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Office of Merit Systems Oversight and Effectiveness

Digest of Significant Classification Decisions and Opinions

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Article No. 25-05

Standards: [Electronics Mechanic, 2604 \(August 1997\)](#)
[Electronic Integrated Systems Mechanic, 2610 \(January 1972\)](#)
[Aircraft Electrician, 2892 \(June 1989\)](#)
[Aircraft Mechanic, 8852 \(January 1999\)](#)

Introduction to the Electronic Equipment Installation and Maintenance Family 2600 (1981)

Factor: N/A

Issue: Occupational coverage; definition of integrated system

Identification of the Classification Issue

The appellants troubleshoot, inspected, installed, maintained, overhauled, repaired, and modified electronics and related systems on UH-60L Blackhawk utility helicopters. Used for transportation, these helicopters were not equipped with weapons systems. At issue was whether their work was covered by the Electronic Integrated Systems Mechanic, 2610 occupation. The appellants worked on complete electronic systems. They claimed that the Automatic Flight Control System (AFCS) was an integrated system within the meaning of the 2610 occupation. The appellants also believed that the Command Instrument System (CIS) was, to a lesser extent, an integrated system.

Resolution

The 2610 Job Grading Standard (JGS), the 2604 JGS, and the Introduction to the Electronic Equipment Installation and Maintenance Family 2600 must be read together. The 2604 JGS covers equipment and systems that use digital microprocessors. The systems have linear system flow in which the signal moves from the input to the output without significant deviation or feedback looping. As discussed in the 2600 JGS, this includes an autopilot system:

which detects minute error signals from a stable platform and amplifies these to drive aileron or elevator servos in which the amount of displacement of the control surface is proportional to the amount of the error signal. This is a simple linear system. The addition of some control inputs to allow turns, climbs, etc., would not change the basic linear signal flow of an error sensing system. Such a system is covered by the Electronics Mechanic Series, 2604.

OPM found that the AFCS was that type of system. The compensating changes sent to the actuators from sensor signal flow were proportional to the amount of error signal. The linear nature of the system was exemplified by the AFCS automatic mode. Unlike a fully integrated electronic system covered by the 2610 JGS, the automatic mode would no longer work when an error signal was generated if the positions did not agree. In contrast, a 2610 integrated system would process this information and use it to change actuator operation and use continuous feedback to monitor and further modify system operation. The CIS was excluded from 2610 coverage for similar reasons.

The level of maintenance and repair performed by the appellants also precluded coverage by the 2610 JGS. Program instructions; authorized tools, parts, and components; and program goals to limit aircraft down time limited the work the appellants performed. For example, the appellants were not permitted to work on the AFCS computer, the CIS processor, or other equivalent equipment below the major component level. Basic 2610 JGS coverage requires full system maintenance and repair so that errors can be isolated down to their origin. Therefore, the appealed job was excluded from the 2610 occupation.

OPM found that a majority of the appellants' work was covered by the Aircraft Electrician, 2892 JGS. The 2892 JGS covers installing, troubleshooting, adjusting, testing, modifying, calibrating, and repairing aircraft electrical systems and equipment on board conventional and non-conventional aircraft. The appellants' replacing of pedal and other switches and related electrical components was covered by this JGS. Their replacing of cyclic slew spring and trigger, and other mechanical equipment was covered by the Aircraft Mechanic, 8852 JGS.

The record showed that the appellants' 2604 work was the highest graded work that they performed on a regular and recurring basis for a sufficient amount of the time to control the grading of their jobs. Therefore, the appealed job was allocated as Electronics Mechanic, 2604, and that JGS was used for grade determination.

“Back to the Basics”

The occupational coverage determination in this case involved distinguishing between two closely related series. It required a detailed evaluation of the systems serviced. The presence of microprocessors in these systems did not change their fundamental operations from being linear in nature. Even if the systems had met 2610 occupational coverage, the level of maintenance and repair performed by the appellants precluded coverage by the 2610 JGS. This illustrates the basic job grading principle that it is the type of work performed on systems and/or equipment, in addition to the characteristics of the equipment and/or systems themselves, which determine both occupational coverage and level.

Link to [C-2604-11-01](#), [C-2604-11-02](#)