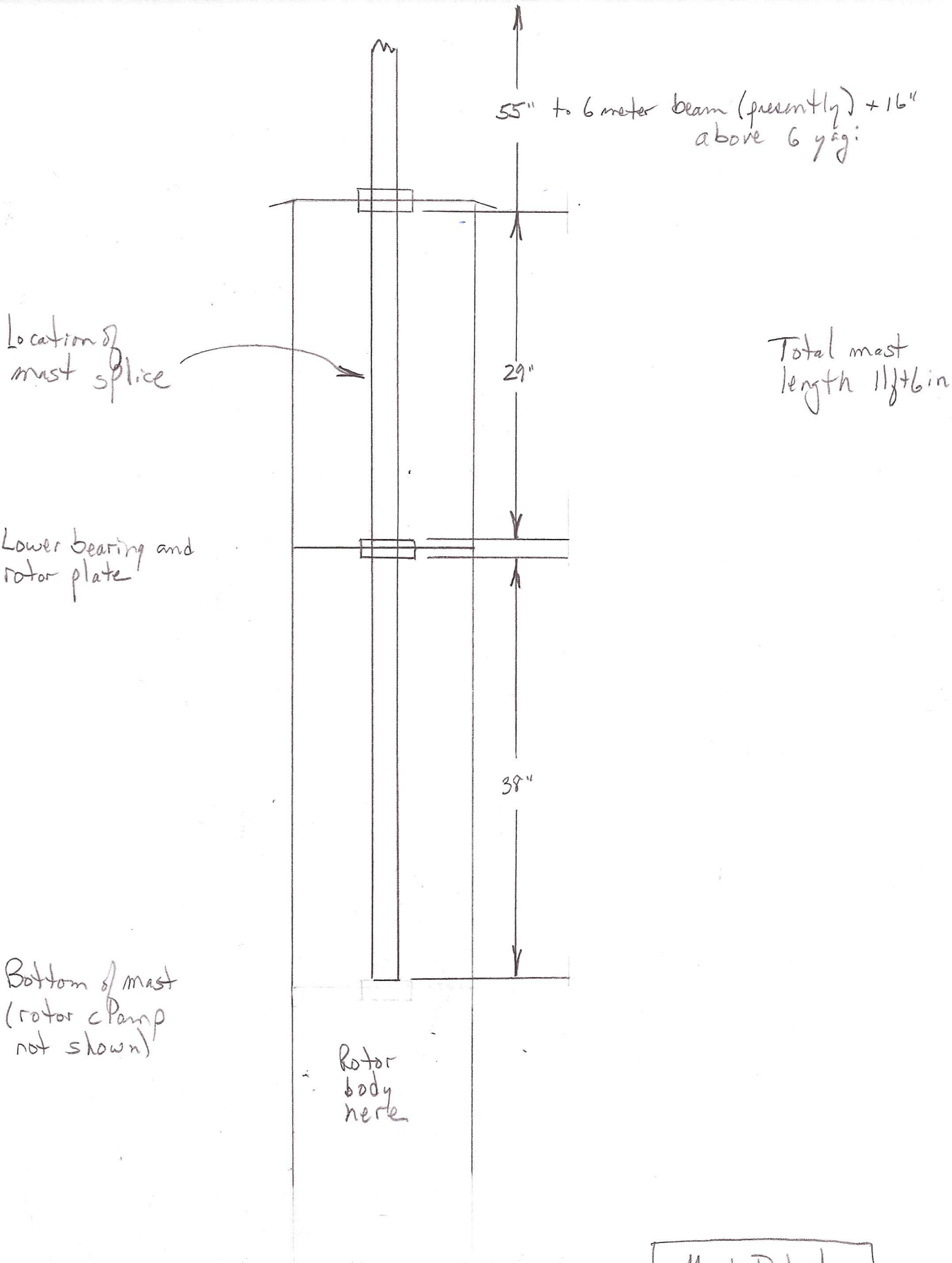
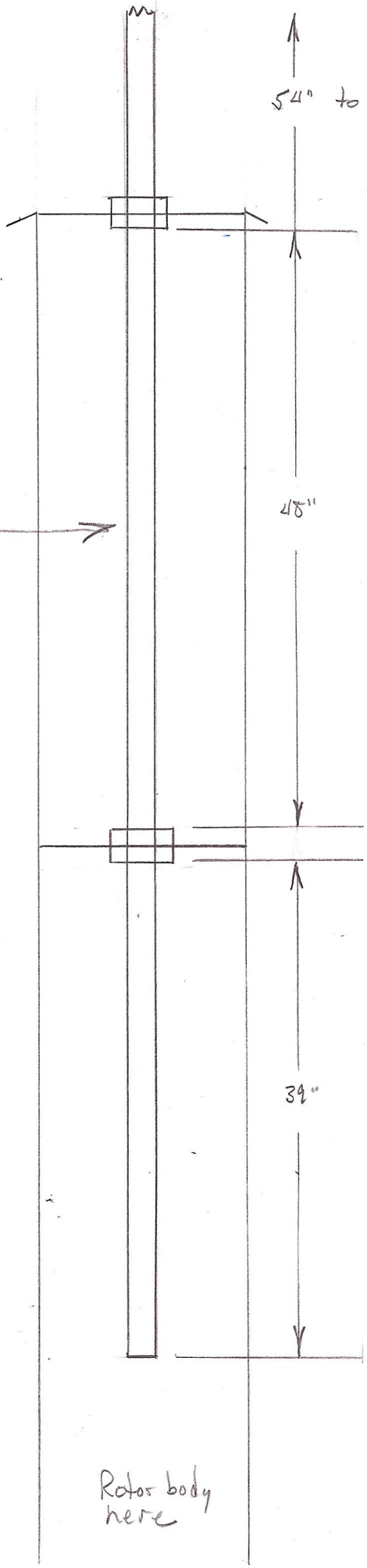


