

## **TRIP REPORT**

### **ISO/TC 204 PLENARY / C/HOD / WORKING GROUP MEETINGS**

**May 17-21, 2004**

**Vancouver BC, Canada**

William Johnson  
Head of Delegation Canada, and  
Chair, SCC/CAC for ISO/TC 204

#### **Introduction**

The 23<sup>rd</sup> Plenary meeting of ISO Technical Committee 204 (Intelligent Transportation Systems) was held in Burnaby, Vancouver B.C., Canada, hosted by the Standards Council of Canada, from May 17-21, 2004.

Working group meetings (WGs 3, 7, 8, 9, 10, 14, 15 and 16) were held during the first three days of the week (Monday to Wednesday, WG 3 continued until Friday), the Conveners & Heads of Delegations (C/HOD) meeting was held on Thursday and the Plenary meeting on Friday.

This report provides a brief overview of the proceedings of the Plenary Meeting and of the progress reported by the working groups at the Conveners & Heads of Delegation Meeting. It also gives a brief report on the hosting arrangements in Vancouver B.C.

#### **Canadian Delegation**

The Canadian delegation to the 23<sup>rd</sup> TC 204 meeting included 7 members, a record number of participants from Canada:

- William Johnson, Head of Delegation, representing the Standards Council of Canada and chair of the Hosting Committee,
- Dr. Lewis Sabounghi of Sabounghi & Associates, international Convener of WG 7 (General Fleet Management & Commercial Freight) and Canadian expert to WG 7, WG 15 and WG 16;
- Ms. Mara Bullock of IBI Group, Canadian expert to WG 9 (Integrated Transport Information, Management & Control) and Canadian observer to WG 8 (Public Transport and Emergency),
- Mr. David Tsai of MTO, Canadian expert to WG 9 (Integrated Transport Information, Management & Control),
- Mr. Jackson Wang of e-Radio Inc., Canadian expert to WG 10 (Traveller Information Systems),
- Dr. Peter Burns of Transport Canada, Canadian expert to WG 14 (Vehicle/Roadway Warning and Control Systems), and
- Ms. Roz Waddell, Standards Council of Canada.

The members of the Canadian delegation have provided trip reports of their activities at the TC 204 meeting. For further information, refer to their trip reports posted on the SCC website (Sitescape) or contact the delegate directly.

#### **Meeting Highlights**

There were 125 delegates from 15 countries attending the TC 204 meetings in May 2004 in Burnaby, Vancouver B.C. This number of delegates set a new record for attendance at a meeting of TC 204. At this meeting, TC 204 hosted 2 joint workshops with external organizations and one special presentation on traffic research (see Appendices A, B and C).

The TC 204 continues an active program of standards development. At the Plenary meeting, 29 resolutions were passed to record TC 204 directions for follow up action (these will be posted when available on SITESCAPE). The new chair, Michael Noblett of the US, was introduced (term starts in January 2005). The new convener for WG 9, Ted Vincent of Australia, was confirmed. New conveners for WG 5 and WG 10 will be announced shortly (to be confirmed first by CEN, the lead agent for WGs 5 and 10).

The hosting arrangements organized by the Standards Council were praised for being efficient and hospitable. The venue was the Hilton Vancouver Metrotown Hotel in Burnaby, a near suburb of Vancouver. The Hotel is a first class facility with convenient meeting rooms on the premises. The Hotel is located close to the Skytrain elevated regional rail system. Through the generosity of TransLink, the Greater Vancouver Transportation Authority, the delegates received a complimentary transit pass good for the duration of the TC 204 meetings (May 17-21). This sponsored benefit gave them free access to all parts of the Vancouver region. In particular, delegates were able to take the Skytrain from the hotel to the venue of the social evening, the Steamworks Brewing Co. next to Waterfront Station in downtown Vancouver.

### **Report of Plenary Meeting**

The Plenary meeting is the focal point of the standards development business of ISO/TC 204. The agenda covers the following items (details of outcomes provided below):

- previous minutes (approved),
- progress to implement previous resolutions (in secretariat report),
- report from the secretariat,
- reports from Work Group conveners (as delivered at the CHOD meeting),
- liaison reports from other organizations involved in ITS standards development,
- report from the ad hoc Strategic Planning Committee,
- plans for future meetings and, finally,
- new resolutions for action arising from Work Group and plenary recommendations.

