



**working to advance road weather
information systems technology**

RESEARCH PROJECT TITLE
Review of the Institutional
Issues Relating to Road Weather
Information Systems (RWIS) –
Aurora Project 1997-01

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ABOUT AURORA
Aurora is an international partnership of
public agencies performing joint research,
evaluation, and deployment initiatives
related to road weather information systems
(RWIS).

The opinions, findings, and conclusions
expressed in this publication are those of
the authors and not necessarily those of the
project partners.

Obstacles to Adopting Road Weather Information Systems

project summary

Problem Statement and Objective

This project documented (1) institutional issues encountered by agencies in the process of planning and deploying road weather information systems (RWIS) or programs and (2) the measures taken to overcome any institutional barriers to RWIS implementation.

Results

From the combined results of the literature search and interviews with Aurora members, several conclusions can be drawn, as discussed below.

- Finding sources of funding for RWIS, especially in the initial stages of implementation, is a major issue.
- Personnel are reluctant to accept RWIS innovations.
- In the United States, public / private partnerships to implement RWIS have been attempted only in Minnesota and proved unsuccessful.
- Standardization of system protocol formats and specifications is a major issue to agencies.



Weather can have a major impact on roadway safety and mobility.

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Funding is difficult to secure

The competition for funds will always remain an issue as agencies struggle to prioritize projects to match their goals and vision. For some agencies, obtaining continued funding has become easier as a result of being able to present to upper management the benefits of previously implemented RWIS technologies.

Personnel are reluctant to adopt RWIS

This reluctance is due to discomfort with new technology, processes, and procedures, and can be overcome by targeted education and training. When systems are first implemented, users may not be immediately comfortable with the new processes, procedures, and physical components, as is the case with many technology-related applications and methods. A level of familiarity and confidence in the new systems needs to be built up over time and bolstered through training to help staff understand the systems and observe the benefits for themselves. While the training efforts in the initial stages of RWIS implementation will assist in familiarizing staff with new procedures and technology, continued education efforts will be the key in sustaining a successful RWIS program.

Public / private partnerships have so far proved unsuccessful

In the United States, public / private partnerships to implement RWIS have been attempted only in Minnesota, and that attempt proved unsuccessful. The lack of success in at that time was generally due to concerns over liability, ownership issues, and assumption of risk. To establish a successful partnership venture, the timing must be right for everyone involved. While the climate in 1996 did not foster such a partnership, the project team members recommended that others consider this approach again in the future.

Before public agencies seek out partnerships, they must determine the needs of their potential partners and be able to clearly define the roles each will play and how each will benefit from the alliance. For instance, private sector partners need to be confident that their cooperative venture will prove profitable. However, it should be recognized that government agencies need to maintain the competitive bid process and be continually cognizant of not intentionally favoring one company over another in the quest for potential partners.



An RWIS site in rural Iowa.

Standardization is a major issue

The lack of standard system protocol formats and specifications is hindering the spread and coordination of RWIS between agencies and states. Presently, the technology exists to implement RWIS at a statewide and even nationwide level, but the incompatibility of systems from different vendors is one factor that impedes full-scale deployment at an acceptable cost. Protocol formats and specifications are still in the developmental stage for RWIS technologies currently being introduced, partly due to the nature of the standardization process. It should be recognized that identifying what needs to be standardized is the first step in this process.

Dissemination of Research

This project was intended not only to consider the institutional issues relating to the development, implementation, and operations of RWIS, but also to propose some mechanisms to distribute the project findings.

Potential avenues for disseminating the information gathered within this project include the following:

- Conference papers, presentations, and poster sessions
- Newsletter and journal articles
- Executive summary mailings / handouts