

## PANEL 2B -- COMMERCIAL CAPABILITIES, SERVICES AND INITIATIVES

Moderator: Ms. Sandy Thomson, WANE-TV, News Channel 15, Fort Wayne, Indiana  
(representing National Weather Association-TV Committee)

Rapporteurs: Col (sel) David Smarsh, Department of Defense, United States Air Force  
Ms. Cynthia Nelson, OFCM

Panelists: Dr. Greg Forbes, The Weather Channel  
Ms. Maria Pirone, Weather Services Incorporated (WSI) (representing  
Commercial Weather Services Association)  
Mr. Mike Smith, Weather Data, Incorporated  
Mr. Cranston "Rip" Coleman, Sonalysts, Incorporated

Objective: (a) Provide an update on current commercial capabilities and services.  
(b) Describe any near-term initiatives for enhanced capabilities and services as they relate or apply to the four surface transportation modes.  
(c) Discuss (from a commercial perspective) the associated business implications.

### Synopsis

#### The Weather Channel

Dr. Greg Forbes described *The Weather Channel* (TWC) mission as providing weather information to meet the needs of the public via cable networks and the Internet. TWC provides large-scale weather information to the public and partners with the National Weather Service (NWS) to disseminate local and severe weather warnings to approximately 70 million households. TWC provides specific travel weather to the public including aviation weather, airport delays related to weather, and national traffic and road closure information. Specifically for surface transportation, TWC provides an hourly scheduled Travelers Forecast that describes the road conditions and current and forecasted weather. Over the last year, TWC has supported several initiatives to improve the dissemination of weather information. TWC established a 1-900-weather phone number to obtain current conditions, storm reports, drivers' road reports, as well as skiing and boating conditions; a subscription weather wake-up call; and a Wireless Weather TWC pager based on the Palm VII computer and cordless phone technology. TWC updated their current aviation weather information to better reflect flight arrivals and delays, and travel to and from the airport. These products are available via the Internet and by using the state as an entry point. TWC also established on their web site the National Traffic and Road Closure Information at <http://ROADWeather.com/>. In the future, TWC hopes to expand into highway transportation products but is currently limited by the uneven distribution of highway information over the United States.

## Weather Services Incorporated and Commercial Weather Services Association

Ms. Maria Pirone represented both the Weather Services Inc. (WSI) and the Commercial Weather Services Association (CWSA). She stated that the WSI vision included supporting the provision of tailored weather information for surface transportation on the state and federal highway system. These products are based on the premise of enhancing the safe operations of vehicles. In the future, WSI will display the same value-added products to all users, so there will be common, consistent, product availability. The WSI Vector Dispatch System provides quality data and reliable images, which project radar and satellite composites of current and projected weather, such as storms and hindrances to visibility. WSI is also developing a free web site that will provide traveler information. Ms. Pirone emphasized one key point that weather information service will advance as public expectations require it and new technology provides the public outlets for dissemination of these traveler weather information (i.e. pinpoint forecasts, email services, and web sites). WSI's *Intellicast* currently provides a multitude of products that can be used for logistics, agriculture, aviation, maritime, and construction applications.

## WeatherData Incorporated

Mr. Mike Smith represented WeatherData Inc. and briefly described their products and services. These products and services have been provided for the past 15 years and are tailored for surface transportation including railways and roadways. The primary thrust of his presentation was to describe his company's weather risk management for surface transportation. Their goal is to apply weather knowledge--meteorology and aid the surface transportation community and users. To achieve this goal, he recommended that the Roadway Weather Information Systems (RWIS) observations should be shared among users and providers of weather and transportation support. In addition, there should be an established standard to ensure consistency of the surface observational data obtained from the RWIS networks or mesonets. Data consistency will increase the usefulness of the data. With respect to the current state of weather forecasting for surface transportation needs, Mr. Smith stated that current mesoscale models show promise but there is still a need for the human forecasters to improve the model's forecast by incorporating the small-scale perturbations. This human intervention is especially important for making pavement forecasts at specific highway mileposts. These pavement forecasts will be useful and important to travelers only if they can be received through cell phones and/or other in-vehicle communications technologies. Mr. Smith also noted that one additional concern was accountability; in terms of knowing what data services are accurate and reliable. In closing, Mr. Smith proposed that the role of the federal government should be to collect, quality control, and redistribute observations.

