

Poker Flat Ionosonde Installation

Tasks for Completion

1. Assess Tower
 1. Locate existing tower(s) in storage and relocate to site as needed
 2. Specify guying requirements and foundation requirements
 3. Identify and purchase complementary hardware including kevlar guys, thimbles, grips, shackles, etc.
2. Gain Permissions and Finalize Antenna Design
 1. Contact USN regarding wireless network link and any potential LOS issues
 2. Contact NASA Wallops regarding spectrum interference
 3. Modify and finalize the antenna placement according to any concerns from other science groups
3. Prepare Site
 1. Mow field of brush (Can be done prior or concurrently to [1])
 2. Assess current ground anchors and set new anchors as needed
 3. Assess current ground pad (if existing) and set new pad as needed
4. Assemble Antenna
 1. Cut and assemble antenna wires, guy wires
 2. Prepare tower hardware according to manufacturer's assembly directions
5. Raise Tower
6. Install RF Cables and Connections
7. Install Electronics
8. Testing

Requested Labor Support

1. Site preparation, including:
 1. clearing field of brush
 2. installing ground anchors
 3. laying concrete pad
2. Tower raising, which may require bucket-lift

Continuous Services/Resources from Poker Flat

1. Network connection
2. Electrical outlet
3. Small amount of desk space in trailer

Timeline

The amount of labor and time required to assemble and erect the antenna tower is very modest. It is hoped that the antenna tower can be completed prior to the end of August 2014. The following is a tentative timeline, with days requiring outside support indicated with an asterisk.

Day 1*: Clear field of brush, locate existing towers in storage and move to site

Day 2-3: Review tower manufacturer's documentation, assess needs for ground anchors and concrete

pad. Gain approval of necessary work.

Day 4*: Install ground anchors, pour concrete for tower (as necessary)

Day 5-12: Purchase necessary hardware, prepare guy wires and antenna wires, perform any possible pre-assembly of tower and antenna. Wait for concrete to set.

Day 13 (or when concrete is set)*: Lift tower into place, perform final antenna wire installation as necessary. Run RF cable from antenna(s) to inside of building.

Day 14-16: Install electronics and perform final checkout