89th Annual Road School

Road Weather Information Systems (RWIS)
Presented By Dennis Belter
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R-W-I-S Thing

In FY 03, 16 RWIS purchased by INDOT from SSI, installed by GSI all over IN.
What is RWIS?

- Weather Station
- Sensors for Temperature, Wind Speed & Direction, Humidity, Precipitation
- Pavement, Deck and Subsurface Sensors for Temperature and Chemical Concentration
- Remote Processing Unit (RPU)
- Power and Communication Source
What does RWIS do?

- Measures and Collect Accurate and Timely Road Weather Information at given site
- Provides Deck, Pavement and Subsurface Temperature and Chemical Concentration
- Provides Air Temperature, Wind Speed & Direction
- Provides Statewide Network of Weather Information

Two Applications

- Regional Weather Information
- Geographic Concern
Why Do We Need RWIS?


Costs of Roadway Weather

Annually from Weather Related Vehicle Crashes:

- 800,000 injured
- 7,000 fatalities
- Economic cost of $42 billion

Stats from the National Highway Traffic Safety Administration (NHTSA)
Costs of Roadway Weather

• Snow, Ice and Fog (SIF) caused estimated 544 million vehicle-hours of delay in 1999
• State & Local Agencies spend more than $2 billion annually on snow & ice removal per Federal Highway Administration (FHWA)
• One day shutdown due to snow in a metro area costs between $15 & $93 million in lost wages, retail sales & taxes

Why are we Interested?

OUR Responsibility to:

• Ensure safe movement of traffic
• Ensure roadway integrity
Why Do We Need RWIS?

• Provides Information for Decision Making Regarding Snow & Ice Removal
• Provide Current Pavement Temperature
• Aid in Storm Tracking
• Improve Pavement Forecasting
Why Do I Want RWIS?

• Aren’t I Doing a Good Job?

Great Job This Winter!!!

• Can I Do Better With More Information?

SCAN Web

From
Surface Systems Inc.
SCAN Web

New Features Include:

• Interactive Map of RWIS data
• Network server allows multiply users
• Users need only LAN/WAN connection and a web browser
• Tabular and Graphical view of RWIS history data

Network System
Scan Web navigation bar allows for easier movement through the important SCAN Web features.

State Map gives you the “Big Picture” map to display current conditions.

Menu Bar has links to all maps in system.
When you click on a sensor, the info. about that sensor is displayed to the right.

Site Summary allows you to look at sensor info. in a tabular form.
The Site Data menu appears once a individual site is selected.

History Graph allows you to look back at past events.