Morris, ETCS Project Manager at Angel Trains, said: "This is an exciting milestone for Alstom, our Class 180 trains, and the future roll-out of ETCSs across the country. We are proud to have supported this project and look forward to working alongside our industry partners to continue to innovate the UK rail industry."

Sean English, Chief Operating Officer, Grand Central Rail, said: "Grand Central Rail is delighted to have supported the development and testing of the ETCS System on the C180 FiC train as it represents a major milestone for the ECDP, bringing us a step closer to operating in ETCS Level 2 (L-2). The Grand Central team are looking forward to placing into use the FiC train in L-NTC later this year, which will allow us to understand the reliability of the system, thus paving the way for a smooth transition to ETCS L-2 operations."