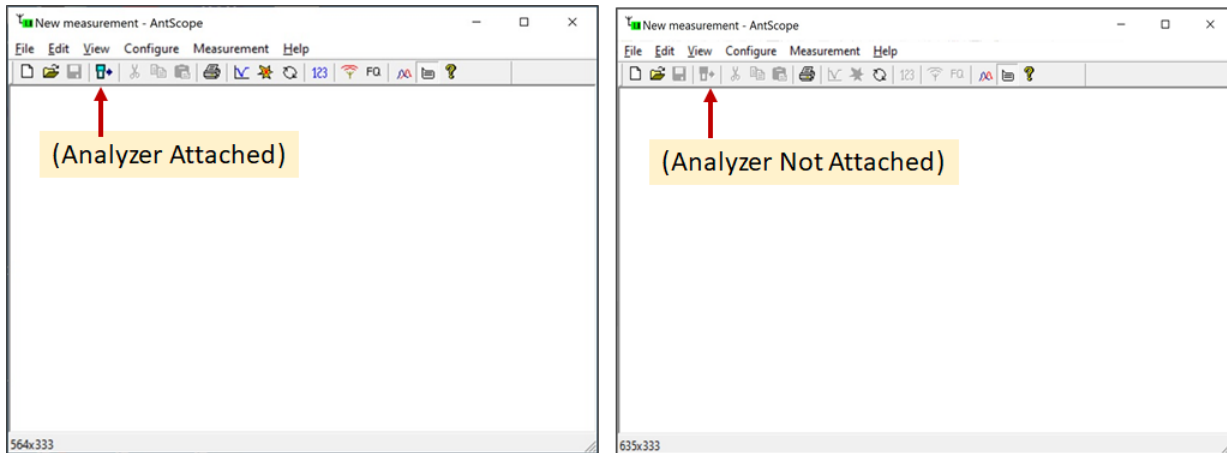


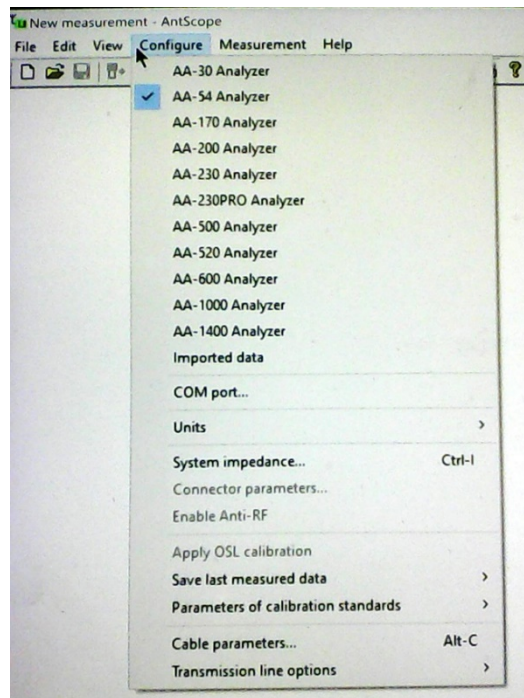
Working with AntScope

When you open Antscope, you are greeted with a blank screen that looks like this:

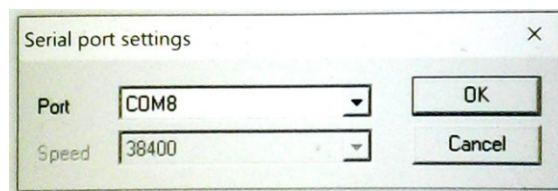


First time use: You will need to make a couple of entries in the Configuration Menu

1: Select which RigExpert Analyzer was used; Click to select (i.e., AA-54):



2: Select the COM Port; Click on "COM port..." and then enter the COM port that your computer is using to communicate with the analyzer (i.e., COM8):



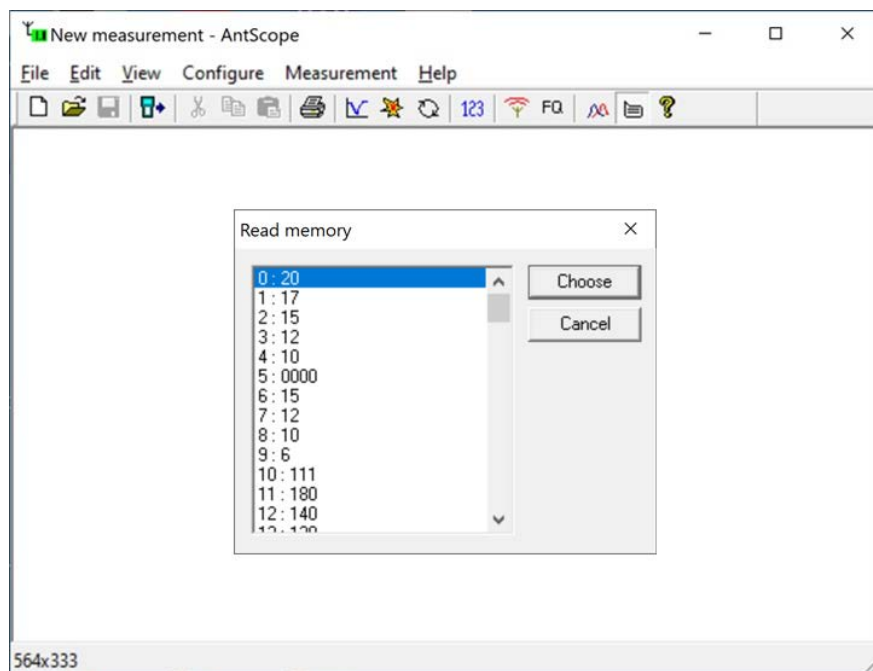
Working with AntScope

- 3: Close the AntScope program.
- 4: Connect the Analyzer to a USB port.
- 5: Turn on analyzer.
- 6: Starts AntScope again, this time it will show the Analyzer:



Note that the Analyzer Icon under the word "View" is now lit up in green.

