

Glynn County GEORGIA



Highlights

- No Additional software or hardware.
- Fast data collection = Enhanced Situational Awareness
- Scalable to the level of the disasters.

Return on Investment

- Minimal training
- Swift data collection = Fast Reimbursements.
- Increased efficiency compounding the number of assessments teams can complete.

Contact Us

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Fast, comprehensive damage assessments that meet FEMA standards are essential for coastal communities seeking reimbursement in the event of a natural disaster. Traditional paper forms can contain data entry errors as well as taking significant time to complete and process. Through the implementation of ESRI's ArcMobile and ArcSDE technology, completing preliminary damage assessments could be more efficient and provide increased situational awareness in recovery situations.

Background

The Glynn County GIS Department is tasked with processing data collected in the field and providing geographic situational awareness during a natural disaster. With stretched resources, an anticipated bottle neck would likely occur as reports, events, and damage assessments were categorized, entered and displayed. To minimize the amount of data entry, GIS disaster planning gives special attention to preparing to receive information. This is done by anticipating each of the sources of information and approaching the solution to each individually.

One of the essential areas of concern is the processing of damage assessments with in the county. In years past this would be achieved by paper forms conveyed to data entry personnel to process. With the introduction of ESRI's ArcMobile and ArcSDE with in the Small Government Enterprise License Agreement, not only can data collection be dramatically more efficient, but the process can be scaled to adapt to the availability of servers and other resources.

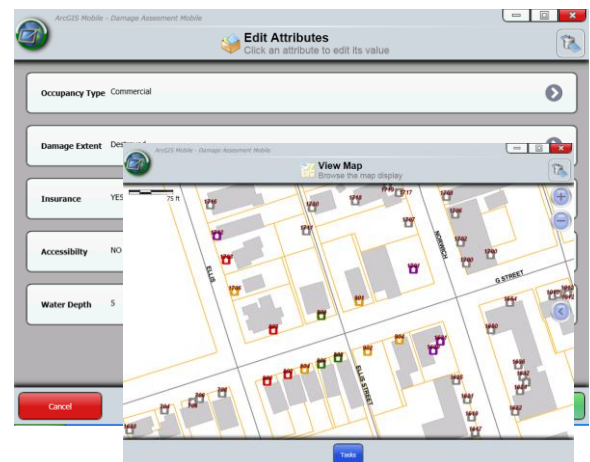


Panasonic Toughbook

Timeline:

Priority was given to complete the application prior to the 2011 Hurricane season.

Insuring data design and submission in an approved FEMA format were instrumental before the mobile application could begin.



Workflow:

First, data structure has to be the main consideration. Current paper forms are issued through GEMA and once completed, sent to FEMA for review. Careful thought and design has been given to designing the database to ensure all pertinent information is collected. ESRI's resource center was utilized to download a Damage Assessment Template database. This formed the basis for the project and was modified to meet county needs.

Proper testing of a mission critical application is crucial. Multiple iterations of the application were deployed and reworked to ensure ease and simplicity of use was achieved. To keep collection requirements at a minimum, the county's 911 address layer was employed. This will allow for team members to simply select a point in the field and attribute the necessary information.

PRELIMINARY DAMAGE ASSESSMENT FIELD SHEET		CITY BRUNSWICK	COUNTY Glynn	STATE GA	ZIP POSTAL 31520	Date: 8/31/2011
Type Of Disaster		HURRICANE				
Assessment Team Members:		Harley Key	John Cantano	Emerson Chen	Bob Noren	Sherrill Davis
Street Count						
Address	Street	Dwelling Type	Damage Extent	Accessible	Water Depth	Insuran
4	ELLIS					
2216	ELLIS	MF Multi-Family	Affected Habitable	Yes		Yes
2212	ELLIS	MF Multi-Family	1	Minor	No	No
2206	ELLIS	MH SC Manufactured Housing	1	Major	No	No
2208	ELLIS	SF Single Family Residential	1	Destroyed	Yes	Yes
1	G					
803	G	C Commercial	1	Minor	Yes	Yes
		CM SD Commercial	1			
			5			

Preliminary Damage Assessment Sheet

The Damage Assessment Mobile application operates from a Panasonic Toughbook designed to fit into vehicle computer mounts. During the event of an emergency, consumer based GPS units can be connected to the Panasonic Toughbook so team members can see their actual location on a map. This is highly useful if addresses are not recognizable and other landmarks have been removed.

Finally, the field collected data can be brought back to the Emergency Operations Center and loaded into a master database. From this database reports can be generated in a matter of minutes. This will allow Glynn County to efficiently and effectively deliver information to GEMA.

Hopefully, this application will never have to be deployed in Glynn County. If an event should occur however, mobile data collection and electronic reporting capability could greatly increase Glynn County's recovery efforts.

Challenges:

Since the project involved a database schema, mobile development, and end report construction element design changes had a cascading affect. A realization of a design change to enhance data entry necessitated a complete redesign of the reports to insure totals and counts were correct.

Project Rewards

The Glynn County GIS department was able to effectively and efficiently use mobile collection technology to design and implement scalable solutions. This element of disaster preparedness insures swift, accurate damage assessments assuring essential reimbursements occur quickly.

Additionally, the ESRI Damage Assessment Template includes Debris monitoring and commercial property elements that can be adapted to meet these disaster data management needs as well.