Improving on-time performance for long-distance passenger trains operating on freight routes

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This paper discusses on-time performance (OTP) for long-distance passenger trains operating over tracks that are owned and operated by freight railroads. OTP is addressed primarily from the point of view of the host railroad. A brief literature review identifies practices that are commonly used by railroads and other modes to develop and implement achievable schedules. Analysis of travel time, train delay and other data for Amtrak trains operating on CSXT's I95 Corridor documents actual levels of reliability and the primary causes of poor OTP. Comparison of performance for passenger trains and various classes of freight trains demonstrates that Amtrak trains operate much faster and more reliably than CSXT's trains. Potential means of improving the OTP of Amtrak trains are discussed. While providing high quality track with sufficient capacity is the long-run solution for upgrading OTP, a short-run solution is to base schedules on past performance ("experience-based scheduling"). After Amtrak increased the schedule of the Auto Train by one hour in 2006, OTP improved from less than 10% in early 2006 to 82% for the first half of 2008. Analysis of the travel time distributions of the other long-distance Amtrak trains operating on CSXT's I95 Corridor from 2004 to 2008 indicates that a similar schedule increase would also have brought these other trains close to Amtrak's goal of 80% OTP. Schedules that reflect track maintenance requirements and other known seasonal and weekly factors would allow further improvements in measured OTP. Additional measures of performance concerning the probability and extent of late arrivals would be beneficial to travelers in planning their trips.

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Freight and long-distance passenger train services are provided. The line is long with 8 stations, from Pinghu, where it is linked to Guangshen railway, to Shekou West or Mawan (which are on different branches). Others were given the names of high-ranking railway officials, but most were given the names of famous racehorses. Amtrak operates the following intercity and long-distance passenger train routes. By the 1990s, the DJ class had been largely withdrawn from service and other locomotives hauled the Southerner, including the DC and DX classes. Long distance passenger trains operated by East Coast and CrossCountry pass through Longniddry non-stop, as do freight trains. A serious accident occurred at Longniddry in the early hours of 17 December 1953. Simulation of freight train operations with departures ahead of schedule. Published in: Proceedings of the 14th International Conference on Railway Engineering Design and Optimisation. Theoretical capacity can be useful for long term strategic capacity planning, while practical capacity is of more interest at tactical and operational stages. Train delays play an important role in capacity analysis and are one of the main reasons why theoretical capacity cannot be achieved in practice. In unstructured operation no timetable exists and train can depart whenever ready without consideration of the pre-planned timetable. The amount of buffer time needed between trains depends on signalling system, infrastructure layout and expected severity of the delays.