- 7: Single-Click the green analyzer icon. Assuming you have already measured the Spiderbeam Antenna as per our instructions, you will see the following screen:



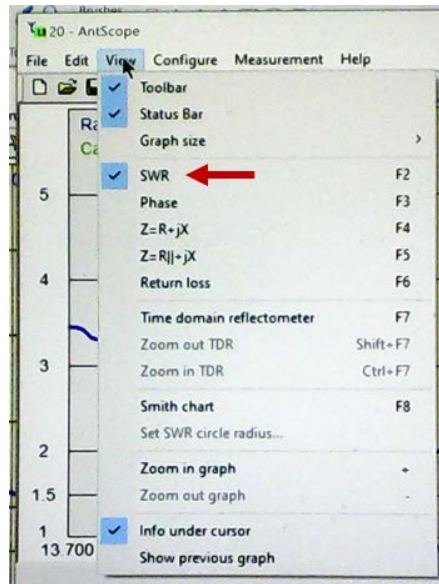
(Ignore all files after "0000". They are from an earlier measurement.)

Here you see the 6 files (0 thru 5) that you previously saved when measuring your antenna with the AA-54 Analyzer.

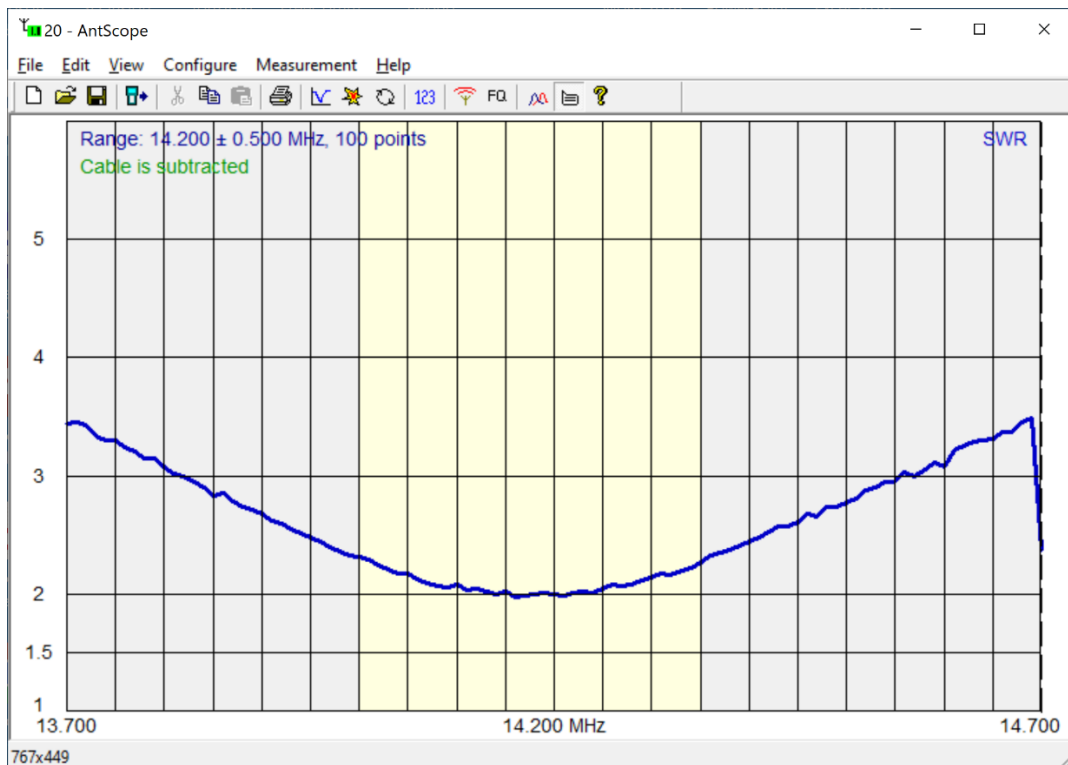
- 8: You may click on any band-file to open it, but I suggest beginning with 20m. Since it is already chosen, simply click on [Choose].

