

**ITASCA COUNTY
JOB DESCRIPTION**

(This job description is not intended to be an all-encompassing list of responsibilities, skills, efforts or working conditions, nor does it limit the assignment of related duties to this classification)

Job Title: Public Safety Communications Technician

Department: Sheriff

Classification: Grade 10 (Local 1626)

FLSA Status: Non-exempt; (TE/PT)

Position Description: Responsible for overall operation, maintenance and configuration of Itasca County's communications system including the Armer 800 MHz public safety radio system, audio logger and associated computer systems. Directs vendor and contracted services, sets priorities and schedules work for all Itasca County communications systems including all tower sites, tower infrastructure and maintenance. Resolves complex technical problems, participates and coordinates in system upgrades, monitors system performance, maintains network security, complies with legal record keeping requirements including Federal Communications Commission (FCC) licensure. Coordinates the local Itasca County Radio Users group, tracks inventory, amortization schedule and financing for communications equipment, completes radio installations into vehicles.

Direct Supervisor: Chief Deputy Sheriff

Indirect Supervisor: County Sheriff

Total # positions that report directly to this job: 0

Total # positions that report indirectly to this job: 0

Machines or equipment used regularly in this job: Vehicle, computer, printer, copier, fax, telephone, radio frequency analyzers, electrical tools, maintenance tools, vehicle tools, ladders, cabling and installation equipment, labeling devices

Job qualifications including education, experience, license, certificates, etc.:

Minimum Qualifications (Pass/Fail):

- 2-year college, technical school or military program in radio communications, computer networking or a related electronic communications field
- 4 year's work experience providing in the preventative maintenance of electronic communication equipment, radio communications or computer networking
OR an equivalent combination of education and experience
- certificate in 2-way Radio Communications or Electronics
- Motorola training certificate with Armer Radio console systems (**must attach certification**);
- Motorola training certificate in CPS programming and template building (**must attach certification**);
- Motorola certificate in Astro25 IV&D Radio System Management (**must attach certification**);
- valid driver's license and reliable means of transportation
- Successfully pass a pre-placement screening and federal criminal justice background check contingent upon a job offer.

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Knowledge, Skills & Abilities:

Knowledge: public safety communications systems procedures, practices and terminology; Federal Communications Commission Rules and regulations governing the repair and adjustment of wireless communications equipment; all laws governing public safety communications procedures/equipment; electronic communications equipment systems including system software, radio, telephone, and computer-based telecommunications equipment; fundamentals of I.P. computer networking; HVAC systems, electrical systems, generators and building plans; principles of budgeting and cost allocation

Skills: strong technical skills to maintain communication systems; planning and implementing special projects, handling multiple projects, changing priorities and managing projects to successful conclusion; effective written and verbal communication skills; good steward to the taxpayer.

Ability to: establish and maintain effective working relationships with departmental personnel, and officials from other public safety agencies and the general public troubleshoot heating/ventilation/air conditioning problems; operate power equipment; solve complex, technical and multifaceted problems; respond to emergencies, alerts or alarms outside of usual work hours; perform complex mathematical calculations and interpret their meaning; work well with others; ability and willingness to follow rules and procedures and follow directives from supervisors; provide quality customer service.

Preferred Qualifications:

- Work experience with the Allied Radio Matrix for Emergency Response (ARMER) system, Audio logger systems management
- Experience in support of public safety application and users
- Federal Communications Commission (FCC) general radio telephone operator license (**must attach licensure**)
- National Association of Business and Educational Radio (NABER) certification (**must attach certification**)

Duties and Responsibilities

Percentage of Time (100%): Time spent performing the duty and responsibility

Essential Function (E): The basic job duties that an employee must be able to perform, with or without reasonable accommodations. If the position exists to perform that duty, it is an essential function.

Non-essential Function (NE): Marginal duties that have limited or no consequences should the duties not be performed by the particular position.