## Sonalysts Incorporated

Mr. Rip Coleman represented Sonalyst, Inc. Sonalysts focuses its efforts on taking weather data - observations and forecasts and making useful information out of it. His company currently provides weather products to aviation users. The company's core technologies include the

WXStation™ system (a multi-user system designed to ingest, decode, and display data from a variety of international sources); the Data Fusion for Decision Assistance software; and unique products, such as combined satellite and radar pictures for aviation routes, weather fused with operations data, and diversion alerts. Mr. Coleman's concerns with regard to weather information for surface transportation were: standardize data formats, a national communications infrastructure, quality control of data, centralized data collection and redistribution, and anticipation of future technologies (artificial intelligence and data mining).

### Follow-up Discussion

The panelists agreed that a public/private partnership for the provision of weather guidance to surface transportation users was critical as this guidance successfully progresses from infancy to full operational capability for all entities. It was suggested that this partnership could be modeled after the aviation community public/private partnership and would provide a role for all parties—public weather providers, commercial weather providers, and the public/private users within the transportation community.

The panelists also noted that the traveling public expects to have access to free public weather information and to see pinpoint forecasts in the future. State departments of transportation also need pinpoint forecasts and decision-making tools that directly utilize weather information and roadway conditions to recommend actions. Since mesoscale models still need improvement to address this surface transportation expectation, the human forecaster is still considered critical for assisting in the decision process, for interpreting the weather information for operations, for providing a sanity check, and for adding value to the product based on their experience. Currently, the short-term human forecast is better than the model's forecast, although the panelists expect the science of meteorology to rise to the expectations and to meet the needs of the customers. In addition, models and forecasters require good high-resolution weather observations to produce this type of forecast. There are numerous mesonet observational networks in the United States, but their data is not collected and shared with everyone. Centralized collection, redistribution and quality control of the data were recommended by the panelists, along with the standardization of data formats for all data services and communications. A national communications infrastructure also was considered essential to distributing weather information to the public. This information should be delivered using a variety of mechanisms that will include built-in redundancy to ensure distribution in the event of communication problems.

Another major area of concern is user and provider education to ensure the successful development and appropriate use of surface transportation weather products, services, and capabilities. In order to react properly, the public must be able to read maps and locate themselves in relationship to pertinent weather. The provided information should be relevant to the users and in a form that is consistent with their decision processes. These user needs or requirements may mean formatting and interpreting the product into a user or traveler specific framework. In addition, these needs will require providers to be familiar with why the user needs

the weather information and how this information applies to the user's operation. Two previously mentioned items would also assist in this process: standardized data and communication formats and centralized collection of data. The development and provision of decision-making tools were considered essential if the information is to be used properly.

### Links to Presentations

Ms. Maria Pirone, WSI/CWSA

[www.ofcm.gov/WistII/Presentations/Day2/2\\_Panel2B/Mpirone.ppt](http://www.ofcm.gov/WistII/Presentations/Day2/2_Panel2B/Mpirone.ppt)

Mr. Mike Smith, WeatherData, Inc.

[www.ofcm.gov/WistII/Presentations/Day2/2\\_Panel2B/Mike\\_Smith.ppt](http://www.ofcm.gov/WistII/Presentations/Day2/2_Panel2B/Mike_Smith.ppt)

Mr. Cranston Coleman, Sonalysts, Inc.

[www.ofcm.gov/WistII/Presentations/Day2/2\\_Panel2B/Coleman.ppt](http://www.ofcm.gov/WistII/Presentations/Day2/2_Panel2B/Coleman.ppt)