POSITIVE TRAIN CONTROL SYSTEMS SYMPOSIUM

The National Transportation Safety Board (NTSB) will hold a two-day symposium on positive train control systems, March 2–3, 2005, in Ashburn, VA, USA. The complete event description is available online at www.ntsb.gov/academy/courseinfo/RPH701_200503.htm. The symposium will focus on providing participants with the most current information regarding the development of positive train control systems in the United States, including safety, efficiency and operational issues. The program will consist of presentations by the rail industry, suppliers and government organizations and will include discussion sessions with NTSB board members, participants on technical panels and other attendees.

LET'S TALK ABOUT IEEE 1512 INCIDENT MANAGEMENT

The Institute of Electrical and Electronics Engineers (IEEE) 1512 Incident Management Working Group will host a workshop entitled "Let's Talk About All Things IEEE 1512!" April 11–14, 2005, in New York City, NY, USA. This free workshop is open to those interested in enabling and improving incident management communication among different intelligent transportation systems (ITS) and public safety entities. The workshop will bring together state and regional representatives who are interested in talking about how IEEE 1512 can help to accomplish this important goal.

- Participate in an IEEE 1512 working group meeting to influence and inform the development of the standards.
- Find out how the standards are developing and when the revised base standard will be ready. Hear about the new center-to-mobile standards effort.
- Find out how state and regional deployments are progressing and what your area can learn from the experiences of others.
- Find out what is planned for IEEE 1512 and how it fits with U.S. Department of Transportation initiatives.
- Find out how IEEE 1512 can be deployed in your state or region.
- Take tours of local transportation centers and landmarks.

The workshop would not be possible without the support of the New York State Department of Transportation, the New York City Department of Transportation, the New York City Office of Emergency Management and the New York Police Department.

In addition to free registration, full travel subsidies are available for representatives of public agencies to attend this workshop. Register online at grouper.ieee.org/groups/scc32/imwg/mtgs/mtgpage.html or contact James Cheeks at ITE Headquarters; jcheeks@ite.org.

STATUS OF HIGHWAY-RAIL GRADE CROSSING STANDARDS ACTIVITIES IN CANADA

Grade Crossing Regulation and Technical Standard

This document will be approved early in the 2005/2006 fiscal year. The major difference between this report and previous reports is an agreement between railways and road authorities involving costs. A decision will be made shortly as to whether the costs are acceptable, resulting in the regulation's passage either as-is or modified.

- Cost of warning systems: Transport Canada (Engineering) continues to review the disparity as part of the review of the Grade Crossing Improvement Program.
- Shared responsibility (Railway/Road Authority): The big challenge remains bringing railways and road authorities together as equal partners in this shared responsibility. Which entity is better fit to decide the overall effects of a crossing's operation and, therefore, the overall safety of crossings? (Big picture versus individual crossing.) Railways as well as road authorities will be invited to demonstrate their respective roles, contributions, expertise and resources (both human and monetary) in the overall safety equation at crossings.
- Transport Canada (Engineering) Research:
  - Safety at farm and private crossings;
  - Wayside horn evaluation;
  - Photo enforcement;
  - Trespassing and countermeasures;
  - Decision support model for crossing priorities (Hot Spots Phase 2);
  - Visual tracking behavior;
  - Driver and motor carrier characteristics; and
  - Cost-effective cantilever structure.

For more information concerning highway-rail grade crossing issues in Canada, please contact Phil Poichuk at Transport Canada; poichup@tc.gc.ca. If you are interested in the activities of the ITE Combined Highway/Rail Grade Crossing Committees, please contact James Cheeks at ITE Headquarters; jcheeks@ite.org.

2006 TRANSPORTATION TECHNOLOGY TRANSFER (KNOWLEDGE SHARING) SYMPOSIUM

The August 2001 Transportation Technology Transfer Symposium in St. Petersburg, FL, USA, was a success. ITE is participating in planning the next symposium in 2006 in Florida. If you are interested in this activity, please contact James Cheeks at ITE Headquarters; jcheeks@ite.org.

