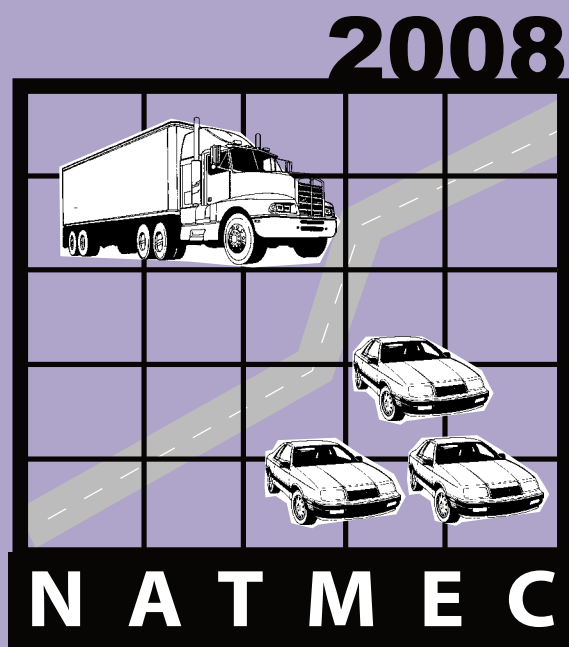


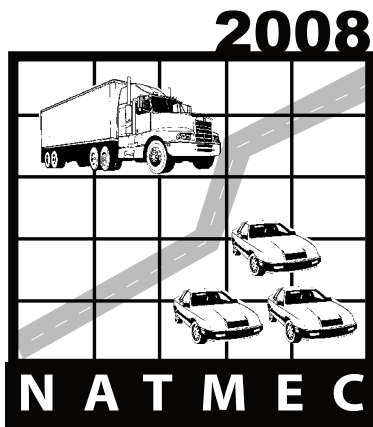
NATMEC

North American Travel Monitoring Exposition and Conference



August 6–8, 2008
Omni Shoreham Hotel
Washington, D.C.

www.NATMEC.org



North American Travel Monitoring Exposition and Conference

Organized by
Transportation Research Board

Supported by
Federal Highway Administration
Office of Highway Policy Information

Cosponsored by
American Association of State Highway
and Transportation Officials

Planning Team

David Gardner, Ohio Department of Transportation, *Chair*
Joseph Avis, California Department of Transportation
Ed Christopher, Federal Highway Administration
Glenda Fuller, Idaho Department of Transportation
Ralph Gillmann, Federal Highway Administration
Laine Heltebride, Pennsylvania Department of Transportation
Karl Hess, Maryland Department of Transportation
Timothy Lomax, Texas Transportation Institute
Kurt B. Matias, New York State Department of Transportation
Anne-Marie McDonnell, Connecticut Department of Transportation
Catherine C. McGhee, Virginia Transportation Research Council
William McGuirk, District Department of Transportation
Thomas Schinkel, Virginia Department of Transportation
Goro Suljoadikusumo, Hawaii Department of Transportation
Shawn Turner, Texas Transportation Institute
Johanna Zmud, NuStats, LLC

Thomas Palmerlee, Transportation Research Board
David Floyd, Transportation Research Board

TRANSPORTATION RESEARCH BOARD

OF THE NATIONAL ACADEMIES

The Transportation Research Board is a division of the National Research Council, which serves as an independent adviser to the federal government and others on scientific and technical questions of national importance. The National Research Council is jointly administered by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The mission of the Transportation Research Board—one of six major divisions of the National Research Council—is to promote innovation and

progress in transportation through research. In an objective and interdisciplinary setting, the Board facilitates the sharing of information on transportation practice and policy by researchers and practitioners; stimulates research and offers research management services that promote technical excellence; provides expert advice on transportation policy and programs; and disseminates research results broadly and encourages their implementation.

www.TRB.org

August 6-8, 2008



The Premier Venue for Applications of Monitored Traffic Data

NATMEC 2008 is an opportunity for traffic monitoring professionals to exchange and share information related to the collection, management, and use of monitored traffic data in all applications. Attendees will have the opportunity to network with peers, industry representatives, and vendors of equipment and software. This interaction will provide insights into current and emerging technologies for data collection, as well as improvements in tools and methods that will lead to more efficient technologies for managing, distributing, and using monitored traffic data. Traffic data are a valuable asset, and NATMEC 2008 seeks to establish new levels of cooperation and integration among those responsible for various aspects of traffic data use.



*David Gardner
Planning Team Chair*

Conference sessions will focus on such topics as

- Technologies for data collection;
- Management, quality assurance, and reporting of data;
- Integrating traditional and operational traffic data programs;
- Traffic data and their value as an asset;
- Data availability and use in decision making and in policy making;
- Improving traffic data programs; and
- Ongoing and future applied research and applications.

If you are a state or regional traffic data collector, traffic data user, manager of data programs, or vendor, your input is welcome at NATMEC 2008. NATMEC is the premier venue for sharing experiences on effectively monitoring traffic flow, whether for operational decision making, planning, or program management. I look forward to seeing you at NATMEC 2008!

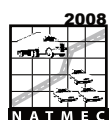
—David Gardner

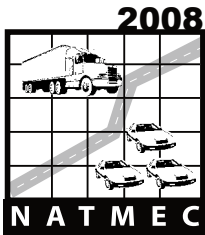
Ohio Department of Transportation
Planning Team Chair

Schedule at a Glance

| NATMEC 2008 Schedule at a Glance | | | | | | |
|----------------------------------|---|---------------------------------------|---|---|-----------------------------|--------------------------------|
| | Tuesday, Aug 5 | Wednesday, Aug 6 | Thursday, Aug 7 | Friday, Aug 8 | | |
| 7:00 AM | | | TRB Urban Data Committee Meeting | Breakfast in Exhibit Hall | Exhibits and Posters | ADUS Joint Subcommittee |
| 8:00 AM | | Opening Session | Breakout Sessions | Breakout Sessions | | |
| 9:00 AM | | | | | | |
| 10:00 AM | | | | | | |
| 11:00 AM | | Breakout Sessions | Breakout Sessions | Closing Session | | |
| Noon | | | | | | |
| 1:00 PM | Lunch | | Lunch (in Exhibit Hall) Data Section Meeting | Exhibits and Posters | | |
| 2:00 PM | | Breakout Sessions | Breakout Sessions | | | |
| 3:00 PM | | | | | | |
| 4:00 PM | | Breakout Sessions | Breakout Sessions | | | |
| 5:00 PM | | | | | | |
| 6:00 PM | Traffic Monitoring Committee Meeting | Exhibit Hall Opening Reception | | Statewide Data Committee and WIM Subcommittee Meetings | | |
| 7:00 PM | | | | | | |
| 8:00 PM | | | | | | |

August 6-8, 2008





North American Travel Monitoring Exposition and Conference

COMMITTEE MEETINGS

All TRB committee meetings are open to all attendees unless otherwise noted.

TUESDAY, AUGUST 5, 2008

Tuesday, August 5, 5:30 p.m.–7:30 p.m., Shoreham, Forum

Traffic Monitoring Committee

Ralph A. Gillmann, Federal Highway Administration, presiding

Open meeting of this committee, which is concerned with all aspects of research in the fields of highway traffic monitoring, including detection, counting, classification, and in-motion-weighting of highway vehicles. Its scope encompasses the full range of monitoring technology, including traffic sensors (both intrusive and nonintrusive), installation materials and techniques, signal processing algorithms, analysis and reporting techniques, and comprehensive monitoring programs. The committee is also concerned with highway monitoring standards to ensure the applicability and quality of traffic data in all its applications, including but not limited to highway design, evaluation, management, safety, environment, operations, and research.

THURSDAY, AUGUST 7, 2008

Thursday, August 7, 7:00 a.m.–8:30 a.m., Shoreham, Forum

Urban Data Committee

Catherine Theresa Lawson, State University of New York, Albany, presiding

Open meeting of the TRB committee interested in the design, collection, analysis, and reporting of transportation supply and demand data needed to support urban and metropolitan transportation planning efforts. In particular, the committee is interested in developing the data requirements of new and innovative techniques for measuring and monitoring the performance of metropolitan transportation systems and in evaluating changes in demographic and urban travel characteristics. In terms of household and other transportation surveys, the committee is concerned with the analysis, reporting, archiving, and dissemination of results and data products. The committee is interested in the effective use of census and other federal, secondary data sources in metropolitan transportation planning. The committee is concerned with advancements in information systems and information technology for the improved dissemination and sharing of knowledge about metropolitan transportation systems and urban travel behavior.

Thursday, August 7, Noon–2:00 p.m., Shoreham, Forum

TRB Data and Information Technology Section (members only)

Johanna P. Zmud, NuStats, LLC, presiding

TRB committee and subcommittee chairs meeting.

August 6–8, 2008



Thursday, August 7, 6:30 p.m.–8:00 p.m., Shoreham, Forum

Statewide Data Committee

Jack R. Stickel, Alaska Department of Transportation and Public Facilities, presiding

Open meeting of a committee whose scope includes research and technology transfer activities pertaining to statewide transportation planning data and information systems for all modes of transportation. A primary concern is the capability of information systems to integrate various transportation related data sources into a strategic multimodal information database for statewide transportation planning. The committee serves as a forum for discussion of current planning data activities.

Thursday, August 7, 6:30 p.m.–8:00 p.m., Shoreham, Director’s

WIM Subcommittee

Anne-Marie H. McDonnell, Connecticut Department of Transportation; Mark P. Gardner, Fugro Consultants BRE, presiding

Open meeting. This subcommittee is concerned with all aspects of research into weigh-in-motion (WIM) of highway vehicles. Its functions extend to WIM sensors and systems, dynamic vehicle axle loadings, and the applications of WIM data. It includes vehicle classification in so far as WIM is used to classify vehicles.

FRIDAY, AUGUST 8, 2008

Friday, August 8, 7:00 a.m.–8:30 a.m., Shoreham, Forum

ADUS Joint Subcommittee

Shawn M. Turner, Texas Transportation Institute, presiding

Pick up breakfast and join this open meeting of a joint subcommittee of TRB Traffic Monitoring and Urban Data Committees. The scope of this subcommittee includes all aspects of the archiving and management of highway traffic data collected via intelligent transportation systems (ITS) and other systems designed for traffic operations. The focus is on the management of data over time: data transfer, fusion, structure, storage, documentation, and dissemination for analysis of variations, trends, and patterns—a focus that is incorporated in the National ITS Architecture’s Archived Data User Service (ADUS).

