1.0 Infrared Pavement Temperature Sensors

Infrared pavement temperature sensor units provide an excellent means of obtaining a continuous readout of pavement temperature, as opposed to fixed location sensors with the RWIS. Experience has shown that pavement temperature can vary widely based on factors such as pavement type, elevation, and whether it's a bridge or roadway surface. These sensors are installed on a vehicle so that they have an unobstructed view of the pavement, as the vehicle is moving. They provide a continuous readout of the pavement temperature, which can then be used to help determine deicing application rates. Most units also provide air temperature information.

Users of these sensors must keep several things in mind.

- The sensor only detects the temperature of the first surface that it detects. Thus, if a road surface is covered with snow or ice, the sensor will detect the temperature of the snow or ice, **not** the temperature of the road surface.
- Calibration of the units is critical. Not all units can be field calibrated, but calibration should be performed monthly on those that can be.
- It is important to keep the lenses on the units as clean as possible. Users should periodically check to make sure road grime has not accumulated on the lenses. If the lens becomes dirty, wipe clean with a slightly moistened cotton cloth.

Pavement temperature sensors are to be installed on all trucks on the state system beginning in 2009 as part of the AVL/GPS initiative. The sensors will provide valuable information to the weather forecasting service and as a result will lead towards improved quality of weather forecasts.