HISTORY OF STANDARDS ACTIVITY

This is a brief review of the history of standards, by Thomas McGean, P.E., author of the Transit Cooperative Research Program's (TCRP) J6 (48), *Transit Industry Interface with International Standards*, funded by the National Academies. This report has not been released.

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Standards News *Continued from page 12*

Standards have existed since 7000 B.C., when cylindrical stones were used as units of weight in Egypt. Arguably the most significant standard ever developed in the United States was for the standard 4-foot, 8.5-inch railroad track gauge, which made possible efficient interstate passenger and freight service. This standard remains in force to this day and also is used in Great Britain, Canada and much of continental Europe.

Globalization and rapid progress in microprocessor electronics are making international standards increasingly important in all industries. Regional or national standards require separate products for each market, which adds significant cost. On the other side, the impact of new technologies such as microprocessors provides opportunities for significant cost savings.

However, these benefits will be lost if incompatible communication protocols and data conventions prevent the integration of these new technologies into a working unit. Even more serious is the possibility that separate procurements of cars and other equipment will not be compatible with each other.

To assist the U.S. transit industry in determining how best to participate in international standards activities, the National Academies funded TCRP J6 (48), *Transit Industry Interface with International Standards.*

International Standards Organizations

The International Electrotechnical Commission (IEC) is a voluntary global organization that prepares and publishes international standards for all electrical, electronic and related technologies. IEC was founded in 1904 at the International Electrical Congress held in Saint Louis, MO, USA. It is not a formal government-to-government organization and is not governed by any treaties. Membership consists of more than 60 countries, including the world's major trading nations.[1] A key aspect of IEC is that each member nation receives one vote.

The International Organization for Standardization (ISO) is a network of national standards institutes from 148 countries. It began in 1926 as the International Federation of the National Standardizing Associations and focused heavily on mechanical engineering. It disbanded during World War II but was reorganized following the war at a meeting of delegates from 25 countries in London, England, in 1946.

STANDARDS HAVE EXISTED SINCE 7000 B.C., WHEN CYLINDRICAL STONES WERE USED AS UNITS OF WEIGHT IN EGYPT.

ISO is a voluntary organization. It was not formed by governmental or treaty agreements and its members are not delegations of national governments. Many (but not all) of its member institutes either are part of the governmental structure of their country or are mandated by their government. Therefore, ISO is a bridging organization between the public and private sectors.[2] ISO covers standards areas not within the province of IEC. As with IEC, each nation receives one vote, regardless of its size or economic power.

The United States participates as a member nation in ISO through the American National Standards Institute (ANSI). ANSI does not develop standards itself but oversees and guides the standards processes of other organizations. Approximately 200 ANSI-accredited standards developers are responsible for approximately 10,000 American national standards.

The United States participates as a member nation in IEC through the United States National Committee (USNC). USNC first was formed in 1907 and merged with ANSI in 1976. Today, USNC is not an independent body but is a wholly integrated body of ANSI, operating with its own procedures, subject to ANSI approval.[3]

The International Telecommunication Union (ITU) is an international treaty organization within which governments and the private sector coordinate global telecom networks and services. It grew out of the International Telegraph Union, formed in 1865 by 20 nations meeting in Paris, France, to address the implications of the rapid worldwide expansion of the telegraph. Subsequent agreements addressed wireless telegraphy, radio broadcasting and telephone service.

In 1932 in Madrid, Spain, ITU adopted its present name to reflect the full scope of its responsibilities. On October 15, 1947, ITU became a United Nations specialized agency with headquarters in Geneva, Switzerland.[4] Unlike ISO, IEC and most other standards organizations, ITU is a government-to-government organization that establishes binding international conventions and regulations allocating frequency bands and addressing other issues related to international communications including television, satellites and cellular phones. Every nation in the world is a member of ITU.[5]

The United States participates in the telecommunications aspects of ITU through the ANSI Committee T1 on telecommunications. This committee came into being with the realization that, with the breakup of the Bell System, de facto U.S. standards for telecommunications no longer could be expected.