%	E or NE	Duties and Responsibilities
50%	(E)	<p>Communication Systems:</p> <ul style="list-style-type: none"> • Develop standards for and manage the configuration, installation, repair, testing and preventive maintenance of radio communication system and network components; perform short-term repair and maintenance • Maintain a subscriber database, participate in the development of policies and procedures related to radio system security and access.

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		<ul style="list-style-type: none"> • Establish standards on settings, options, and features of mobile and portable radio programming configurations ("code plugs"). • Develop and maintain a radio system backup and recovery procedures. Maintain network security features, hardware and configurations. • Assign rights to radio/communication system users. • Evaluate the effectiveness of the communication center and recordkeeping operations by consulting with users of the service, identifying their needs and recommending changes. • Develop standards for and monitor performance of radio system and wide-area communications network; work with others to develop solutions to radio systems operational problems, provide feedback to users. • Oversee design, equipment installation and testing of communications equipment for the radio system, the underlying computer/communications network, and for the dispatch center. • Plan and administer a preventive maintenance program to ensure compliance with standards and regulations, manufacturer's specifications, F.C.C. requirements and minimum down time. • Work with the regional System Managers Group and the Minnesota Department of Transportation to plan, coordinate, and maintain the integrated operations of the regional and state interoperable radio systems.
25%	(E)	<p>Vendor and Contracted Services</p> <ul style="list-style-type: none"> • Plan and implement equipment preventive maintenance schedules to ensure compliance with standards and regulations Evaluate and provide technical support to contracted vendors in radio maintenance, repair and upgrade activities • Develop Requests for Bids (RFB) for procurement of communications and network hardware and evaluate responses. • Develop, plan and assist with County and contract technical staff for preventive maintenance, resolving operation, configuration, and physical site issues needed to keep the radio system operational. • Directs the work of contracted vendor staff and internal staff to ensure that work is performed on schedule and according to specification, and that radio subsystems' operational objectives are met. Document problems with vendor-supplied products/services. • Monitor sites for facility maintenance and repair (such as maintenance of HVAC systems, electrical systems including motor generators, and antenna systems).
5%	(E)	<p>Vehicles:</p> <ul style="list-style-type: none"> • Installation of radio equipment in squad cars
10%	(E)	<p>Systems and Recordkeeping:</p>

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		<ul style="list-style-type: none"> • Inspect or review work projects for compliance with Federal Communications Commission (F.C.C.) standards and regulations. • Prepare license applications for the F.C.C.; Coordinates activities with F.C.C.as required. • Maintain records and reports to fulfill federal, state, local and departmental requirements • Prepare and maintain records and report on inventory and time expenditure for cost accounting purposes. • Create and maintain documentation and schematics of the radio system and the underlying wide-area communications network.
10%	(E)	Administration: <ul style="list-style-type: none"> • Perform research and recommend products, services, standards and guidelines. • Review and analyze technical contracts including schematics related tower use and lifecycle. • Provide technical leadership in the development and implementation of new electronic communications systems or upgrades to existing systems and recommend final designs for such systems. • Arrange for and provide technical direction to users in the proper usage of the console and mobile radios. • Attend and participate on a variety of committees or user groups in order to receive and convey radio systems information. • Provide input into budget, strategic planning and goals
	(E)	Regular attendance on the job.
	(NE)	Perform other duties as delegated.

Annual Budget Data:

Identify the average annual dollar amount this job impacts:

Capital budget:

\$N/A

Description:

Operating budget:

\$160,000

Description: radio system

Payroll budget:

\$N/A

Description:

Other Financial Measures (i.e. transfer payments, collections, reimbursements):

\$N/A

Description:

Working Conditions:Critical Demand: Definitions of the Critical Demand are below.

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Frequency Key (Total cumulative amount of time during a day completing the job function. i.e. bending to open a file drawer can take only seconds of time so the total cumulative during a day may amount to R or possibly O):

(N) Never NA
 (R) Rarely 1-5% of the day = < ½ hr.
 (O) Occasionally 6-33% of the day = ½ hr. to 2 hrs.
 (F) Frequently 34-66% of the day = 2-5 hrs.
 (C) Continuously 67%+ of the day = > 5 hrs.

