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Evaluating the Impact and Usefulness of Highway Advisory Radio and Citizens' Band Radio Advisory Systems in Providing Traveler Information and Improving the User Experience on the Florida Turnpike Enterprise's Toll Road Network and the Florida Interstate Highway System

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Current Situation

Advanced traveler information systems (ATIS) may be most familiar from signs that suggest tuning the radio to receive important information such as road conditions or alternative routes. With GPS and smartphones more widely available, the Florida Department of Transportation (FDOT) must evaluate ATIS services delivered through highway advisory radio (HAR) and the Citizens' Band Radio Advisory Service (CBRAS) and whether to update or replace them.

Research Objectives

University of Central Florida researchers surveyed tourists, truck drivers, and transportation professionals about current ATIS services and usage.

Project Activities

The researchers conducted six surveys covering HAR, CBRAS, and ATIS current practice. In a telephone survey (1000 responding) and an Internet survey (500 responding), Florida residents who use the Turnpike were surveyed about their awareness, use, and satisfaction regarding HAR. The next two surveys were conducted in person at three Turnpike service plazas and two interstate rest areas; in one, travelers (1610 responding) were interviewed about HAR; in the other, truck drivers (613 respondents) were interviewed regarding their use of CBRAS. To develop a broader picture of ATIS practices, the researchers also conducted an Internet survey of professionals in state departments of transportation (DOTs) from across the nation. Twenty-eight of the 51 invited participated in this survey. Lastly, professionals in FDOT district offices and local Florida emergency management offices were surveyed using an online tool.

Survey results indicated that HAR should be continued and possibly expanded. Responses indicated that HAR could be very useful in an emergency situation when higher tech options might not be as accessible. Travelers' awareness of HAR was 57%, but 87% believed that HAR should be available. Truck drivers were less satisfied with HAR, but very satisfied with CBRAS.

In addition, many transportation professionals believed that HAR should be continued. Sources in many state DOTs favored HAR because of its portability, ability to broadcast detailed messages, and redundancy in emergencies. However, some states were considering retiring or replacing HAR because of signal interference issues and new technologies. The study indicated that HAR and CBRAS should be improved in order to work effectively with new technologies, such as smartphones. The cost-benefit analysis concurred with the surveys that it would be beneficial to continue and possibly expand HAR.

Project Benefits

This study demonstrated that radio-based traveler information systems are still a valued means of communicating with the traveling public. Expanding the system and extending it smart phones can increase that value.

For more information, please see dot.state.fl.us/research-center



Signs like this one alert Florida drivers to important messages about road conditions.