Working with AntScope

9: If a graph of the SWR does not display, click the "View" Menu item at the top, and then click on "SWR":



10: An SWR graph across the chosen band (i.e., 20m) now displays:

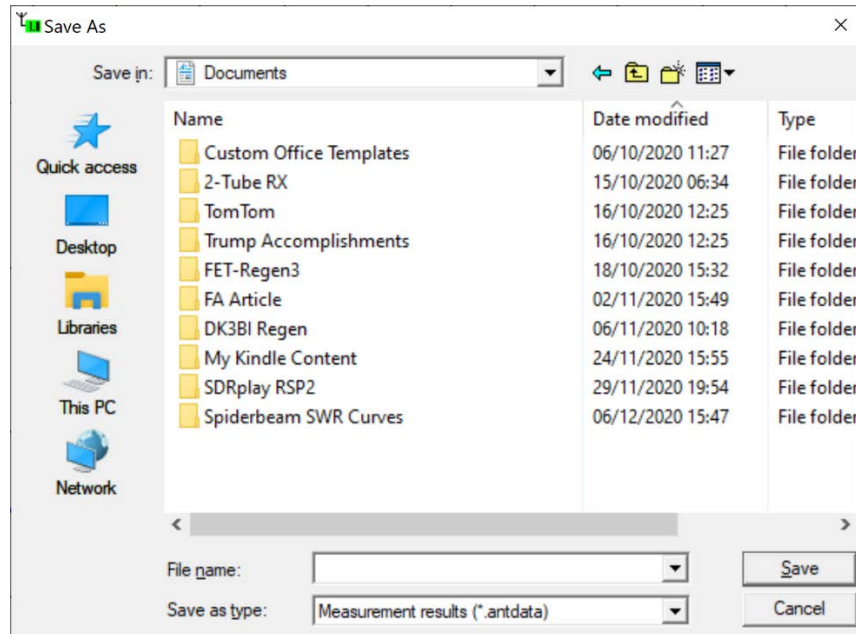


NOTE: "This" graph is showing the 20m band of a Spiderbeam "Aerial-51 Model 807-HD" antenna, not a Spiderbeam Yagi. The graph seen on the Spiderbeam Yagi should look even better!

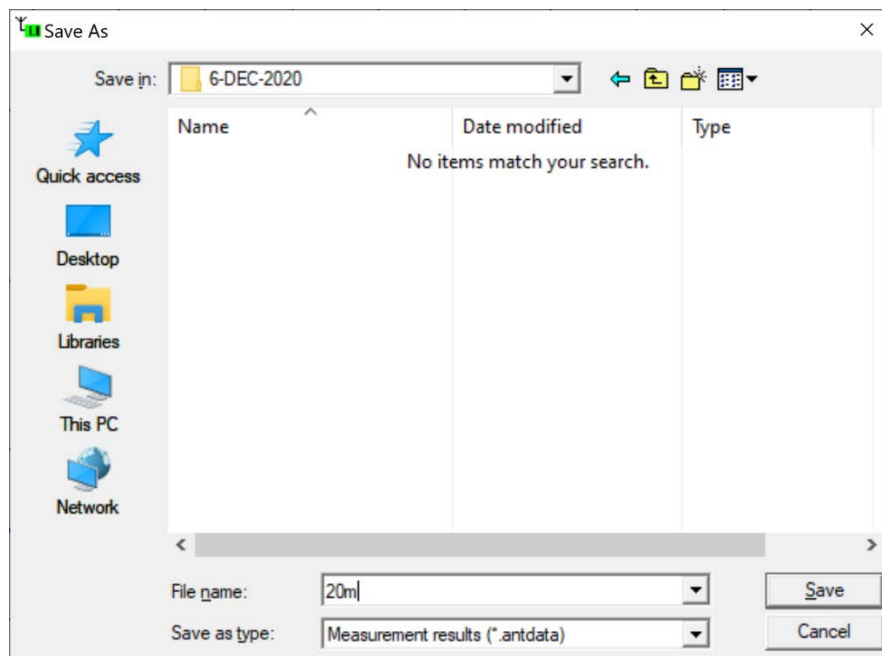
Working with AntScope

11: Next, we want to save this band data to the computer. Bands are saved one at a time and can only be saved while viewing them in AntScope.

12: Click on the floppy disk (🖨️) in the menu on the top left. A new window opens showing Windows explorer:



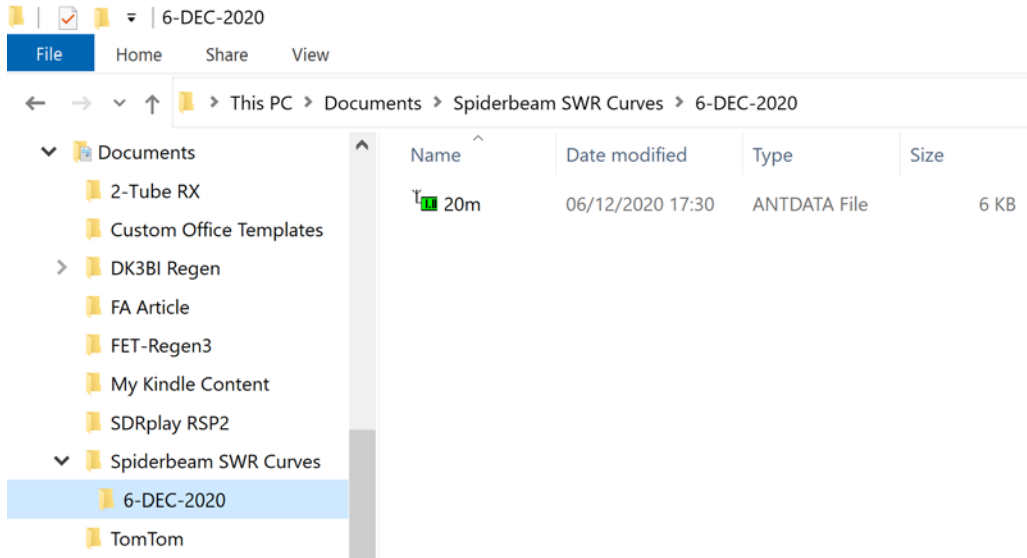
13: Browse to the folder in which you wish to save the band data files. In my example it is [C:/Documents/Spiderbeam SWR Curves/6-DEC-2020](#). Then Enter the filename (i.e., "20m") in the space for "File name":