Description: List the job function(s) that describes the work being performed in the Critical Demand. i.e. Lift Low-Level under 10 lbs. – place an R in the Frequency column as the cumulative amount of time a day spent doing these job function(s). Then list those job function(s) in the description line – lifting file folders.
 i.e. Lift Mid-Range 25 – 50 lbs. – place an R in the Frequency column as the cumulative amount of time a day spent doing these job function(s). Then list those job function(s) in the description line – box of paper from cart to countertop.

Critical Demand	Frequency	Description
Lift		
Low-level		
Under 10 lbs.	R	Hand tools (drill, screwdriver, wrench, flashlight, wire puller/cutter), analyzers (size can vary between 1-75 lb.), wires and cables
10-25 lbs.	R	Electronic analyzers, computer/radio components, camera equipment
26-50 lbs.	R	Spools of wiring, computer/radio components, batteries
50+ lbs.	R	Computer/radio components, batteries (up to 75 lb.), repeater cans, antennas Recommend a 2-person lift for items 50 lb. or more. Some items require a 2-person lift to position and hold in place while being installed.
Mid-Range		
Under 10 lbs.	R	Same as above.
10-25 lbs.	R	Same as above.
26-50 lbs.	R	Same as above.
50+ lbs.	R	Same as above.
Overhead		
Under 10 lbs.	R	Same as above; Folding ladder available at tower sites.
10-25 lbs.	R	Same as above; Folding ladder available at tower sites.

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Critical Demand		Frequency	Description
	26-50 lbs.	R	Same as above; 40 lb. light bar on top of squad car (can be 2-person lift)
	50+ lbs.	R	Same as above - Recommend 2-person lift
Positional			
	Under 10 lbs.	R	Handling above tools during installation of radio equipment in squad cars which requires positioning underneath vehicle, forward bending, and crouching to reach under dash inside vehicle. Lifting and positioning/holding equipment in place, possibly requiring a forward bent position to reach item (for example placing into or taking out of vehicle when transporting equipment to worksite), while it is being secured in place on computer tower unit.
	10-25 lbs.	R	Same as 0-10 lb. category.
	26-50 lbs.	R	Same as above – Recommend 2-person lift.
	50+ lbs.	R	Same as above – Recommend 2-person lift.
Carry			
	Under 10 lbs.	R	Hand tools, analyzers, wires, cables, 100ft to worksite
	10-25 lbs.	R	Same as above – see Lift category.
	26-50 lbs.	R	Same as above – see Lift category.
	50+ lbs.	R	Same as above – see Lift category.
Push / Pull			
	Under 10 lbs.	R	Push/pull using tools to tighten or loosen bolts, position equipment, open/close handles on gates, locks, and doors; pull wiring for installation/repair work; move dolly of equipment over flat/sloped/outdoor surfaces; pushing/pulling equipment into/out of vehicle when being transported to work site.
	10-25 lbs.	R	Same as 0-10 lb. category.
	26-50 lbs.	R	Same as 0-10 lb. category.
	50+ lbs.	R	Same as 0-10 lb. category.
Reach		F	Forward, lateral, overhead directions with both/either arm for wiring, use of hands or hand tools during installation

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Critical Demand	Frequency	Description
		and/or repair work, stocking equipment/supplies; flipping switches, turning dials, pressing buttons to operate equipment and monitor alarm systems; Folding ladders available for overhead reaching.
Forward Bend Standing	F	During installation, maintenance, and repair work
Forward Bend Sitting	F	During installation, maintenance, and repair work
Rotation	O	During installation, maintenance, and repair work
Standing	F	During installation, maintenance, and repair work
Standing Work	F	During installation, maintenance, and repair work
Sitting	F	During installation, maintenance, and repair work
Squatting	R	Picking up miscellaneous tools and equipment (<5 lb.) from the floor.
Low Work		
Crouch	O	During installation, maintenance, and repair work
Kneel – ½ Kneel	O	During installation, maintenance, and repair work
Crawl	R	During installation, maintenance, and repair work
Balance	R	Climbing ladders, standing on elevated surfaces during installation/repair work.
Walking	O	Indoor and outdoor terrain to locate equipment, monitor alarms, transport equipment to work site, 500ft.
Stair Climb	R	2 flights of steps to get to top of building