The United Nations Economic Commission for Europe (UN/ECE) includes European nations as well as Canada and the United States. UN/ECE was formed in 1947 to deal with the problems associated with the reconstruction of Europe following World War II.

UN/ECE views its present role as standards development and trade facilitation at the global level; trade policy recommendations at the regional level; and implementation of measures in UN/ECE member states. UN/ECE has a memo of understanding (MOU) with IEC, ISO and ITU to work together for interoperability on e-business standards. Active areas for cooperation include XML standards, a uniform business language, e-catalogues and dictionaries, semantic registers, metadata registries and barcoding. ISO Technical Committee 204, Intelligent Transportation Systems, is active in transit standards and is involved with this MOU.[6]

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International Trade Treaties Impacting Standards

The General Agreement on Tariffs and Trade (GATT) is an integrated set of bilateral trade agreements aimed at the abolition of quotas and the reduction of tariff duties among contracting nations. It first was concluded by 23 nations in Geneva in 1947. Since then, a number of rounds of negotiations have taken place, expanding the provisions and the number of nations involved.

The World Trade Organization (WTO), located in Geneva, was formed on April 15, 1994, as part of the Uruguay Round of Multilateral Trade Negotiations under GATT.[7] WTO is the only international organization dealing with global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible. WTO operates under agreements negotiated and signed by governments of a large majority of the world's trading nations and ratified in their parliaments. As of 1998, there were 132 member nations.

Of particular interest to this study is the Agreement on Technical Barriers to Trade, sometimes known as the Standards Code. This code is Annex 3 of the WTO agreement. It obliges WTO members to ensure that regulations, voluntary standards and conformity assessment procedures do not create unnecessary obstacles to trade.[8]

WTO is responsible for seeing that central government standardizing bodies comply with a Code of Good Practice for the Preparation, Adoption and Application of Standards and take measures to see that local government and voluntary standardizing bodies do the same. Standardizing bodies that have accepted the code are to notify the ISO/IEC Information Centre in Geneva. In 1998, ANSI accepted the code on behalf of more than 200 standards developing organizations in the United States.[9]

In addition to these key international agreements, two key regional agreements relating to Europe and Asia have a direct impact on ongoing activities concerning international transit standards.

GLOBALIZATION AND RAPID PROGRESS IN MICROPROCESSOR ELECTRONICS ARE MAKING INTERNATIONAL STANDARDS INCREASINGLY IMPORTANT IN ALL INDUSTRIES.

European Standards Organizations

The European Economic Community, predecessor to the current European Union (EU), was established by the Treaty of Rome in 1957. Since that time, this initial trade agreement between six nations has grown to include 25 nations, with the admission of 10 Eastern European nations in May 2004. In addition, some 70 nations in Africa, the Caribbean and the Pacific are affiliated under the Lome Convention. The Maastricht Treaty, signed by 12 continental Western European nations in November 1993, established a common European currency, the euro.[10]

Standards are set within the EU by three major bodies. The European Telecommunications Standards Institute (ETSI), headquartered at Sophia, Antipolis, France, determines and produces telecommunications standards. It has 786 members representing more than 56 nations.[11] Electrical and electronic standards are set by the European Committee for Electrotechnical Standardization (CENELEC), located in Brussels, Belgium and founded as a non-profit organization under Belgian law in 1959.[12]

All other standards are set by the European Committee for Standardization (CEN), which was formed in 1961 and also is located in Brussels.[13] CEN and CENELEC standards have greater status within the EU than is the case for the purely voluntary system used in the United States. Under Directive 98/34 of the European Parliament, CEN and CENELEC standards are normative for EU member nations, and proposed national regulations that do not conform can be challenged by any EU country. In addition, Directive 93/98 requires that transit projects involving more than 400,000 euros use CEN or CENELEC standards.[14]

The Dresden and Vienna Agreements are between IEC and ISO and their standards setting counterparts in the EU. The Dresden Agreement is between IEC and CENELEC; the Vienna Agreement is between ISO and CEN.[15, 16] Both are cooperative arrangements to facilitate the transfer of European standards into international standards with either the international or the European group taking the lead in the standards development process. Both the United States and Japan have expressed concern that this process gives preference to EU trade regulations in the international arena.

