An Issue Paper  
on  
Classification of GIS and Remote Sensing Positions

INTRODUCTION

In efforts to institutionalize GIS in the National Park Service, the Geographic Information Systems Division has identified several issues related to the classification and staffing of geographic information system (GIS) and Remote Sensing (RS) positions. These issues are discussed below and can be characterized as (1) the need to establish visible career paths, (2) the improvement of the recruiting notices to reach qualified candidates, (3) the establishment of consistency in classification actions among the NPS personnel offices that classify GIS and RS positions, and (4) the identification of qualifications for GIS and RS positions. Discussions between the GIS and RS professionals in the GISD and classification experts in the WASO personnel office have resulted in identification of tools that are available and appropriate to address the identified issues.

ISSUE: Career Path - Without classification series specific to GIS and RS, these positions are not visible throughout the Service (WASO, Regions and parks) therefore making it difficult for individuals to plan and aspire to career development and advancement.

FINDING: NPS classification experts have concluded that OPM’s classification standards include job series and grade level criteria which are appropriate for the classification of GIS/RS positions.

DISCUSSION: This is based on WASO NPS classification actions for GIS and RS positions covering duties that span the complete spectrum of activities or are highly specialized in a specific element. The paramount knowledge requirements of a GIS/RS position (those critical to performing the functions of the job) are key in determining the most appropriate position series. The following series have been identified as being applicable in the classification of GIS/RS positions: Cartography, GS-1370; Geography, GS-150; Geology, GS-1350; Biological Sciences, GS-401; Physical Sciences, GS-1301; and Computer Specialist, GS-334. In addition, most of these series have grade level criteria that provide for career ladders ranging from entry level to journeyman level.

Note: See the discussion below on parenthetical designations in position titles. Use of parenthetical designations helps make GIS and RS positions visible regardless of classification series.

ISSUE: Recruitment - Without a "GIS/RS" position title, graduate and experienced professionals within and outside the government are likely to miss most recruiting notices.

FINDING: GIS and RS positions can be identified, in many instances, by use of parenthetical designations in position titles.

DISCUSSION: OPM position titling policy provides for a parenthetical designation after the classification title, e.g. Cartographer (GIS), for positions in series for which OPM has not already established parenthetical titles. Parenthetical designations are agency determined and are established only when: 1) necessary to identify further the position’s duties and responsibilities; and 2) reflect special knowledge and skills needed to perform the work. In other words, the parenthetical designation, (GIS), may be added to the title of applicable classified positions.
Throughout the Service (after meeting the above criteria) and thus would identify positions as GIS positions.

Typically the minimum level of published information provided in vacancy lists includes the position title and position location. To identify that a position is a GIS/RS position on a vacancy list, the position title may include a parenthetical designation as discussed above. In the absence of clear identification of GIS/RS positions in vacancy announcements, the Geographic Information Systems Division mails announcements from throughout the Service to interested individuals. To do this, GISD has developed a data base of over 200 people seeking GIS positions in the NPS.

**ISSUE:** Consistency - Without a "GIS" and "RS" classification standard, it is likely that the personnel offices, throughout Federal agencies and within individual agencies, classify similar positions in different series and grades.

**FINDING:** Benchmark position descriptions can be established for the most common GIS and RS positions.

**DISCUSSION:** NPS classification experts have concluded that there are published OPM classification standards which are appropriate for evaluating GIS and RS duties and responsibilities. To assist classifiers in classification of the most common GIS and RS positions, it is possible to establish benchmark position descriptions. Such position descriptions are written through cooperative efforts of GIS/RS professionals and classifiers. The results are standardized descriptions at appropriate grade levels reflecting technician positions and/or professional positions within the same discipline (e.g. Cartographic Aid, GS-2/3/4, Cartographic Technician, GS-5/6/7, or Cartographer, GS-9/11/12), and/or establishing position descriptions for professional/administrative positions reflecting multi-disciplines applicable to GIS/RS functions (e.g. Cartographer, Ecologist, Physical Scientist, and Computer Specialist). Standardized position descriptions would be developed for only those that are similar and prevalent - not every GIS position.

**ISSUE:** Certification lists of eligible candidates lack qualified applicants.

**FINDING:** KSAs can be effectively used to screen out unqualified applicants and to obtain information to rate applicant's qualifications.

**DISCUSSION:** The impact of not hiring the right person for the job is significant regardless of the position. GIS and RS are relatively new fields in the Park Service and as such managers have limited experience in hiring these professionals. The major factor in hiring the right person is to assure that they exceed the X118 requirements and as such are highly qualified. This requires careful determination of KSAs (and may require developing screen out factors) and if required, the ranking factors for each KSA.