US Army Corps of Engineers®
Engineer Research and Development Center

Digital Feature Analysis Data Level 1 (DFAD Level 1)

Description and Background

DFAD is a standard product of the National Imagery and Mapping Agency that supports radar return simulation, navigation and terrain obstruction studies. When combined with Digital Terrain Elevation Data (DTED), DFAD provides an off-line data base for use by weapon system flight simulators and other types of simulation, such as line of sight, obstruction, and perspective view development. DFAD also may be used for sensor correlation, target recognition and Lines of Communications (LOC) analysis. Within NIMA, these data can be exploited to support computer-assisted map and chart production activities. DFAD does not meet Army tactical requirements.

Key Capabilities

NIMA Product Specification: PS/ICE-ICG/200.

Data Density: Density of detail approximates that of medium-scale (1:200,000 to 1:250,000) cartographic products.

Coordinate Reference System: Geographic

Horizontal Datum: World Geodetic System 1984

Content: Major natural and man-made features on the Earth's surface; the features and associated attributes are generally of radar reflectance significance. Content is derived from both cartographic and Photogrammetric source material.

Structure: Sequential (spaghetti) vector

Format: Vector - one data record for each feature. The record contains coded attributes and coordinate string.

Media: DFAD Level 1 currently is distributed on 9-track, magnetic tape (1,600 or 6,250 BPI), 8 mm magnetic tape and CD-ROM.

File Size: 1-degree x 1-degree geographic cell identified by its southwest corner coordinates.

Accuracy: The absolute horizontal accuracy requirement for Level 1 culture data are 130 meters; 90 percent circular error. The heighting accuracy requirement for vertical obstructions, which are 46 meters or greater is 10 meters (90 percent assurance above ground level). For obstructions less than 46 meters high, which cannot be measured within a heighting accuracy of 10 meters, a height of 24 meters will be assigned.

Production Information: DFAD production has ceased and has been replaced by NIMA Vector Map (VMap) products.

Current Status

DFAD is available for large geographic areas in the Northern Hemisphere.

Point of Contact

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