14: Then click on [Save] in the lower right corner ----- ↑

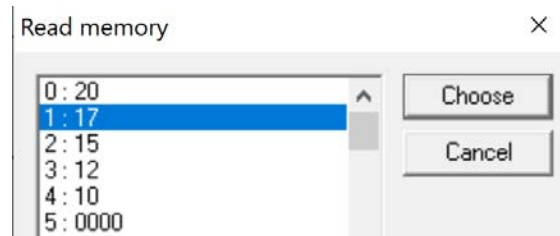
Working with AntScope

15: Before continuing, let's check to be sure the 20m data file was uploaded to the computer. Open Windows Explorer and scroll to the folder where it was to be saved:



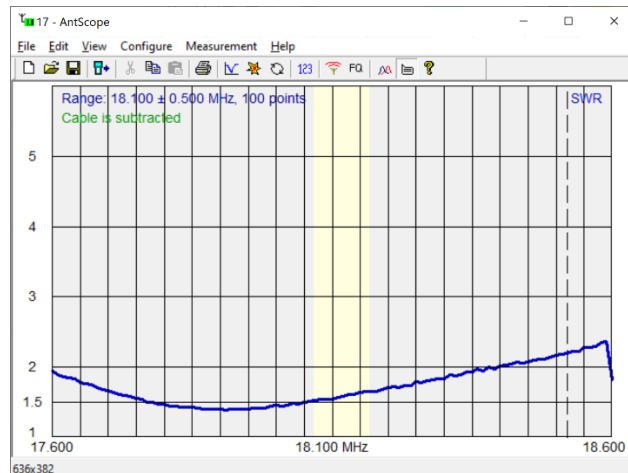
As you see, the 20m data file is now in the computer. **RETURN TO AntScope.**

16: Click on the little green analyzer icon in the menu (top left) again, then select the next band (i.e., 17m):



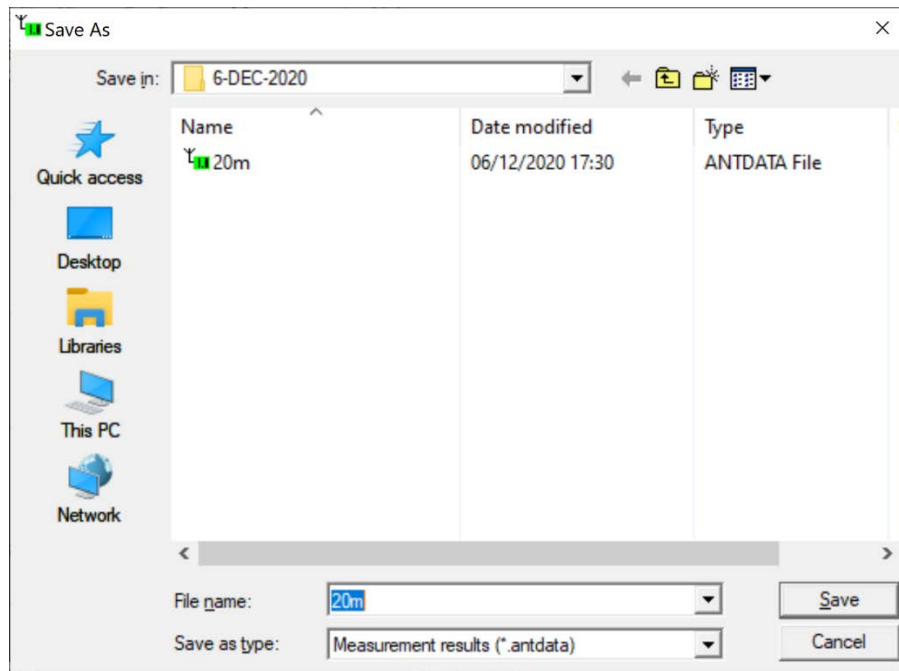
Then open it by clicking on [Choose].

17: Now an SWR scan of the 17m band opens:



