

Railway Technical Research Institute: The Past Twenty Years, and the Future

The Railway Technical Research Institute (RTRI) was established on December 10, 1986 as an incorporated foundation, under authorization of the Ministry of Transport (now known as the Ministry of Land, Infrastructure, and Transport). Its establishment occurred prior to the division and privatization of Japanese National Railways to take over JNR's research and development facilities and staff. Since April 1987, RTRI has served as a research institute for the



Fig. 1 20th anniversary ceremony of RTRI

JR-group companies, and has achieved impressive development results. With the participation of many guests, RTRI celebrated its 20th anniversary on December 13, 2006 (see Fig. 1). RTRI intends to continue its research and development to achieve even more impressive results, thereby contributing to the further development of the world's rail technology. The following chronology lists RTRI's major accomplishments and events over the past 20 years.



Fig. 2 Chairman Matsumoto (right) and President Akita (left) planting a commemorative tree

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| 1986 | Dec. | 10 | Establishment of the RTRI authorized by the Minister of Transport. |
| 1987 | Apr. | 1 | The RTRI inherited the R&D arm of Japanese National Railways upon its division and privatization. |
| 1988 | Nov. | 9 | First RTRI Lecture on "Improving the Railway System". |
| 1990 | June | 25 | Basic plans of the technological development of the superconducting magnetically-levitated transport system and the construction of the Yamanashi Maglev Test Line approved by the Minister of Transport. |
| | Nov. | 15 | New rolling stock test plant completed. |
| 1991 | Mar. | 31 | Test Plant E (human science) completed. |
| | Oct. | 16 | First railway technology exhibition (forerunner of the current RTRI Forum). |
| 1992 | Sep. | 29 | First lecture series on education (forerunner of the current Railway Technology Courses). |
| | Oct. | 13 | International railway research seminar on "R&D in World Railway -Today and Tomorrow-" (later developed into WCRR). |
| | Dec. | 15 | Japan-China joint research started. |
| 1993 | Jan. | 31 | Brake Test Stands completed. |
| 1994 | Nov. | 4 | RTRI website went on-line as the world's first official site on railway technologies. |
| | Nov. | 13 | Agreement on cooperative research concluded with the International Union of Railways (UIC). |
| 1995 | Jan. | 17 | Hyogo-ken Nambu earthquake (participation in recovery support activities). |
| | July | 27 | Agreement on the use of the Pueblo test line concluded with the Association of American Railroads (AAR). |
| | Nov. | 13 | Agreement on cooperative research concluded with French National Railways (SNCF). |
| 1996 | June | 5 | Large-scale low-noise wind tunnel completed. |
| | July | 1 | Yamanashi Maglev Test Center opened. |
| | July | 1 | Railway Technology Promotion Center opened. |
| 1997 | Apr. | 3 | Vehicle running tests started on the Yamanashi Maglev Test Line. |
| | June | 1 | The RTRI joined UIC. |
| 1999 | Oct. | 19-23 | World Congress on Railway Research 1999 (WCRR '99) held at the RTRI. |
| 2000 | June | 28 | Japan-Korea joint research started (forerunner of the current Japan-China-Korea joint research). |
| 2003 | Mar. | 31 | Rail Advisor Program established at the Railway Technology Promotion Center. |
| | Dec. | 2 | The world speed record of 581 km/h for a manned train (MLX01) attained on the Yamanashi Maglev Test Line. |
| 2004 | Mar. | 24 | First Symposium of CyberRail Study Group. |
| | Oct. | 14 | Railway Technology Promotion Center won the Japan Railway Awards' Special Award for 2004. |
| | Oct. | 23 | Niigata Chuestu earthquake (participation in recovery support activities). |
| | Oct. | 27 | A running distance of 400,000 kilometers achieved on the Yamanashi Maglev Test Line. |
| | Nov. | 16 | Two-train crossing test at a relative speed of 1026 km/h on the Yamanashi Maglev Test Line. |
| 2005 | Mar. | 11 | The Committee for the Evaluation of the Technological Feasibility of Maglev commented that the key technology for practical application has been established. |
| | Apr. | 1 | New Master Plan (Research 2005) formulated. |
| 2006 | Apr. | 26 | Running Test of the World's first railway vehicle powered by a fuel cell. |