

U.S. Office of Personnel Management  
Office of Merit Systems Oversight and Effectiveness  
Classification Appeals and ELSA Programs



San Francisco Oversight Division  
120 Howard Street, Room 760  
San Francisco, CA 94105

**Classification Appeal Decision**  
**Under Section 5112 of Title 5, United States Code**

**Appellant:** [Appellant's name]

**Agency classification:** Cartographic Technician  
GS-1371-7

**Organization:** [Appellant's organization]  
Bureau of Land Management  
Department of the Interior

**OPM decision:** Cartographic Technician  
GS-1371-7

**OPM decision number:** C-1371-07-01

Signed by Denis J. Whitebook  
Denis J. Whitebook  
Classification Appeals Officer

January 28, 1998  
Date

As provided in section 511.612 of title 5, Code of Federal Regulations, this decision constitutes a certificate that is mandatory and binding on all administrative, certifying, payroll, disbursing, and accounting officials of the government. The agency is responsible for reviewing its classification decisions for identical, similar, or related positions to ensure consistency with this decision. There is no right of further appeal. This decision is subject to discretionary review only under conditions and time limits specified in the Introduction to the Position Classification Standards, appendix 4, section G (address provided in appendix 4, section H).

**Decision sent to:**

[Appellants name and address]

[Address of appellant’s servicing personnel office]

[Address of appellant’s higher level personnel office]

Director of Personnel  
U.S. Department of Interior  
Washington, DC 20240

## **Introduction**

On July 30, 1997, the San Francisco Oversight Division of the U.S. Office of Personnel Management (OPM) received a classification appeal from [the appellant]. Her position is currently classified as Cartographic Technician, GS-1371-7. However, she believes the grade level should be GS-8. She works in [her organization and work unit], Department of the Interior. We have accepted and decided her appeal under section 5112 of title 5, United States Code (U.S.C.).

## **General issues**

The appellant makes various statements about her agency's evaluation of her position. She does not agree with her agency's evaluation of factors 1, Knowledge required by the position, and 3, Guidelines. In adjudicating this appeal, our main concern is to make our own independent decision on the proper classification of her position. By law, we must make that decision solely by comparing her current duties and responsibilities to OPM standards and guidelines (5 U.S.C. 5106, 5107, and 5112). Therefore, we have considered the appellant's statements only insofar as they are relevant to making that comparison.

In reaching our classification decision, we have carefully reviewed all information furnished by the appellant and her agency, including her official position description (PD) AE 4203.

## **Position information**

The appellant serves as a Cartographic Technician. The primary purpose of the appellant's work unit is to construct and maintain the Bureau of Land Management's Master Title Plats (MTP's) for [her state]. According to the appellant's PD, her major duties are to:

- Produce "camera ready" reprographic masters of various cartographic products compiled of photogrammetric, geographic, surveyed and cultural control data. Incorporate photogrammetric data onto mapped areas where current water body shorelines are needed to match plotted surveyed acreage.
- Complete a critical review of surveys and adjudicative documents to ensure they are complete and correct. Seek correction of any errors prior to posting to MTP's.
- Analyze, research and extract pertinent geographic and administration information from various types of legal documents.
- Create base maps, plats and other cartographic products compiling, manipulating, and integrating geographic, survey, and control data using computer-aided drafting (AutoCad) technology.
- Reconstruct MTP's in areas where updated geographic data is provided and when land inholdings are conveyed through adjudicative action. Create supplemental plats in areas

where congestion and complexity of line work require mapping of a large scale for clarity and interpretation.

- Use manual engineering equipment to draft all types of hydrographic, geographic and complex status detail on MTP's in accordance with Bureau procedures, policies and cartographic standards.

The appellant's PD and other material of record furnish much more information about her duties and responsibilities and how they are performed.

### **Series, title, and guide determination**

We find that the appellant's position is covered by the Cartographic Technician Series, GS-1371, is properly titled Cartographic Technician, and is graded by means of the Cartographic Technician standard. Neither the agency nor the appellant disagrees.