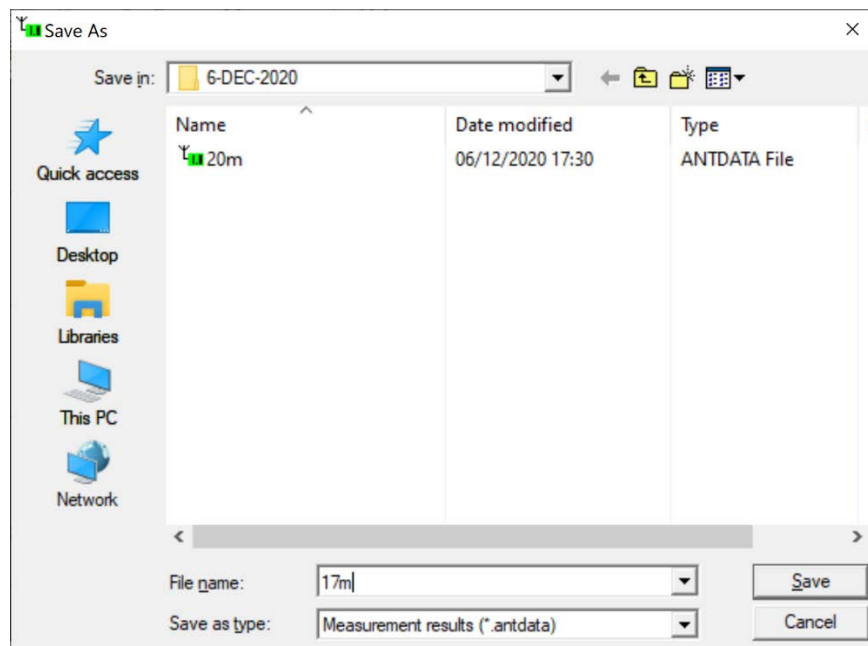
Working with AntScope

18: Save this band's data to the computer: Click on the floppy disk (as in instruction #12 above). This time the Windows Explorer will open up directly into the folder where you are saving your data:



NOTE: It is initially showing the filename of the previous stored file - in this case "20m". **YOU MUST CHANGE THE FILENAME BEFORE SAVING.**

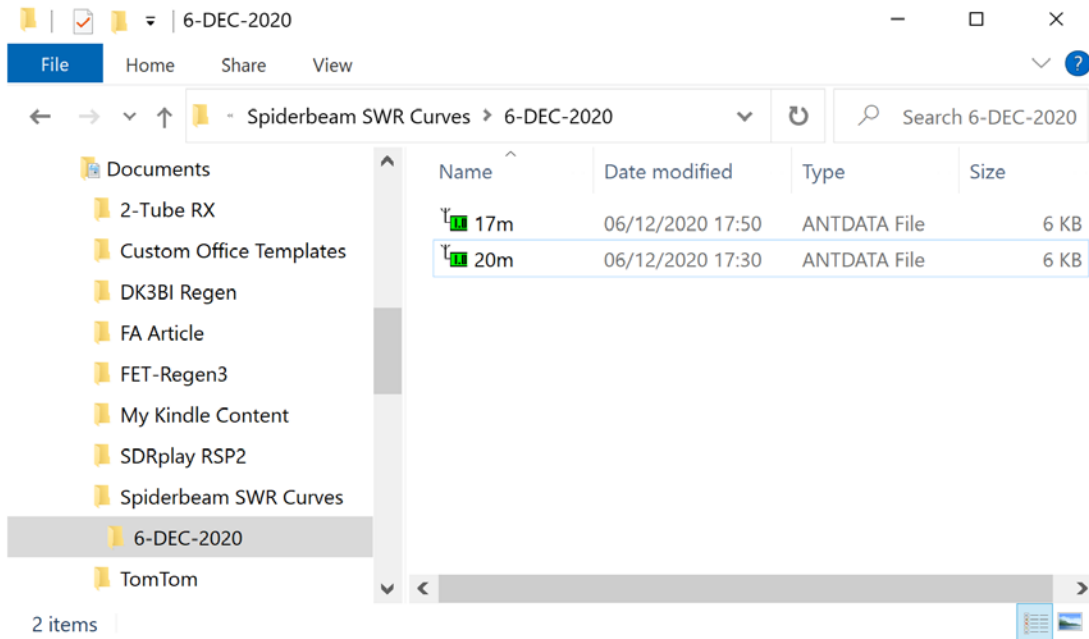
19: Change the "File name" to "17m":