### **Secretariat Report**

The secretariat for TC 204 is now provided by **ITS America** under the auspices of US/ANSI. Paul Nagarian, Director Telecommunications & Standards, is the secretary for TC 204 and Regina Barnett, Program Coordinator, is his assistant. (<http://www.itsa.org/tc204.html>).

There are now 23 "P" or voting members of TC 204. Spain is the newest "P" member and Singapore has expressed interest to join. Brazil has withdrawn as an "O" member. Three of the four vacant convener positions have been filled (WG 5, 9 and 10) and one is still vacant (WG 11).

### **Work Group Convener Reports**

(See next section below for summaries.)

### **Liaison Reports**

TC 204 maintains liaison with many other organizations engaged in ITS-related standards development activities to minimize duplication of effort and maximize opportunities for collaboration (see liaison reports for full details):

*ISO/TC 22 – Road Vehicles* (Mr. Cheynet, chair of TC 22, reporting) – The TC 22 is demanding greater control over WG 14 vehicle-related ITS standards work items based on an agreement signed in 1995. TC 204 does not agree with this demand as WG 14 work is closely related to other WGs in TC 204. This dispute is likely to continue to escalate to a higher level in ISO. TC 204 resolved to pass a resolution on this matter to support their position.

*ISO/TC 211 – Geographic Information / Geomatics* (Mr. Goodwin reporting) - Comments are requested on the draft cooperation agreement for API/LBS joint development (see N976) by June 30<sup>th</sup>. (**Action required.**)

*ISO/IEC JTC1 – Information Technology* (Mr. Williams reporting) –

*ISO/IEC JTC1/SC31 – Automatic Identification & Data Capture* (deals with giving things “names”; Mr. Williams reporting) – M.I.T. proposal has moved forward with its 128-bit code to replace the UPC bar code from academia to real world.

*ITU Work Party 8A – TICS Correspondence Group* (Mr. Nagarian reporting) – Ad hoc advisory panel to harmonize auto standards among SDO’s was outcome of workshop; telematics workshop is planned for the Geneva Auto Show in March 2005 with TC 204 and 22/SC3 (relates to CALM).

*APEC TWG/ITS SIG – Asia Pacific Economic Cooperation* (Mr Schagrin reporting) – joint workshop APEC-TC204 on Monday May 17 recommends P.T. architecture to cover safety & security; strategy for container shipments; a freight information highway; Mr. Choi (Korea) is preparing a world report on ITS standards that will survey state of ITS to identify problems and opportunities for cooperation.

*IEEE – U.S. based Standards Development Organization* (Tom Kurihara reporting) – ITS data registry management has been moved to FHWA (Volpe Centre); IEEE is developing DSRC upper layers with WG 16 including security and privacy; program plan is to adopt ISO14817 as a IEEE standard.

*Open GIS Consortium – geographic information system standard -*; no report (continue?)

*CEN Report – Conseil European de Norme/ European Standards Council* (Jelte Dijkstra reporting) – TC 278 is in a transition phase to a reoriented market and political (safety) agenda; a new chair will be announced shortly; new standards for GDF, road vehicle, HMI, DSRC stack (profiles & interfaces); data bus for transit vehicles.

#### Strategic Planning Committee Report

The major issues concern - the ISO/Technical Management Board directive to create a vice-chair from a developing country; TC22 has rejected the concept of a joint work group and is attempting a take-over of WG 14; and the US/HOD has resigned and the HOD/Japan is the interim chair of SPC.

