

CARTOGRAPHIC TECHNICIAN

This is technician work in the operation of a computerized geographic information system for the purpose of natural and cultural resource management planning.

Employees assist in the collection, analysis, display, and distribution of graphic natural and cultural information through completion of large multi-year programs or short-term projects from digital data collection to data analysis and product delivery. Deliverables are in the form of computer generated custom maps and reports. Employees work with limited independence and consult with the production manager or project leader on any unusual and/or complex project. Work may include other duties and responsibilities as assigned.

I. DIFFICULTY OF WORK:

Complexity - Employees perform a variety of tedious, exacting, and time-consuming tasks such as map preparation, digitizing, geo-referencing, geo-processing, computer graphics editing, plotting, and map and data review. Completion of these tasks requires judgment for acceptability of quality and recognition of error-free data. On short-term projects, employees may independently select alternative methods for accomplishing tasks within the defined time frame. Employees participate in developing or revising work procedures based on insight from handling a variety of project assignments.

Guidelines - Employees rely on a variety of technical guidelines, manuals, references, and maps containing exacting procedural standards to complete geographic data files and geographic information system projects.

II. RESPONSIBILITY:

Accountability - Employees are responsible for accurately capturing geographic information and conducting projects. Employees may also be responsible for billing of services.

Consequence of Action - Failure to provide accurate information to the geographic information system may result in significant costs to the organization and/or its clients.

Review - Multi-year program work is reviewed periodically by senior production staff for productivity, accuracy, data quality, organization, and map and report present ability. Due to time constraints, a detailed review of short-term project activities conducted by employees does not occur prior to product delivery to the client.

III. INTERPERSONAL COMMUNICATIONS:

Subject Matter - Employees receive technical advice from senior production unit staff with respect to computer software and hardware operation, project procedures, quality standards, and geographic data file condition.

Purpose - Prior to implementation of projects, employees discuss project goals and develop and define procedures with project leaders or production manager. Additional meetings are held during the course of a project to communicate progress and/or resolve major problems.

IV. WORK ENVIRONMENT:

Nature of Working Conditions - Work is performed primarily in an office setting at workstations.

Nature and Potential of Personal Hazards - Exposure to potential personal injury is unlikely. Employees spend long periods of time working with very detailed maps at workstations, which requires extended sitting.

V. RECRUITMENT STANDARDS:

Knowledges, Skills, and Abilities - Knowledge of the use of a computerized geographic information system and associated equipment; ability to accurately digitize lines using drafting, cartography, or digitizing skills. General knowledge of interactive computer systems and computer graphics and an understanding of the capabilities and limitations of computers.

Minimum Training and Experience Requirements - A two-year degree in computer technology, the natural sciences, drafting, or a related field of study and two years of experience in one, or a combination of experience in any of the following areas: computer mapping, computer graphics, natural and land resource management, digitizing, drafting, remote sensing, or aerial photo interpretation; or an equivalent combination of education and experience.