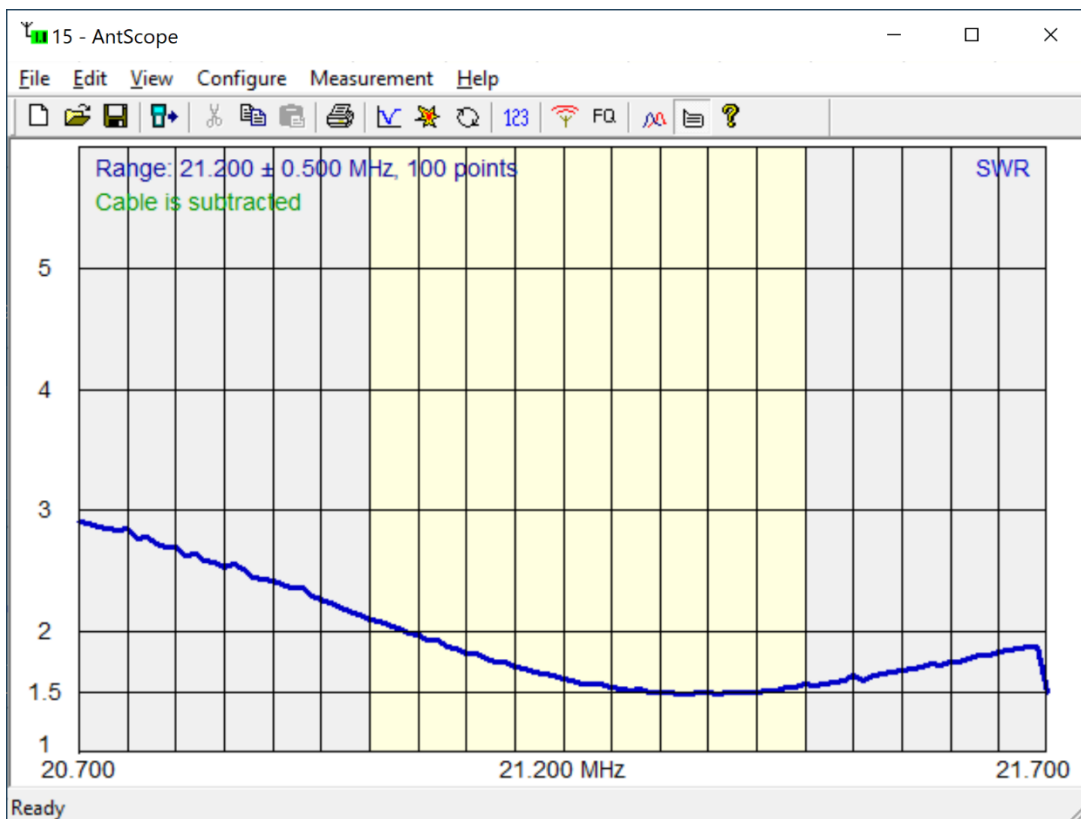
Then click [Save] ----- ↑

Working with AntScope

20: Let's check our folder again and make sure that the file has saved:



21: Return to AntScope, Click on the little green Analyzer Icon, and select the next band (i.e., 15m), then click on [Choose]. Now the 15m band opens:

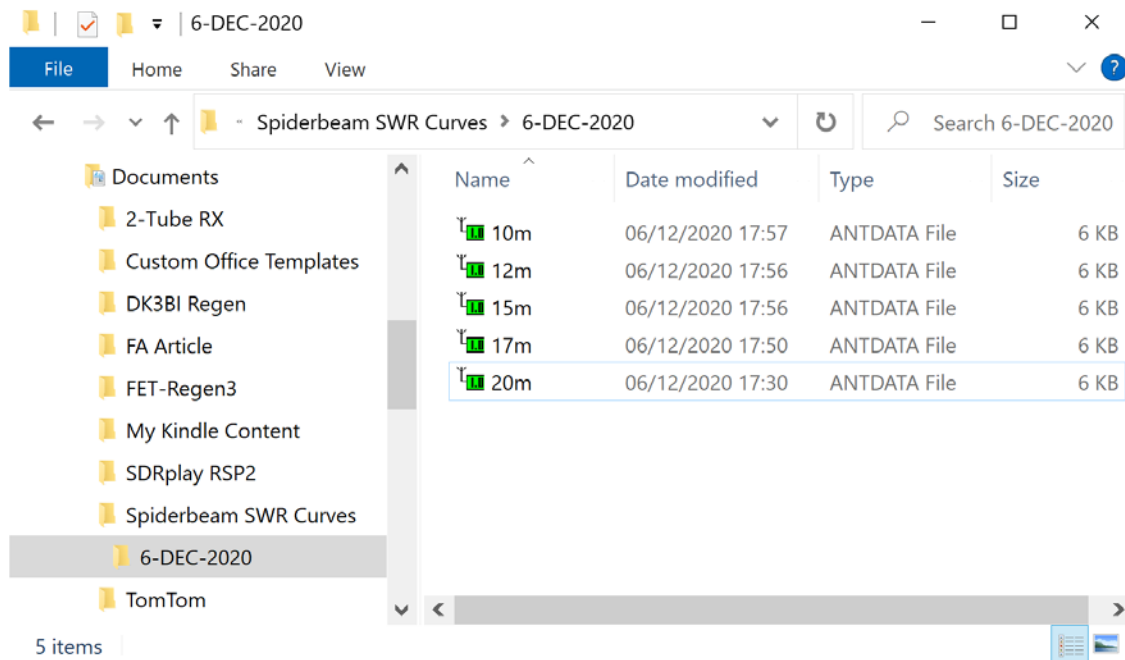


Save as before. (Don't forget to change the "File name" BEFORE saving).

Working with AntScope

22: Repeat this sequence for the remaining bands (i.e., 12m and 10m).

23: Finally, let's check and make sure all 5 bands were saved:

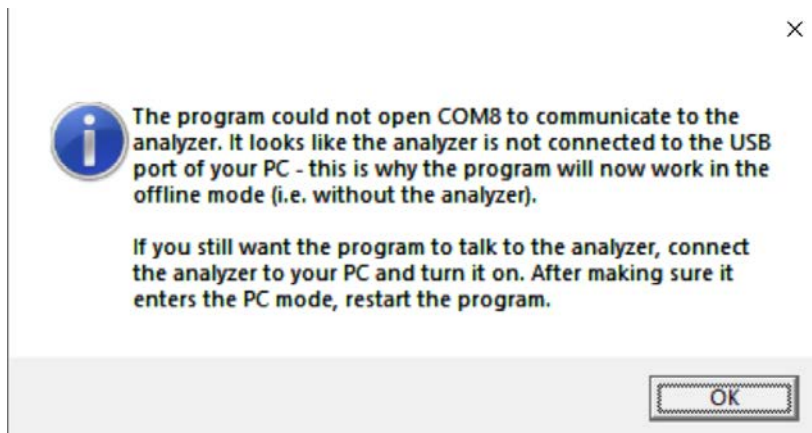


Voila!