ASSOCIATED MEETINGS

TUESDAY, AUGUST 5, 2008

Tuesday, August 5, 3:00 p.m.–5:00 p.m., Shoreham, Forum

Nonintrusive Technologies Phase III Pooled Fund

Jerry Kotzenmacher, Minnesota Department of Transportation; Steven Jessberger, Federal Highway Administration, presiding

THURSDAY, AUGUST 7, 2008

Thursday, August 7, 5:45 p.m.–6:15 p.m., Shoreham, Directors

International Society for Weigh-in-Motion (ISWIM)

Bernard Jacob, Laboratoire Central des Ponts et Chaussées, France; Ralph A. Gillmann, Federal Highway Administration, presiding

Meeting open to all those interested in weigh-in-motion. Discussion of future WIM conferences, workshops, and other ISWIM matters.

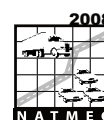
FRIDAY, AUGUST 8, 2008

Friday, August 8, 7:00 a.m.–8:00 a.m., Shoreham, Directors

Loop–Length Based Classification Pooled Fund

Gene Hicks, Minnesota Department of Transportation; Steven Jessberger, Federal Highway Administration, presiding

August 6–8, 2008



EXHIBITOR PRESENTATIONS

Exhibitor presentations are 20–30 summaries of exhibitor products, held concurrently with the NATMEC technical breakout sessions. This is an opportunity for current and potential customers to hear about new development and key installations in a setting other than the exhibit hall—the presentations take place in the Executive Room. Following is the schedule of presentations. Use page-number reference for descriptions of presentations.

| <i>Company</i> | <i>Day</i> | <i>Start</i> | <i>Page</i> |
|---------------------------------|------------|--------------|-------------|
| Berkeley Transportation Systems | Thursday | 2:30 p.m. | 17 |
| Chaparral Systems Corp. | Wednesday | 10:30 a.m. | 9 |
| Control Specialists Company | Friday | 8:30 a.m. | 20 |
| DataRemote, Inc. | Thursday | 4:30 p.m. | 18 |
| Diamond Traffic Products | Thursday | 9:30 a.m. | 14 |
| Digital Traffic Systems, Inc. | Friday | 9:30 a.m. | 20 |
| ECM Inc. | Thursday | 2:00 p.m. | 17 |
| EIS-ISS Canada Ltd. | Friday | 9:00 a.m. | 20 |
| FHWA | Wednesday | 4:00 p.m. | 11 |
| Global Traffic Technologies | Wednesday | 5:00 p.m. | 12 |
| Infotek Associates | Thursday | 8:30 a.m. | 14 |
| International Road Dynamics | Thursday | 5:00 p.m. | 18 |
| JAMAR Technologies, Inc. | Wednesday | 4:30 p.m. | 12 |
| Kistler Instrument Corp. | Thursday | 3:00 p.m. | 17 |
| MetroCount USA, Inc. | Wednesday | 11:00 a.m. | 9 |
| Midwestern Software Solutions | Wednesday | 2:00 p.m. | 10 |
| Miovision Technologies | Thursday | 11:30 a.m. | 15 |
| PTV America, Inc. | Thursday | 10:30 a.m. | 15 |
| Quixote Corporation | Thursday | 9:00 a.m. | 14 |
| Sensys Networks | Wednesday | 11:30 a.m. | 9 |
| TimeMark Incorporated | Thursday | 4:00 p.m. | 18 |
| Transmetric America, Inc. | Wednesday | 3:00 p.m. | 10 |
| Transportation Research Board | Wednesday | 2:30 p.m. | 10 |
| Wavetronix | Thursday | 11:00 a.m. | 15 |

August 6–8, 2008



PROGRAM

Wednesday, August 6, 2008

8:15 a.m.–9:00 a.m., Shoreham, Palladian

Welcome

David W. Gardner, Ohio Department of Transportation, presiding

Welcome from the District of Columbia

Neil O. Albert, Deputy Mayor for Planning and Economic Development, District of Columbia

Neil Albert serves as the District of Columbia's Deputy Mayor for Planning and Economic Development, assisting the Mayor in the coordination, planning, supervision, and execution of all programs, policies, proposals, and functions related to economic development in the District of Columbia. The Deputy Mayor also advises the Mayor on the most effective allocation of public resources devoted to economic development.



Albert

Traffic Monitoring and Performance Measures

Mary B. Phillips, Associate Administrator for Policy and Governmental Affairs, Federal Highway Administration

Mary Phillips joined the Federal Highway Administration (FHWA) on October 16, 2006, as the Associate Administrator for Policy and Governmental Affairs. In this position, she is responsible for coordinating and directing development of FHWA policy on highway-related issues; leading FHWA's Congressional affairs and international program; and overseeing the collection of highway information used to apportion federal highway funds to the states.

International Conference on Heavy Vehicles/ICWIM 5, Paris 2008

Bernard Jacob, Technical Director for Transport Infrastructure and Road Safety, Laboratoire Central des Ponts et Chaussées, France

Wednesday, August 6, 9:00 a.m.–10:00 a.m., Shoreham, Palladian

Traffic Monitoring: The State of the Practice

David W. Gardner, Ohio Department of Transportation, presiding

A practitioner panel will review the state of the practice in three regions of the country, the successes that traffic monitoring groups have experienced, the challenges they see in the next several years, and what initiatives they believe are needed. TRB has started a series of regional traffic data workshops. The planning team for each workshop has conducted an extensive survey of traffic data producers and users. Representatives of the first three workshops—the Mid-Atlantic, Western, and New England—will share what their research has found.

Mid-Atlantic Successes and Challenges

Thomas O. Schinkel, Virginia Department of Transportation

Western Successes and Challenges

Joseph Avis, California Department of Transportation

New England Successes and Challenges

Dean T. Carnevale, New York State Department of Transportation



Schinkel



Avis



Carnevale

Wednesday, August 6, 2008

Wednesday, August 6, 10:30 a.m.–noon, Shoreham, Congressional

Use of Intelligent Transportation Systems' Real Time Data and Archives

Dan Dunnivant, Virginia Department of Transportation, presiding

How are state departments of transportation and resellers of intelligent transportation systems (ITS) data making the best use of this information and accurately delivering it so that their customers understand what they are receiving and trust it? This session will feature a discussion on best practices for insuring data quality for state departments of transportation and data resellers. Innovative ways to visualize, mine, and analyze real time and archive data along with merging traditional data collection sites (i.e., in rural areas and conventional highways) into ITS archives will be discussed.

Lessons Learned from Collecting and Using Transportation Technology Innovation and Demonstration (TTID) Data

Richard A. Glassco, Noblis; Robert Rupert, Federal Highway Administration

The Virginia Department of Transportation Experience Using Traditional Count Program Collection Stations for Intelligent Transportation Systems Operations

Robert Alexander, Virginia Department of Transportation

Oregon Department of Transportation's Operations Management System: Tools to Link Data for Performance Measurement and Monitoring

Anita Vandervalk-Ostrander, Cambridge Systematics, Inc.

Using Intelligent Transportation System Data for Planning Purposes: The Arizona Experience

Tomas Guerra, Oz Engineering

Wednesday, August 6, 10:30 a.m.–noon, Shoreham, Diplomat

Estimating Annual Average Daily Traffic (AADT) Beyond Functional Classification Factors

Dean T. Carnevale, New York State Department of Transportation, presiding

Due to unique traffic patterns that may exist in a state, applying a single functional classification factor to all segments within that class may not be valid. This session will discuss various methods traffic monitoring groups use instead of functional classification to estimate AADT. Examples of route-specific geographical factors and sampling plans will be discussed.

Review of Practice in Annual Average Daily Traffic Estimation: Ohio's Approach to Automatic Traffic Recorder (ATR) Groupings and Determination of Seasonal Adjustment Factors

William Henry Schneider, University of Akron

Exploiting Traffic Information in Airborne Imagery to Improve Annual Average Daily Traffic Estimates—Empirical Results and Prototype Software System

Zhoujun Jiang, Mid-Ohio Regional Planning Commission; Mark R. McCord and Prem Kumar Goel, Ohio State University; Cheng Chen and Fanyu Zhou, Ohio State University

Annual Average Daily Traffic Calculation Using Quarterly Counts and Route Specific Factors

Joseph Avis, California Department of Transportation

Wednesday, August 6, 10:30 a.m.–noon, Shoreham, Palladian

Traffic Monitoring 101, Basics of Traditional Data Collection—Collection, Analysis, Reporting, Retention

Glenda Fuller, Idaho Transportation Department, presiding

This session will cover examples and techniques focused on traditional traffic count programs. Discussion will include ways to collect, store, analyze, and disseminate traffic count data. New ways of doing business will be included, such as using web-based applications for processing data.

Pennsylvania's Internet Traffic Data Upload System (iTUDS)

Jeremy M. Freeland and Joseph Piper, Pennsylvania Department of Transportation

SEMCOG's Traffic Count Program

Chade Saghir, Southeast Michigan Council of Governments

Using Microsoft Streets and Trips for Locating and Scheduling Short Term Counts

Daniel Ray Inabnitt, Southern Traffic Services

Wednesday, August 6, 2008



Wednesday, August 6, 10:30 a.m.–noon, Shoreham, Executive

Exhibitor Presentations

Thomas O. Schinkel, Virginia Department of Transportation, presiding

Chaparral Systems Corp. (10:30 a.m.)

Chaparral System Corporation presents an overview of its traffic data quality control, summarization, and analysis software product, TRADAS 2006. TRADAS continues to remain up-to-date, both technically and in terms of evolving traffic data requirements. It fully integrates the processing of short-term and continuous volume, vehicle classification, length, speed, WIM, and other kinds of traffic data.

MetroCount USA, Inc. (11:00 a.m.)

Sensys Networks (11:30 a.m.)

Sensys presents an introduction to how low-power wireless sensor networks can provide cost-effective, easy-to-deploy, and accurate vehicle detection information.

