ITS: The Wave of the Future

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IN Japan, ITS (intelligent transport systems) are defined as systems that integrate drivers, roads, and automobiles using advanced telecommunication technologies to increase driving comfort, improve transport efficiency, and contribute to greater traffic safety. ETC (electronic toll collection) systems, which have gained attention on many levels of society, were implemented throughout Japan in November 2001; by the end of November 2002, ETC on-board devices had been installed in more than 560,000 vehicles registered in Japan. Shipment volumes for VICS (vehicle information and communication system) on-board devices had reached around six million as of the end of November 2002.

Telematics is another term that has become the focus of attention recently. The year 2002 has been called "the first year of the second era of Telematics." In Telematics services, devices installed in various vehicles are linked using technologies that enable interactive communications between vehicles and ground bases, to provide a wide range of multi-media information. In this way, users can access the Internet from their cars in the same way that they would from their home, school, or office. Drivers can receive useful information or transmit information from their own vehicles, contributing to even greater convenience and traffic safety, as well as to environmental protection.

The Hitachi Group is working in the field of ITS to achieve seamless services in a variety of living environments related to transport, and has developed VICS, ETC, and other systems as part of a new social infrastructure. We are also involved in research and development related to AHS (advanced cruise-assist highway systems), which are expected to enter the practical application stage in the near future. In the private sector, we have achieved dramatic results in a number of fields since the beginning of the 1990s, including car navigation systems and electronic vehicle control technologies and devices, as well as on-board microcomputers and system LSIs (large-scale integrations).

In the United States and Europe, the field of ITS encompasses not only automobiles, but also railways and a broad range of other transport facilities, with the goal of achieving greater efficiency and safety, as well as optimum collaboration among numerous differing modes of transport. In Japan, the realization of an "ITS Society," based on global ITS, pedestrian ITS, and the Internet, has gained attention as one means of contributing to the ubiquitous information society.

The 11th World Congress on ITS will be held in Nagoya, Aichi Prefecture, Japan, in November 2004, focusing on the theme of "ITS for Livable Society." Preparations are currently underway to enable visitors to experience the world's most advanced ITS technologies from anywhere in Japan. The Hitachi Group will utilize its extensive experience in various related fields to contribute to these efforts, and to ensuring that the maximum advantage is derived from the further popularization of ITS.