

Newsletter on the Latest Technologies Developed by RTRI

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Railway Technology Avalanche

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In Pursuit of Future Railway Technologies

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The Railway Technical Research Institute (RTRI) has drawn up the New Master Plan, RESEARCH 2010 (for details, refer to the next page) and activities have been based on the new five-year plan since April, 2010. In drawing up this Master Plan, the difficult conditions in which railways are currently operating were also considered, such as the decreasing numbers of passengers associated with the world recession, something which is occurring simultaneously with the acceleration of falling birthrates and the aging population. However, at the same time there is a worldwide trend to re-evaluate railways from the viewpoint of global environmental protection and economic revitalization. On that basis, RTRI has set out to pursue sustainable development of Japanese railway industries, and it has drawn up the basic concept as well as the procedure for activities to be carried out during the period. Several features of the New Master Plan are shown as follows:

"Simulation technologies": RTRI has been engaging in the research and development of simulation technologies because of the advantages that accrue from being able to reproduce a given situation and change the conditions and other variables without the difficulty of using an actual test vehicle. In this Master Plan, for example, one of the targets that has been set is to construct prototypes of the Virtual Test Line to permit comprehensive investigation into the development of rail vehicles and similar work. This will be done not only by using sophisticated equipment and developing simulation technologies that respond to the individual problem, but also by combining simulation technologies covering the mutual relationship of various relevant phenomena. "Cultivation of human resources": For RTRI's researchers, understanding the situation in the field is essential. For this reason, in the new Plan, personnel exchanges, etc.



with the respective JR companies where RTRI staff can gain various experiences on a working railway are considered to be more important than ever. Moreover, RTRI is planning to work on enhancement of its training system, and to make other improvements to develop human resources in various ways.

The role of RTRI consists in improving the convenience of rail travel based on its advantages such as safety, energy saving and the ability to handle large numbers of people. For this reason, RTRI considers it particularly necessary to promote its role as a powerful organisation able to undertake research across the whole railway spectrum, by developing its plans with stronger co-operation between its respective research sections and experts.

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