Wednesday, August 6, Noon–1:45 p.m., Shoreham, Ambassador

Luncheon Address: ITS Your Data

Shelley J. Row, Director, ITS Joint Program Office, U.S. Department of Transportation, presiding

Shelley Row will summarize the major initiatives at the Federal Intelligent Transportation System (ITS) Program, including the role of traffic data. She will offer her perspective on strategies that would improve the incorporation of ITS data from a variety of technology sources, including that from vehicle infrastructure integration (VII), into existing traffic data programs.



Row

Wednesday, August 6, 2:00 p.m.–3:30 p.m., Shoreham, Palladian

Motorcycle Travel Data

Hamlin Williams, Virginia Department of Transportation, presiding

In 2008, the Federal Highway Administration began requiring states, the District of Columbia, and U.S. Territories, which are required to submit Highway Performance Monitoring System (HPMS) data, to collect and report motorcycle travel data. While reporting motorcycle travel data was optional before 2008, all except six states reported them. Issues that have been identified in collecting these data include: equipment accuracy, the Traffic Monitoring Guide instructions on when to collect short-term traffic counts, and how to factor these data. Presenters will discuss successes in collecting motorcycle travel data.

Accuracy of Current Detectors in Detection of Motorcycles

Dan Middleton and Ryan Longmire, Texas Transportation Institute

Collecting and Submitting Motorcycle Data for Vehicle Miles Traveled (VMT) Estimation

Harshad R. Desai, Federal Highway Administration

Motorcycle Traffic Data Issues at the Montana Department of Transportation

Bill Cloud, Montana Department of Transportation

Use of Exposure Data in Motorcycle Studies: What Is and Isn't Available

Eric R. Teoh, Insurance Institute for Highway Safety

Complying with Motorcycle Reporting Requirements: Pennsylvania

Department of Transportation Perspective

Andrea Bahoric and Joni K Sharp, Pennsylvania Department of Transportation

Wednesday, August 6, 2:00 p.m.–3:30 p.m., Shoreham, Diplomat

Training and Retraining the 21st Century Workforce

Andrew P. Nichols, Rahall Transportation Institute, Marshall University, presiding

As employees retire and other employees are promoted or move to new positions, agencies are forced to deal with the issue of training and re-training employees. Presentations will include dealing with workforce change, information on fostering university–DOT partnerships, and establishing training and certification programs.

Wednesday, August 6, 2008

New Tools to Help Departments of Transportation Deal with Work Force Challenges

Hyun-A Park, Spy Pond Partners

Jump, Push, Pull, Catch and Grow: Hectic Times in WV

Diana Long, Appalachian Transportation Institute, Nick Rahall, II Appalachian Transportation Institute

Keeping the Wheels Rolling: Looking at University and Department of Transportation Partnerships for Traffic Monitoring Workforce Development

Jeannette Montufar, University of Manitoba, Canada; Jorge Arango, No Organization; Jonathan Regehr, University of Manitoba, Canada

Sharing and Retaining Critical Organizational Knowledge

Maureen L. Hammer, Virginia Department of Transportation

Wednesday, August 6, 2:00 p.m.–3:30 p.m., Shoreham, Congressional
Travel Time and Speed—The New Customer-Driven Traffic Paradigm

Johanna P. Zmud, NuStats, LLC, presiding

While *travel time* and *speed* have been metrics that have been around for a long time, *congestion* and *safety* concerns have elevated their importance to a fever pitch. Customers are requiring travel time and speed with their traffic data. In this session several new advances on how the traffic data community is coping will be explored. This session is for the traffic data manager and staff responsible for reporting on travel.

Travel Time and Speed: A National Concern

Richard V. Taylor, Federal Highway Administration

Beyond 511 in the Bay Area

Carol Kuester, Metropolitan Transportation Commission

Toward Incorporating Arterial Performance Quality in the PORTAL Archived Data User Service

Christopher M. Monsere and Robert Lawrence Bertini, Portland State University

Wednesday, August 6, 2:00 p.m.–3:30 p.m., Shoreham, Executive

Exhibitor Presentations

Ed Christopher, Federal Highway Administration, presiding

Midwestern Software Solutions (2:00 p.m.)

Midwestern Software Solutions invites you to attend a presentation on the features and benefits of their innovative, web-based, traffic count database system. The system currently helps 62 transportation agencies around the country efficiently manage and analyze traffic count data.

Transportation Research Board (2:30 p.m.)

The presentation will consist of an overview of TRB, its programs, products, and services.

Transmetric America, Inc. (3:00 p.m.)

In addition to the data management and quality control capabilities, find out how Transmetric incorporates geographic information system features to support your traffic data collection program. You will also see Transmetric's real-time traffic and imaging capabilities to support SAFETEA-LU 1201 and virtual weigh stations. Not to be missed!

Wednesday, August 6, 4:00 p.m.–5:30 p.m., Shoreham, Diplomat

Who is Using Our Weigh-in-Motion (WIM) Data?

Glenda Fuller, Idaho Transportation Department, presiding

This session will address several areas, including using WIM for weight enforcement, military applications, and the development of truck loading trends. Presentations will address combining and analyzing data from different systems with different output formats, techniques to monitor WIM sensors, and archiving WIM data.

Summary of U.S. National and Regional Trends in Truck Loading

David L. Jones, Federal Highway Administration

Oak Ridge National Laboratory's Weigh-in-Motion (WIM)

Experiences with Multiple Uses of WIM Data

Robert Knox Abercrombie, Frederick Thomas Sheldon, and Randy M. Walker,

Oak Ridge National Laboratory

Analysis and Application of WIM Data in Minnesota

Matt Oman, Minnesota Department of Transportation

Building a WIM Data Archive for Improved Modeling, Design, and Rating

Christopher M. Monsere, Portland State University; Andrew P. Nichols, Rahall Transportation

Institute, Marshall University

Wednesday, August 6, 4:00 p.m.–5:30 p.m., Shoreham, Palladian

Getting Out of the Road

Laine Heltebridle, Pennsylvania Department of Transportation, presiding

As traffic continues to increase, especially in urban areas, using traditional methods of collecting traffic data can increase employees' exposure to injury. Presentations in this session may include collecting data using nonintrusive equipment, new methods of collecting traffic and turning movement counts in congested areas, the use of vendors to collect traffic data, and how traffic data are collected on non–state-owned roads.

Laser-Intensity Automatic Vehicle Classification System

Ghada Moussa and Khaled Hussain, Assiut University, Egypt

What's the Camera For?

Henry Salvatori, Oregon Department of Transportation

Washington State's Nonintrusive Data Collection Experience and Current Practices for Collecting Short-Duration Traffic Counts in Urban Areas and Non–State-Owned Roads

John Rosen, Washington Department of Transportation

Wednesday, August 6, 4:00 p.m.–5:30 p.m., Shoreham, Congressional

Evaluating the Quality and Accuracy of Real-Time Traffic and Incident Information

Shawn M. Turner, Texas Transportation Institute, presiding

Various public agencies and private entities are collecting and disseminating real-time traffic information. Until several years ago, this traffic information was provided in fairly coarse categories, such as green-yellow-red Internet speed maps. However, recent growth in personalized traveler information and in-vehicle navigation devices is demanding that traffic information be of better quality and greater accuracy. In response, a few public agencies and private companies have conducted quality assessments to benchmark the quality of their real-time traffic information. This session will highlight some of the best practices related to evaluating the quality and accuracy of real-time traffic and incident information.

Evaluating the Accuracy of Fixed-Point Freeway Traffic Detectors in Phoenix, Arizona

Wang Zhang, Maricopa Association of Governments; Shawn M. Turner, Texas

Transportation Institute

NAVTEQ Experience with Evaluating Accuracy of Real-Time Speeds

Larry Peterson, NAVTEQ

Systematic Loop Fault Detection and Data Correction for Traffic Monitoring

Xiao-Yun Lu, Pravin P. Varaiya and Roberto Horowitz, University of California, Berkeley;

Joe Palen, Caltrans

Traffic Data Quality Management Using Statistical Process Control and Data Visualization

Soojung Jung and Richard A. Glassco, Noblis

Wednesday, August 6, 4:00 p.m.–5:30 p.m., Shoreham, Executive

Exhibitor Presentations

Joseph Avis, California Department of Transportation, presiding

FHWA (4:00 p.m.)

In addition to developing policy and implementing standards, the FHWA Policy Information Office collects, analyzes, and distributes highway-related information and statistics from federal, state, and local sources as it champions improved quality practices in data programs. Publications are available for your review, providing you with useful information for further research and planning activities.

Wednesday, August 6, 2008

JAMAR Technologies, Inc. (4:30 p.m.)

JAMAR Technologies will be presenting its line of traffic data collection devices with accompanying software programs and its vehicle-installed distance measuring units. JAMAR's newest product is the Radar Recorder, a new technology for gathering traffic data on the roadway.

Global Traffic Technologies (5:00 p.m.)

The Canoga Traffic Sensing System delivers precise, real-time traffic data, allowing you to monitor individual vehicle speeds and lengths, mean speed, count and occupancy, and speed and length classification. It is an essential tool for managing traffic operations.

Wednesday, August 6, 5:30 p.m.–7:00 p.m.

NATMEC Poster Session and Reception

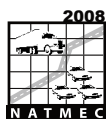
Poster Session

Ralph A. Gillmann, Federal Highway Administration, presiding

This session includes a variety of posters on travel-monitoring data. Come and talk to the authors!

