

BEHAVIOUR OF MK IIIA OVERHEAD LINE CONTACT SYSTEM IN WIND – INITIAL RESULTS OF MEASUREMENTS ON AN EXPOSED SECTION OF LINE NORTH OF TEBAY

Excessive amplitude of pantograph displacement had been observed on test runs carried out on exposed sections of MkIIIA equipment in high winds. An exposed portion of track along the Lume Valley showed particularly large amplitudes. A portal structure was erected within the relevant tension length to permit measurement of conductor displacements in span. The report summarises the findings from the trackside measurements obtained during windy conditions.

Whilst too early to draw firm conclusions, the results from the tests showed that sag may be far less than the design value and that oscillation in the right frequency range can be present. Each of these features can be expected to produce significant pantograph amplitudes.