NOW TURN OFF THE ANALYZER (to save batteries).

WORKING WITH AntScope:

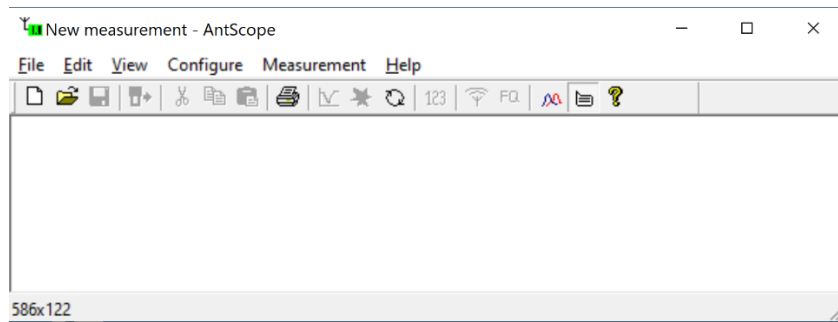
Make sure that the analyzer is unplugged from the computer, then restart Antscope. You will first get a message screen:



CLICK on [OK]

Working with AntScope

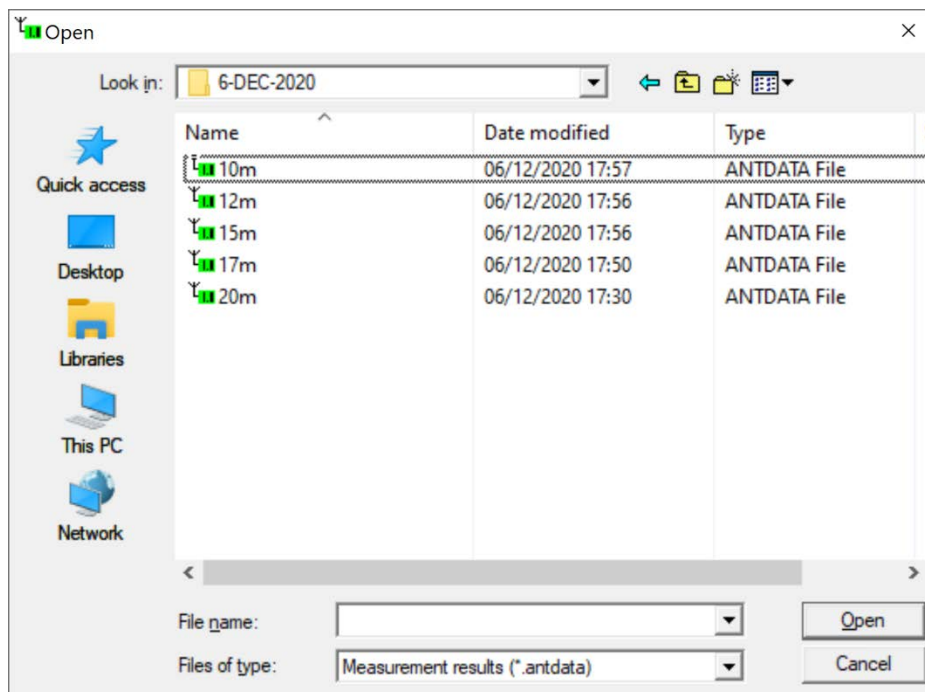
The AntScope Start Screen opens, but does not show the green Analyzer Icon:



Let's look at one of our previously saved files:

1. Click on the Open Folder Icon (📁) in the top left menu.

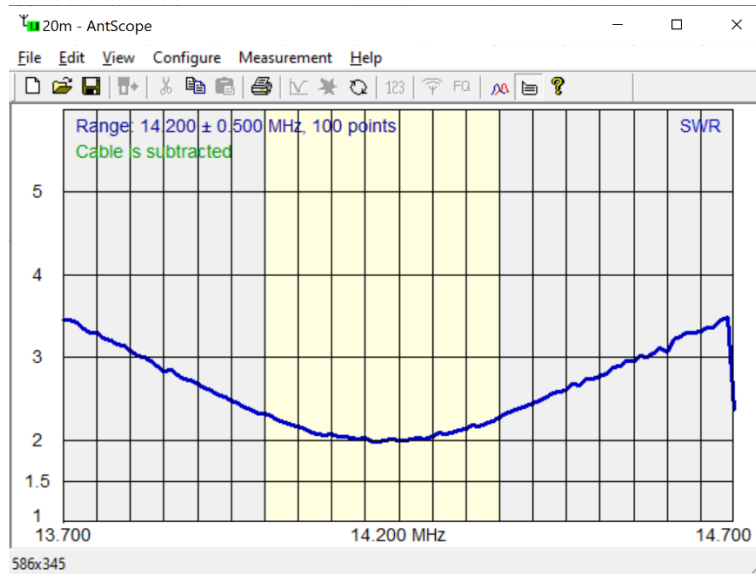
Normally the Windows Explorer will open to the folder in which you last saved or viewed files in AntScope:



If Explorer opens to some other location, browse to the folder in which you previously saved your files. (i.e., [C/Document/Spiderbeam SWR Curves/6-DEC-2020](#))

2. Select the data file for the band you wish to view (i.e., "20m") by clicking on the file; then click [Open].
3. The SWR curve across the 20m band opens; if it opens to some other screen, click on "View" (top left) and select "SWR". See curve on next page . . .

