

# Technology in Rural Transportation



A recent study documented more than eighty proven, cost-effective, “low-tech” solutions to rural transportation needs, most developed or implemented by local transportation professionals. One of these solutions is outlined below:

Learn all about the simple solutions on the Internet at <http://inform.enterprise.prog.org>

The simple solutions report is available from Hau To at (503) 892-2533, or email: [to@crc-corp.com](mailto:to@crc-corp.com)

## Emergency Managers Weather Information Network (EMWIN)

### Overall goal:

To provide a low cost weather information access system for emergency management personnel.

### Technical approach:

EMWIN is a non-proprietary weather information dissemination system. It provides a continuous, dedicated low speed data broadcast that may be received by a number of mechanisms including radio, the Internet, and satellite. The EMWIN datastream consists of:

- Real-time weather warnings, watches, advisories, and forecasts.
- A subset of alphanumeric products for each state.
- A limited suite of non-value-added graphical products.
- Some satellite imagery.

The EMWIN data may be viewed on a personal computer using software developed by the NWS. This software is available free of charge through the Internet. Commercially supported software is also available at low cost.

It should be noted that various private sector agencies provide value-added weather information via the Internet. The National Weather Service (NWS) has created a list of these agencies which is available at <http://www.nws.noaa.gov/im/more.htm#vendors>.

### Current status:

The system has been operational since May 1994.

### Location / geographic scope:

EMWIN is currently available on a region-wide basis throughout North America for both Internet and satellite users. Radio access is limited to a 30 to 60 mile radius of those areas where EMWIN transmitters are located. At



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## Agencies involved:

present, transmitters are located throughout the states of Oklahoma and Texas as well as the Washington, D.C. area.

The system was developed and is supported by the National Weather Services - Office of Systems Operations (NWS-OSO), in partnership with the Federal Emergency Management Agency (FEMA).

## Cost information:

NWS designed and implemented EMWIN for less than \$50,000. User costs vary according to the data reception method used, (\$500 for a satellite system to approximately \$250 for a radio receiver and demodulator). Internet access is free, subject to set-up and monthly connection rates, which vary by service provider. Additionally, a personal computer is required to display and interpret data. Total user costs should be less than \$2,500, including computer procurement.

## Have goals been achieved?

The system is operational with real-time data being provided to multiple user groups. EMWIN contributes to meeting the NWS goal of protecting life and property.

## Solution timeline:

The system is deployed and available to users. NWS is working with FEMA and other organizations, public and private, to deploy additional radio transmitters.