US

10 April 2014
Mast measurements:
6 meter yagi to mast top: 16 in (unused)
Top bearing to 6 yagi: 55 in
Top of lower bearing to bottom of top plate bearing: 29 in
Bot of mast to bottom of lower bearing: 38 in.
Total mast length 138 in (11 ft 6 in)

Mast Detail
US/JA Tower
9 August 2016
1 in = 1 ft



Upper bearing and tower top plate

Total mast length ~ 13 ft 9"

Location of mast splice

Lower bearing and rotor plate

Took measurements and photos for the mast replacement.
Bottom of mast to bottom of bottom rotor plate: 39 in
Top of bottom bearing to bottom of top bearing: 48 in
Top of top bearing to antenna boom: 54 in.
Photos are in CurJanApr2014.

10 Apr 2014
Eur

Bottom of mast (rotor clamp not shown)

Rotor body here

Mast Detail
Europe Tower
9 August 2016
1 in = 1 ft

Demolition Procedure:

1. Install gin pole
2. Attach 6 meter beam to gin pole up about 24 inches above top plate,
3. Attach Force 12 beam to gin pole up about 12 inches.
4. Attach gin pole rope to mast as high as I can reach.
5. Use Makita grinder to cut mast off just above the top bearing and lower it to the ground.
6. Grind bolts off of the top bearing.
7. Cut mast just below top bearing, remove it by going up, and lower to ground.
8. Cut mast just above bottom bearing and lower it to the ground.
9. Grind bolts off of bottom thrust bearing (this is already done).
10. Cut mast just below thrust bearing, remove it by going up, and lower to ground.
11. Cut out lower bearing rotor plate and lower to ground.
12. Loosen mast from rotor clamp and lower the mast to the ground.
13. Deinstall rotor and lower it to ground.
14. Cut out lower rotor plate and lower to ground.

Reconstruction Procedure:

1. Power wire brush all surfaces where old hardware was removed, prime, and paint two coats, and allow 24 hours of curing time.
2. Install two new rotor plates, fully primed and painted first. Avoid areas where tower legs have thinned down. Putty the U-bolts, temporarily. Even a couple hours of salt exposure will be too much if these are galvanized U-bolts. No problem with stainless.
3. Install the two new NOYY thrust bearings, leaving the plate hardware loose temporarily.
4. Using the gin pole, drop in the bottom mast section (about 52 in) through the top plate.
5. Install ground-tested and fully cleaned up rotor, then clamp bottom section of the mast to the correct height using the thrust bearing, then final tighten that bottom bearing to its plate.
6. Connect and test rotor.
7. The splice will be above the bottom bearing and below the top bearing. Attach splice fixture (more on that design later) to top of bottom mast section using through bolts, liberal anti seize.
8. Using gin pole, drop top mast section (about 72 in) in from tower top and connect the bottom of it to the splice fixture that is installed at the top of the bottom mast section.
9. Tighten top thrust bearing.
10. Reinstall 6 meter beam and check rotor pointing.
11. Reinstall Force 12 tribander.
12. Deinstall gin pole.
13. Prime, paint multiple epoxy coats, and putty all exposed surfaces and vulnerable hardware.