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Critical Demand	Frequency	Description
		to monitor and perform maintenance for tower on roof of building (about 3x/month).
Ladder Climb	R	Folding step ladder available if needed to reach overhead equipment, wiring, filters.
Climb	O	Outdoor terrain/slopes during monitoring area around towers including checking base of wires at attachment site to assess tension. 500 ft. Indoor and outdoor ramps.
Use of Hands:		
Grip	C	Hold and use hand tools; press/hold talk button on radio.
Pinch	C	Hold a screw in place; moving and positioning wires; flip switch.
Finger	C	Hand-starting nuts; typing; buttons on control panels of equipment; writing.
Handle	C	Phone; radio; misc. office supplies/paperwork.
Driving	F	60 miles to furthest tower from office; approximately 18 miles between each tower; more than one tower can be checked in one day
Sensory:		
Vision	C	Adequate to perform essential functions of job. Includes the following: Vision, Hearing, Touch, Taste, Smell, and Speech
Hearing	C	Adequate to perform essential functions of job. Includes the following: Vision, Hearing, Touch, Taste, Smell, and Speech
Talk/Speak	C	Adequate to perform essential functions of job. Includes the following: Vision, Hearing, Touch, Taste, Smell, and Speech
Taste/Smell	C	Adequate to perform essential functions of job. Includes the following: Vision, Hearing, Touch, Taste, Smell,

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Critical Demand	Frequency	Description
		and Speech

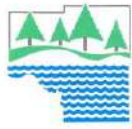
Physical Environment: Using the Critical Demand definitions, place an “X” if the position has the Physical Environment described. If not, leave blank. List the job function(s) performed in the Physical Environment.

X	Critical Demand	List:
X	Exposure to Weather	Tower maintenance
X	Extreme Heat (not weather related)	If AC unit not working at tower site.
	Extreme Cold (not weather related)	
	Extreme Wet/Humid (not weather related)	
X	Extreme Noise	Alarms, electrical humming
X	Vibration	Tower maintenance
X	Mechanical Hazards	Power tools, sharp metal
X	Electrical Hazards	Wiring and electrical equipment
X	Burns	Electrical, metal exposed to sun
X	Confined Spaces	Installation of wiring/equipment in small area/vehicle
	Explosives	
	Radiant Energy	
X	Unprotected Heights	Wiring in ceiling/above 6 ft.
	Atmospheric Conditions	
X	Elevated Surfaces	Step ladder, on vehicle.
	Chemicals (Caustic or Toxic)	
	Blood-borne Pathogen &/or Biomedical/Microorganisms	
X	Slippery Surfaces	Outdoor/snow/ice/water.
X	Moving Objects	Assembling, installing and maintenance of equipment & tower systems
	Traffic	
	Other	

Place an “X” if the position has the working condition described. If not, leave blank.

X	Works Alone
X	Works with Others
X	Customer/Public Contact
	Clients with Behavioral Challenges

	Shift Work
X	Extended Day
X	Indoors
X	Outdoors



Mental Demands:

X	Frequent Contact with People
	Irregular Work Schedule
	Supervisory Skills
X	Detailed Work
X	Frequent Interruptions
X	Decision Making Skills

X	Concentration
X	Ability to Work Independently
X	Multiple Concurrent Tasks
X	Frequent Deadlines
X	Organizational Skills

Personal Protective Equipment:

X	Hearing Protection
X	Eye Protection
X	Face Shield
X	Steel toe shoes/boots
X	Slip Resistant Footwear
X	Gloves (heat, cold, sharp)
	Breathing Protection

	Bump Cap/Hard Hat
	Fall Protection
X	Protective Overalls
	Company Uniform
	Street Clothes
	Other
List:	

Supervisor's signature and date:

Signature: _____ Date: _____

CRITICAL DEMANDS:**DEFINITIONS OF PHYSICAL, MOTOR, SENSORY DEMANDS AND ENVIRONMENTAL CONDITIONS:****MATERIAL HANDLING:**

LOW LIFT: Manually lift/lower a load between floor and 36” while standing. Item is moved <3ft horizontally.