#### Future Meetings

The schedule for the next ISO/TC 204 meetings is as follows:

- Beijing, China – October 11-15, 2004
- Nice, France – April 18-22, 2005
- USA – October 31 to November 4, 2004

#### Resolutions

The 29 resolutions passed by the delegates at the plenary will be posted on the ITS America, Livelink and SCC websites. Resolutions of prime interest to Canada include:

- Reconfirm the supply chain resolutions (**WG 7**)
- Instruct **WG 14** to report to Plenary on any work items in conflict with TC 22
- Instruct TC 22 to revise their resolution to TMB to clarify it does not affect existing work items (i.e. rebuff)
- TC204 to cooperate with TC 22 on development of in-vehicle icons (**WG 14**)
- Conveners to examine all work items to identify intellectual property (IP) and report on these at next (Beijing) plenary (**WG 7**)
- Conveners to ensure IP is properly identified in future (**WG 7**)

- Collaborate with World Report on ITS by APEC (**Transport Canada/provinces**)
- Confirm Ted Vincent as convener of **WG 9**
- Accept nominee for next chair as Mike Noblett
- Confirm acceptance of next convener of **WG 10** (to be announced shortly by CEN)
- **WG 8** invites P countries to express interest in a framework for security in transport
- Thank you to SCC, William, Roz and Emma for hosting arrangements
- Resolve to meet in Beijing on October 15, 2004

### **Report of C/HOD Meeting**

This meeting on Thursday October 16<sup>th</sup> consisted of reports of recent progress by each Work Group convener. Highlights of these reports are briefly summarized in this section (see convener reports for full details of progress).

- WG 1 Architecture – Bob Williams (UK) – (N955) – Work sheets for data registration are available; basic architecture ISO 14817 is under review; architecture workshop planned for Beijing October 11, 2004 “ITS Service Domains”; new PWI for “web services”
- WG 3 Mobile Map Data – Masao Shibata (JP) – 4 work items; GDF 4.0 published as IS; xGDF underway; NP for conversion; Application Program Interface under development
- WG 4 Automatic Vehicle ID – Knut Evenson (Norway) – E-registration (licence plate) work item is under development; ISO 17261 for ballot over summer (**Action**)
- WG 5 Fee and Toll Collection – secretariat for Henk Stoelhorst (Netherlands) – submits resignation from ISO/TC204 and CEN/TC278 as of July 2004; CEN will propose replacement (Sweden)
- WG 7 General Fleet Management and Commercial Freight – **Lewis Sabounghi (CA)** – work item for transport dangerous goods monitor and track is ready for FDIS ballot; work item for data concepts for tracking freight end-to-end electronic supply chain is ready for comment as CD (Action); meet with UNCEFACT in September
- WG 8 Public Transport and Emergency – Alan Kiepper (US) – 3 meetings this week with WG 16, IFM, WG 8; will meet with IFM in Beijing; work items include stop numbering, TCIP (now APTA), PRESTO, transport vehicle network, emergency services (are P countries interested?), IFM (interoperative fare management), PWI 21477 emergency services
- WG 9 Integrated Transport Information, Management & Control – David Clowes (UK) – ISO 14827 centre to centre approved for DIS ballot; working on centre to roadside draft; data dictionary is continuing (resource problem); quality of data input is continuing; confirmed current program; recommend Ted Vincent (Australia) for convener; **Mara Bullock (CA)** attends as Canadian expert for first time in **WG 9**
- **WG 10** Traveller Information Systems – Paul Burton (UK) – TTI work items for message coding, via DSRC, stationary systems, hi-data rate; User services integration (**SWG10.6**) led by **Jackson Wang (CA)** is making good progress (tool for comparison and translation of message sets; new convener for next meeting
- WG 11 Route Guidance and Navigation – Mr. Nakajima (Japan; interim) – no report
- WG 14 Vehicle/Roadway Warning and Control – Kiichi Yamada (Japan) – status report on ACC, FVCWS, MALSO, LDWS, LCDAS, FCAAS, ERBA, LSF, FSPA; met with TC 22; contact **Peter Burns (CA)** for further information.

- WG 15 DSRC – Carl-Hebert Rokitansky (Germany) – reported on CEN work items; only ISO work item is application layer; Note: Contact **Dr. Sabounghi (CA)** for further information on WG 15.
- WG 16 Wide Area Communications – Russell Shields (US) – work items include architecture, CALM modes, networking, probe data; issue is how to deal with patents incorporated in standards; problem arose when balloted item was discovered to have undisclosed patents; exchange of letters over issue and how to resolve; solution is to appoint ad hoc committee to review and report to plenary (see resolutions) Note: Contact **Dr. Sabounghi (CA)** for further information on WG 16.

Appendix A – Agenda for Joint APEC – TC 204 Workshop on ITS Standards.