### **Grade determination**

The Cartographic Technician standard uses the Factor Evaluation System (FES), which employs nine factors. Under the FES, each factor level description in a standard or guide describes the minimum characteristics needed to receive credit for the described level. Therefore, if a position fails to meet the criteria in a factor level description in any significant aspect, it must be credited at a lower level. Conversely, the position may exceed those criteria in some aspects and still not be credited at a higher level.

In her appeal, the appellant does not challenge her agency's evaluation of factors 2, and 4 through 9. We therefore discuss those factors very briefly, while discussing factors 1 and 3 more thoroughly. Our evaluation with respect to the nine FES factors follows.

#### *Factor 1, Knowledge required by the position*

This factor measures the nature and extent of information or facts required to do acceptable work and the nature and extent of skill necessary to apply this knowledge. To be used as a basis for selecting a level under this factor, knowledge must be required and applied.

The agency evaluated this factor at Level 1-5. The appellant believes this factor should be evaluated at Level 1-6.

Level 1-5 requires knowledge and skill sufficient to perform a series of sequential tasks or steps for standardized or prescribed operations involving one or more stages of the map or chart making process.

The knowledge and skill required by this position best meet Level 1-5. For instance, as described at Level 1-5 the appellant's position requires knowledge and skill sufficient to perform a series of sequential tasks or steps for standardized or prescribed operations involving one or more stages of the map or chart making process in the preparation of Master Title Plats. The appellant is responsible for document research; "clean-up" of contractor supplied surveys provided in the form of AutoCad format, such as deleting unneeded information, to develop a base plat; and adding assorted land use data in various layers to the base map. The end product is a scaled, planimetric, geographical representation of actions or transactions which limit, restrict, appropriate, or otherwise affect the disposition of use of public lands and resources. The Master Title Plat typically covers a township (a six mile by six mile grid). The second illustration provides an example similar to the appellant's assignments, i.e., knowledge and skill sufficient to complete the more difficult and complex color-separation drafting projects for the construction and revision of maps, like those which require critical measurements in the placement of aids and hazards to navigation, areas of extremely crowded detail and rugged terrain; performing fine-line lettering; positioning and applying stick-up material; and preparing tint drawings on clear and grained plastics and other surfaces.

Level 1-6 requires knowledge and skill sufficient to lay out and conduct a block or segment of work which involves complete, multistage maps of moderate scope or a portion of a larger and more diversified project for which conventional methods, procedures, or techniques are available in the form of agency precedents and guidelines. At this level, the technician: (a) applies a substantive knowledge of technical cartographic principles and practices and/or highly developed skills in the setup and operation of complex equipment, and (b) affects the character of the completed map or chart either from placement of control or from inclusion (or exclusion) and form of details. Or, alternately, Level 1-6 can also be met with knowledge and skill sufficient to perform compilation or map finishing edits or reviews of maps or charts for completeness and symbolization (e.g., those which constitute a complete, multistage project of moderate scope or a portion of a large and more diversified project) the achievement of which requires or involves conventional cartographic methods, procedures, and techniques.

The appellant asserts that the knowledge and skill requirements for her position meet those of Level 1-6, as described by the latter "or" portion of this level. In summary, she believes that the compilation of a map, in her case called a Master Title Plat, using a variety of information sources to graphically display geographic information, cultural data and various land use facts in required symbolization, is a small part of the larger part, the survey and installation of the Master Title Plats for [her state], and this is equivalent to the "or" portion of Level 1-6. Further, as described at this level, she states that the compilation of these Master Title Plats requires the application of conventional cartographic methods, procedures, and techniques. As further pointed out by the appellant, there are some similarities in her PD to Level 1-6. For example, the appellant's PD states that, "Technical knowledge of cartographic mapping techniques ... to create or revise small, medium, or large scale multi-stage and/or multi-layered maps or charts" is required.

