

Fifth China-Korea-Japan Railway Research Technical Meeting June 21st-23rd, 2005, Tokyo, Japan

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1. Introduction

In China, a country that has achieved rapid economic progress under its open, reformative regime, it has become an urgent necessity to develop and maintain high-speed transportation systems, including railways. In fact, the country has launched several passenger railway construction projects. In South Korea, the Korea Train Express (KTX), boasting a top speed of 300 km/h, was opened in 2004. At present, the country is testing a faster train, HSR-350X, whose maximum speed is expected to reach 350 km/h. The China Academy of Railway Science (CARS) and Korea Railroad Research Institute (KRRI) are playing the lead role in the development of railway technology in the respective countries. The Railway Technical Research Institute of Japan (RTRI) had carried out joint studies with each of those research organizations. In August 2000, the three research organizations signed a Memorandum on the Opening of the China-Korea-Japan Railway Research Technical Meeting with the aim of implementing technical interchange among them effectively and efficiently. At that time, it was agreed that a seminar should be held annually in one of the three countries for the presentation of results of joint studies. The first seminar was held under the auspices of KRRI in Seoul in 2001. This year marks the fifth seminar.

2. Fifth China-Korea-Japan Joint Research Seminar

The Fifth China-Korea-Japan Joint Research Seminar was held under the auspices of RTRI on June 21st - 23rd, 2005. The seminar was attended by 14 persons, including vice-president ZHAO, from CARS, and nine persons, including vice-president CHOE, from KRRI, as well as persons from RTRI. At the opening, president AKITA of RTRI delivered a speech of welcome, followed by greetings of vice-president ZHAO and vice-president CHOE. After that, proposals for new research themes were presented. On June 21-22, separate meetings were held on individual themes of joint research. At those meetings, each working group (WG) of researchers of the three institutes presented the results of research and discussed their future activities. The themes of joint research under way, and the new themes adopted at the present seminar are shown in the table. On June 22, a

technical tour was also made to Hino Civil Engineering Laboratory and Kunitachi Research Institute. On the final day, keynote lectures on the status of recent activities



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of the individual research institutes were delivered, and the representatives of the individual working groups presented the contents of discussions at separate meetings, by theme. Finally, at Tachikawa Palace Hotel, director KUMAGAI from RTRI, director SHI from CARS and vice-president CHOE confirmed the minutes of the joint studies and the seminar was closed.

3. Next Seminar

It was decided that the next seminar should be held under the auspices of CARS in Beijing in September 2006. It is expected that this seminar, held at regular intervals, will not only promote technical interchange with China and Korea, which are making rapid progress in railway technology, but also help strengthen the international competitiveness of Asian countries in the field of railways, and contribute to interchange among researchers of different countries.



Table 1. Collaborative Research Themes

Institute	Current themes	Newly agreed themes
CARS, KRRI and RTRI	<ul style="list-style-type: none"> • Research of Railway Intelligent Transportation System • Development of the Improved DC Ground Fault Relay System • Strategy for Improving Operation Efficiency of Railway Transportation in East Asia • Exchange of Information (Business items) 	<ul style="list-style-type: none"> • Study about Abrasion Mechanism of Wheel/Rail Contact • Algorithm of Automatically Processing Schedules for Operation of Vehicles and Crews II
CARS and RTRI	<ul style="list-style-type: none"> • Tractive Performance of Rolling Stock for High-Speed Trains • Algorithm for Automatically Processing Schedule for Operation of Vehicles and Crews 	<ul style="list-style-type: none"> • Research on Optimizing the Match Relationship of the Rail and Wheel by Improving the Strength of Wheel • The Standard Establishment of Hollow Axles for High-Speed Tractive and Trailing Stock • The Study of Structure-Radiated Noise from High Speed Train on Railway Bridges
KRRI and RTRI	<ul style="list-style-type: none"> • Application of IT Technologies to Maintenance Work of Railway Facilities 	<ul style="list-style-type: none"> • Floating Precast Concrete Slab Track
CARS and KRRI	<ul style="list-style-type: none"> • Analysis and Solution of Railway Rolling Stock Wheel Spalling under Different Service Conditions • Research of Safe Evaluation and Risk Defense System of High Speed Railway System • Study of Defend Measures on Train Crash • Standardization Research of Railway Criteria in China, Japan & Korea • Digital Simulation of Air Braking System 	