This was a 1-day workshop organized by the APEC Transport Work Group of ITS Experts and ISO/TC204. The purpose was to explore needs and opportunities for ITS standards development among APEC countries. The focus was on public transit and fleet/freight operations.

Appendix B – Agenda for Joint TransLink – TC 204 Workshop on ITS Transit Standards

This was a half-day workshop initiated and organized by the Host Committee. It was open to all delegates plus invited officials from the Vancouver region. Senior officials from TransLink presented their perspective on needs and the ISO/TC204 Work Group 8 experts presented the status of ITS transit standards development. The speakers presentations are available to all interested professionals by downloading from the ITS Canada/Standards Committee web page ([www.itscanada.ca](http://www.itscanada.ca)). .

Appendix C – Agenda for Special Presentation - Improved Traffic Control Research (Precarn)

This was a special presentation at the end of the day on May 18<sup>th</sup> open to all delegates and invited officials from the Vancouver region. It was organized and hosted by the Precarn consortium that is developing a new generation traffic control strategy. A brief description of the research is on page 2 of Appendix C.

For further information, contact the Head of Delegation:

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**Asia Pacific Economic Cooperation (APEC)  
Transportation Working Group  
Intelligent Transport Systems (ITS) Experts Group  
and**

**International Organization for Standardization (ISO)  
Technical Committee (TC) 204 - Intelligent Transport Systems**

**AGENDA  
2nd Joint Workshop – Vancouver, Canada – May 17, 2004**

**Monday, May 17, 2004**

**0830 - 0845 WORKSHOP INTRODUCTION**

- **Walt Kulyk, Chair, APEC-TPT ITS Experts Group**

**0845-0915 CURRENT DEVELOPMENTS IN ITS FUNDAMENTAL SERVICES**

- **Robert Williams, ISO TC 204 WG 1 Convenor**

**0915-0930 INSTRUCTIONS TO BREAKOUT GROUPS**

- **Richard Weiland, ISO TC 204**

**0930 - 1200 BREAKOUT GROUPS (with coffee break and continued after lunch)**

**1 - Public Transport: Primary Participants: APEC Experts and members of ISO TC204 Working Group 8; plus interested Convenors/Heads of Delegations and other Working Group representatives**

- Presentation from American Public Transportation Association
- Presentation of "Talking Signs"

**2 - Fleet / Freight: Primary Participants: APEC Experts and members of ISO TC204 Working Group 7; plus interested Convenors/Heads of Delegation and other Working Group representatives**

In each breakout group, participants will:

- Identify topics of high interest in their area for which standards would be helpful. Topics can surround: productivity and efficiency, interoperability, vehicle, passenger, and cargo safety and security, customer service, vehicle-infrastructure cooperation, communications issues, etc.
- Review the current ITS Fundamental Services in their area, identifying possible gaps and providing other suggestions for improvement in light of the high-interest topics identified above
- Review the current program of standardization in the respective TC204 Working Group for appropriateness, relevance, priority, etc. Recommend near-term work items to be pursued, including suggestions for leaders and participants (people

and nations). Also include material for Preliminary Work Item such as scope, purpose, justification

Note: Participant presentations (15-minute each) on proposed standards requirements are invited.

**1200 - 1300 Lunch**

**1300 – 1500 BREAKOUT GROUPS CONTINUE**

**1500 - 1530 Afternoon coffee and tea**

During the break, each breakout facilitator will organize a short presentation on the group's deliberations and recommendations

**1530 - 1600 Planning a World Standards Report on ITS**

Presentation by Korea (Invited), followed by discussion of scope by participants

**1600 – 1700 BREAKOUT GROUP PRESENTATIONS AND DISCUSSION**  
**Discussion moderated by Richard Weiland, ISO TC 204**

Each group will present its results. General discussion of results.

**1700 – 1730 WRAP-UP AND CONCLUDING REMARKS**  
**Walt Kulyk, Chair, APEC-TPT ITS Experts Group**

## APPENDIX B

### JOINT WORKSHOP

#### ITS TRANSIT STANDARDS

*Organized by Host Committee for ISO/TC 204 Spring 2004  
In collaboration with ISO Technical Committee 204 Work Group 8  
and TRANSLINK Greater Vancouver Transportation Authority*

Date: Tuesday May 18, 2004, 13:30 - 16:45 p.m.

