



1. Organizational Approach to GIT:

The Mississippi Forestry Commission (MFC) (<http://www.mfc.state.ms.us/>) is an active user of GIT for individual applications. MFC has in-house data development capability, but lacks in-house capabilities for developing GIS applications. MFC contracts all application development to various state and private organizations, including the Mississippi Automated Resource Information System (MARIS), described below. MFC has two full-time people devoted to GIS and remote sensing (RS). One of these staff is the MFC's Resource Analyst, who develops, maintains, and coordinates all GIS and RS activities for the Commission. The MFC also has an extensive network of GIS users at the district level and GPS users at the district and county levels. Currently, the MFC has no policies regarding GIT. Issues regarding GIT for the MFC are the need for better end user skills and training of end users. Changes in technology are also a problem because of the difficulty of maintaining older systems and software for which continued support is uncertain, such as ESRI's change to ArcGIS™ from ArcView™.

2. GIT Applications and Data Utilized:

The MFC has used GIS and GPS for several forestry applications, including **fire** response; **state lands** forest planning and management; forest clear cut inventory and analysis; and mapping and mill location tracking on **private lands**. The MFC has also used GIS and LANDSAT Thematic Mapper (TM) imagery for **wildlife** purposes and participated in the Mississippi Gap Analysis Program (GAP). The MFC uses digital orthophotos provided by MARIS for much of its GIS work. The Forestry Area Assessment Program is a major **forest assessment** project that examines changes in forest **land cover** using LANDSAT TM imagery from about 1993 through 1997. Items assessed include species composition of forest land, forest regeneration and forest harvesting. In addition, MFC worked with Mississippi State University and the NASA Stennis Space Center on a forest inventory pilot project. This **forest characterization** project used satellite and other imagery and is being expanded for wider use, including by the Mississippi Development Authority's Department of Economic Development.

Another project is the Spatial Information Management and Mapping System (SIMMS), which was developed in concert with MARIS. This menu interface enables input, query, mapping and report functions of **fire** data, cost share data, equipment inventories, progeny sites (seed farms), and volunteer fire department (VFD) sites statewide. It contains 12 years of historic fire data and 14 years of cost share data, and is updated daily. Fire data comes from the Wildfire Detection and Dispatching GIS developed by MARIS, with input from MFC. Additional data requirements will be derived from the Individual Fire Reporting and Mapping System (IFRAM), which is a GIS-based strategic decision making tool being developed by a private contractor for district-level use. Additionally, MARIS is currently developing the State Office Fire Information Analysis (SOFIA) to provide an executive-level GIS designed to read fire data from the SIMMS. MFC has recently begun to upgrade the above systems to ArcIMS™. It is anticipated that full implementation of ArcIMS™ will be complete by late 2003.

3. Statewide and Other GIT Linkages:

The Mississippi Automated Resource Information System (MARIS), which is administered through the MARIS Technical Center (MTC), serves as the lead for GI/GIT in state government and as a statewide service center for GI/GIT including satellite imagery (<http://www.maris.state.ms.us>). MTC, located in the Mississippi Institutions of Higher Learning (the administrative center for state universities), also staffs statewide GI/GIT coordination groups and efforts. The principal GI/GIT coordinating group in Mississippi is the MARIS Task Force, which is comprised of mid-management and technical level staff of numerous state agencies and universities. As mentioned above, the MFC contracts and works with

MARIS to develop GIT for many forestry applications. MFC personnel regularly attend MARIS advisory committee meetings and provide input as necessary.

MARIS has operated as a data clearinghouse since the 1980s. The MARIS Home Page now provides access to both data and metadata for about 90 spatially referenced coverages, for which the clearinghouse provides a summary grouped by state/county availability (http://www.maris.state.ms.us/Data_Warehouse/quiki/quiki.htm). Each coverage is associated with an extensive digital data catalog which includes a data dictionary, quality and accuracy section, and reports on individual coverages. Hundreds of thousands of data files have been provided since going on line. Additionally, complete coverage of the state's digital orthophotos is available directly from the MARIS web site or in CD format by county. Efforts to provide access to more data are underway, including a forthcoming Internet mapping capability (<http://www.maris.state.ms.us>).