MID-RANGE LIFT: Manually lift/lower a load with the entire lift between 36” and 55” while standing. Item moved <3ft horizontally.

HIGH LIFT: Manually lift/lower a load beginning 36” or higher and exceeding 55” while standing. Item moved <3ft horizontally.

POSITIONAL LIFT: Lifting performed within the confines of a static position combined and occurring simultaneously (not sequentially) such that the nature of the combination functionally creates stressors that may not be understood if the items are identified separately. (Example: baggage handlers working in a kneeling position.)

CARRY: Transport a load over a distance of 3ft or more via walking and use of the upper extremities (includes lifting/lowering to achieve carry angle and appropriate walk mechanics).

PUSH: After making hand contact with the load, force is generated away from the body upon an object, so that the object generally moves away from the force in either a horizontal or vertical direction.

PULL: After making hand contact with the load, force is generated toward the body upon an object, so that the object generally moves toward the force in either a horizontal or vertical direction, not lifting or removing load from resting surface.

POSITIONAL ACTIVITIES:

REACH: Moving the arm(s) away from the body >15 degrees (related to neutral sitting) with <5# for Forward Reaching. Lateral Reaching involves motions beyond 30 degrees of horizontal abduction. Overhead reaching involves motions above 90 degrees of shoulder flexion.

FORWARD BEND – STANDING: In a standing position, bending or movement of the trunk forward (relative to vertical) >15 degrees with a load <5#.

FORWARD BEND – SITTING: In a sitting position, bending or movement of the trunk forward (relative to vertical) >15 degrees with a load <5#.

ROTATION: In a seated or standing position, rotating the trunk more than 15 degrees with a load of <5#.

STANDING: Maintaining an upright posture while weight bearing on both feet and working with loads <5#.

STANDING WORK: This may include performance of a variety of activities with the primary requirement of standing and/or short distance movement <10ft in the immediate work area.

SITTING: Maintaining a seated position with trunk flexion and rotation less than 15 degrees and loads <5#.

SQUATTING: Bending the hips and knees to lower the body. Load must be <5# and not sustained.

LOW WORK: Working low to the ground in positions such as crouch/kneel/1/2-kneel sitting on heels, where options vary and may change. May be accompanied by forward flexion due to the height of the work. May include forward bending, or be accompanied by reaching and rotating.

CROUCH: Assuming or working in a position low to the ground where both knees are fully flexed for more than 5 seconds

with loads <5#. This assumes hip and knee flexion of 90 degrees or greater and may include forward flexion.

KNEEL – ½ KNEEL: Assuming or working in a position low to the ground where one or both knees are in contact with the ground. This may include forward flexion, sitting on heels or working with loads <5#.

CRAWL: Moving across a surface on hands and knees. May include working from crawl position.

BALANCE: Adaptive postural control and stability, generally consistent with controlled activity performance. Activities involving high degree of balance requirements should be operationally defined.

AMBULATION AND CLIMBING:

WALKING: Walk/move on foot = 10ft or greater distance with load <5#.

STAIR CLIMB: Ascend or descend fixed or portable stairs.

LADDER CLIMB: Ascend or descend rungs on various types of ladders (stationary or portable) where help of the upper extremities is necessary.

CLIMB: Ascend or descend ladders, stairs, scaffolding, ramps, poles and the like, using feet and legs and/or hands and arms.

HAND:

GRIP: Generating force >10# while grasping to move, hold, or stabilize an object within the span of the hand. (Not related to tasks that are parts of other critical demands. Example: Gripping a wrench while reaching would be considered separate physical demands, while gripping during a lift is captured in the performance of the lift and would not be listed as a separate physical demand.)

PINCH: Squeeze and generate force of >5# between fingers to move, hold or stabilize an object within the span of the fingers/thumb.

