

Basic Study on Train Control System Integrating Operational Control and Security Control

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We propose a train operation control system that draws up operation curves composed of pairs of precise train position and precise operation time, and controls train operation and ground facilities according to the plan. This system realizes more flexible control than that of the conventional system by controlling the on-board device and the ground device according to the operation curve from the central equipment, where the operation management function and the safety control function are integrated. In this report, we describe the control method based on “band” with margin for safety added to the operation curve, and the requirements for securing safety. In addition, we have confirmed by the simulator that there is no bottleneck in the transmission path, even though the information concentrates on the central equipment.