Asia-Pacific Economic Cooperation

The other key government-to-government regional trade organization of current importance to transit standards is Asia-Pacific Economic Cooperation (APEC). APEC was founded in November 1989 as a forum to further cooperation on trade and investment between nations that border on the Pacific Ocean and the rest of the world. Headquarters are in Singapore.

APEC is open to Asian and Pacific Rim countries including countries such as Canada, Mexico, the United States and Chile, which border on the Pacific Ocean.[17] APEC holds ministerial-level meetings every two to three years, which are attended by transportation ministers/secretaries. At the last meeting, the ministers directed APEC to promote standards.

An APEC transportation group is led by the United States through the Department of Transportation.[18] It has three subgroups. ITS expertise is located within the safety subgroup and is chaired by Walt Kulyk of the Federal Transit Administration. This ITS group has identified transit standards as its number three priority. ■

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KENYA: TRAFFIC MANAGEMENT AUTHORITY

A committee in Nairobi, Kenya, has been developed to address traffic management in the city. The committee includes representatives from the Kenya Roads Board, Institute of Engineers of Kenya, Nairobi City and Council and Kenya Private Sector Alliance. The committee will work to develop a Traffic Management Authority—a national body focusing on congestion mitigation. The Traffic Management Authority would focus on developing mass transit for the Nairobi metropolitan area, increasing capacity and operation; land use planning; traffic demand management; maintenance; and strengthening institutional capacity in the area of traffic engineering. To read an article on the effort, visit allafrica.com/stories/200501240389.html.

EUROPE: NAKED STREETS

The New York Times and *Toronto Star* recently posted online articles on the issue of "naked streets" that have been implemented in several European communities. As seen in communities in Holland, Germany and Denmark, naked streets are void of traffic signals, signs, sidewalks, markers, speed bumps, or even curbs. Planners in these communities believe that this strategy reduces trip times and accidents.

The philosophy is that by stripping an intersection of traffic signal and control devices, everyone in the shared space is put on equal footing. It also is thought to encourage users of the shared space to actively negotiate their circumstances, thereby providing "psychological traffic calming."

The *Toronto Star* features Christiansfeld, Denmark's implementation of the strategy at a "high-traffic intersection that was plagued with traffic jams and pedestrian and related accidents. Since its implementation four years ago, accidents at the intersection dropped from three per year to zero." This issue has been identified by the European Union for further study.

To access the above-mentioned articles, visit *The New York Times* (www.nytimes.com) or *Toronto Star* (www.thestar.com).

NEW ZEALAND: RAMP METERING PROGRAMS

In mid-December 2004, the city of Auckland, New Zealand, announced its expansion of ramp metering programs. It is an effort by the government to use travel demand management (TDM) tools to ease congestion. The system will use traffic lights at motorway on-ramps to ration vehicle flows. The lights will be linked to electronic vehicle sensors, which will relay traffic information to motorists to assist in planning trips and estimating travel times. TDM tools planned for use include electronic road signs, radio bulletins, the Internet and cell phone text messages. *The New Zealand Herald* reports that there is an expected economic benefit in reduced traffic delay of $22 dollars for every $1 invested. ■

If you would like more information or if you have an item you would like to submit to World Transport News, please contact Aliyah N. Horton at ITE Headquarters; ahorton@ite.org. Additional international transportation information is available on ITE's Web site at www.ite.org.