1. **Improving Vehicle Classification Using Dual-Tire Variable**
Ren Moses, Florida A&M University and Florida State University; Bruce A. Harvey, Florida A&M University and Florida State University, College of Engineering; John W. Reed, Roadway Data Systems; Richard Lowell Reel, Florida Department of Transportation
2. **Design of a Segmented Axle Sensor of Identification of Dual Tires**
Bruce A. Harvey, Florida A&M University and Florida State University, College of Engineering; Ren Moses, Florida A&M University and Florida State University; John W. Reed, Roadway Data Systems; Richard Lowell Reel, Florida Department of Transportation
3. **A Strategy to Deal with Traffic Data Sets with Missing Values**
Soojung Jung and Richard A. Glassco, Noblis
4. **National Truck Weight Study Trends**
David L Jones, Federal Highway Administration
5. **Travel Monitoring Analysis System**
Steven Jessberger, Federal Highway Administration
6. **Length-Based Vehicle Classification from Freeway Single Loop Detectors**
Benjamin Coifman and Seoungbum Kim, Ohio State University
7. **Advancements in the Processing Traffic and WIM Data Using Automatic Collection Processes**
Mary Ann Dierckman, Alaska Department of Transportation and Public Facilities
8. **Monitoring Transportation Using Capacity Analysis, Volumes and GIS**
Carie Lynn Frederick, City of Calgary, Canada
9. **Truck Flow Management through Remote Sensing**
Mark D. Hickman and Pitu B. Mirchandani, University of Arizona
10. **Overview of Pooled Fund on Length Based Classification**
Gene Hicks, Minnesota Department of Transportation
11. **Quantify Severe Incidents' Impact on Freeway Traffic Congestion in Atlanta Area**
Weimin Huang and Richard A. Margiotta, Cambridge Systematics, Inc.
12. **New Eyes on the Prize: Tools for Visualizing Traffic-Monitoring Data**
Catherine Theresa Lawson, State University of New York, Albany; Alex Muro, State University of New York, Albany; Nathan S. Erlbaum, New York State Department of Transportation
13. **Traffic Operator Training Through Realistic Simulation**
Peter T. Martin, University of Utah; Benjamin Layman Shepherd, Utah Traffic Lab; Thomas Bauer, PTV America, Inc; David Kinnecom, Utah Department of Transportation

Wednesday, August 6, 2008



14. **Strategic Traffic Management at the Traffic Management Center in Berlin, Germany**
Peter Moehl, PTV AG, Germany; Arnd Vogel, PTV, Germany; Steve Perone, PTV, America
15. **Using Existing Loops at Signalized Intersections for Traffic Counts**
Sudhir Murthy, TrafInfo Communications, Inc.
16. **Evaluating Vehicle Infrastructure Integration (VII)–Enabled Probe Traffic Monitoring**
Hema Tanikella and Brian Lee Smith, University of Virginia
17. **An Analysis of Processed Vehicle Infrastructure Integration (VII) Probe Data to Support Traffic Management Applications**
Karl Wunderlich, Meenakshy Vasudevan, Richard A. Glassco and Matthew Hardy, Noblis; James Larkin, Mitretek Systems, Inc.

Thursday, August 7, 2008

Thursday, August 7, 8:30 a.m.–10:00 a.m., Shoreham, Diplomat

Pavement Designers as Traffic Data Customers

Catherine McGhee, Virginia Transportation Research Council, presiding

The new Mechanistic Empirical Pavement Design Guide (MEPDG) is in the process of being approved by AASHTO as the industry standard. Included in the MEPDG are several changes that should be of importance to the traffic data community. This session will focus on new changes to the MEPDG and its intersection with the traffic data world. This session is a must for anyone responsible for providing traffic data used in pavement design.

Development of Traffic Inputs to Support MEPDG

Kent Taylor, North Carolina Department of Transportation

Implications of the MEPDG to Traffic Data Collection Practices

Mark E. Hallenbeck, University of Washington

Updating the AASHTO Specification for WIM Data Collection

Michael M. Moravec, Federal Highway Administration

Thursday, August 7, 8:30 a.m.–10:00 a.m., Shoreham, Ambassador

Equipment Operations

Anne-Marie H. McDonnell, Connecticut Department of Transportation, presiding

The traffic data collection community is confronted with a myriad of challenges involved in the selection, installation, maintenance and performance, and tracking of systems. This session provides up-to-date information and developments on the use of traditional sensors for traffic data collection. It focuses on the sharing of practitioners' experiences in keeping their data acquisition systems operational and methods employed to address challenges.

Panel: State Field Experiences and Best Practices Virginia Success Stories

Richard Bush, Virginia Department of Transportation

Seeking Solutions to Meet the Challenges

Richard Lowell Reel, Florida Department of Transportation

Building a Thriving Network

Jim Neidigh, Texas Department of Transportation

Thursday, August 7, 8:30 a.m.–10:00 a.m., Shoreham, Palladian

Public–Public Partnerships: Making Data-Sharing Work between Governments

Ed Christopher, Federal Highway Administration, presiding

Cooperative arrangements to develop and share data are increasingly important as financial resources are constrained and collaborative decision making becomes more common. This session examines success factors in data partnerships between public agencies.

Wednesday, August 6, and Thursday, August 7, 2008

Gary–Chicago–Milwaukee (GCM) Corridor Partnership 14 years of Experience

David A. Zavattero, City of Chicago

Pennsylvania Partnerships Matter

Laine Heltebridle, Pennsylvania Department of Transportation

Evolution of Traffic-Count Data Sharing in Central Ohio

Zhuojun Jiang, Mid-Ohio Regional Planning Commission

Data Sharing in the Washington Metropolitan Region

Robert E. Griffiths, Metropolitan Washington Council of Governments

Thursday, August 7, 8:30 a.m.–10:00 a.m., Shoreham, Executive

Exhibitor Presentations

Laine Heltebridle, Pennsylvania Department of Transportation, presiding

Infotek Associates (8:30 a.m.)

InfoTek will demonstrate the Wizard, a GSM wireless traffic counter that works with existing loop infrastructure. Features include dual-loop vehicle length classification, identification of large trucks with a single loop, and a turnkey solar solution.

Quixote Corporation (9:00 a.m.)

Quixote Corporation (www.quixotecorp.com) and its wholly owned subsidiaries, Quixote Traffic Corporation (www.quixtraffic.com), and Quixote Transportation Technologies, Inc. (www.qttinc.com), are the world's leading manufacturers of intersection control systems, highway–advisory radio devices, wireless measuring and sensing devices, security systems, backup battery systems, video detection and other highway safety products.

Diamond Traffic Products (9:30 a.m.)

Participate in an interactive session where software, hardware, and data processes are discussed in an open forum. Also, sign up for a demonstration of the new Omega Unit and learn its benefit to data collection agencies.

Thursday, August 7, 10:30 a.m.–noon, Shoreham, Diplomat

Truck Data for Freight Planning

Kathleen L. Hancock, Virginia Polytechnic Institute and State University; Ed Christopher, Federal Highway Administration, presiding

Reliable and relevant information about trucks is critical for planning and making decisions about investments and policies related to transportation infrastructure, particularly now, as congestion increases on the highway system and trucks make up a larger portion of the traffic flow. At the same time, the demand for this information is becoming more diverse, evolving from pavement design requirements to uses relating to air quality, safety, security, freight flows, and forecasting. Several sources of information already exist. From the traffic-monitoring community, we have truck counts, volumes, classification, and weight. From the freight community, we have information about movement of goods. This is an opportunity to examine truck data from various users and emerging techniques for collecting truck data to support freight planning.

Innovating to Meet Users' Needs: Lessons and Outcomes from a Regional Truck Traffic Monitoring Symposium

Jonathan Regehr, Jeannette Montufar, and Alan M. Clayton, University of Manitoba, Canada

Linking Freight Planning and Real-Time Traffic Data to Monitor Freight Performance Measures

Miguel Figliozzi, Portland State University

Travel Time in Freight Significant Corridors: Phase 5

Jeffrey Bradford Short, American Transportation Research Institute

Thursday, August 7, 10:30 a.m.–noon, Shoreham, Ambassador

Calibration and Validation for Traffic Data Collection

Ralph A. Gillmann, Federal Highway Administration, presiding

Automated systems for collecting traffic data require proper calibration followed by a program of validation of data and re-calibration of systems. This session will discuss current issues and practices to calibrate and validate traffic data. Calibration methods, validation criteria, and quality assurance–quality control programs will be discussed.

Pennsylvania's Automatic Traffic Recorder (ATR) Quality Assurance Program

Joni K Sharp, Pennsylvania Department of Transportation

Automated Validation and Calibration of Traffic Volumes from Large Transportation Network via Imputation and Balancing

Jaimyoung Kwon, California State University, East Bay; Karl Petty, Berkeley Transportation Systems

Length-Based Vehicle Classification: Florida Case Study

Ren Moses, Florida A&M University and Florida State University; Richard Lowell Reel, Florida Department of Transportation

WIM Validation Frequency Selection

Barbara Katherine Ostrom, MACTEC Engineering and Consulting, Inc.; Deborah Walker, Federal Highway Administration; Dean J. Wolf, MACTEC Engineering and Consulting, Inc.

Thursday, August 7, 10:30 a.m.–noon, Shoreham, Palladian

Data Business Plans—Ensuring Maximum Value

Catherine McGhee, Virginia Transportation Research Council, presiding

Traffic data provide the basis for numerous processes, applications, and decisions within transportation agencies. Often data-collection methods and parameters and data-storage environments are the result of traditional requirements that have existed for decades. Too often, opportunities for expanding the value of the collected data are missed. Data business plans provide a framework for determining all potential uses of data within an agency (and perhaps for partner agencies), along with the requirements that accompany those uses. By identifying a complete set of data requirements, the most effective means of collecting, storing, and providing access to data can be established to meet the needs of the agency as a whole. Data business plans also provide the support for continuing investment in data programs by documenting the value of the data to the agency.

Information Assets for Transportation Decision Making

Anita Vandervalk-Ostrander, Cambridge Systematics, Inc.

Developing a Traffic Data Performance Measure Program

Jack R. Stickel, Alaska Department of Transportation and Public Facilities

A Business Framework for Traffic Data Quality Improvement

David R. Fletcher, GPC Inc.; Peter Keen, David Newman, and James Stemitz, Digital Traffic Systems, Inc.

Developing Business Data Production for Archived Data-Management System in Virginia

Ramkumar Venkatanarayana, University of Virginia

Thursday, August 7, 10:30 a.m.–noon, Shoreham, Executive

Exhibitor Presentations

Karl L. Hess, Maryland State Highway Administration, presiding

PTV America, Inc. (10:30 a.m.)

PTV America is transportation software and consulting firm comprised of the Traffic sector within the PTV umbrella. It distributes traffic applications VISSIM, VISUM, and VISUM Online and provides technical support, software customization, and training services for these products.

Wavetronix (11:00 a.m.)