The illustrations provided at Level 1-6 give further information of what constitutes a complete, multistage project of moderate scope or a portion of a large and more diversified project, as

envisioned at this level. These illustrations portray projects and assignments that involve preparation of relatively more complex products typically requiring more involved and diversified processes than is characteristically required by the appellant's assignments. They depict assignments requiring knowledge and application of skills to produce products with combinations of planimetric and varying topographic features, that are densely congested, requiring diversified and complex processes to complete. For instance, the first illustration at Level 1-6 describes assignments to compile revisions of small, medium, or large scale maps or charts the areas of which contain most, if not all, types of terrain *and* complex cultural detail, necessitating the performance of such tasks as: determining the extent and type of revisions needed, selecting best compilation method, establishing supplemental control, compiling data from aerial photographs using a sketch master or similar equipment, compiling detail from a variety of sources, compiling bathymetric data and names, and converting symbols, terms, and expressions by use of glossaries and language manuals. As another example, the fifth illustration requires knowledge and skill sufficient to perform difficult phases of compilation in the construction, revision, and maintenance of maps and charts, e.g., selecting, adjusting, and positioning planimetric detail from various source maps of different scale; employing photorevision techniques in compiling maps and charts; selecting and adjusting data for completion of manuscripts compiled by use of stereoplotting instruments; compiling and adjusting contours by extraction and interpolation from other sources; performing simultaneous compilation and color-separation scribing; and compiling overlays including navigation information.

The appellant's work, while containing aspects of some illustrations at Level 1-6, does not fully have the same breadth of scope or require the application of the same level of knowledge or skill to accomplish the type of assignments intended at this level. Her assignments do involve exacting and precise work requiring accurate detail, but do not typically reflect the combinations of complexities described in the illustrations at this level so as to require application of the knowledge and skill envisioned. While some of appellant's work may exceed aspects of Level 1-5, as reflected in the description and illustrations at that level, when a position exceeds the criteria for one level, but does not fully meet the criteria of the next higher level, the lower level must be awarded.

This factor is evaluated at Level 1-5.

#### *Factor 2, Supervisory controls*

This factor covers the nature and extent of direct or indirect controls exercised by the supervisor, the employee's responsibility, and the review of completed work.

Supervisory controls over the appellant's position are properly credited at Level 2-3. For instance, employees at Level 2-3 plan and carry out the successive steps and handle problems and deviations in the work assignments in accordance with instructions, policies, previous training or accepted cartographic practices. Similarly, the appellant independently selects the methods, procedures and best techniques for completing her work. As at Level 2-3, supervisory assistance is available or provided for in unusual or extraordinary situations. Completed work at Level 2-3 is usually evaluated for technical soundness, appropriateness, and conformity to policy and requirements. Comparably,

the appellant's completed work is reviewed for accuracy and conformance with Bureau standards and policies.

This factor is assigned Level 2-3.

### *Factor 3, Guidelines*

This factor covers the nature of guidelines and the judgment necessary to apply them.

The agency evaluated this factor at Level 3-2. The appellant believes that Level 3-3 is met.

At Level 3-2, the technician is provided detailed and directly applicable guidelines (e.g., precedent material, established practices or techniques, specifications and instructions) in the area of assignment or specialized area of interest. The technician uses established procedures, practices, or techniques in performing the work but exercises judgment in locating and selecting appropriate guidelines or references. The technician may exercise discretion in selection from among alternative approaches and may, on an irregular and infrequent basis, make minor deviations to adapt guidelines to specific cases. Situations requiring significant deviations from existing guidelines are referred to the supervisor for resolution.

The appellant's guidelines best meet Level 3-2. Like Level 3-2, guidelines include detailed and directly applicable guidelines, such as manuals and internal memorandums and instructions. Comparable to Level 3-2, she also uses established procedures, techniques and precedents in preparing Master Title Plats so they meet Bureau of Land Management standards, but can exercise judgment in selecting from alternative approaches. As described at Level 3-2, the appellant's supervisor or a lead cartographic technician is available for resolving situations requiring significant deviations from existing guidelines.

At Level 3-3, guidelines are many and varied. They include standard instructions, agency or local policies and regulations, manufacturers' handbooks and catalogs, precedents and standard practices in the area of assignment or specialization. The technician typically without assistance selects, interprets, and applies the guides, modifying, adapting, and making compromises to satisfy requirements of the assignments. In addition, the technician must exercise judgment in applying standard cartographic practices to new situations and in relating new work situations to precedent ones.

