

ARWIS Systems

Advanced Road Weather Information System (ARWIS)

Advanced Road Weather Information System consists of multiple sites, each containing various meteorological sensors collecting weather information such as ambient temperature, relative humidity, air pressure, wind speed/direction, solar radiation, precipitation, and visibility; all information being reported to a central location for an up-to-date viewing of incoming data.

Insufficient or poor quality road weather information can be costly in both human and economic terms. The Transportation Research Board reports,

- " Adverse weather is associated with over 1.5 million motor vehicle crashes each year resulting in over 800.000 injuries and 7.400 fatalities.

- "The injuries, loss of life, and property damage caused by weather-related crashes cost an average of \$42 billion

- "Drivers endure over 500 million hours of delay due to fog, snow, and ice."

Advanced Road Weather Information System answers the crucial need for real-time information. Road state information is collected through an Intelligent Road Sensor (IRS), capable of measuring surface as well as sub-surface temperatures, snow, ice and water film height. Chemical concentrations and freezing temperatures are obtained as direct outputs of this sensor.

All sensors connect to a remote processing unit (RPU) installed in close proximity to the roadway. A server polls each ARWIS at a predetermined interval or on a "change on event" based algorithm. The server collects and stores the data and uploads it to an internet-based user interface. Road maintenance crews access the latest information through a standard internet browser.

ARWIS installation in Bettendorf, Iowa.

To view online information direct from an existing location go to;

<http://mail.lufft.de:8085/0000000006/index.html>

(The above site is in Germany, therefore the information displayed is in German for use by the local engineers. Systems information will be supplied in your country's official language.)