

Fort McCoy Total Force Warfare Training Center (U.S.Army) Facilities Management (Civil) GIS

Like all military installations, Fort McCoy has a dual mission. First, to provide facilities for training soldiers, and second, to maintain installation infrastructure. This latter includes not only the management of real property such as buildings and ranges, but also of utilities, and of maintenance activities like snow removal and grass cutting. The two missions are mutually dependent as the infrastructure inevitably exists to support the training of the soldiers, who in turn require barracks, artillery ranges, food, fresh water and toilet facilities, and classrooms.



Fort McCoy required a facilities management GIS that would support a variety of applications as well as to link to an existing environmental and natural resources ARC/INFO™ system. The engineers had a strong tie to both MicroStation™ and AutoCAD™ and the beginnings of an Intergraph MGE™ GIS that had never been fully supported or developed. For data they had an accurate photogrammetrically compiled large scale basemap of 2' CI topography with a general planimetric coverage, but this had not been compiled to a GIS –ready state, meaning that polygonal features were not closed, lines were not snapped, and no thought had been given to attribution. None of the utilities data, either private owned (electric and gas) or McCoy's (sewer and water) existed in digital format.

Bluegrass GIS, Inc. performed a detailed GIS Needs Assessment that included a 5-year implementation plan. This plan was developed with a consideration to a severe lack of resources - human, technical, and budgetary - that would be needed to support a proper FM GIS. We knew that the resource situation would only get worse, so it was critical that a plan be formulated that would get this client as close to his objectives as possible within this limited operational framework.



First we built the MGE project, loaded the existing MicroStation data into features and provided training to three of their staff. Within 4 months 2 of those people had left and the remaining one was not technical. MGE is complex and requires a dedicated GIS staff to maintain it. A decision was made to migrate them off of MGE and provide them with GeoMedia™ and ArcView™ desktop GIS tools. This made GIS operations much easier and enabled us to begin writing custom applications on a user-by-user basis. We formed a GIS Steering Committee on post that included the ESRI GIS staff and began to formulate plans for the conversion of the utilities.

Fort McCoy users today include the original natural resource GIS group, water, sewer, electrical and gas engineers and maintenance shops, master planning, buildings and grounds, environmental protection, and emergency services. All building and utility data has been captured and updated, and users can access over 300 GIS themes stored on two servers on post. We have developed ArcView extensions for master planning, Fire Department, and utilities engineers and are providing user training and support to a growing user community.

Bluegrass GIS is involved at several military installations and a lack of GIS resources versus a great need for spatial information management and access is a common situation. Bluegrass GIS is well known for developing implementation plans that are workable within the client's unique operational framework no matter what their resource limitations might be.



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