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16. Abstract <p>The Iowa Department of Transportation (DOT) evaluated the PAS I Road Survey System from PAVEDEX, Inc. of Spokane, Washington. This system uses video photography to identify and quantify pavement cracking and patching distresses. Comparisons were made to procedures currently used in the State.</p> <p>Interstate highway, county roads and city streets, and two shoulder sections were evaluated. Variables included travel speeds, surface type and texture, and traffic control conditions. Repeatability and distress identification were excellent on rigid pavements. Differences in distress identification and the effect of surface textures in the flexible test sections limited the repeatability and correlation of data to that of the Iowa DOT method.</p> <p>Cost data indicates that PAVEDEX is capable of providing comparable results with improved accuracy at a reasonable cost, but in excess of that experienced currently by the Iowa DOT. PAVEDEX is capable of providing network level pavement condition data at highway speeds and analysis of the data to identify 1/8-inch cracks at approximately 2-3 lane miles per hour with manual evaluation. Photo-logging capability is also included in the unit.</p> <p style="text-align: right;">IOWA DEPT. OF TRANSPORTATION LIBRARY 800 LINCOLNWAY AMES, IOWA 50010</p>					
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6. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The PAVEDEX system is capable of collecting pavement condition data at highway speeds on various types of surfaces. Its current trained observer analysis is a limitation on the system. The addition of a smart computer that can be programmed to user distress selection criteria will complete the user needs. It can be currently used successfully on rigid pavements with only minor analysis modifications to account for Iowa transverse grooving texturing. Prior training by the observer and selection of flexible pavement distress measures could very well bring the results into acceptable ranges for use by the Iowa DOT.

Recommendations and Potential Uses

The equipment evaluated can be used on Iowa highways to evaluate network level pavement condition. It is limited by the training of the distress observer in Iowa distress criteria and in how to evaluate some of the rigid and flexible surface textures. The current cost of data collection and analysis makes the equipment useful only in urban, high traffic, multilane areas where pavement surveys are expensive and dangerous to the surveyors. The PAVEDEX system would be useful in the area of pavement condition and photolog data collection during daylight hours. It could be used currently in the analysis of before and after haul road and detour analysis without disruption of traffic during the survey.