



COMMUNICATIONS SYSTEMS TECHNICIAN

Department: Emergency Management
Job Class: 443200
Pay Range: General 46

FLSA Status: Non-exempt
Represented: Yes

Classification descriptions are intended to present a descriptive list of the range of duties performed by employees in the class. Classification descriptions are **not** intended to reflect all duties performed within the job.

GENERAL FUNCTION: The Communications Systems Technician performs journey-level technical work to install, maintain, evaluate, repair, remove and modify a variety of electronic communications equipment and related electrical or computerized systems.

ESSENTIAL FUNCTIONS:

- Maintain, repair, install, calibrate and remove a wide variety of electronic equipment including, but not limited to, Emergency Communication Infrastructures base stations, mobile and portable two way radios, digital and analog transport and microwave radio systems, channel banks, digital multiplexers, transmit selectors, receiver voters, power systems, GPS/AVL, EAS AM, FM Broadcast systems, tower lighting, emergency power systems, radio frequency transmission lines and antennas and specialty equipment such as video/audio equipment.
- Maintain emergency equipment systems, including but not limited to, light bars, strobe systems, sirens, control consoles, mobile data computers, in-car video systems, flashers, Opti-Com pre-emption systems, vehicular chargers, speed measuring devices, satellite phones, GPS systems, vehicular alarms, rifle racks, Pro-Net tracking systems and Lo-Jack systems.
- Maintain communications and other electronic systems on specialty devices and/or vehicles, such as marine, surveillance and speed measuring devices.
- Maintain, repair and calibrate speed measuring devices utilized by law enforcement.
- Maintain accurate automated and manual records of work orders, labor hours, equipment preventive maintenance, repair, inventory and modification of equipment and facilities; maintain Federal Communications Commission records, log books and service records.
- Use computer software, communications service monitors, spectrum analyzers, T1 and T3 analyzers and various other test equipment to perform system diagnostics, interpret results, document changes and make corrections, modifications or repairs.
- Operate testing and measuring equipment including volt meters, ohm meters, watt meters, oscilloscopes, signal and tone generators, and other testing devices.
- Climb radio towers, install, maintain and repair antennas, transmission lines, microwave dishes, wave guide and tower lighting systems.
- Attend court when subpoenaed for contested infraction hearings.
- Operate a variety of motorized equipment and vehicles, including off-road and snow vehicles.
- Travel to work sites around the Pierce County region including remote work locations to access equipment to be maintained.
- Maintain federal and state emergency responder certifications as required.
- Maintain regular, predictable and punctual attendance during regularly scheduled work hours at assigned worksite.
- Work a flexible schedule, which may include evenings, weekends, holidays and overtime.
- Perform the physical requirements of the position; work within the established working conditions of the position.

OTHER JOB FUNCTIONS:

- Performs other job functions as required.

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SUPERVISION EXERCISED AND RECEIVED: The Communications Systems Technician works under general supervision and receives instruction from the Communications Supervisor, receiving assistance when difficult or unusual problems are encountered. Work is reviewed for technical adequacy and results obtained. The Communications Systems Technician may provide work instruction and guidance to other employees. May be assigned to act in supervisor's absence.

WORKING ENVIRONMENT: The work environment characteristics described herein are representative of those an employee encounters while performing the essential functions of the position. Work is normally performed in outside facilities and outdoors in all types of environmental and physical conditions; work in inclement weather including snow and ice conditions, mountainous and remote work sites, is required. Travel by vehicle or on-foot is required over all types of terrain, including that which is uneven, steep, slippery, wet, snowy, icy, muddy, forested and underbrush. Incumbents are exposed to dangerous situations, hazardous materials and chemicals, high voltage equipment, power tools and equipment, loud noises, and operating equipment in adverse weather conditions.

PHYSICAL REQUIREMENTS: The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of the position. Required physical activities are twisting, balancing, climbing, crawling, kneeling, bending, stooping, crouching, reaching, lifting, carrying, dragging, throwing, pushing/pulling both objects and people, and adequate vision and manual dexterity are required to operate tools and install and/or repair electronic equipment. Incumbents are required to work within confined spaces and at heights. Driving of vehicles and operating a variety of large equipment, at times in dangerous weather and terrain conditions, is required.

KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

- Federal Communications Commission rules and regulations on land mobile radio and microwave systems.
- Installation, operation, maintenance and repair of all types of communications and electronic equipment, including two-way radio communications and related electronic equipment.
- Mobile, portable and base station radios, microwave and multiplex terminals and emergency power systems.
- Principles of analog and digital electronics and microprocessor technology.
- Electronic theory, circuits and components; current improvements and developments in the fields of electronics and communications.
- Operation of electronics test and diagnostic equipment.
- Safety procedures and practices.

Skill in:

- Use and care of electronic test equipment, tools, and materials.

Ability to:

- Work independently and make independent judgments regarding work organization and task completion.
- Lay out and construct specialized electronic circuits.
- Establish and maintain effective working relations as necessitated by work assignments.
- Express ideas effectively orally and in writing.

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- Bend, stoop, climb, crawl, and walk over uneven terrain; work at heights and in tight spaces; lift or carry between 30-50 lbs.
- Effectively coordinate, perform, and complete multiple duties and assignments concurrently and in a timely manner, and complete duties during adverse and/or emergency situations.
- Accurately read, interpret and apply complex technical manuals and drawings.
- Physically perform the essential job functions.
- Meet the travel requirements of the position.
- Obtain and maintain certifications and licenses to perform the duties of the job.

MINIMUM REQUIREMENTS TO APPLY: Two or more years of experience in the installation, maintenance, and repair of two-way radio communications equipment. A valid General Radio-Telephone license as issued by the Federal Communications Commission is desirable. Possession of, or ability to obtain, a valid Washington State driver's license is required. Additional education and experience may substitute for the recruiting requirements.

SPECIAL REQUIREMENTS: Ability to successfully complete Pierce County background investigation.