The appellant believes the guidelines she uses are many and varied, as at Level 3-3. She points out that her PD states, "The cartographic technician utilizes a variety of manuals, policies, technical instructions and Public Land Laws." She adds that there are other guidelines available beyond the BLM Manual 1275, Standards for Land Status Records, cited in the agency evaluation as detailed and specific. These others which she indicates are not as detailed and specific include the Native Allotment Handbook, [her state's] Native Claims Settlement Act Handbook, the State Selections Handbook, Aguilar and Title Recovery Handbooks, as well as interoffice memorandums, Instructional

Memorandums and [her state's] Land Status Records Manual. The appellant also adds that many of the memorandums require that, depending on the situation, a different cartographic method should or could be used than what is generally the norm.

However, even if guidelines are many and varied, Level 3-3 criteria also require that the technician typically *without assistance* select, interpret, and apply those many and varied guides, modifying, adapting, and making compromises to satisfy requirements of the assignments. In support of this, the appellant notes that her PD states, "The experienced cartographic technician is expected to apply and modify foundational precepts and methods to match the work situations." Although there are situations where guidelines are not so detailed, specific, and directly applicable, such as where projects involve evolving laws and changes in land use, and the appellant may exercise judgment in locating and selecting appropriate guidelines or references, information in the record reflects that the appellant basically follows established practices and techniques. With respect to guidelines, the appellant also states that many of the memorandums providing guidance require that depending on the situation, a different cartographic method should or could be used than what is generally the norm. Such additional guidance tends to limit the extent of freedom. This does not fully meet Level 3-3, as information also shows while she has choices, the appellant basically follows established practices and precedent.

Further, one of the criteria for Level 3-3 is that the technician exercise judgment in applying standard cartographic practices to *new* situations and in relating *new* work situations to *precedent* ones. While the appellant may exercise discretion in selecting from among alternative approaches, information in the record indicates that when new or precedent situations arise, resolution is normally accomplished in consultation with a lead cartographic technician or the supervisor. For instance, the PD of the appellant's supervisor reflects that he is given credit for providing policy and guidance for the most complex mapping and land status situations when deviation from normal parameters is required. In addition, the appellant's PD also states that, "In extraordinary situations, after all standard procedures are exhausted, the supervisor is available for guidance."

The appellant adds that the advent of AutoCad technology into her work unit with its vague guidelines for operation was not given appropriate consideration when her agency evaluated this factor. She estimates that at least fifty percent of her time is spent using the AutoCad system. She adds that using the system to prepare work products has been a continuing group learning experience for employees in the work unit. Any employee may encounter a better process or procedure that will benefit other employees in the work unit in making better use of the program and improving the products. She described this as a team effort, involving the cartographic technicians, their leads, and the supervisor, in collaborating to prepare and update procedures and guidelines for using the AutoCad. However, it is not solely, or primarily, the appellant's responsibility to develop procedures to improve application of the AutoCad technology for the work unit and we do not find that these circumstances are sufficient to change our evaluation of this factor for the appellant.

In summary, while the appellant may have more guidelines and exercise more discretion in the use of those guidelines than is described at Level 3-2, we do not find that either the nature of the



guidelines or the judgment needed to apply them to accomplish assigned work fully meet Level 3-3. As described above, when a position exceeds the criteria for one level, but does not fully meet the criteria of the next higher level, the lower level must be awarded. We note that even if this factor were evaluated at Level 3-3 and 275 points credited, it would not change our evaluation of the appellant's final grade.

This factor is assigned Level 3-2.

#### *Factor 4, Complexity*

This factor covers the nature, number, variety, and intricacy of tasks, processes, or methods in the work performed; the difficulty in identifying what needs to be done; and the difficulty and originality required to perform the work.

At Level 4-3, the nature of the technical work consists of a number of delicate and exacting steps or tasks within one or more stages of the map or chart making process. Assignments usually embrace fairly well established work methods but typically involve: (a) authority to adjust, add, or omit features within allowable limits; (b) working with source documents of varying scale; and (c) several problems (e.g., inadequate control data; poor quality photographs resulting in excessive tilt, crab, absence of separately distinguishable features, weak definition, lack of contrast, poor image quality, or geometrical distortion; areas of extremely dense topography or extremely rugged terrain) that require judgment to determine features of sufficient significance to justify inclusion, omission, or individual treatment.

