



CALL FOR ABSTRACTS AND INTEREST IN ATTENDING

## 2012 International Conference on Winter Maintenance and Surface Transportation Weather

*Joint Conference of the 8<sup>th</sup> International Symposium on Snow Removal and Ice Control Technology, and  
5<sup>th</sup> National Conference on Surface Transportation Weather*

**Iowa City, Iowa**  
*April 30-May 3, 2012*

The Transportation Research Board's (TRB) Committees on Winter Maintenance (AHD65) and Surface Transportation Weather (AH010) in cooperation with the Federal Highway Administration and the Iowa Department of Transportation are organizing a Joint Conference of *the Eighth International Symposium on Snow Removal and Ice Control Technology, and the Fifth National Conference on Surface Transportation Weather* to be held in Iowa City, Iowa, April 30-May 3, 2012. The objectives of this joint Conference are to provide a forum for sharing knowledge and experiences on the state-of-the-art and -practice in technology applications and research from around the world to improve surface transportation management, operations and decision-making within (1) winter maintenance, (2) surface transportation weather (on a year-round basis), and (3) in collaborative areas of both fields. Prospective attendees include transportation and weather information managers, planners, analysts, researchers, application developers, and other practitioners from public and private agencies who are engaged in winter maintenance, or developing and implementing weather information products, technologies and services. A tentative program with information on registration and hotel accommodations will be published in late summer 2011. As a self-sustaining activity of TRB, a registration fee will be required of all participants.

### Topics

Papers are being solicited for presentation at the conference and inclusion in the conference proceedings. Please consider submitting papers describing current practices, or the results of recent research and technological innovation involving (1) snow removal and ice control technology, and/or (2) weather information to improve operations, safety and performance of surface transportation systems (including for this Conference -- highways, local roads, parking lots, walkways, bike paths, airfields and rail lines). Papers that present case studies describing how new technologies, methods or procedures have been implemented will be seen as particularly valuable. Specific topics of interest include:

- Policy and Management for Winter Maintenance and Weather Services including integrating winter maintenance activities into asset management, transportation incident management and emergency operations; utilizing resource, logistics and supply chain management; contracting winter operations; and, assessing liability issues.
- Performance Measures with emphasis on satisfying public safety and mobility needs; assessing costs and benefits of winter operations and weather information; use of benchmarking techniques to ensure performance quality; and, measures or indicators for evaluating effectiveness of services and information products (e.g., maintenance levels of service, weather forecast accuracy).
- Road Weather and Surface Condition Data Collection including data collection technologies (e.g., mobile sensors, friction and vehicle probe technology, environmental sensor stations (ESS), automatic vehicle locator (AVL) systems, geographic information systems (GIS)); and, data quality assurance and quality control (QA/QC) procedures.

- Modeling and Forecasting for Surface Transportation and Weather with emphasis on integrating fixed and mobile ESS data (e.g., RWIS, IntelliDrive<sup>sm</sup>, Clarus) into surface transportation weather forecasts using “feedback loop” models; using real-time data, and short-term weather and traffic forecasts in congestion management, snowplow service routing, and transportation decision-support models; and, improving forecasts for road surface and subsurface condition models.
- Dissemination of Weather, Traffic and Operations Information with emphasis on transportation safety (including pedestrians, driver and operator visibility, and vehicle conspicuity issues); sharing weather and roadway condition information with the public through real-time traveler information, advisory and warning systems with consideration given to understanding and educating users.
- Sustainability and Liveability Issues with emphasis on assessing environmental and societal impacts of winter maintenance activities; setting and achieving environmental goals for road salt application and green-house-gas (GHG) emissions; mitigating the impact of chemicals on water resources, infrastructure, flora, and fauna; and, adapting to climate change.
- Decision Support Systems with emphasis on storm-based infrastructure management (e.g., scheduling winter operations using MDSS); roadway seasonal load restrictions; traffic and emergency management; resource, logistics and supply considerations; weather-sensitive construction and maintenance activities; and, design of climate-change sensitive infrastructure (e.g., flood frequency, ground temperature).
- Innovative Equipment and Materials with emphasis on using new equipment technologies in winter operations; assessing cost-effectiveness, safety and environmental aspects of winter maintenance materials; improving winter maintenance operations techniques on high volume roadways; assessing and incorporating ergonomics and human factors into equipment design and operation; and, improving vehicle and roadside sensors, and automated process control systems.
- Large-Volume Snow Control with emphasis on mitigating blowing and drifting snow (e.g., structural and living snow fences); designing snow avalanche prediction and control systems; operating snow dumps, and; utilizing computer models to integrate passive snow controls into highway planning, design and safety review processes.
- Training and Certification Programs with emphasis on supporting in-house and contract maintenance, traffic and meteorology management, supervisors and operators to improve planning and operations decision-making skills; and effectively applying QA/QC procedures to in-house and contract operations.

This list is not intended to be all-inclusive and the Program Committee will consider all papers appropriate to Winter Maintenance and Surface Transportation Weather.

### **Due Dates**

Interested practitioners, administrators and researchers are invited to submit: (1) an abstract of not more than 500 words and (2) a 100-word biographical sketch with contact information for each author to the Transportation Research Board at [WM-STW@nas.edu](mailto:WM-STW@nas.edu) by **April 1, 2011**. Authors will be advised in early June 2011 of the Program Committee's decisions, and authors of accepted abstracts will be invited to prepare a paper and make a presentation at the Conference. Full manuscripts will be required by **November 1, 2011** to accommodate distribution of the published proceedings at the Conference.

### **Interest in Attending**

Non-authors interested in participating in the Conference are invited to send an e-mail to [WM-STW@nas.edu](mailto:WM-STW@nas.edu) with "Interest in Attending" listed in the subject line. You will be notified via e-mail when the Preliminary Program with Conference and hotel registration information is available on the Internet.