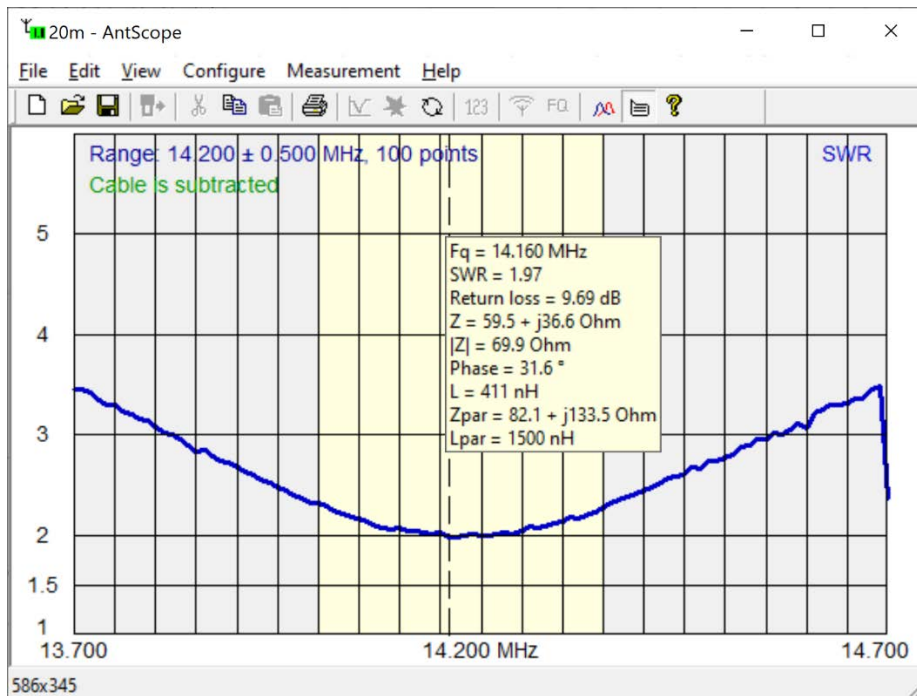
Working with AntScope



Note that this is the same as we have previously viewed when saving files.

COMMENT: The AA-54 saves 100 data check points with each scan. By a scan width of 1 MHz, that is one check point every 10 kHz.

4. Now let's look at the impedance of the antenna at its point of minimum SWR. To do this, slide the cursor horizontally across the graph by moving the mouse left or right, until you come to the point of minimum SWR; a tiny pop-up window opens:



Continued on the next page . . .

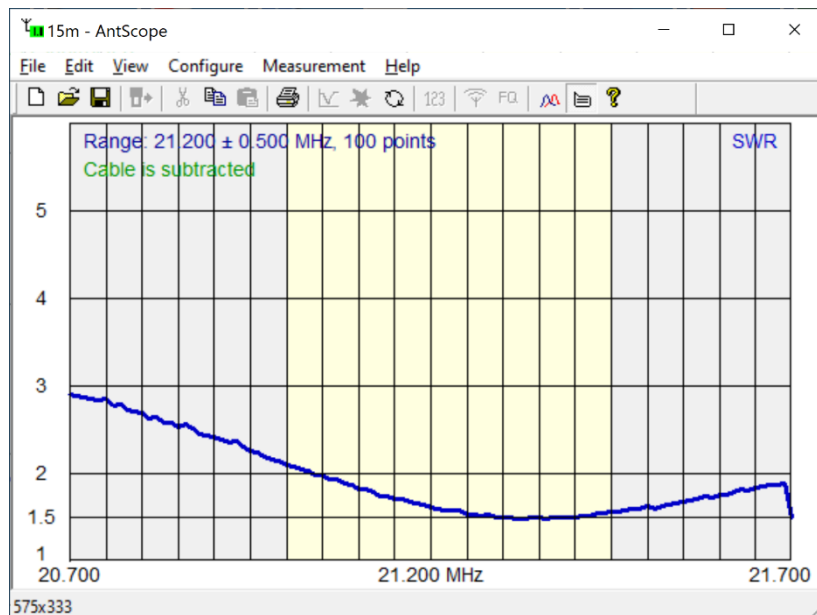
Working with AntScope

Each time you stop moving the mouse, it opens a pop-up window, showing the impedance and other parameters at that frequency. In this example, SWR minimum occurs at 14.160 MHz, and the impedance is: $Z = 59.5 + j36.6 \text{ Ohm}$.

If you wish to save this information, you can make a screen shot, then in Microsoft PAINT (or similar) CROP the little yellow box:

```
Fq = 14.160 MHz
SWR = 1.97
Return loss = 9.69 dB
Z = 59.5 + j36.6 Ohm
|Z| = 69.9 Ohm
Phase = 31.6 °
L = 411 nH
Zpar = 82.1 + j133.5 Ohm
Lpar = 1500 nH
```

5. To view another band, click the little “Open Folder” icon in the menu (top left), click on another band, and then click [Choose]. (i.e., “15m”):



Once again, I remind you that the SWR curves shown in this document are not taken from a Spiderbeam Yagi, but rather from Spiderbeam’s “Aerial-51 Model 807-HD” OCFD antenna. The curves shown here differ from that of a Spiderbeam Yagi, but the procedure is the same.

[END]