

Senegal River Survey Project Emergency Solution

You'd think conducting a bathymetric survey of a major waterway, like Africa's Senegal River, would be impossible without an existing digital map, and you'd be right. However, surveyors who found themselves in that tricky spot came up with an emergency on-site solution that saved the day: they created a map as they went along.

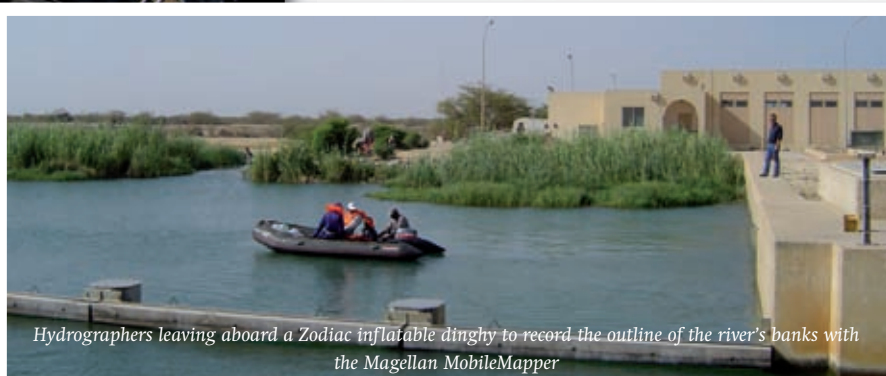
By Robert Wick



Surveyors used a MobileMapper, a small handheld GPS navigation and GIS data collection system, to keep the project on schedule.



Live-training on the river banks.



Hydrographers leaving aboard a Zodiac inflatable dinghy to record the outline of the river's banks with the Magellan MobileMapper

The Senegal River, which flows west from Mali to form the border between Senegal and Mauritania before it empties 1800 kilometers downstream into the Atlantic, was about to undergo its first bathymetric survey when it was discovered that an essential prerequisite – a digital map of the river – did not exist. Instead of stopping the three-nation project dead in its tracks and creating a costly overrun, surveyors used a Magellan MobileMapper, a small handheld GPS navigation and GIS data collection system that happened to be on-scene, to keep the project on schedule.

Bathymetric Survey

Hydrographic department teams from Senegal and Mauritania were aboard two survey vessels to begin a preliminary bathymetric survey of the entire length of the river when the oversight was discovered. Fortunately, a Magellan technician, who was aboard to train operators of newly installed Magellan marine positioning units, happened to have a MobileMapper with him. With only an hour of training, a crew was

aboard a Zodiac inflatable dinghy recording the outline of the river's banks with the MobileMapper. This initial effort proved so successful so quickly that project hydrographers immediately ordered three additional MobileMappers and the entire survey project proceeded up river after only a minimal delay.

The map of the river was digitally drawn one day at a time by keeping two Zodiac crews, armed with MobileMappers to collect data along the river banks, one day ahead of the survey vessels. Each day at day's end the crews from the Zodiacs would download the data in SHP format to the acquisition and preparation software aboard the survey vessels for use the next day. In this way, approximately 80 km of

the 1,800-km river was mapped and surveyed each day. It took less than a month to complete the entire project.

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Have a look at: www.bordeaux-port.fr/gb/services_portuaires/ingenierie.asp#1
www.pro.magellanGPS.com