On-Demand Emergency Notification System Using GPS-Equipped Devices

Researchers at the University of South Florida have developed a system and cell phone application for dynamically determining a mobile device user’s hurricane evacuation zone and corresponding evacuation instructions.

Hurricanes are a concern for a large portion of the United States, and a particularly persistent threat for the cities near the Gulf of Mexico and along the eastern seaboard. Evacuating at risk areas in an efficient and timely manner is one of the best ways to keep people safe. During an evacuation, affected areas are commonly divided into zones, and officials may order evacuation by zone. Too often, people are not aware of their designated zone, and access to phone lines and internet may be congested or unavailable during an emergency. Additionally, evacuation zones and orders can be ineffective for tourists that are often too unfamiliar with their location to adequately respond.

For the foregoing reasons, USF inventors developed the Evacuation Zone Finder as a mobile device application that determine the user’s current location, and compares that location with Geographic Information System (GIS) maps and data. The user is then provided a corresponding evacuation zone designation and evacuation instructions based on their location.

By leveraging publicly available GIS data and mobile device location-based functionality, our researchers have been able to develop a system to assist in the safe evacuation of at risk areas. The system is scalable to handle large numbers of users, and can be used without an individual having prior knowledge of their current location. The Evacuation Zone Finder could be a life saving tool for people in areas affected by hurricanes.

ADVANTAGES:
- Easy to use
- No location or address required
- Inexpensive deployment

Evacuation Zone and Instructions at Your Finger Tips

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