

## Handout For:

# “VHF Initiative: Field Day 2020 Operators

## Increase Your Signal With A Better Antenna!!

1. Get a ¼ wave whip which attaches directly to the radio’s SMA or BNC connector.
2. Get a 1/4 wave whip with magmount and place on a cookie sheet or automobile roof
3. Get a ½ wave whip and mount it on a tripod.
4. Build a simple ‘VJB Cheap 3 or 4 or 6 element Yagi Antenna’ or “Tape Measure Yagi Antenna”
5. Interfacing a typical handheld’s male SMA antenna connector to a coaxial cable can be accomplished by getting:
  - a. Few inches of coax with SMA or BNC connector on one end and possibly fit 2 very small alligator clips on the other end to attach to the driven element of a dipole or yagi without needing to obtain a soldering iron
  - b. HT Electronics SMA Male to UHF SO-239 Female Connector Antenna Cable. (\$6.80 at Amazon Prime for a set of two)

## Two Easy To Build Yagi Antennas

1. The easy to construct 3, 4, or 6 element “VJB Cheap-Yagi”: The boom is 3/4" square, or 1/2 X 3/4" wood (boom is 20", 40.1", or 70" long). Elements can be made from Silicon Bronze Welding rod, Hobby tubing; #10 or #12 solid copper wire can be used to make the driven element:  
<https://www.wa5vjb.com/yagi-pdf/cheapyagi.pdf>
2. An easy to construct 3 element “Tape Measure Yagi Antenna” (boom ~20" long); no soldering, no fancy measurement, built from a tape measure & PVC tubing:  
[http://www.harc.net/docs/2\\_meter\\_tape\\_antenna-2016.pdf](http://www.harc.net/docs/2_meter_tape_antenna-2016.pdf)

## Operational Comments

1. PLEASE READ Field Day 2020 Rules: [http://www.arrl.org/files/file/Field-Day/2020/1\\_61-2020%20Rules.pdf](http://www.arrl.org/files/file/Field-Day/2020/1_61-2020%20Rules.pdf) If needed, call on one of the linked repeaters listed below to obtain assistance with rules!
2. A complete Field Day contact requires that full callsigns, ARRL Section, and Report be exchanged and confirmed both stations. We are in ‘Santa Barbara Section (SB)’; Report will be ‘1’ because of use of one transmitter & transmitter class: typically “B” (a handheld radio

operating on battery power.) Check Field Day Rules: (paragraph 4.2 through 4.8 for details on other operating categories).

For example, if:

W6ABC establishes contact with W9XYZ, then the W6ABC operator will transmit: "W9XYZ, this is W6ABC, 1B Santa Barbara Section"

If W9XYZ copies all info, the W9XYZ operator will transmit: "W6ABC, Roger, Roger, this is W9XYZ 1A Indiana Section.

NOTE: Stu, AG6AG, has produced a U-Tube video to provide a bit of training for those who desire it. U-Tube link: <http://videos.ag6ag.org/> .

3. Transmit when only when frequency not being used by someone else at that moment
4. Use standard phonetics: NATO: Alpha, Bravo, Charlie OR Military Phonetic: Adam, Baker, Charlie
5. As able, turn antenna to peak up signal strength. Sometimes, turning also includes changing from vertical to horizontal to also help improve strength of signals
6. If possible, try to operate away from buildings and other obstructions which can reduce your signal strength. Walk or drive to a hilltop or other elevated area to operate from a spot which is higher in altitude than your home
7. If a small 2 meter 'brick' amplifier is available to you, raising your power to 20 watts or so would be useful.
8. In the Ventura County area, the first 10 minutes of each hour have been designated for dedicated listening on 2 meter FM Simplex: 146.52 MHz primary, 146.55 MHz secondary, 146.58 MHz tertiary. Note: 146.52 MHz is occasionally VERY busy, so do not hesitate to try the two other listed frequencies.
9. As able, for liaison, all participants are encouraged to monitor "The Field Day Net" on the linked repeaters (which have minus offset & PL= 127.3 Hz): Bozo on Rasnow Peak: 147.885 MHz; Chatsworth Peak: 145.240 MHz; or Suphur Mountain: 145.200 MHz. Note: NOT TO BE USED FOR used for logable Field Day contacts, only coordination and assistance.
10. NOTE: In conjunction with "The VHF Initiative" for Field Day 2020, Keith, W6KME, is sponsoring the "Terry Graves Memorial Field Day Event" to honor Terry's contributions to the amateur radio community. It is open to ALL Ventura County residents who operate on 2 meter simplex voice modes: FM/SSB/AM. Refer to [www.terrygraves.org](http://www.terrygraves.org) for complete details & award info.

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