



SUCCESS PROFILE NATIONAL GEOSPATIAL DATA STANDARDS

Situation

The advent of cost effective digital mapping technologies spawned tremendous federal efforts to create geospatial databases for planning and management applications. Nowhere was this more prevalent than in the military, where installations are owned and operated by a single entity. The need for refined and readily available digital map data was acute.

Each of the three primary military services undertook separate programs in map database creation. However, there were no database standards; guidelines and criteria for database design, symbology, detail, accuracy or nomenclature. Consequently, federal personnel and their contractors could not easily work with multiple datasets, nor could the datasets be successfully merged into a single instance for shared use or distribution.

Core Assessment

Working in support of multiple installations at the time, EIPCI observed the differences in datasets as a major obstacle to effective management of real property. Variations in cost were significant as many installations built datasets to varying levels of specificity, indicating that there was significant spending waste. Moreover, the datasets were being created without regard for their sustainment costs (or efforts), suggesting that investments would become out of date and unusable in just a few years as on-the-ground conditions changed.

Solution

At the time, the Corps of Engineers was providing professional serviced and contract support for both Army and Air Force installations and both were generally regarded to having more advanced programs than the Navy. Having been involved in this work for years as both a federal employee and contractor, EIPCI was able to convince the Corps to underwrite the effort for a set of military-wide map database standards. Subsequently, EIPCI led the effort to perform the work which in addition to developing technical specifications for multiple mapping system platforms included efforts to collaborate with a broad group of globally based stakeholders. Completed in two years, this new data standard was accepted by the Corps and was transitioned to internal Corps staff for sustainment and version updates over time. The standard was quickly endorsed for use by all military services over the next few years.

Results

While cost reductions in dataset creation efforts were significant, the most meaningful result occurred through standardizing work processes and data use across the military. Both government and contractor personnel became more efficient over time and the value of the data became institutionalized.

Furthermore, the success of this effort was recognized government wide. The initial standard was expanded to become what is now referred to as the Spatial Data Standard for Facilities, Infrastructure and Environment (SDSFIE). SDSFIE is truly a community standard, registered in the Department of Defense IT Standards Registry and recognized as the enterprise standard for geospatial data across the entire business mission area. Furthermore, the standard is now in use not only in the military but widely across the federal civilian sector, by many state governments and by local communities as well.