



Utah's Highway Weather/RWIS Operations Program

Ralph Patterson

Utah Dept of Transportation



Two Main Components:

ITS

RWIS/Expert systems

Weather Operations

Meteorologists



TOC Meteorologists

- On-site Consultant Meteorologists
- Staffed 7 days a week, near 24/7
- Generate detailed site specific forecasts
- Handle all weather related aspects of operations





RWIS

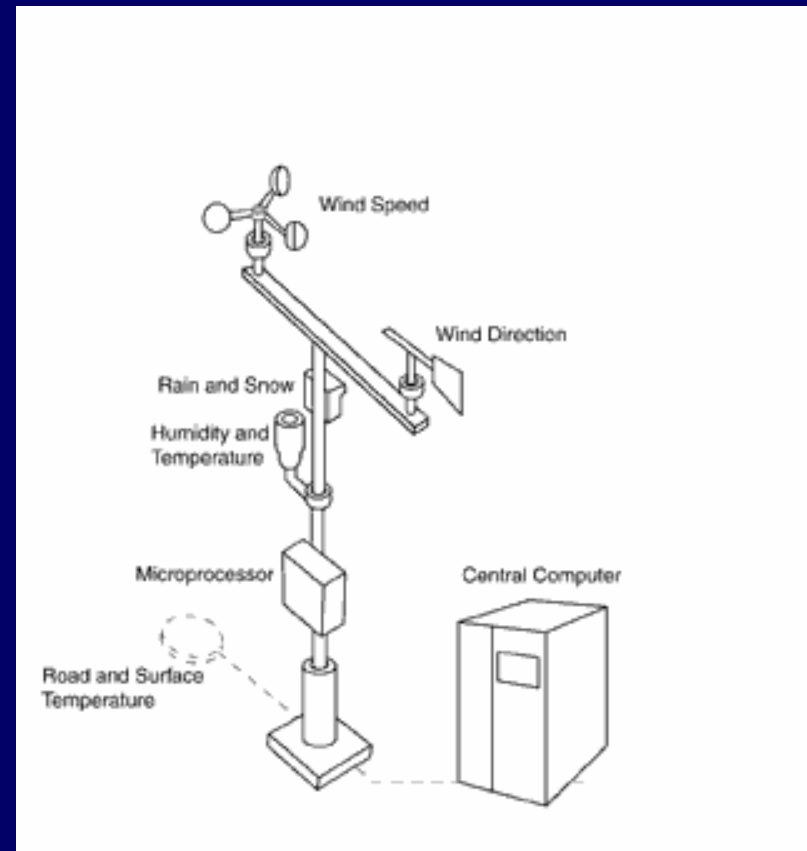
Road Weather Information Systems

•55 RWIS-ESS statewide



Components of an RWIS Site

- Atmospheric sensors
 - Anemometer
 - Precipitation Gauge
 - Relative Humidity
 - Temperature
 - Visibility
- Surface sensors
 - Road status (wet or dry)
 - Road temperature
 - Eutectic point
 - Non invasive sensors
- Cameras





Surface Sensors



- Surface Pucks
 - Road Temp
 - Subsurface Temp
 - Wet vs. Dry
 - Eutectic Point (freeze point depression)
- Non invasive sensors
 - Coefficient of friction





Communications and Power

- Hard line phone
- Fiber/IP
- Cell phone
- cdma/IP
- 700mhz radio/IP
- UHF
- Satellite
- Analog phones
- Solar Sites
 - Most are in the rural and remote areas
- AC Power
 - Mostly along the urban corridors and interstates



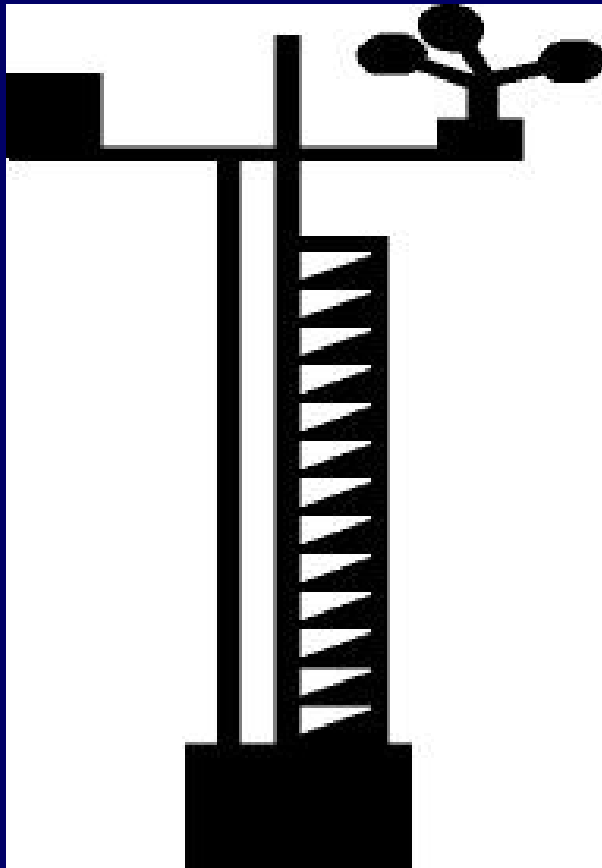
Expectations of RWIS:

- Reduced material/chemical usage
- Near-real time condition reporting for operations and traveler information
- Activation of other expert systems
 - Bridge spray systems
 - High wind warning systems
- Support TOC Meteorologists forecasting efforts
- Work in concert with AVL – VII





Partnerships



- NorthWest Weathernet
- National Weather Service
- USDA Avalanche Forecast Center
- River Forecast Center
- Dept of Energy
- Tooele County EOC
- Aurora Group
- University of Utah
- Utah State University
- Montana State University
- Colorado DOT
- SLC International Airport
- FHWA
- ITS/AMS
- Myriad of Private Sector Companies



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Ralph Patterson

Meteorologist

Weather Operations/RWIS Manager
office 801 887-3735

cell 801 718-4495

fax 801 887-3797

ralphpatterson@utah.gov