

ROCKY MOUNTAIN CONSERVANCY POSITION DESCRIPTION

JOB OVERVIEW

Position Title: RMC Cartographer Technician

Reports To: Administrative supervision by Director of Administration, technical supervision by NPS staff

Department: Administration

Position Type: Non-exempt, Temporary

JOB DESCRIPTION

This project supports the GIS program in Rocky Mountain National Park. The cartographer technician works closely with staff in the Division of Resource Stewardship, Branch of Planning and Project Stewardship.

This position is intended to support the park GIS Specialist, who gives technical oversight and direction. Technician work is typically associated with and supportive of a professional field; work may involve substantial elements of the work of the professional field, but requires less than full knowledge of the field involved. Assignments largely constitute routine functions or a portion of a broader project. The Cartographer Technician works in close collaboration and takes direction from the GIS Specialist, but growth of technical knowledge and independence in assignments is expected.

Essential Duties/Responsibilities

1. Data management

Inputs spatial and non-spatial digital data to draft format, field compilation, or GIS and performs necessary and proper verification and checking procedures to ensure the resultant database is as free as possible from error. Seeks assistance for situations not covered by instructions or guidelines.

Maintains GIS files and related databases. Performs backups, purges unnecessary files, and ensures all files are organized and properly distributed for effective and efficient protection, access, and use following NPS standards. Edits components of GIS database to correct errors or modify, delete or add information.

Prepares and maintains digital and hard copy versions of data histories (metadata) and data dictionaries that explain and document the nature, contents, and evaluation of information source of the GIS data base, CAD system, and GPS files.

2. Field collection

Visits field sites to gather GIS information. Uses accepted field mapping techniques (e.g., GPS using tablets and other handheld GPS devices). Applications used in the field will include Survey 1-2-3 and ArcGIS Collector. Refers unusual situations to the supervisor for assistance.

Verifies and/ or establishes data site locations through on-site inspections; may carry out literature searches for the purpose of gathering information for data theme development or verification of data accuracy.

3. Maps and other GIS Products

Plots data to meet users' requirements for various kinds of maps and GIS products such as printed media, web maps, and story maps. Also makes plots to check and verify the results of map file construction. Follows established NPS guidelines to select plot contents, appropriate scales, suitable colors, shading patterns, line types, fonts and text, and line thickness. Matches products to target audiences. Working with GIS Specialist, assures products meet accessibility requirements. Refers situations not covered by guidelines to the supervisor for resolution.

Other Duties/Responsibilities

1. Equipment Management – Assists GIS Specialist with managing GIS hardware and associated peripheral devices such as tablets, antenna, plotters, and printers. Assists in maintaining GPS equipment and peripherals. Keeps GPS equipment software updated.
2. License Management – Assists GIS Specialist with updating and maintaining GIS software for parkwide users.

Additional Job-Related Information

Cartographer Technician will wear a uniform provided by RMC.

Position will office with GIS Specialist in park. Cartographer Technician will use NPS-furnished equipment and may drive government vehicles after required training. Cartographer Technician will attend NPS meetings with the GIS Specialist, as appropriate.

Cartographer Technician will be required to complete various in person and on line training courses to maintain access to NPS systems and secure information. Cartographer Technician must maintain confidentiality of sensitive data, resources, and information. Safe operations both in the office and in the field are expected at all times.

Meetings will take place every two weeks to assure coordination between Cartographer Technician, Supervisor, and GIS Specialist. GIS Specialist will provide feedback on performance, draft and final products to Supervisor

Work is primarily performed indoors in a climate-controlled office environment. Computer work is sedentary, which entails the ability to concentrate and use computers for long periods of time. Field work occasionally requires some physical exertion such as long periods of standing, walking over rough, muddy, uneven mountainous terrain. Outdoor work may occur in hot, cold, humid, or dry weather conditions.

At the direction of the Supervisor, Cartographer Technician may have the opportunity to work with various offices within the park to gain exposure to a variety of NPS jobs.

JOB QUALIFICATIONS

Knowledge, Skill and Ability

1. Knowledge of database and GIS related hardware, software and computer requirements and techniques.
2. Ability to operate computer systems that include a wide range of peripherals including scanners, printers, and associated field tools such as GNSS receivers, in order to acquire and use the full range of tools to produce and maintain spatial databases.
3. Comfortable working knowledge of computer and mobile operating systems (e.g., Windows, iOS, Android), software application packages for GIS (e.g., ArcMap, ArcGIS Pro), and database management (e.g., Microsoft Access).
4. Skill to communicate effectively orally and in writing with people having a wide range of understanding of GIS technology and applications.

Education

Course work that includes cartography, astronomy, geodesy, photogrammetry, computer science, land surveying, physical geography, and remote sensing

Experience

1. Conducting analyses of geospatial data.
2. Developing GPS data dictionaries and spatial data inventories.
3. Field collection of GPS data using a variety of equipment.

Material and Equipment Directly Used

iOS and Android tablets, GNSS High accuracy Receivers, plotter, laser rangefinder, ArcGIS Pro, Microsoft products

NOTE: THIS JOB DESCRIPTION IS NOT INTENDED TO BE AN EXHAUSTIVE LIST OF ALL DUTIES, RESPONSIBILITIES OR QUALIFICATIONS ASSOCIATED WITH THE JOB.