An Algorithm for Crew Route Scheduling Focusing on Manpower Efficiency

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Planning of the railway crew working schedule consists of the crew route scheduling and the crew roster scheduling, and it is desired to reduce the number of crews required as much as possible. Methods of crew route scheduling with the evaluation criterion of the total number of required days have been studied because we could not figure the number of required crews out exactly at the stage of the crew route scheduling. However it has been noted that the crew route schedules prepared by such methods make it more difficult to prepare the roster scheduling. This paper proposes a crew route scheduling method with the evaluation criterion of the estimated number of required crews and shows its effectivity for this problem.