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Home > HR Practitioners > Classification & Position Management > PD Library

Geodesist 13 (State Advisor)

Office of Human Resources Management

GS-1372-13

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I. INTRODUCTION

Serves as Geodetic State Advisor to a host state government agency, and geodetic liaison for statewide public and private geodetic activities.

II. MAJOR DUTIES AND RESPONSIBILITIES

Serves as a technical expert Geodesist with responsibility for furnishing technical advice and assistance to state and local agencies promoting federal geodetic and Land Information System (LIS) policies. Applies latest geodetic methodologies, such as the Global Positioning System (GPS), that relate to geodetic applications.

Coordinates agency policies related to National Spatial Data Infrastructure (NSDI), National Spatial Reference System (NSRS), and Geographic Information Systems (GIS).

Performs independent analysis, evaluation, planning, and coordination of short and long range programs with relation to the objectives and resources of the host and the agency. Evaluates GIS program applications requiring geodetic control of the NSRS. Conducts analytical studies of program costs for specified programs.

Develops programs and projects specific to needs of not only the host state agency, but statewide requirements. Examples are: surveying, mapping, and land record projects; surveys for urban and rural development; and development of the National Spatial Reference System (NSRS) for construction and engineering.

Serves as federal liaison with high-level officials of federal, state and local agencies. Provides planning assistance and develops optimal operation procedures based on available resources. Negotiates with officials to determine responsibilities and functions of participants, degree of cost-sharing and estimated costs. Advises participants on resource requirements for field programs using various technologies.

Responsible for on-site coordination with other federal agencies including the U.S. Geological Survey, the Department of Agriculture Soil Conservation Service, the Bureau of Land Management, the U.S. Army Corps of Engineers, the Department of Housing and Urban Development, and the Federal Emergency Management Agency. In this capacity, assures major mapping, charting, LIS, and geodetic projects are performed in most efficient and economical manner as directed by the Federal Geodetic Control Subcommittee (FGCS).

In regional activities, serves as a local contact person and/or member of Emergency Team for disaster responses such as flooding, hurricanes, tornadoes, and other natural disasters that threaten the safety of citizens and their property. The advisor has intimate knowledge of the societal infrastructure especially the availability of the NSRS and its applications.

Maintains liaison with universities and professional surveying and engineering organizations in the state that have an interest in or requirements for geodetic or GIS activities. Included are both state organizations and national organizations such as the American Congress on Surveying and Mapping, the American Society of Photogrammetry and Remote Sensing, and the Urban and Regional Information Systems Association. Often makes presentations or conducts seminars for such groups. Provides guidance to the state in preparation of statements of work, requests for proposals, and cooperative agreements related to the NSRS.

Responsible for defining specific problems within the NSRS that require research, analysis, and coordination efforts. The employee is responsible for selecting the methods and approaches appropriate for addressing each task. When standard techniques are not available, s/he must be able to design procedures to accomplish the tasks.

Interprets and presents the results of research and analysis so they can be understood by scientists and decision makers from a wide range of disciplines.

Responsible for writing or otherwise communicating with a wide range of users of the research and coordination results, including surveyors, cartographers, geographers, natural resources managers, information system specialists, municipal and county personnel, and state and federal agency personnel.

III. Factors

1- Knowledge Required by the Position. Knowledge of diverse geodetic surveying techniques, specifications, and instrumentation (including state-of-the-art technologies such as GPS) to advise and assist the state in developing a capability for geodetic surveying.

An in-depth knowledge of Agency plans and programs to provide the state and other federal agencies with the broadest range of possibilities to best meet the state requirements

A broad grasp and in-depth understanding of GIS issues, including a grasp of the origin and historical development of the land system in the United states, and an ability to interpolate from the past in anticipation of future land information system issues.

A theoretical and working knowledge of intergovernmental relationships to best assist the various and diverse federal, state, and local agencies requiring support.

Knowledge of the institutional settings in which specific GIS development and use issues arise and ability to incorporate complex institutional interactions into problem solving and decision models. These models must be appropriate both in terms of technical operability and economic feasibility.

Maintains "state-of-the-art" technical knowledge about GIS systems and coordinates and works with a team of other scientific and engineering disciplines, including engineers, lawyers, geographers, planners, and computer specialists.

Knowledge of state and federal legislative processes and programs including ability to advise the state regarding potential approaches for obtaining resources to support user needs.

2 - Supervisory Controls. Supervisor sets overall objectives and resources. Employee and supervisor consult on priorities and deadlines. Employee plans work, resolves technical problems, coordinates with others, and determines approach and methods, keeping supervisor informed of matters that may be controversial or have far-reaching implications. Decisions, recommendations, completed work, and findings are accepted as technically authoritative and reviewed only for meeting overall objectives.

3 - Guidelines. Guidelines are broad and consist of broadly stated agency policies, regulations, laws, and scientific literature which require extensive interpretation. Judgment is used to determine areas for development and study, and ingenuity is used to devise projects to thoroughly investigate these areas. As technical authority, develops and interprets agency guidelines and uses considerable judgment to determine need for revisions.

4 - Complexity. Assignments include broad range of activities involving complex, obscure, or novel aspects such as technological developments and new products. Work requires being especially versatile and innovative in adapting, modifying, or making compromises with standard guides and methods to originate new techniques or criteria. Assignments typically involve difficult-to-resolve conflicts between geodetic and management requirements. Additional complexity arises from the requirement to coordinate the activities of other Federal, state and local agencies, universities, and the private sector.

5 - Scope and Effect. Resolves complex, critical problems or develops new approaches or methods for use by operating personnel. As consultant or program coordinator for specialty area, provides expert advice to geodesists and other officials within and outside the agency. Results affect work of other experts on development of major aspects of new programs. Work affects policy decisions or technical standards for others to follow.

6 - Personal Contacts. Contacts are with individuals or groups from within and outside the agency, including governments and private industry.

7 - Purpose of Contacts. Contacts are to share and expand geodetic control ideas; to join in communication to solve common problems; to coordinate cooperative projects; to justify revisions and additions to agency guidelines; to justify positions on controversial issues; to explain the data of the project and its interpretation and to influence geodesist or officials to adopt technical points and methods when there are conflicts. May conduct seminars or make presentations at professional meetings.

8 - Physical Demands. The physical demands of the work are sitting, standing, walking, occasionally backpacking, climbing, and transporting instruments. A valid driver's license is required to perform the work.

9 - Work Environment. The employee works about equal time in an office which is adequately lighted, heated and ventilated. Work is also performed outdoors where the employee is exposed to various natural hazards encountered during surveying.

IV. UNIQUE POSITION REQUIREMENTS:

This position is exempt from coverage under the Fair Labor Standards Act

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