Wavetronix LLC is revolutionizing the intelligent transportation industry with a full range of ITS and traffic management solutions: the SmartSensor line of digital wave radar traffic sensors, featuring the industry's only patented auto-configuration process; command data collection and management appliances; and the Click! family of simple connectivity power and communication devices.

Miovision Technologies (11:30 a.m.)

Miovision will present a case study that compared manual traffic data collection (i.e., with clipboards or JAMAR boards) with our automated solution. The emphasis will be on accuracy improvements and the dramatic cost savings.

Thursday, August 7, 2008

Thursday, August 7, Noon–2:00 p.m.

Lunch (In Exhibit Hall)

Thursday, August 7, 2:00 p.m.–3:30 p.m., Shoreham, Ambassador

Guidelines and Standards for Traffic Data Collection Programs

Ralph A. Gillmann, Federal Highway Administration, presiding

This session will provide an overview of several guidelines and standards that have come out recently. Updates to the AASHTO guidelines for traffic data programs (NCHRP Project 7-16) include recommendations related to data structure, definitions, imputation, retention, reporting, sample adequacy, and the editing of traffic data. The Real-Time System Management Information Program (Section 1201) legislation stresses that states broaden their capability to deliver information to address congestion and report traffic and travel conditions to other agencies and to travelers to enable agencies to communicate the operational characteristics within their state or metropolitan area. The ITS Archived Data User Service (ADUS) standards program has completed several new standards. This presentation will provide an update on the standards, including one on traffic data.

Update of New AASHTO Guidelines for Traffic Data Programs

Anita Vandervalk-Ostrander, Cambridge Systematics, Inc.

Interim Guidance on Information-Sharing Specifications

James S. Pol, Federal Highway Administration

ITS Data Archiving Standards

Richard A. Margiotta, Cambridge Systematics, Inc.

Thursday, August 7, 2:00 p.m.–3:30 p.m., Shoreham, Palladian

Traffic Data Collection: Using Permanent Count Equipment Smarter and Cheaper

Karl L. Hess, Maryland State Highway Administration, presiding

A large portion of traffic monitoring budgets is spent annually to install and maintain permanent counting sensors and equipment. With decreasing budgets, it is critical that these purchases are well planned and take advantage of any available cost savings. This session will discuss how agencies are using cost-saving strategies to operate permanent count equipment.

Small Investment and Big Returns From Existing Permanent Count Sites

Kirk Mangold, Indiana Department of Transportation

Maintaining Large Sensor Networks

Rob Hranac, Berkeley Transportation Systems

Development of a PC-Based Weigh-in-Motion System Using Off-the-Shelf Components

Taek M. Kwon, University of Minnesota, Duluth

Thursday, August 7, 2:00 p.m.–3:30 p.m., Shoreham, Diplomat

Traffic Data for Work-Zone Operations

Henry Salvatori, Oregon Department of Transportation, presiding

There is increased focus on the minimization of traffic delays and improved safety in work zones. Availability of the appropriate traffic data can be essential to the construction and maintenance decision process. Data that are much more specific than those found in the annual traffic data-collection reports are often needed. This session provides information on how, what, and who is conducting traffic data collection to improve work-zone efficiency and performance. Details on the particular types of data needed for work-zone decision making and methods for safe and accurate collection of traffic data in various challenging environments will be presented.

FHWA Work-Zone Data Projects

Tracy A. Scriba, Federal Highway Administration

Texas Work-Zone Performance Data

Gerald L. Ullman, Texas Transportation Institute

Oregon's Work-Zone Traffic Analysis Program: Data Collection to Delay Analysis

Smith Siromaskul, Oregon Bridge Delivery Partners; Irene Toews, Oregon Department of Transportation; W.D. Baldwin, Oregon Bridge Delivery Partners

Thursday, August 7, 2:00 p.m.–3:30 p.m., Shoreham, Executive

Exhibitor Presentations

Anne-Marie H. McDonnell, Connecticut Department of Transportation, presiding

ECM Inc. (2:00 p.m.)

ECM will make a presentation of case studies where weight-in-motion and other technologies have been used to improve bridge safety.

Berkeley Transportation Systems (2:30 p.m.)

Berkeley Transportation Systems, Inc., will showcase PeMS, a traffic data collection, processing, and analysis tool that assesses the performance of transportation systems. PeMS extracts information from real-time ITS data, saves it, and presents the information in various forms.

Kistler Instrument Corp. (3:00 p.m.)

Kistler will exhibit its weigh-in-motion highway sensor with associated electronics. The sensor operates on the piezoelectric principle, avoiding any material fatigue issues. Strip sensors are available in various lane widths. System cables are small enough in diameter to simplify installation, requiring a single saw cut.

Thursday, August 7, 4:00 p.m.–5:30 p.m., Shoreham, Ambassador

Highway Performance Monitoring System (HPMS) Reassessment—How Will State Departments of Transportation Respond to New Requirements? What Are the Potential Impacts? What Are the Additional Resources Needed?

William R. Cloud, Montana Department of Transportation, presiding

Recent authorization of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU) and the changing business needs of transportation caused the Federal Highway Administration (FHWA) to conduct a reassessment of the HPMS. The reassessment has created the following additional data-collection requirements for state departments of transportation (DOTs): Modify volume groups to be consistent across rural and urban functional classes, expand upper- and lower-volume groups, extend universe annual average daily traffic (AADT) coverage through major collectors, better truck volume data to derive truck travel estimates, mandatory reporting of motorcycle vehicle miles traveled (VMT) data in summary table, collect information on ramps, and collect truck volumes (single and combination) for entire national highway system. This session will feature discussions on how state DOTs plan to achieve these new requirements.

Pennsylvania’s Highway Performance Monitoring System Web Application (iHPMS-PA)

Gaye F. Liddick, Pennsylvania Department of Transportation

Enhanced Use of Traffic-Monitoring Data for HPMS

Thomas Roff, Federal Highway Administration

Starting Over—Developing Motorcycle VMT, Illinois’ Plan

Rob E Robinson, Illinois Department of Transportation

Washington, D.C., Response to the HPMS Reassessment

William McGuirk, District of Columbia Department of Transportation; Robert E. Griffiths, Metropolitan Washington Council of Governments

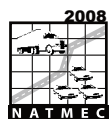
Thursday, August 7, 4:00 p.m.–5:30 p.m., Shoreham, Palladian

Where Are We with Cell Phone and Wireless Location Tracking for Traffic Monitoring?

Elaine Murakami, Federal Highway Administration, presiding

People always look to technology when they want data—faster, cheaper, better. But the application of technology often trails its promise. The promise of using anonymous data from wireless providers to track traffic by marking how fast cell-phone handsets are moving and overlaying that information with location data and maps has been anticipated for nearly a decade. This session will provide a status report on recent projects using cell phones and other wireless technologies for tracking traffic.

Thursday, August 7, 2008



Acquisition of Vehicle Probe Data in the I-95 Corridor for a Region-Wide Traffic Monitoring Project

Stanley E. Young, University of Maryland, College Park

Evaluation of an Early Generation Travel-Time Data Service—Northern Virginia

Michael Daniel Fontaine, Virginia Transportation Research Council

Kansas City SCOUT Evaluation of Cellular Probe Data

Eric Meyer, Telvent Farradyne Inc.

Testing Cellular-Based Traffic Monitoring Technologies

Ofer Avni, Cellint USA

Mobile Millennium: GPS Mobile Phones as Traffic Sensors

J.D. Margulici, University of California, Berkeley

Thursday, August 7, 4:00 p.m.–5:30 p.m., Shoreham, Diplomat

Handling Special Data Requests

Joseph Avis, California Department of Transportation, presiding

Over the last decade, data program managers have seen more and more data requests that do not fall into the normal pattern of doing business. Many times these involve high profile projects or special customers, including everything from emergency situations to special-event planning and routing. This session will provide information on how special requests are practically handled. Attendees will hear from a panel of state and local data managers who must deal with these high-profile requests while balancing the staffing requirements needed for routine business. How are these requests handled? How is data accuracy handled or not handled? Are any costs recouped?

Pennsylvania's License Plate Survey on Interstate 80

Andrea Bahoric and Joni K Sharp, Pennsylvania Department of Transportation

The Right to Know: Maryland State Highway Administration's Experience with Public Information and Data Requests

Kellie Boulware, Maryland Department of Transportation

Colorado's Special Data Request Program

Elizabeth Stolz, Colorado Department of Transportation

Thursday, August 7, 4:00 p.m.–5:30 p.m., Shoreham, Executive

Exhibitor Presentations

Goro S. S. Sulijoadikusumo, Hawaii Department of Transportation, presiding

TimeMark Incorporated (4:00 p.m.)

TimeMark has technologically advanced portable traffic data collection systems. The display includes a recently released NT hardware platform and upgrades to the VIAS software. There will be demonstrations of the revolutionary method of separating overlapping vehicles from two-lane, two-tube data.

DataRemote, Inc. (4:30 p.m.)

DataRemote, Inc., offers a comprehensive line of telemetry devices and fixed wireless terminals for industrial, commercial, public safety, and M2M applications. DataRemote has been at the forefront in Manufacturing Wireless Modems for the past 16 years. The CDS product line is a robust stand-alone product and is tailored to meet the M2M markets. Ask us about OEM, custom applications and field service support. Data Remote has a full lineup of software tools to help get legacy products up and running as we move into this Ethernet–IP world.

International Road Dynamics (5:00 p.m.)

International Road Dynamics (IRD) manufactures, installs, and services a full spectrum of data collection systems designed to provide information that will enhance decision making. This presentation will focus on the capabilities, products, and services that IRD can deliver, as well as provide insight on new developments and data service offerings.

Friday, August 8, 2008

Friday, August 8, 7:00 a.m.–8:30 a.m.

Breakfast (In Exhibit Hall)

Friday, August 8, 8:30 a.m.–10:00 a.m., Shoreham, Ambassador

Data Collection, Storage, and Use

Karl L. Hess, Maryland State Highway Administration, presiding

Collecting data once and sharing it with others is a cost- and resource-saving goal many agencies are striving to achieve. However, there are many obstacles that need to be overcome to achieve this goal. Presentations will include information on common formats, databases, metadata, user access, new partnering arrangements (e.g., cell phones), and new technologies for modifying existing infrastructure for data collection.

