Geographic Information Systems (GIS) Support Services

MBS
Sealaska Diversity IT Solutions

MBS teams focus on obtaining, generating, processing, analyzing, and modeling geospatial data and the corresponding cartographic output. Solutions are created leveraging geospatial capabilities to make business processes more efficient.

GIS Support / Cartography
- Obtain, Create, and process Baseline Geospatial Data
- Imagery Analysis (Extracting / analyzing features from imagery)
- Complex Geospatial Analysis (spatial modeling, site selection, watershed analysis)
- Remote sensing, change detection, airphoto interpretation, Photogrammetry
- GIS consultation and assistance
- Develop Imagery Archive for internal and external dissemination
- Predictive flood Modeling, Hydrologic/Hydraulic modeling
- Digital Elevation Modeling

GPS Field Data Acquisition
- Established GPS/GIS techniques to inventory and perform assessments
- Collect complex inventory and corresponding condition assessment data
- Post-processing for accuracy/precision

Software Development
- Business Logic and Database Tiers
- Gathering/documenting user needs
- Preparing functional requirements including defining use cases
- Prototype development
- Graphical User Interface development

Database Management
- Spatial data modeling
- Geo database design and development
- Database migration
- Data Conversion

Asset Management System Support
- MAXIMO Asset Management System Support

Integrated Information System Support
- Provide user access to data and information through a map-user interface
- Spatial and non-spatial data architecture design and implementation

"Our attention to detail and knowledge of national, state, and industry data standards ensure that all data and metadata created are of the highest quality."

Core Technologies/Applications
- Trimble Pathfinder Office
- TerraSync
- esri (Including but not limited to:)
  - ArcGIS desktop/workstation
  - 3D Analyst
  - Spatial Analyst
  - Survey Analyst
  - Raster Algebra
  - Network Analyst
  - Arc Objects (Programming)
  - Geospatial Python (Programming)
  - Enterprise Geo Database
  - Core erdas (Professional)
  - erdas Imagine
  - LPS (Photogrammetry software for producing 3D features and orthophotos)
  - LPS Terrain Editor
- Danish Hydraulic Institute (DHI)
- Mike Zero
  - MikeFlood, Mike11, Mike21
- Hydrologic engineering center (HEC) River Analysis System (RAS)
  - HEC-GeoRAS, HEC-RAS
- BOSS DAMBRK
- MAXIMO
- Oracle, SQL Server Databases
- .Net Development Framework (C#, ASP.net)
- Microsoft Visual Studio

Expert Guidance
- Federal dam safety policies and procedures
- Irrigation infrastructure
- Power infrastructure
- Trimble GPS
- Watershed analysis and modeling
- Using spatial data for natural resource decision support
- Data inventory, harvesting, and modeling
- Remote sensing data and techniques
- 3-D visualization
- Multi-factor screening and analysis
- Geo database development
- Catalogue creation
- Professional level cartographic products
- Map atlases & templates
- Contamination mapping
- Airphoto Interpretation
- Photogrammetry
- Digital elevation modeling
- Hydrologic and hydraulic modeling
- Habitat suitability modeling