

Job Hazard Analysis (JHA)

Task: Installing Snowshoes in the Telecom Industry

(Note: "Snowshoes" in telecom refers to support devices used on messenger strand or aerial plant to maintain cable bend radius and provide support for fiber optic cable.)

Risk Assessment Code (RAC) Legend

- **☒ Red (High Risk):** Unacceptable—stop work and implement controls before proceeding.
- **☑ Yellow (Moderate Risk):** Proceed with caution—implement and verify controls.
- **☐ Green (Low Risk):** Acceptable—maintain controls and continuous monitoring.

Overall Initial RAC for Installing Snowshoes Task: ☑ High Risk

Job Steps, Hazards, and Controls

Step No.	Task Description	Potential Hazards	Controls / Safe Work Practices	Initial RAC
1	Pre-job planning & scope review	Incomplete scope; missing permits; unverified cable routes	Conduct tailboard/JSA meeting; review construction prints; confirm snowshoe placement locations; coordinate with utility owners.	☑
2	Material staging (snowshoes, straps, brackets, hand tools, PPE)	Struck-by falling materials; trip hazards; improper storage	Stage on level ground; secure snowshoes and hardware; maintain good housekeeping.	☑
3	Traffic control setup (if working roadside)	Vehicle strikes; pedestrian hazards; poor visibility	Deploy MUTCD-compliant traffic control; cones, barricades, signs; certified flaggers; ANSI/ISEA 107 high-vis garments; night lighting.	☑
4	Inspecting poles/strand prior to climb	Structural failure; energized conductors nearby	Conduct pole inspection (sound & probe); maintain NESC clearances; test for voltage if near electrical plant; tag unsafe poles for replacement.	☑

Step No.	Task Description	Potential Hazards	Controls / Safe Work Practices	Initial RAC
5	Climbing pole or accessing strand via bucket truck	Falls from height; equipment failure	Use OSHA/ANSI-approved fall protection; inspect climbing gear/bucket; maintain 100% tie-off; follow bucket truck safety protocols.	?
6	Hoisting tools and snowshoe to elevated work area	Dropped object hazard; struck-by	Use hand lines or tool bags; never carry snowshoes while climbing; establish drop zone exclusion area below work.	?
7	Attaching snowshoe to messenger strand	Pinch points; improper installation; overhead line exposure	Wear gloves; use insulated tools if near power; maintain required NESC clearances; secure snowshoe per manufacturer's specs.	?
8	Feeding and securing fiber into snowshoe	Fiber breakage; glass shard exposure; ergonomic strain	Handle fiber with care; maintain bend radius; wear safety glasses and gloves; dispose of shards in sharps container.	?
9	Securing straps/brackets around strand	Pinched fingers; tool slippage; cable damage	Use proper tensioning tools; avoid over-tightening; inspect completed attachment.	?
10	Installing multiple snowshoes along route	Fatigue; repetitive strain; increased fall exposure	Rotate tasks between crew members; limit time aloft; use bucket trucks when feasible; enforce rest breaks.	?
11	Descending pole or bucket truck egress	Falls; dropped tools	Maintain 100% tie-off until feet on ground; lower tools separately; check ground stability before stepping down.	?
12	Post-installation inspection	Missed defects; unsecured cables	Verify snowshoe installation; check strap tightness and cable positioning; document with photographs.	?
13	Housekeeping and site cleanup	Slips/trips on leftover hardware; improper debris disposal	Collect and store unused materials; dispose of scrap properly; final site walkdown.	?
14	Removing traffic control & demobilization	Vehicle strikes during removal	Remove devices in reverse order; keep flaggers until last cone collected; perform final inspection.	?
15	Documentation & turnover	Missing records; regulatory non-compliance	Record snowshoe installation locations; update as-builts; submit QC and photos to utility owner.	?

PPE Requirements

- **Head/Face/Eye:** Hard hat (ANSI Z89.1); safety glasses (ANSI Z87.1); face shield if drilling/cutting hardware.
- **Hearing:** Hearing protection when using impact tools or working near traffic >85 dBA.

- **Hands:** Cut-resistant gloves for cable handling; insulated gloves when near energized conductors.
 - **Feet:** Safety-toe boots with slip-resistant soles.
 - **High-Visibility Apparel:** ANSI/ISEA 107 Type R, Class 2 (day) or Class 3 (night/high-speed).
 - **Fall Protection:** Full-body harness with lanyard or fall-arrest system; 100% tie-off when climbing or in bucket.
 - **Respiratory:** Dust mask if working near drilling or dusty pole conditions.
 - **Weather-Specific:** Rain gear, thermal clothing, UV/sun protection as applicable.
-

Regulatory & Industry Practice Alignment (summary)

- **OSHA:** 29 CFR 1926 Subpart E (PPE), Subpart M (Fall Protection), Subpart V (Power Transmission/Distribution—if near energized lines), Subpart O (Motor Vehicles/Mechanized Equipment).
- **NIOSH:** Best practices for aerial work safety, ergonomics in fiber handling, dropped object prevention.
- **ANSI/ISEA:** ANSI/ISEA 107 (high-visibility apparel), ANSI Z87.1 (eye protection), ANSI Z89.1 (head protection), ANSI Z359 (fall protection).
- **NESC:** Clearances and safe approach distances when working near energized facilities; proper snowshoe installation spacing and strand loading considerations.
- **MUTCD:** Work zone traffic control requirements for aerial telecom work near roads.