

DEVELOPMENT OF WHEELSLIP PROTECTION FOR THE ADVANCED PASSENGER TRAIN, 1970-1973

This note outlines the work done between 1970 and 1973 on the wheelslip protection system for braking and traction of the Advanced Passenger Train (APT).

The required overall system response has been assessed from the need for satisfactory stopping distances and from the maximum flash temperatures which can be permitted during slip between wheel and rail. The individual elements of the system - wheelset, speed transducer, detection equipment and brake or traction response - have been examined. Their effect on the overall response has been simulated using a specially developed digital computer program.

The experience gained in track testing is summarised and proposals are put forward for the wheelslip system to be used on prototype APTs.