Utah Department of Transportation's Implementation of a Freeway Data-Archiving System

Glenn Blackwelder and Peter M. Jager, Utah Department of Transportation

Data Sources for Integrated Corridor Management

Rob Hranac, Berkeley Transportation Systems

A New Platform for Traffic-Count Data Management at the Oregon Department of Transportation

Stephen M. Perone, PTV America, Inc

Pseudo Real-Time Traffic Data Collection System using Wireless Cellular Network

Hazem H. Refai and Kyle Sparger, University of Oklahoma; Mike Brutsche and Lester Harragarra, Oklahoma Department of Transportation

Friday, August 8, 8:30 a.m.–10:00 a.m., Shoreham, Diplomat

Traffic Data Access Agreements with Private Companies

Piyushimita (Vonu) Thakuria, University of Illinois, Chicago, presiding

Private companies now have a significant presence in collecting traffic operations data in the United States, and recent developments suggest that the private sector will be taking a much larger (and perhaps leading) role in the near future. Location-based services and private real-time traffic information services are using these data to a great extent, but such data are also very useful to departments of transportation and to the research community. This session will explore various aspects of private–public data sharing agreements, such as the viability of different business models, data ownership and intellectual property, use provisions, privacy and confidentiality, pricing, data quality, and contract specifications.

Data Rights and Data Licensing Aspects of the I-95 Vehicle Probe Traffic Monitoring Project

Stanley E. Young, University of Maryland, College Park

Private Sector Perspective on Data Access and Rights

Scott Lee, Delcan Corporation

Public Sector Perspective—dBay

David A. Zavertero, City of Chicago

Federal Highway Administration Perspective

Robert Rupert, Federal Highway Administration

Friday, August 8, 8:30 a.m.–10:00 a.m., Shoreham, Palladian

Beautiful Evidence: Data Mining and Visualization Techniques for Real-Time and Archived Data

Goro S. S. Sulijoadikusumo, Hawaii Department of Transportation, presiding

It is well known that human understanding is much more enhanced by pictures than with rows and columns

Friday, August 8, 2008

of numbers. However, much of the output from traffic management centers remains trapped in traditional reporting formats. In this session, we explore best practices in deriving insight from vast amounts of data using visualization techniques. Data visualization plays a critical role in data mining, both in terms of techniques to find new patterns in data as well as a way to represent complex patterns after they have been discovered. This session focuses on both real-time and archived traffic data. Highlighted will be actionable decision-making achieved through the use of visualization coupled with data-mining techniques.

Temporal and Spatial Data Mining and Visualization

Michael L. Pack, University of Maryland

Visualization Techniques for Coverage Counts

Robert J Kingan, Kingan Analytics, Inc.

Techniques for Establishing and Measuring Data Quality in an Archived Data User Service

Christopher M. Monsere, Robert Lawrence Bertini, and Kristin A. Tufte, Portland State University

Using an ADUS to Compute and Visualize Performance Measures on

High-Occupancy Vehicle (HOV) Facilities

Karl Petty, Berkeley Transportation Systems; Jaimyoung Kwon, California State University, East Bay

Friday, August 8, 8:30 a.m.–10:00 a.m., Shoreham, Executive

Exhibitor Presentations

Shawn M. Turner, Texas Transportation Institute, presiding

Control Specialists Company (8:30 a.m.)

Control Specialists Company will present its noninvasive technologies, TIRTL and SR4. The TIRTL, The Infrared Traffic Logger, uses infrared light to detect and classify vehicles in multiple lanes. Due to its advanced approach, TIRTL is shown to be very accurate. This includes monitoring motorcycles. SR4 is a side-fire radar system providing count, speed, direction, and length. SR4 is a safe and cost-effective device for ramp counts and sites not requiring axle classification. The presentation will show recent installations and findings. The total cost of ownership versus traditional technologies will be discussed.

EIS-ISS Canada Ltd. (9:00 a.m.)

EIS-ISS features Traffic Reporter, one of its solutions for both permanent and temporary counting needs. Traffic Reporter fits any road type and can simultaneously time-stamp and store traffic data from up to eight lanes of traffic. The multilane, mobile or permanent counting Traffic Reporter time-stamps and stores traffic data from multilane roads. Its central PC software can be prescheduled to automatically download stored data from hundreds of stations via modems and generate reports in user-defined formats in batch mode.

Digital Traffic Systems, Inc. (DTS) (9:30 a.m.)

Service beyond expectations.

Friday, August 8, 2008



Friday, August 8, 10:30 a.m.–noon, Shoreham, Ambassador

A Traffic Data Agenda for the Future

Laine Heltebride, Pennsylvania Department of Transportation, presiding

This session wraps up with three different perspectives on what has occurred during the conference and the challenges before the traffic data community. These presentations will set the direction for NATMEC 2010. General discussion will follow the formal presentations.

Working with Traffic Data Users

Catherine McGhee, Virginia Transportation Research Council

Using Operations Data

Shawn M. Turner, Texas Transportation Institute

Traditional Traffic Monitoring Perspective

Richard Lowell Reel, Florida Department of Transportation

FHWA's Perspective

Ralph A. Gillmann, Federal Highway Administration



McGhee



Turner



Reel



Gillmann

Friday, August 8, 12:30 p.m.–2:00 p.m., Shoreham, Forum

Planning Committee Debrief Lunch (Invitation Only)

Friday, August 8, 2008

Exhibitor Advisory Council

NATMEC established an Exhibitor Advisory Council (EAC) in 2006. The purpose of EAC is to provide advice and guidance to TRB and the Program Committee on the traffic monitoring industry as it relates to the products and services for the collection, management, and use of monitored traffic data in all applications.

If you are interested in learning more about the EAC or would like to become a member, contact one of the following current members:

Daniel Gossack, TimeMark, Inc., booth 310
 Renata M. Haberkam, The Traffic Group, booth 311
 Steven Perone, PTV America, Inc., booth 301
 Ronald White, North American Operations, Electronique Controle Mesure (ECM), booth 200
 Joseph Wilkinson and L.J. Wilkinson, Chaparral Systems Corporation, booth 312

David W. Gardner, Ohio Department of Transportation, Ex Officio

Julie A. Miller, staff
 Thomas M. Palmerlee, staff

Exhibitor Hall Floor Plan

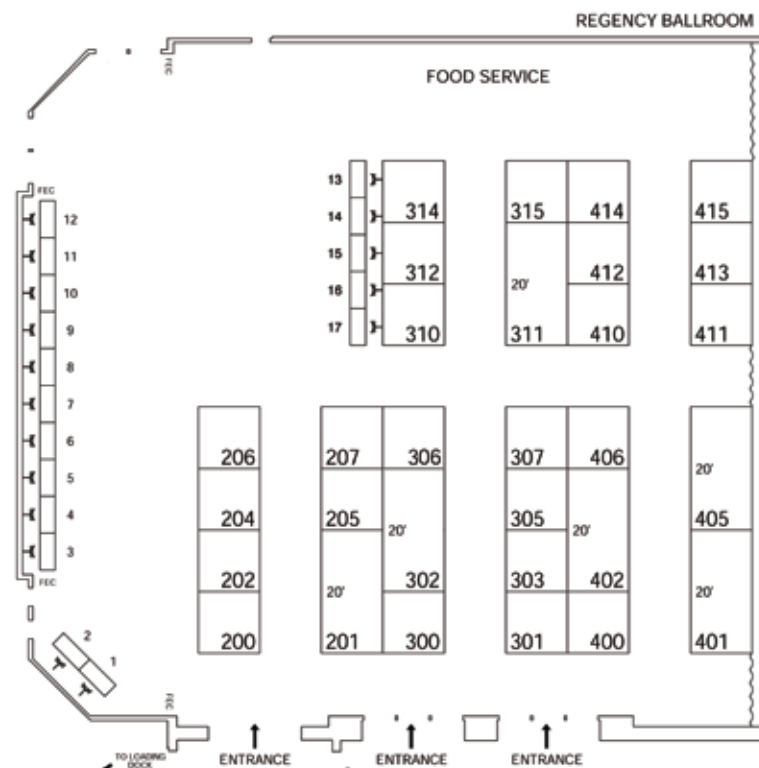


Exhibit Hall Hours

Wednesday, August 6, 5:30 p.m.–7:00 p.m.
 Thursday, August 7, 10:00 a.m.–4:00 p.m.
 Friday, August 8, 7:00 a.m.–11:00 a.m.

August 6–8, 2008

EXHIBITORS



Booth 314

Applied Research Associates, Inc.

Debra Tiffan

7184 Troy Hill Drive, Suite N
Suite 200

Elkridge, MD 21075-7056

Phone: 410-540-9949; Fax 410-540-9288

dtiffan@ara.com

Applied Research Associates provides traffic monitoring, ITS, asset management, pavement engineering, and safety services and manufactures a proprietary traffic data recorder. We install, maintain, and calibrate permanent ATR, vehicle classification, WIM station, and ITS infrastructure, as well as provide data collection program evaluation, design, and analysis; QA-QC; and reporting services.

Booth 305

Berkeley Transportation Systems

Rob Hranac

2030 Addison Avenue, Suite 640

Berkeley, CA 94704

Phone: 510-290-5496

rob@bt-systems.com

Berkeley Transportation Systems, Inc. (BTS) is a national leader in performance monitoring. Berkeley Transportation Systems offers a suite of products and services to help public sector agencies achieve these goals. In addition to offering technology products and services, we assist agencies in transforming their business processes to take advantage of the promise of transportation monitoring. Our clients include state departments of transportation, metropolitan planning organizations, county planning organizations, and toll way authorities both inside and outside the United States.



Booth 312

Chaparral Systems Corp.

Joe Wilkinson

369 Montezuma Avenue, PMB 556

Santa Fe, NM 87501

Phone: 505-438-7353; Fax: 510-645-1817

joe@chapsys.com

Chaparral Systems Corporation specializes in the development and implementation of its flagship traffic data processing system, TRADAS. With TRADAS 2006 installed in its customer base, Chaparral strives

to maintain a significant lead in both software technology and traffic data processing requirements.



Booth 400

Control Specialists Company

Robb Bingham

707 Nicolet Avenue, Suite 100

Winter Park, FL 32789

Phone: 407-628-1965; Fax 407-628-1932

sales@controlspecialists.com

Control Specialists Company has offered a full range of traffic engineering services since 1965, including design-build, traffic equipment, sales, and 24-hour maintenance and technical support. Control Specialists Company is an ISO 9001:2000c Company.



