



# Surface Transportation Technical Group

## SURFACE TRANSPORTATION TECHNICAL GROUP (STTG)

The Surface Transportation Technical Group (STTG) provides a forum for people involved or interested in human factors to exchange information, methodologies, and ideas that are being developed and/or applied in the international surface transportation field. The STTG's interest encompasses numerous modes for conveying humans and resources: passenger, commercial, and military vehicles, both on- and off-road; mass transit; maritime transportation; rail transit, including Vessel Traffic Services (VTS); pedestrian and bicycle traffic; and highway and infrastructure systems, including Intelligent Transportation Systems (ITS). In essence, *surface transportation* refers to all forms of transit outside the aerospace sector.

The primary technical group objectives are to:

- Provide an avenue through which members can share information about new human factors developments and findings in their respective fields related to surface transportation.
- Foster and promote working relationships with other technical groups in HFES.
- Serve as a liaison between HFES and other professional organizations related to surface transportation (e.g., ASSHTO, ITE, SAE, and the Transportation Research Board).
- Serve as a resource for the review and presentation of surface transportation technical papers at future HFES annual meetings.
- Raise public awareness of human factors involvement in the surface transportation field.

## TECHNICAL FOCUS

Members of the Surface Transportation Technical Group recognize that the human operator is an integral component of a *system* (comprised of the operator, the surface vehicle, and the environment), just as the pilot is an integral component of the aircraft system. Therefore, the same effort that goes into designing and developing the vehicle and its infrastructure must be put into optimizing the behavior and performance of the operator. As the performance capabilities of ground, rail, and water-based vehicles become more advanced, accompanied by equal advances in the complexity of the operating environments, we must ensure that vehicle handlers are able to perform their tasks with minimal errors and maximum comfort.

In addition to focusing upon the relationship between operators and their vehicles, members of the STTG are concerned with the behavior and performance of others who interact with these vehicles, including passengers, pedestrians, service personnel, etc. Furthermore, as the Information Age leads to technological developments that can enhance the safety and efficiency of transportation systems, STTG members are becoming more and more interested in the effects of infrastructure development (e.g., highways, traffic control devices, traffic management centers, etc.) on vehicle operators.

## MEMBERSHIP

The STTG consists of more than 350 members from around the world. These individuals work for a range of organizations, including vehicle manufacturers and suppliers, government agencies, universities and colleges, branches of the military, and research and engineering firms. Many work as consultants and a number are students. The STTG seeks to foster the exchange of information among members and to promote the development and application of human factors data and methods related

to surface transportation. A majority of STTG members are members of HFES, and many belong to other professional societies as well.

#### BENEFITS OF MEMBERSHIP

The STTG, like other technical groups within the Human Factors and Ergonomics Society, performs a variety of functions and services for its members. The group holds business meetings once a year during HFES Annual Meeting in the fall. It also meets socially during the Transportation Research Board Meeting in the winter. In addition to sponsoring technical sessions at the HFES Annual Meeting, the STTG conducts special symposia on topics of interest to members, and has helped sponsor the Driving Assessment Conference. The group also sponsors guest speakers, arranges tours, and holds discussions of issues directly affecting its membership. A newsletter is sent to all members from two to three times each year, providing Society news, job announcements, conference notices, company and organization reviews, etc. Additional information on the Surface Transportation Technical Group is available on the HFES Web site <http://hfes.org>. You need not be a member of HFES to join the STTG.

#### ADDITIONAL READING

Readers who would like to learn more about human factors engineering and ergonomics in various surface transportation fields might consult these references:

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- Sanquist, T. F., Lee, J. D., Mandler, M. B., & Rothblum, A. M. (1993). *Human factors plan for maritime safety* (CG-D-11-93, NTIS AD-A268). Groton, CT: U.S. Coast Guard Research and Development Ctr.
- Shinar, D. (2007). *Traffic Safety and Human Behavior*. Oxford: Elsevier.
- Transportation Research Board (2003). *Shipboard Automatic Identification System Displays: Meeting the Needs of Mariners*. TRB Special Report 273.
- Transportation Research Board (2007). *Domain of Truck and Bus Safety Research*. TRB E-Circular E-C117.
- Vanderbilt, T. (2008). *Traffic: Why We Drive the Way We Do (and What It Says About Us)*. New York: Knopf.
- Wilson, J., Norris, B., Clarke, T., & Mills, A. (Eds.). (2007). *People and Rail Systems: Human Factors at the Heart of the Railway*. Abingdon, UK: Ashgate.