Comparable to Level 4-3, the appellant's work consists of a number of delicate and exacting steps or tasks within one or more stages in completing Master Title Plats, such as is needed in piecing together information from different sources and in varying scales to prepare the various layers. Similar to Level 4-3, the appellant selects and applies fairly well established cartographic techniques to ensure that the Master Title Plat complies with Bureau requirements and meets end user needs. As described at Level 4-3, the appellant has authority, within allowable limits, to adjust, add or omit features, such as to omit features that are deemed relatively insignificant or unimportant to the end user needs. Further, the appellant may need to prepare supplemental maps or enlargement diagrams to clarify information that would otherwise be too congested.

This factor is evaluated at Level 4-3.

#### *Factor 5, Scope and effect*

This factor covers the relationship between the nature of the work and the effect of the work products or services.

At Level 5-2, work is characterized by responsibility for carrying out a series of sequential tasks or steps for standardized or prescribed operations of the map or chart making process. The work

typically requires a knowledge of technical cartographic methods and practices involving one or more stages of the map or chart making process, and for certain assignments, skill in the use and operation of instruments and equipment. Work efforts affect the timeliness, accuracy, reliability, and acceptability of further operations in the map or chart making process.

The appellant's work meets Level 5-2. As described at this level, the appellant has responsibility for carrying out a series of fairly well established sequential tasks in the preparation of Master Title Plats. Her work requires a knowledge of technical cartographic methods and practices, and skill in the use of instruments and equipment.

This factor is evaluated at Level 5-2.

#### *Factor 6, Personal contacts*

Factor 6 covers the people and conditions or settings under which contacts are made. It includes face-to-face contacts and telephone and radio dialogue with persons not in the supervisory chain. The appellant's personal contacts are evaluated at Level 6-2. At that level, contacts are with a number of cartographic technicians and cartographers or professionals and technicians of other disciplines outside the immediate employing organization but within the agency. The people contacted are generally engaged in different missions, functions, or kinds of work but are dependent on or have a vested interest in map or chart products, processes, or techniques. This is comparable to the appellant's contacts which are with employees within and outside the section, and include cartographic technicians, surveyors, land law examiners, and realty specialists. The appellant's contacts also include private contractors. Similar to Level 6-2, the people contacted include those who are engaged in different missions, functions, or kinds of work but are dependent on or have a vested interest in map or chart products, processes, or techniques.

This factor is evaluated at Level 6-2.

#### *Factor 7, Purpose of contacts*

Factor 7 covers the reasons for the personal contacts described in Factor 6.

Factor 7 is evaluated at Level 7-1. As described at that level, the primary purpose of the appellant's contacts is to obtain, relay, or exchange information that ranges from the relatively simple to complex technical data.

This factor is evaluated at Level 7-1.

#### *Factor 8, Physical demands*

The physical demands on the appellant meet Level 8-2. As is typical at this level, the appellant's work requires regular and recurring periods of prolonged standing or sitting working at a computer

terminal or drafting table, which require normal dexterity with a marked degree of eye-hand coordination where prolonged work may result in eye strain.

This factor is evaluated at Level 8-2.

*Factor 9, Work environment*

The appellant’s work environment is best evaluated at Level 9-2. As is characteristic at this level, the appellant’s duties involve reduced and variable lighting conditions due to work in and around a darkroom.

This factor is evaluated at Level 9-2.

*Summary*

In summary, we have evaluated the appellant’s position as follows:

Factor	Level	Points
1. Knowledge required by the position	1-5	750
2. Supervisory controls	2-3	275
3. Guidelines	3-2	125
4. Complexity	4-3	150
5. Scope and effect	5-2	75
6. Personal contacts	6-2	25
7. Purpose of contacts	7-1	20
8. Physical demands	8-2	20
9. Work environment	9-2	<u>20</u>
Total Points:		1460

The appellant’s position warrants 1460 total points. Therefore, in accordance with the grade conversion table in the standard, her position is properly graded at GS-7.

**Decision**

The appellant’s position is properly classified as Cartographic Technician, GS-1371-7.