VALIDATION EXPERIMENT ON THEORIES RELATING TRACK GEOMETRY TO PASSENGER RIDE

Service train tests between Euston and Carlisle have been carried out to validate two theories. The first relates quarter-mile track geometry to seated passenger ride discomfort and the second relates track alignment faults to standing passenger discomfort. These two validation experiments were carried out simultaneously, with 16 seated passengers making assessments of alternate quarter-mile sections, while 16 standing passengers continuously assessed lateral ride. Statistical analysis shows that the quarter-mile quality prediction method can be considered validated. Alignment fault detection theory using standing passengers is an improvement on past theories but leaves scope for development.

BR Research Report Ref: TM-VDY-035
Report Author(s): W Poole, RM Troup
Date of Publication: January 1990

AEAT Abstract Date:
01/07/2002