FINGER: Pick, pinch or otherwise working primarily with fingers rather than with the whole hand or arms as in handling.

HANDLE: Seize, hold, grasp, turn, or otherwise working with hand or hands. Moving and using the hands or fingers to perform fine motor activities, manipulation or handling of objects, and/or operation of controls.

SENSORY:

VISION:

COLOR VISION: Ability to identify and distinguish colors.

DEPTH PERCEPTION: Three dimensional vision. Ability to judge distances and relationships so as to see objects where and as they actually are.

FAR VISION: Clarity of vision at 20 ft or more.

NEAR VISION: Clarity of vision at 20 inches or less.

FIELD OF VISION: Observe an area that can be seen up and down or right to left while eyes are fixed on a given point (peripheral).

VISUAL ACCOMMODATION: Adjustment of lens of eye to bring an object into sharp focus. Especially important when

doing near-point work at varying distances from eye.

HEAR: perceive the nature of sounds.

TALK/SPEAK: Express or exchange ideas by means of the spoken word.

TASTE/SMELL: Distinguish, with a degree of accuracy, differences or similarities in intensity or quality of flavors and/or odors, or recognize particular flavors and/or odors, using tongue and/or nose.

ENVIRONMENTAL CONDITIONS:

EXPOSURE TO WEATHER: Hot, cold, wet, humid, or windy conditions, caused by the weather, which results in marked bodily discomfort.

EXTREME HEAT: Non-weather related temperatures that are sufficiently high to cause marked bodily discomfort.

EXTREME COLD: Non-weather related temperatures that are sufficiently low to cause marked bodily discomfort.

WET AND/OR HUMID: Contact with water or other liquids; or exposure to non-weather related conditions where humidity is sufficiently high to cause marked bodily discomfort.

EXTREME NOISE: Constant or intermittent sounds of a pitch or level sufficient to cause a worker to have difficulty hearing the voice of a person three or four feet away unless voice is raised above normal conversational level.

VIBRATION: Shaking objects or surfaces that cause a strain on the body or extremities.

MECHANICAL HAZARDS: Danger to fingers or limbs due to feeding or operating either portable or stationary power driven equipment.

ELECTRICAL HAZARDS: Exposure to electric wires, transformers, or uninsulated electrical parts.

BURNS: Potential of burns from hot material, fire, or chemical agents (identify which factor is present).

CONFINED SPACES: Areas where dangerous air contamination or oxygen deficiencies may exist or develop; or, where an emergency removal of a suddenly disabled employee is difficult due to the location or size of the opening the worker entered through.

EXPLOSIVES: Materials which undergo rapid chemical or nuclear reaction with the production of noise, heat, and violent expansion of gases.

RADIANT ENERGY: Exposure to radiant energy such as x-rays, radioactive material, ultraviolet, or infrared rays.

UNPROTECTED HEIGHTS: Exposure to working in high, exposed places.

ATMOSPHERIC CONDITIONS: Exposure to conditions that affect the respiratory system or the skin, such as fumes, noxious odors, dusts, mists, gases, and poor ventilation (identify which factor is present).

ELEVATED SURFACES: Work occurs in places elevated above the ground such as catwalks, scaffolds, ladders and roofs.

CHEMICALS (CAUSTIC OR TOXIC): Substances or compounds which may cause illness or injury.

BLOOD-BORNE PATHOGENS &/OR BIOMEDICAL/MICROORGANISMS: Pathogenic microorganisms that are present in human blood and cause disease in humans. These pathogens include, but are not limited to Hepatitis B virus (HBV) and human immunodeficiency virus (HIV) &/or chicken pox, infectious disease.

SLIPPERY SURFACES: Walking surface of work site is necessarily wet, muddy, greasy, oily, or highly polished surfaces which may cause employees to slip or lose footing.

MOVING OBJECTS: Moving equipment and objects in the immediate work area such as cranes, heavily laden carts,

gurneys and forklifts.

TRAFFIC: Physical exposure to vehicular traffic.