

Tech Report (October 31, 2019) (Modified/Updated 1/6/2021)

- 76 is our Flagship repeater and it has to work
- Worcester 76 failed last winter (2018-19) – voter and link issues
- Valley Forge worked but not well and got worse
- Found both bad hardline feed and antenna on VF 76
- Replaced feedline (donated and installed by Tim Eichelman)
- Replaced shorted Stationmaster with new G7
- Started and finished site cleanup: inside, side compartment, and back and shed (disaster)
 - Removed Old repeaters and donated junk
 - Removed about 22 broken and destroyed antennas
 - 7 truckloads of junk/metal hauled out by Al KA3ODI
 - And we got paid for some of the junk
- Obtained dedicated computer and LCD monitor for VF site for programming the Fusion controller and Kenwood repeater – can later be used there for the MESH project (donation from Tom W3EX)
- I ordered a new amp from and recommended by Jeff Depolo – It's a Cresend Commercial amp now on the VF 76 repeater – the Henry Amp went to Worcester after it was repaired for that site
- Got the Henry amp up to power 100 watts after the antenna was fixed, then several weeks later, it started spilling out noise, locking up the repeater – fixed and taken to Worcester site
- Got new rack mount power supply capable of backup battery operation
- Got new deep cell battery and connected it – 76 now has battery backup
- The repeater, amp, and new power supply were put into its own 9U rack
- Ceiling has a bunch of new tiles – helps with extreme cold and heat
- The shed at VF is in bad shape – rotted T111 panels – big hole in back – several hinges replaced
- Front doors rebuilt and painted – front and rear siding fixed/replaced with T111 on top of bad panels so we didn't have to lose insulation
- Ends of shed not so bad – I already painted one end
- Electric service wires were at ground level – temporarily raised now up a bit higher – conduit was obtained to deal with this over 20 years ago and never completed – was hung on back of shed
- We dug a trench underground 18 feet to electric service box and ran 30 ft new 8-3+G cable to outside service from sheds electric panel
- Roof is in bad shape - plan is to patch just the leaks – still not done as of 1-6-21
- 443 Fusion repeater antenna system checked out great – repeater is up and running but users are requesting an amplifier
- There is no Control receiver at Valley Forge. Telephone lines were discontinued 20+ years ago - I have tested 4 G MIFI at the site and the service is terrible.
- I have just obtained a new receiver to get some control for just under \$31
- 6 meters is up and running only with the local VF receiver - Boyertown site needs attention
- 224 repeater antenna has 10-1 SWR – needs replacing – is anybody using this?
- Air Conditioner bad, needs replacing. Promise of donation?

Worcester Site: (76 site with voter and 223 repeater)

- Voter needs major work and links need some work
- Site wiring is a disaster according to Ron K3ZKO
- Links are believed to be working at Eagleville, Camden, and Sellersville
- Maybe make this a backup single site repeater because of terrible wiring

94 is up and running in Media – working very well

82 is up and running

To Do: Roof, Air Conditioner, Finish Control refinements, 224 antenna, Worcester backup???