Booth 411

DataRemote, Inc.

Brett Cavanah

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Ventura, CA 93003

Phone: 805-339-9739; Fax 805-339-9736

bcavanah@dataremote.com

DataRemote, Inc., offers a comprehensive line of telemetry devices and fixed wireless terminals for industrial, commercial, public safety, and M2M applications. DataRemote has been at the forefront in Manufacturing Wireless Modems for the past 16 years. The CDS product line is a robust stand-alone product and is tailored to meet the M2M markets. Ask us about OEM, custom applications and field service support. Data Remote has a full lineup of software tools to help get legacy products up and running as we move into this Ethernet-IP world.

Booth 401

Diamond Traffic Products

Kelly Taylor-Miner

76433 Alder Street

P.O. Box 1455

Oakridge, OR 97463

Phone: 541-782-3903; Fax: 541-782-2053

kelly@diamondtraffic.com

Our continuing goal is to develop and manufacture quality innovative products that meet our customers' needs now and in the future. We are constantly

August 6-8, 2008

researching and improving our product line to provide the necessary tools for our customers, while maintaining the highest level of service and support possible.



Booth 406

Government of the District of Columbia

Peggy Tadej
District Department of Transportation (DDOT)
2000 14th Street, NW
Washington, DC 20009
Phone: 202-671-2226; Fax 202-671-0617
Peggy.Tadej@dc.gov

DDOT will host a booth showcasing its Research and Technology Development Program, along with other transportation services provided by the department.



Booth 300

Digital Traffic Systems, Inc.

Jon Cope
2700-A Pocahontas Trail
Quinton, VA 23141
Phone: 804-381-5300; Fax 505-881-4483
kristine.sanchez@dtsits.com

Digital Traffic Systems, Inc., (DTS) focuses on comprehensive programs to meet our customers' growing need for timely, reliable, high-quality traffic data for both operational and planning applications. With a commitment to service beyond expectations, we provide "best of breed" turnkey installation, maintenance, and operational and technical solutions.



Booth 200

ECM Inc.

Ronald White
464 Commercial Drive
P.O. Box 888
Buda, TX 78610
Phone: 512-295-9752; Fax 512-295-9753
ron@ecmusa.com

ECM Inc. is the subsidiary of a worldwide company that supplies traffic data collection equipment and engineering services, with specialization in weigh-in-motion, piezo sensors, site installation, and toll plaza classification. We are providers of integrated ITS solutions, including over-height detection, truck

weight enforcement, rollover warning, and unattended WIM screening.



Booth 206

Econolite

Scott Robinson
Booth 206
3360 E. La Palma Avenue
Anaheim, CA 92806
Phone: 714-630-3700
srobinso@econolite.com

Econolite is a leading manufacturer of advanced traffic controllers (NEMA and ATC-2070); Aries®, icons®, and PYRAMIDS® traffic-management systems; Autoscope® video vehicle-detection systems; arterial system masters; vehicle and pedestrian signals; traffic control cabinets; data collection and management services (DCMS); Intelligent Intersection technology; and a full line of transportation maintenance services. Visit Econolite at www.econolite.com.



TRAFFIC SOLUTIONS

Booth 415

EIS-ISS Canada Ltd.

Sandra Kyrzakos
150 Bridgeland Avenue, Suite 204
Toronto, ON, Canada M6A 1Z6
Phone: 800-668-9385; Fax 416-785-9332
sandra.kyrzakos@eistraffic.com

EIS, now a part of ISS Inc. specializes in radar technology and solutions for advanced traffic applications. Inventors of the very first microwave traffic sensor in the world (the RTMS), EIS features its newest release, the RTMS G4, which combines radar detection across 12 lanes with a video camera for electronic surveillance. www.eistraffic.com.



U.S. Department of Transportation
Federal Highway Administration

Booth 412

FHWA, Office of Highway Policy Information

David Jones
HPPI-30, Room E83-420
1200 New Jersey Avenue, SE
Washington, DC 20590
Phone: 202-366-5053; Fax 202-366-3297
djones@dot.gov

In addition to developing policy and implementing standards, the FHWA Policy Information Office collects, analyzes, and distributes highway related

August 6-8, 2008



information and statistics from federal, state, and local sources as it champions improved quality practices in data programs. Publications are available for your review, providing you with useful information for further research and planning activities.

Booth 303
Global Traffic Technologies

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7800 Third Street North, Bldg. 100
St. Paul, MN 55128-5441
Phone: 651-789-7330; Fax 651-789-7334
larry.yee@gtt.com

The Canoga Traffic Sensing System delivers precise, real-time traffic data, allowing you to monitor individual vehicle speeds and lengths, mean speed, count and occupancy, and speed and length classification. It is an essential tool for managing traffic operations.



Booth 202
Infotek Associates

Mike Poursartip
333 Hegenberger Road, Ste 388
Oakland, CA 94621
Phone: 530-742-1198; Fax 530-742-4755
mikep@infotekwireless.com

Infotek Wizard modems, cables, antennas, etc.



INTERNATIONAL ROAD DYNAMICS INC

Booth 402
International Road Dynamics Inc.

Kirsten Bergan
702 - 43rd Street East
Saskatoon, Canada SK S7K 3T9
Phone: 306-653-6600; Fax 306-242-5599
kirsten.bergan@irdinc.com

International Road Dynamics Inc. (IRD) is a leader in the Intelligent Transportation Systems (ITS) Industry, specializing in supplying traffic data collection, truck weighing systems, fleet management, toll and traffic safety systems. IRD is an ISO-9001 company and has been in business for more than 25 years.



Booth 205
JAMAR Technologies, Inc.

Kelly Tinney

151 Keith Valley Road
Horsham, PA 19044
Phone: 800-776-0940; Fax 215-491-4889
kelly@jamartech.com
JAMAR continues its long tradition of supplying high-quality data collection equipment. The new Radar Recorder collects highly accurate volume and speed data without you ever having to enter the roadway, and the new TRAX Cube is the most advanced, yet compact, road tube data recorder on the market.



measure. analyze. innovate.

Booth 306
Kistler Instrument Corp.

Aaron Schumacher and Kent Lassen
75 John Glenn Drive
Amherst, NY 14228-2771
Phone 716-691-5100; Fax 716-691-5226
don.beehler@kistler.com

Kistler will exhibit its weigh-in-motion highway sensor with associated electronics. The sensor operates on the piezoelectric principle, avoiding any material fatigue issues. Strip sensors are available in various lane widths. System cables are small enough in diameter to simplify installation, requiring a single saw cut.

Booth 414
Measurement Specialties Inc.

Don Halvorsen
460 E. Swedesford Road, Suite 2010
Wayne, PA 19087
Phone: 610-971-9893; Fax 610-971-9216
don.halvorsen@meas-spec.com

Measurement Specialties manufactures and distributes the Roadtrax® Brass Linguini (BL) Piezoelectric Axle Sensor. This small, flexible sensor is installed into the road and generates an electrical signal as tires pass over it. BL Sensors can be used for vehicle counting and classification, weight-in-motion, speed detection, and red-light cameras.

Booth 201
MetroCount USA, Inc.

Jim Ball
18200 Georgia Avenue, Suite J
Olney, MD 20832
Phone: 301-570-2800; Fax 301-570-1095
jball@metrocount.com

Welcome to NATMEC 2008! Everyone's been asking for them, and now they're here! MetroCount introduces much-anticipated new products for

August 6-8, 2008



NATMEC 08! Stop by our booths to see what we've been up to. As always, the revolution in traffic counting continues, and MetroCount continues to lead it!



Booth 315
Midwestern Software Solutions

Lev Wood
3518 Plaza Drive
Ann Arbor, MI 48108
Phone: 734-904-0868; Fax 866-413-2928
clw@midwesternconsulting.com

Midwestern Software Solutions specializes in developing web-based database solutions for public sector transportation engineers and planners.



Booth 207
Miovision Technologies

Corry Flatt
295 Hagey Blvd.
Waterloo ON
Canada N2L 6R5
Phone: 519-513-2407
cflatt@miovision.com

Miovision has the world's first portable system for fully automating turning movement counts, at a lower cost and higher accuracy than manual counting. Our portable installation video-collection units and cutting-edge video analytics software empower traffic engineers and data collectors to get better data at a lower cost, replacing tedious and expensive manual traffic studies with an automated system. Miovision also develops an online traffic data-management and sharing software. www.miovision.com.



Booth 301
PTV America, Inc.

Cassandra Rugh
1128 NE 2nd Street, Suite 204
Corvallis, OR 97330
Phone: 541-754-6836
crugh@ptvamerica.com

PTV America is a transportation software and consulting firm comprised of the traffic sector within the PTV umbrella. It distributes traffic applications VISSIM, VISUM, and VISUM Online and provides technical support, software customization, and training services for these products.



Booth 405
Quixote Corporation

Colthorpe Russ
35 East Wacker Drive
11th Floor
Chicago, IL 60601
Phone: 312-705-8434; Fax 312-467-9625
Kim.Ludwig@quixotecorp.com

Quixote Corporation (www.quixotecorp.com) and its wholly owned subsidiaries, Quixote Traffic Corporation (www.quixtraffic.com) and Quixote Transportation Technologies, Inc. (www.qttinc.com) are the world's leading manufacturers of intersection control systems, highway/advisory radio devices, wireless measuring and sensing devices, security systems, backup battery systems, video detection and other highway safety products.



Booth 302
Sensys Networks

Michael Volling
2560 Ninth Street, Suite 219
Berkeley, CA 94710
Phone: 512-686-1770; Fax 512-857-0481
mvolling@sensysnetworks.com

Sensys Networks has combined state-of-the-art magnetic sensors with innovative low-power radio technology to create a reliable, accurate, and cost-effective vehicle detection system with the flexibility to address a wide range of traffic management applications. The Sensys Wireless Vehicle Detection System uses sophisticated detection and wireless communications technologies to create a new generation of vehicle-sensing systems.



Booth 410
Southern Traffic Services, Inc.

