Job Grading Appeal Decision
Under Section 5346 of Title 5, United States Code

Appellants: [the Appellant + 9]

Agency classification:
Electronics Mechanic
WG-2604-11

Organization:
Aircraft Maintenance Organization
T-37/T-43 Flight Sortie Support Section
Air and Education Training Command
Department of the Air Force
[A large military installation]

OPM decision:
Electronics Mechanic
WG-2604-11

OPM Decision Number: C-2604-11-01

/s/
Bonnie J. Brandon
Classification Appeals Officer

5/29/98
Date

As provided in section S7-8 of the Operating Manual, Federal Wage System, this decision constitutes a certificate that is mandatory and binding on all administrative, certifying, payroll, disbursing, and
accounting officials of the government. There is no right of further appeal. This decision is subject
to discretionary review only under conditions and time limits specified in section 532.705(f) of title
5, Code of Federal Regulations (address provided in the Introduction to the Position Classification
Standards, appendix 4, section H).

Decision sent to:

[the appeallant’s name and address]  
Civilian Personnel Officer
Air and Education Training Command
Department of the Air Force
[address of military installation]

Chief, Classification Branch
Field Advisory Services Division
Defense Civilian Personnel Management
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Introduction

On March 12, 1998, the Dallas Oversight Division of the U.S. Office of Personnel Management (OPM) received a classification appeal from the appellant. The appellant filed this appeal on behalf of himself and nine co-appellants. The appellant was designated by the other appellants as their representative. The appellants have the same job, and it is currently classified as Electronics Mechanic, WG-2604-11. They believe that their job is properly classified as Electronic Integrated Systems Mechanic, WG-2610-15. They work in the Aircraft Maintenance Organization, T-37/T-43 Flight Sortie Support Section, Air and Education Training Command, Department of the Air Force, Randolph Air Force Base, Texas. We have accepted and decided this appeal under section 5112 of title 5, U.S. Code.

To help decide this appeal, an Oversight Division representative conducted a telephone audit of the appellants’ job. The audit included interviews with the appellant and his immediate supervisor. In reaching our classification decision, we reviewed the audit findings and the information of record furnished by the appellants and their agency, including their official position description RJ 25X26. The appellants agree that their official position description is an accurate statement of the major duties and responsibilities required by their job.

Job information

The appellants install, maintain, troubleshoot, and repair electronic systems of T-37 and T-43 aircraft. These include the instrumentation, navigation, radar, communication, electrical, and environmental systems. The appellants identify and repair problems, test systems for proper functioning with test equipment, calibrate and align system components, and perform preventive maintenance. Their work also involves removing, replacing, and disassembling system components and parts; performing ground operational duties, e.g., maintaining test equipment; and performing flight line and ground handling operations, e.g., participating in towing operations and fueling/defueling aircraft.

Occupation determination

The appellants contend that their job is properly classified in the WG-2610 Electronic Integrated Systems Mechanic occupation. They believe this occupation is appropriate because of their work on the T-43 aircraft. They believe the T-43 possesses integrated systems; specifically, the aircraft’s Flight Management System, Automatic Flight Control System, and the Navigation Computer System. In supporting their appeal, the appellants state that the Flight Management System has sensing subsystems (e.g., the Global Positioning system, the Altitude and Heading Reference System, and the Inertial Navigation System); an actuating subsystem (e.g., hydraulic flight controls); and a logic subsystem (the autopilot). They indicate that these systems are controlled by a central computer that senses errors and generates corrections. Because of these features of the T-43 aircraft, they believe their jobs meet the definition of the WG-2610.

The appellants also indicate that their jobs require them to use a wide diversity of different knowledges and skills because of the T-43 aircraft’s electronic systems. They report that most of their time is spent troubleshooting problems with various components of the aircraft, which requires
them to possess an in-depth understanding of the different systems and of the complexities of how the systems function together as integrated units. They believe their jobs should be graded at WG-15 because of the multiplicity of different knowledges and skills required to work on these systems.

According to the Job Grading Standard for the WG-2610 Electronic Integrated Systems Mechanic occupation, the existence of a central processing unit and of electronic sensor and actuator subsystems alone does not dictate that the mechanic’s work is properly classified in the WG-2610 occupation. Furthermore, work performed only on portions of integrated systems that do not require integration of all operable subsystems into a functional system is not covered by the WG-2610 occupation. According to standard, jobs classified in the WG-2610 occupation require extensive knowledge not only of hydraulics and mechanics, but also of a wide variety of electronic applications, such as development and propagation of signals, measurement of forces, and computation of data. The key factor for jobs in this occupation, according to the standard, is the need for the worker to draw simultaneously on the complete range of electronic, mathematical, and mechanical knowledges comprising the system in order to repair the equipment. Repairs to equipment made by Electronic Integrated Systems Mechanics are typically of a complex nature that require them to use their wide range of electronic skills and knowledges, beyond those relating chiefly to hydraulics and mechanics.

We find that the appellants’ job is not properly classified in the WG-2610 occupation because, when performing their duties and responsibilities, the appellants are not required to apply a sufficiently broad knowledge of the complex electronic principles characterizing the work of that occupation. Their work does not regularly require them to simultaneously draw upon the complete range of electrical, mathematical, and mechanical knowledges, as described by the standard, to correct aircraft system malfunctions that are so interrelated that the malfunction causes breakdown of an entire integrated complex. For instance, their work does not regularly require them to use mathematics, such as algebraic and trigonometric functions, to adapt standard methods to the specific requirements of a whole integrated electronic complex. They do not use a full range of mechanical knowledges to overhaul or rebuild linked systems, as described by the WG-2610 standard. The electronic assemblies on the two aircraft on which the appellants work are primarily combinations of hydraulics and mechanics. Repairs to aircraft equipment performed by the appellants typically are not of a complex nature. Much of the equipment in need of repair is sent away to a depot, and most of the repair work performed by the appellants involves the installation of line replacement units. Installing line replacement units requires the appellants to remove and replace a box or some other singular component.

