Indiana Department of Transportation

Road Weather Information System (RWIS)

Presented by Dennis Belter
Program Support Manager
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What is RWIS?
- Weather Station on Roadside
- Atmospheric Sensors
  - Air Temperature
  - Relative Humidity and Dew Point
  - Wind Speed and Direction
  - Precipitation Yes/No
- Surface Sensors
  - Status
  - Pavement and Subsurface Temperature
  - Chemical Concentration

Why are we Interested?
OUR Responsibility to:
- Ensure safe movement of traffic
- Ensure roadway integrity

Costs of Roadway Weather
Annually from Weather Related Vehicle Crashes:
- 800,000 injured
- 7,000 fatalities
- Economic cost of $42 billion

Costs of Roadway Weather
- Snow, Ice and Fog 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
- One day shutdown due to snow in a metro area costs between $15 & $93 million in lost wages, retail sales & taxes

How Does RWIS Help?
- PROVIDE PAVEMENT TEMPERATURES
- Provides Information for Decision Making Regarding Snow & Ice Removal, Before & After
- Verify Forecasts - Tracking
- Improve Pavement Forecasting
History
- Toll Road Network
- City of Indianapolis/INDOT Network
- ITS Network
- Construction Project
- Contract with SSI

Siting
- Coverage in North and Center of State
- Evaluated need
- Statewide Coverage
  - www.ops.fhwa.dot.gov/weather/index.asp
    - Click on Projects and Programs to view EES Siting Guidelines Project

Two Applications
- Regional Weather Information
- Geographic Concern

Construction Project
- I-74 & I-465 RWIS
  - Added to Existing Construction Project
  - Flyover Bridge in Southeast Indianapolis

Contract with SSI
- RFP Process
- SSI Selected
  - Thorough Presentation
  - Price
- Issued Purchase Order
  - Awarded 16 Sites

INDOT RWIS Network
- 31 Sites Statewide
- Displayed on Surface Systems, Inc. (SSI) ScanWeb Software
- Two Servers in Indianapolis
- Toll Road Network, NW IN ITS Network and Contract for 16
Site Summary Page 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.
Future

- Road Weather Condition
  - By Next Season on INDOT Internet Site
- Reviewing Need for Additional Sites

QUESTION??

Road Weather Condition Demo