

BASELINE 2001

A Comprehensive Geographic Information System for the Mobile River Estuary

Overview

The Project proponent is the Spatial Data Branch Office of the U.S. Army Corps of Engineers – Mobile district. The nature of the project is to establish a comprehensive GIS for the Mobile River Basin. The area of interest will be the basin land mass within Mobile and Baldwin Counties, Alabama (see att. map). Uses of the GIS will be varied, however its principle use will be for estuary study and analysis. Other beneficial uses will be for wetlands management, regional sediment analysis, regulatory management, and wildlife habitat. Hydrographic area of interest will include all basin estuaries, creeks, rivers, bays and immediate coastal waters along the southern limits of Mobile and Baldwin Counties. The project will include acquisition, by both remote and conventional means, as well as the integration of geographic data. The following outline is a list of potential survey products and GIS tasks required to establish the project.

Outline

- 1. Establish Control Survey**
 - a. Horizontal Network**
 - b. Vertical Network**

- 2. Remotely Sensed Ortho-photography**
 - a. Inventory and acquire existing image data sets by others.**
 - b. Collect new true color 1"=500' as required**
 - c. Collect new false color photography 1"=1000'**
 - d. Collect new true color 1"=100' of Dauphin Island**
 - e. Collect new Hyper-spectral data as required**

- 3. Hydrographic Surveys**
 - a. Cross-section all navigable waterways channels @ 500' intervals.**
 - b. Cross-section Mobile Bay @ 1000' intervals.**
 - c. Locate Aids to Navigation**
 - d. Wreck and hazards location surveys (multibeam surveys)**
 - e. All data to be in COE SDS & NOAA S-57 format.**

- 4. OverBank Surveys**
 - a. Inventory and acquire applicable data sets by others.**
 - b. Collect cross-section data of rivers to top of bank.**
 - c. Collect 1 ft. contour lidar data as required.**

- 5. Digital Map Products**
 - a. Overall digital ortho-rectified photographic mosaic**
 - b. Compile Mobile River Book**
 - c. Navigation folio**
 - d. Digital ortho-rectified photography with contour plot files**

- 6. Database Development**
 - a. Spatial Data Standards data population**
 - b. ArcGIS format**

- 7. Web Development**
 - a. ArcIMS Customization**
 - b. System & Network Configuration**
 - c. Data replication for redistribution**

- 8. Data Deliverables**
 - a. CD roms of survey data**
 - b. Film positive & negatives for printing**