

TransNet: The Transportation Research Internet Cooperative

Randall Guensler, John D. Leonard II, and Johnny Dunning, Jr.

Index Terms— Electronic forum, transportation research, world wide web.

I. SUMMARY

TransNet is an experimental service that provides a model for the organization and electronic dissemination of transportation knowledge. TransNet is an Internet cooperative whose members will include universities that have a demonstrated interest in transportation research and that have the necessary hardware, software, and personnel to host a world wide web (WWW, or Web) site. TransNet provides the opportunity for hundreds of universities and other organizations to participate in the cooperative venture. Each host organization maintains a standard set of information services for one or more specific transportation-related research topics. This paper provides an overview of the TransNet project and describes the “nested matrix” approach adopted for topic organization. The nine basic services (literature, research, modeling, education, agency contacts, professional forum, multimedia, Internet links, and news) that will be provided by host universities for each transportation topic are described in detail. As TransNet evolves, and as more participants begin to host topic-specific service pages, a wealth of transportation research data and information will become readily accessible electronically to all interested parties.

Randall Guensler received the Ph.D. degree in civil engineering from the University of California, Davis in 1993.

He is an Associate Professor in Georgia Tech's School of Civil and Environmental Engineering and an Adjunct Professor in the School of Public Policy. He instructs courses in transportation planning, environmental impact assessment, transportation energy and air quality, and policy tools for managing the environment. His research interests include: transportation and air quality planning; uncertainty evaluation of vehicle activity and emission rate models; and development of new and innovative modeling approaches. He is the Chairman of the Transportation Research Board (TRB) committee on Transportation and Air Quality (A1F03).

John Leonard received the Ph.D. degree in engineering from the University of California, Irvine, in 1991.

He is an Associate Professor with the School of Civil and Environmental Engineering at Georgia Institute of Technology, Atlanta. His research interests include traffic operations, traffic flow theory, and intelligent transportation systems. He manages WWW sites for several organizations including the Georgia Transportation Institute and ITS Georgia.

Johnny Dunning, Jr. received the M.S. degree in civil engineering from the Georgia Institute of Technology, Atlanta, in 1998.

He is a transportation planner in the Department of Planning and Analysis of the Metropolitan Atlanta Rapid Transit Authority (MARTA). He works in short-range service planning, specifically dealing with bus route performance evaluation and improving system performance through technology. He is also responsible for the application of geographic information systems (GIS) technology to facilitate improved planning and decision-making within the Authority.

Manuscript received February 1, 1998; revised September 28, 1999.

The authors are with the School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA 30332-0355 USA.
Publisher Item Identifier S 0018-9359(99)09797-6.