Place: Hilton Vancouver Metrotown Hotel, 6083 MacKay Ave, Burnaby, Vancouver B.C.

Room: Crystal Ballroom 3

#### **Theme:**

ITS Applications and Standards for Public Transit – Vancouver case study

#### AGENDA

- 13:30 Welcome and Introductions – Moderator Alan Kiepper, Convener WG 8
  - purpose of workshop - *exchange information and share experience*
  
- 13:45 Presentations by TRANSLINK - *what are the needs and opportunities?*
  - 10 Year Outlook Plan for Vancouver Region – Glen Leicester, VP Planning
  - The Future of ITS in Greater Vancouver – Keenan Kitasaka, Manager ITS
  - Q&A discussion
  
- 15:00 Coffee break (sponsored by TRANSLINK)
  
- 15:30 Presentations by ISO/TC 204 - *what ITS standards development is underway?*
  - Overview of WG8 and ITS Transit Standards - Paula Okunieff, Systems & Solutions, Inc.
  - Smart Cards in Japan – Dr. Fumihiko Nakamura, Yokohama National University
  - ITS Standards: The US Experience - Dave Matta, Avail Technologies, Inc.
  - Q&A discussion
  
- 16:45 Wrap-up and Closing Remarks – Moderator
  
- 17:00 Special Presentation (Crystal Ballroom 3 – see separate Agenda)

NOTE: The Powerpoint presentations used by the speakers are posted on the ITS Canada website under Standards Committee ([www.itscanada.ca](http://www.itscanada.ca)).

APPENDIX C  
SPECIAL PRESENTATION  
IMPROVED TRAFFIC CONTROL RESEARCH

*Organized by Host Committee for ISO/TC 204 Spring 2004*

*In collaboration with City of Vancouver and Partners*

Date: Tuesday May 18, 2004, 17:00 - 19:00 p.m.

Place: Hilton Vancouver Metrotown Hotel, 6083 MacKay Ave, Burnaby, Vancouver B.C.

Room: Crystal Ballroom 3

**Theme:**

ITS Applications and Standards for Traffic Control

AGENDA

17:00 Presentation by Research Partners – Moderator Chris Edwards, City of Vancouver

- Adaptive Traffic Signal Control: A New Generation – Joseph Lam, Delcan

18:00 Reception hosted by Research Partners

Research Partners:

Delcan Corporation

EIS Electronic Integrated Systems Inc.

Novax Industries Corporation

City of Vancouver

University of Calgary

Precarn Incorporated

SPECIAL PRESENTATION  
IMPROVED TRAFFIC CONTROL RESEARCH

## **Adaptive Traffic Signal Control: A New Generation**

Traffic congestion in urban areas is reaching intolerable levels and the need for a better, more cost-effective tool to improve traffic circulation and reduce pollution is now more evident than ever before. Through adaptive traffic control, the traffic signal management system can respond in real-time to changes in the traffic characteristics of the network – the operational timing plans are continually reviewed and changed by small increments to match the prevailing traffic demands measured by on-street detectors.

Many attempts have been made by various organizations in the world to develop adaptive traffic signal control systems. To address the drawbacks evident in existing commercially available systems, new strategies for providing adaptive traffic control are required.

The project research team developed a new, low cost, advanced traffic signal control system package, with more functions designed to effectively deal with a wider range of traffic conditions.

The prototype system, which is based upon the Vancouver Traffic Signal Management System, consists of enhanced traffic signal controllers and field hardware plus new traffic detectors supplying real-time data to a novel traffic adaptive control algorithm designed to accurately predict traffic patterns and recommend optimal signal timing parameters in response to changing on-street traffic volume patterns. The system's competitive advantages include the following:

- Multi-criteria adaptive traffic signal control algorithms that cater for a wide range of traffic conditions;
- Advanced vehicle detector system that is employed in a flexible, cost-effective configuration for better data collection;
- Enhanced traffic signal controllers that provide for distributed processing capability and hence minimize data communications to the central computer; and
- Open system architecture and communications protocol, with a technology growth path that can accommodate changing information technologies.