



[Home](#) > [HR Practitioners](#) > [Classification & Position Management](#) > [PD Library](#)

## Geodesist 09

---

### GS-1372-09

NOTE: THE SENTENCE IN PART I DESCRIBING THE PURPOSE OF THE POSITION AND PARTS II AND III IN THEIR ENTIRETY ARE PERMANENT PARTS OF THE LIBRARY AND MAY NOT BE CHANGED OR EDITED IN ANY WAY.

#### I. INTRODUCTION

This position serves as a geodesist, involved in observing, reducing, adjusting, and analyzing geodetic survey data to produce latitudes and longitudes and orthometric, geoidal, and ellipsoidal heights.

#### II. MAJOR DUTIES AND RESPONSIBILITIES

Performs projects which are straightforward, or portions of larger investigations, such as the mathematical processing of satellite survey data, including observations of the Global Positioning System (GPS) obtained by field procedures of highest precision, repeatability tests, constrained and minimally constrained, three-dimensional network adjustments, and employs graphical methods and repeatability tests to ascertain the consistency and quality of the data.

Prepares observation schedules, station lists, sketches of observing schemes, and compiles descriptive and positional information for field teams. Uses established procedures for compiling routine data, conducting limited studies, and using new geodetic techniques, instruments, and procedures.

Receives advanced formal and on-the-job training in functions and operations of overall organization, specialty area of unit, and agency policies and regulations, designed to contribute towards continuing professional development of employee.

Examines classical survey, satellite, or astronomic survey observation data received from numerous sources; ensures data acceptability, quality, and integrity; and issues quality control statements as necessary; provides recommendations for improving data collection methods and reports variations from established procedures.

Assists in managing computerized data base files containing satellite orbital coordinate data, field survey observations, and results for the adjusted and unadjusted positional and earth rotation data; uses the space geodesy data base files to recover data to meet specific requirements of the Division and to provide data and information in response to special requests from other scientists, engineers, and surveyors representing government agencies, private industry, and academic institutions.

#### III. FACTOR LEVELS

1 - Knowledge Required by the Position. Knowledge of geodetic theories, concepts, principles, practices and equipment, including those used in satellite surveying with the Global Positioning System, optical astronomy, surveying, geography, mathematics, computer science or other techniques, sufficient to evaluate source material, research, analyze, select, and prepare geodetic materials.

Practical knowledge of field procedures related to satellite surveying with GPS and optical geodetic astronomy. Practical knowledge of standards and specifications for geodetic preparation of field instructions, and evaluation of accuracy of GPS survey network results.

Fundamental knowledge of computers, including using FORTRAN and/or C programs, data base management concepts, personal computers, and remote computer terminals in order to analyze, adjust and store geodetic data.

2 - Supervisory Controls. Supervisor defines objectives, priorities, and deadlines. Employee plans and performs successive steps, coordinating work with others, and resolving most problems. This is done in accordance with instructions, policies, previous training or accepted practices in geodesy. Unusual problems that do not have learned precedents, controversial issues, or matters that affect policy are referred to the supervisor who assists the employee. Completed work is evaluated for technical soundness, appropriateness, and conformity to policy and requirements.

3 - Guidelines. Guidelines are many and varied and include agency or local policies, precedent materials, standard instructions and techniques, and program directives. The employee uses judgment in selecting, interpreting, and independently applying the guidelines and standard geodetic practices to new situations. S/he analyzes results and recommends changes. Work involves different and unrelated processes and methods.

4 - Complexity. Duties involve different and unrelated processes and methods, (e.g. verifying accuracy of raw satellite data, checking descriptions, processing line level data). The chosen course of action may have to be selected from many alternatives. The work at this level involves conditions and elements that must be identified and analyzed to discern interrelationship. Examples are: high of tripod and large residuals on height component of GPS vector; slowly converging adjustment and inaccurate preliminary latitude and longitude. Work includes treating varieties of conventional problems, questions, and/or situations in conformance with established criteria.

5 - Scope and Effect. The work involves treating various conventional problems, or situations in conformance with established criteria. The employee provides assistance to higher graded employees by producing coordinate data for a variety of user systems. Assignments also involve investigating problems or conditions and providing recommendations. The work affects the accuracy, reliability, and timeliness of projects and the design of geodetic products, equipment, or operations.

6 - Personal Contacts. Personal contacts are with individuals or groups from within or outside the agency. They are unstructured and primarily include professionals, technicians, and may include contractors desiring new or special coordinate products. Contacts are not routine and are with members of the public whereby each party has a different agenda.

7 - Purpose of Contacts. Contacts are established to obtain, relay, or exchange information; plan and coordinate work involving others; resolve problems; and advise on and discuss contract requirements. Everyone works toward mutual goals in a cooperative spirit.

8 - Physical Demands. Work is primarily sedentary. There may be some walking, standing, bending; carrying light items (e.g. papers, small books). A valid driver's license may be required to drive an automobile in the performance of duties.

9 - Work Environment. Work is performed in a typical office setting. The work area is adequately lighted, heated, and ventilated.

#### **IV. UNIQUE POSITION REQUIREMENTS**

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

(Last Updated: )

---

[Website Feedback](#)   [About OHRM](#)   [Contact Us](#)   [DOCHROC](#)   [FOIA](#)   [Site Map](#)  
[Privacy Policy](#)   [Commerce Homepage](#)   [Careers at Commerce](#)  
[Commerce Employees](#)   [HR Practitioners](#)