Carolyn Thornton
cthorton@netdoor.com
2911 Westfield Road, Suite 220
Gulf Breeze, FL 32563
Phone: 601-854-8898; Fax 601-854-8896

Southern Traffic Services is the largest full-service traffic data collection company in the southeast. STS has been collecting traffic data for more than twenty years in all fifty states. In addition to data collection, STS maintains and installs permanent data-collection sites.

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Merging Innovation and Excellence™

Booth 311

The Traffic Group, Inc.

Renata Haberkam

9900 Franklin Square Drive, Suite H

Baltimore, MD 21236

Phone: 410-931-6600; Fax 410-931-6601

RHaberkam@trafficgroup.com

The Traffic Group is the leading traffic engineering and transportation planning consulting firm in the Mid-Atlantic Region. Our services include, but are not limited to, traffic engineering and transportation planning studies, expert testimony, roadway and parking lot design, and data collection services.



Booth 310

TimeMark Incorporated

Daniel Gossack

P.O. Box 12947

Salem, OR 97309

Phone: 503-363-2012; Fax 916-772-4706

danielg@timemarkinc.com

TimeMark has technologically advanced portable traffic data collection systems. The display includes a recently released NT hardware platform and upgrades to the VIAS software. There will be demonstrations of the revolutionary method of separating overlapping vehicles from two-lane, two-tube data.

Booth 204

Transmetric America Inc.

Joe Cunsolo

8613 Cross Park Drive

Austin, TX 78754

Phone: 512-977-1822; Fax 619-26-2534

joe.cunsolo@transmetric.com

Transmetric is a web-based solution for managing traffic data, providing the common platform on which

monitoring devices, traffic analysts and software tools can work together. Transmetric automates data operations so that departments of transportation can focus more on users' needs. The latest release now contains powerful real-time functionality supporting SAFETEA-LU.



Booth 413

Transportation Research Board

Reggie Gillum

500 5th Street, NW

Keck 415

Washington, DC 20001

Phone: 202-334-2382; Fax 202-334-2920

rgillum@nas.edu

The Transportation Research Board (TRB) is a division of the National Academies, which include the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council. The mission of TRB is to promote innovation and progress in transportation through research. TRB's activities cover all transportation modes and address topics of interest to policy makers; administrators; practitioners; researchers; and representatives of government, industry, and academic institutions.

Booth 307

Wavetronix

Steven Baxter

steve_baxter@wavetronix.com

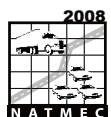
380 S. Technology Court

Lindon, UT 84042

Phone: 801-443-3900

Wavetronix LLC is revolutionizing the intelligent transportation industry with a full range of ITS and traffic management solutions: the SmartSensor line of digital wave radar traffic sensors, featuring the industry's only patented auto-configuration process; Command data collection and management appliances; and the Click! family of simple connectivity power and communication devices.

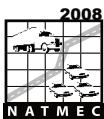
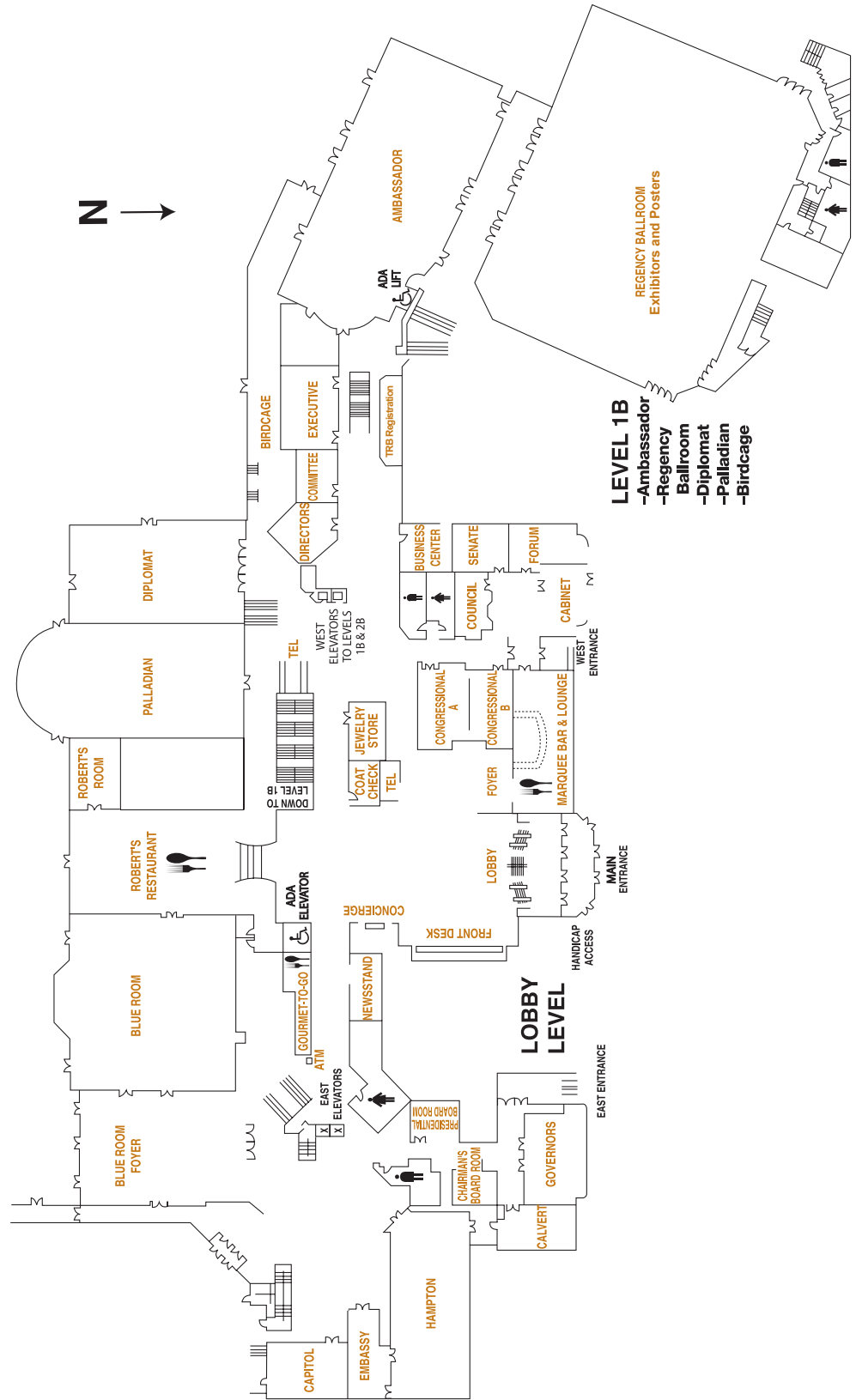
August 6-8, 2008



HOTEL FLOOR PLAN

OMNI SHOREHAM HOTEL

August 6-8, 2008



AREAS OF INTEREST

National Zoo (free admission)—four blocks

Part of the Smithsonian Institution, **the National Zoo is the nation's zoo**. It is a 163-acre zoological park set amid Rock Creek National Park in the heart of Washington, D.C. Which can be visited the Zoo 364 days a year to see 2,000 individual animals of 400 different species.

Directions from the Omni Shoreham Hotel:

1. Turn left onto 24th Street from the hotel driveway.
2. Walk one block to Connecticut Avenue.
3. Turn Left onto Connecticut Avenue.
4. Walk approximately three blocks to the National Zoo entrance.
5. Enter on the right side of Connecticut Avenue.

Rock Creek Park Jogging Path—three blocks

Rock Creek Park is Washington, D.C.'s urban park that extends 12 miles from the Potomac River to the border of Maryland. Rock Creek Park offers a retreat from city life and an opportunity to explore the beauty of nature. Visitors can picnic, hike, bike, rollerblade, play tennis, fish, horseback ride, listen to a concert, or attend programs with a park ranger.

Directions from the Omni Shoreham Hotel:

1. Turn right onto 24th Street from the hotel driveway.
2. Walk approximately three blocks, crossing Calvert Street and descending the hill to the jogging path.
3. Veer right onto the jogging path, which proceeds farther into Rock Creek Park.

National Cathedral—12 blocks (1.5 miles)

The National Cathedral in Washington, D.C., is the sixth largest cathedral in the world. Although it is the home of the Episcopal Diocese of Washington, the National Cathedral has no local congregation and is considered to be a house of worship honoring all faiths from around the world. Although the cathedral is known as the Washington National Cathedral, its actual name is the Cathedral Church of St. Peter and St. Paul.

The National Cathedral is an impressive structure, English Gothic in style, with exquisite architectural sculpture, wood carving, gargoyles, mosaics, and more than 200 stained glass windows. The top of the Gloria in Excelsis Tower, the highest point in Washington, DC, offers dramatic views of the city.

Directions from the Omni Shoreham Hotel:

1. Turn right onto 24th Street from the hotel driveway.
2. Walk one block to Calvert Street.
3. Turn right onto Calvert Street.
4. Walk approximately five blocks down Calvert Street.
5. Veer left onto Garfield Street.
6. Walk approximately three blocks down Garfield Street.
7. Turn right onto Massachusetts Avenue.
8. Walk one block down Massachusetts Avenue.
9. Turn right onto Wisconsin Avenue.
10. Walk approximately two blocks down to the National Cathedral.
11. The National Cathedral Entrance is on the right side of Wisconsin Avenue.

August 6-8, 2008

TRB Regional Traffic Data Workshops

Share Techniques and Learn Latest Technologies



Northeast Traffic Data Workshop
October 6–7, 2008, Woods Hole, Massachusetts
www.TRB.org/conferences/2008/TrafficNortheast



Midwest Traffic Data Workshop
March 24–25, 2009, Columbus, Ohio
with Ohio Department of Transportation
www.TRB.org/conferences/2008/TrafficMidwest

TRB is cooperating with local organizations to host a series of regional traffic data workshops where data producers and data users exchange knowledge about successful techniques in the collection and analysis of traffic data. A limited, table-top exhibit program showcases current technologies.

Organizations interested in hosting a future workshop should contact Tom Palmerlee at tpalmerlee@nas.edu or 202-334-2907.

Past Workshops:

Western Traffic Data Workshop
April 10–11, 2008, Irvine, California
with California Department of Transportation

Mid-Atlantic Traffic Data Workshop
May 2, 2007, Washington, D.C.



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