We determine that the work performed by the appellants is properly classified in the WG-2604 Electronics Mechanic occupation. When carrying out their duties, the appellants utilize a broad practical knowledge of a wide variety of complex electronic circuitry. This circuitry includes navigational aids, e.g., the T-43 aircraft’s Flight Management System and Automatic Flight Control System; radar; radio systems; and aircraft instrumentation. Their work requires them to use their knowledge of electronics to troubleshoot electronic operations with these systems and components and to assemble, disassemble, install, replace, and adjust electronic equipment. Their work requires them to have skill to follow signals through a complex path of interconnections of electronic
assemblies, subassemblies, and groupings of assemblies. This work meets the definition of the WG-2604 Electronics Mechanic occupation.

In explaining why they believe their job should be upgraded, the appellants describe their job as being more complex than WG-11 because it requires skills and knowledges in multiple areas that are not adequately covered by the WG-2604 occupation. The appellants indicate that their job also includes work in other occupations, e.g., WG-3359 Instrument Systems Mechanic, WG-5306 Environmental Systems Mechanic, and WG-2892 Aircraft Electrician. In reviewing the appellants’ work, however, we find no evidence that their job is a mixed-occupation job with distinct occupational components. The range of their duties and responsibilities is sufficiently covered by the WG-2604 occupation, which includes jobs for which the primary purpose is to troubleshoot, install, repair, and maintain a variety of airborne electronic equipment.

**Title determination**

Jobs classified in the WG-2604 Electronics Mechanic occupation that are graded at WG-10 and above are properly titled Electronics Mechanic. Accordingly, the appellants’ job is titled Electronics Mechanic.

**Standard determination**

Jobs classified in the WG-2604 Electronics Mechanic occupation are graded using the WG-2604 Job Grading Standard.

**Grade determination**

The Job Grading Standard for the WG-2604 Electronics Mechanic occupation uses four factors to evaluate the proper grade of a job: Skill and Knowledge, Responsibility, Physical Effort, and Working Conditions.

**Skill and Knowledge**

We find that the appellants’ job meets the WG-11 level of this factor. At this level, mechanics use a comprehensive knowledge of operating electronic principles to troubleshoot and repair malfunctions in a variety of complex electronic systems. They must understand the operation of individual circuits and the way interrelated circuits of different systems interact to cause malfunctions. They have sufficient skill to diagnose operating problems, to determine corrective actions, and to analyze technical data for complex electronic units and systems.

This level matches the appellants’ job since most of their work involves troubleshooting problems with the electronic operations of T-37 and T-43 aircraft, particularly problems with wiring, wire bundles, and electronic equipment located in the tail of the aircraft. The appellants must have comprehensive knowledge of electronic principles to troubleshoot the compass system, circuit cards,
and hydraulic controls of the aircraft. They must understand interrelationships between the circuitry of different systems (e.g., the interactions between the T-43's autopilot, navigational aids, and instrumentation) in order to troubleshoot malfunctions with the various electronic components, including those systems generating and receiving the navigational data.

The appellants’ job does not meet the WG-12 level of this factor. At the WG-12 level, the mechanic’s work is characterized by the application of advanced electronic theory, the maintenance of prototype systems, and the making of major modifications to entire systems. At this level, mechanics use their knowledge and skill to devise solutions to malfunctions on systems where novel engineering approaches have created unforseen problems.

**Responsibility**

The appellants’ job meets the WG-11 level of this factor. Mechanics working at this level receive work assignments from their supervisor either orally or through written work orders and inspection reports. Guidelines are usually available, but the mechanics must also use their own judgement and expertise to supplement these guidelines. The supervisor spot checks work periodically for ensure that their work is acceptable.

The appellants’ job matches this description. They receive instructions from their supervisor both in the form of oral instructions and written work orders. When troubleshooting malfunctions with the aircraft’s electronic systems, they refer to technical order troubleshooting charts, although they must also use their own judgement to successfully identify causes of problems. When repairing wiring, they must use their expertise to correct problems. When removing and replacing components, they follow established instructions. Their supervisor periodically spot checks their work for general compliance to trade practices and standards.

The appellants’ job does not meet the WG-12 level of this factor. At the WG-12 level, the mechanics exercise greater independence to solve unusually complex problems. The supervisor seldom views their work as it is in progress. At this level, mechanics must stay abreast of new and emerging state-of-the-art technologies.

**Physical Effort**

The appellants’ job matches the description in the standard for mechanics working at the WG-8 through WG-12 levels. Their job requires light to moderate physical effort, e.g., lifting moderately heavy items, frequently bending and stooping.

**Working Conditions**

The appellants’ job matches the description in the standard for mechanics working at the WG-8 through WG-12 levels. Their work generally is performed in well lighted, heated, and ventilated
areas, although they may be exposed to some weather conditions. They are exposed to some risk of
electric shock, burns, cuts, and bruises, if proper safety procedures are not followed.

**Decision**

We find that the appellants’ job is properly classified as Electronics Mechanic, WG-2604-11.