



Clear Skies for Winston County, Mississippi

IKE 3 Helps Expedite 2014 Storm Recovery*

Customer

[Golden Triangle Planning and Development District](#) (GTPDD) is a nonprofit organization formed in June 1971 to improve and enlarge economic development and civic improvement in the Appalachian counties of Choctaw, Clay, Lowndes, Noxubee, Oktibbeha, Webster and Winston within the state of Mississippi. The goal of the organization is to assist local units of government and small businesses with highly specialized areas that fall outside of its range of expertise. This includes assistance in applying for and managing grant monies, technical support for local government and small businesses, administrative functions and support for local utilities, and geographic information system (GIS) data and mapping that is needed for county management. GTPDD is a member of the Appalachian Regional Commission ([ARC](#)) created in 1965 by an act of Congress. ARC's objective is to provide additional grant funding and support infrastructure growth to create a competitive economic environment within the 13 Appalachian states in the U.S.

Challenge

GIS mapping and data is a time-consuming and expensive process but is necessary for providing key information relating to parcel mapping, road management and census reporting. This type of information is used to define political jurisdictions at state and local levels and manage tax rolls. It is also used for comprehensive community planning. None of the GTPDD counties has a budget or manpower to support such an extensive project. However, as part of its support, GTPDD provides this service and manages the data. Winston County actually qualified for grant funding to help support this project with the grant covering 80 percent of cost. The community is responsible for the other 20 percent. Over an eight-month period in 2012, GIS data and mapping had been completed for entire county. This included information for structures within city limits as well as items found outside of the community, such as cell towers, water towers and barns.

Challenge

- Catastrophic tornado levels Winston County, MS in 2014. There is a need to submit documentation to governmental agencies to seek assistance for property damage/loss

Solution

- Use of IKE for visual confirmation of GIS records and images of damage.

Results

- Assessment of storm cost and impact to county budget defined within 24 hrs
- Calibrated images documenting GIS information and structure status completed within 2.5 days and paperwork submitted to federal and state agencies.
- IKE assists with the fastest storm recovery response within the state of Mississippi to date





On April 28, 2014, Mississippi had nine tornadoes touch down with an F4 storm passing through Louisville, MS, located in Winston County. There were 10 deaths attributed to this particular storm within a 36-mile path. The event was so devastating that the Federal Emergency Management Agency (FEMA) immediately qualified the region as a National Disaster Area. After the initial cleanup and first-responder needs, the process of applying for federal disaster loans had to begin. However, property owners had to prove what structures were in place prior to the storm and send information validating the current status of their properties. This could take months and delay any relief money. GTPDD had all of the mapping information and images verifying structures before the storm, but it wanted to assist the storm victims with compiling the after information to help expedite the recovery process. It needed a tool that could help provide latitude and longitude positioning in conjunction with an image that could be submitted to FEMA for review.

Solution

Toby Sanford is the GIS manager and senior analyst for the GIS program at GTPDD. Several years earlier, Toby reviewed the IKE solution and remembered it. Following the storm, he reached out to a contact at [Landmark Spatial Solutions](#), which he knew both used and sold the equipment. Landmark Spatial Solutions agreed to loan him the device to capture data and images along the path of the storm. IKE is a complete solution that integrates a digital camera with a laser-range finder, sub-meter GPS and a compass to capture calibrated images that can define location and structure measurements. It was a quick process to move from location to location and use the device to take images of the carnage and destruction left behind by the tornado. Using the IKE solution, Toby and his team mapped 646 points in 1 ½ days

Result

Based on the expedited GIS data collected through IKE, Winston County management assessed the cost of the storm and the direct impact to county budgets within 24 hours. In addition, the necessary recovery information for Winston County was presented in full to both FEMA and the Mississippi Emergency Management Agency (MEMA) within 48 hours and it was processed completely by the agencies within 28 days of the storm. This is currently the fastest storm-recovery response in history within the state of Mississippi. In April 2015, one year later, other counties affected by this series of storms were still compiling the needed paperwork delayed by their lack of GIS documentation.

Since this event, GTPDD has invested in its own IKE device and uses it exclusively to manage its GIS data within its jurisdiction.

Image/Mapping- Aug 2013



Image/Mapping- May 2014



"If you need the GIS data and images, and you don't have it... it's too late!"

Thomas B "Toby" Sanford
GIS Manager / Senior Analyst
GIS and Remote Sensing Program
Golden Triangle Planning and Development District Inc.

