1. SITE PLAN

1.1 Indicate the tower layout relative to north, include relationship of equipment shelter and transmission line entry into shelter.

1.1.1 Self Supporting Tower - show site view and assign legs a letter designation.

1.1.2 Guyed Tower - show site view and assign anchors & legs a letter designation.
2. TOWER ELEVATIONS

2.1 Indicate tower height above ground.

2.2 Indicate locations of all antennas, antenna mounting brackets, microwave dishes, transmission line sizes to each antenna. This information shall show the tower face/leg each antenna is attached to and include the antenna azimuth relative to north.
3. TOWER STRUCTURE

3.1 General conditions? __________

3.2 Are any loose bolts present? ________________________________

3.3 Are any damaged members present? ____________________________

3.4 Are signs of unusual stress or vibration present? ______________

3.5 Any missing members? _________________________________________

3.6 Are climbing ladders, platforms and safety equipment secure? _______

3.7 Structural Members

3.7.1 Spot check at least ten (10) bolts on vertical tower members at intervals of
approximately twenty-five (25) feet apart on all tower faces. Satisfactory

3.7.2 Record the number of bolts and/or nuts that were found missing. Unsatisfactory

3.7.3 Record the percentage of bolts that were checked and found to be loose. (See Item 9)

3.7.4 Inspect structural members for fractures, bends and defective welds.

3.7.5 Ensure the tightness of tower base anchor bolts.

3.7.6 Inspect the general condition of stub antenna towers.

3.7.7 Specific weld joint inspections.

3.7.7.1 Guyed tower cantilevered joints above the guy level

3.7.7.2 Guy and torque arm lugs.

3.7.7.3 Welds on equalizer plate where it connects to anchor shaft.
4. **TOWER FOUNDATIONS & GUY ANCHORS**

4.1 **General conditions?**

4.1.1 is exposed concrete protected? ________________________________

4.1.2 are any cracks observed? ________________________________

4.1.3 are there any signs of movement? ________________________________

4.1.4 Are anchors clear of brush, vines and trees? ________________________________

4.1.5 is tower and anchors fenced? ________________________________

4.1.6 is grading sufficient to ensure proper water drainage? ________________________________

4.1.7 is guy anchor head clear of earth? ________________________________

4.1.8 any evidence of anchor bolt corrosion? ________________________________

4.1.9 any low spots that may collect moisture? ________________________________

4.2 **Structural Members**

4.2.1 Inspect guy plates and rods for bends and fractures.

4.2.2 Inspect concrete tower foundation(s) for cracking, spalling and settling.

4.2.3 Inspect guy anchor foundations for cracking, weathering and creepage.

4.2.4 Inspect anchor rod condition below earth to a depth of at least 12 inches.

4.2.5 has base of tower been properly grouted with sufficient drain holes?

4.2.6 Check drain holes at base for any obstructions
5. **GUY WIRES & FITTINGS**

5.1 General conditions?

5.2 Connection points (top and Bottom) condition?

5.3 Are end fittings secure?

5.4 Is rusting evident?

5.5 Is vibration observed?

5.7 **Structural Members**

5.7.1 inspect all turnbuckles for slippage and their condition

5.7.2 inspect the turnbuckle jam-nut safeties and cable safeties

5.7.3 inspect all guy cable clamps for security and slippage.

5.7.4 Inspect all pre-forms for unwinding and slippage.

5.7.5 Inspect all shackles, clevises and thimbles.

5.7.6 Inspect guy wire dead ends.

5.7.7 Visually inspect all guy wires with binoculars for broken strands and or damaged insulators.
5.8 Guy wire tension

5.8.1 What method was used for the guy wire tension measurements?

5.8.2 What was temperature, wind direction and velocity during guy wire measurements and adjustments?

5.8.3 Notes: _________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

5.8.4 Specific guy wire tension

<table>
<thead>
<tr>
<th>GUY LEVEL</th>
<th>Measured Tension/Sag</th>
<th>Adjusted Tension/Sag</th>
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</thead>
<tbody>
<tr>
<td>Bottom to top</td>
<td>LEG 1</td>
<td>LEG 2</td>
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<td>12</td>
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</table>

5.8.5 Guy wire size? __________________________________________________________
ANTENNAS, MICROWAVE DISHES & TRANSMISSION LINES

6. General conditions?
6.1 Was any loose hardware found?
6.2 Was any antenna misalignment or physical damage present?
6.3 Were antenna deicers operational and inspected? (If applicable.)

6.4 Specific Hardware Inspections
6.4.1 Inspect all antennas, microwave dishes, feed horns and radomes for any signs of damage and shifting

6.5 Inspect all antenna coaxial cables, jumpers and fittings.
6.5.1 Are all cable transitions properly waterproofed?
6.5.2 Inspect all antenna mounting brackets, supports and bracing.
6.5.3 Inspect all transmission lines for damage, loose bolts and water & air leaks.
6.5.4 Inspect for loose or missing coaxial cable and waveguide clamps, supports and restrainers.
6.5.5 If transmission line is wrap-locked, spot inspect the protective covering under the wrap-lock for signs of chafing.
6.5.6 Ensure that the transmission line supports are no more than four (4) feet apart.
7. **PAINT & OBSTRUCTION MARKING**

7.1 **General conditions?**

7.2 **Is rusting evident?**

7.3 **Is painting necessary?**

7.4 **Is there any paint splatter near the surrounding area?**

7.5 **Rust & Corrosion**

7.5.1 Inspect for any particular portion of the tower that appears to have rust

7.5.3 Inspect all antenna mounts and hardware for rust.

7.5.4 Inspect all guy plates and rods for rust and corrosion.

7.5.5 Inspect all guy cable clamps for rust.

7.5.7 Inspect ice shields for rust. (If present)

7.5.8 Inspect transmission line clamps and hanger bolts for rust.

7.6 **Tower Paint**

7.6.1 Inspect percentage of paint for peeling, flaking and fading.

7.6.2 Check visual effectiveness of the paint. Does it meet FAA regulations
8. ELECTRICAL & LIGHTING SYSTEMS

8.1 General condition?

8.2 Incandescent lamps replaced?
   Beacons_________________ Type ________________________
   Obstruction_______________ Type________________________

8.3 Incandescent lamp voltage at socket under load?

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>SOCKET 1</th>
<th>SOCKET 2</th>
<th>SOCKET 3</th>
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</thead>
<tbody>
<tr>
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</table>

8.4 Specific Inspection Items

8.4.1 Old incandescent removed and destroyed?

8.4.2 All lamps found burning?

8.4.3 All strobe lights found burning?

8.4.4 Photoelectric control working properly?

8.4.5 Flasher unit operational?

8.4.6 Inspect for broken or cracked beacon and obstruction globes?

8.4.7 Inspect beacon closure bolt?

8.4.8 Inspect sidelight gasket conditions?

8.4.9 Inspect beacon and sidelight socket condition?

8.4.10 Inspect internal wiring of beacon?

8.4.11 Inspect that all drain holes are open and clean?

8.4.12 Inspect conduit, conduit clamp and junction box condition?

8.4.13 Inspect overall appearance of the electrical system connections?

SITE LOCATION: _________________________    DATE:___________
9. **EXPLANATION OF UNSATISFACTORY CONDITIONS**

<table>
<thead>
<tr>
<th>Specification Section</th>
<th>Description of Condition</th>
</tr>
</thead>
</table>

SITE LOCATION: ______________________ DATE: ______________

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