That Pesky Slant—The WWV Alignment Approach

My original tutorial, *That Pesky Slant*, provides a good overview of slant configuration for MMSSTV software. It is very important that you have your RX and TX adjustments made. Otherwise, it is like having crooked pictures hung on your wall. They just aren't that attractive.

In the original tutorial I explained how I received exceptional help from my friend, Stu W2PTH. He has an impeccable slant adjustment. One good way is to seek help from another ham who is experienced with slant adjustments and you will be aligned on the air in no time.

In this tutorial I will explain an alternative technique which you can do at home with a little patience as you let your receiver copy WWV (or WWVH out of Hawaii).

Tune Your Receiver to WWV

Wait for a time of day when you can clearly receive WWV out of Fort Collins, CO. Two good frequencies to check are 10.0 and 15.0 MHz.   WWV transmits an AM signal throughout the day.

Next, go to the Option>Setup MMSSTV section of the software and go to the MISC panel. Click on the **Adj** button in the bottom left corner.
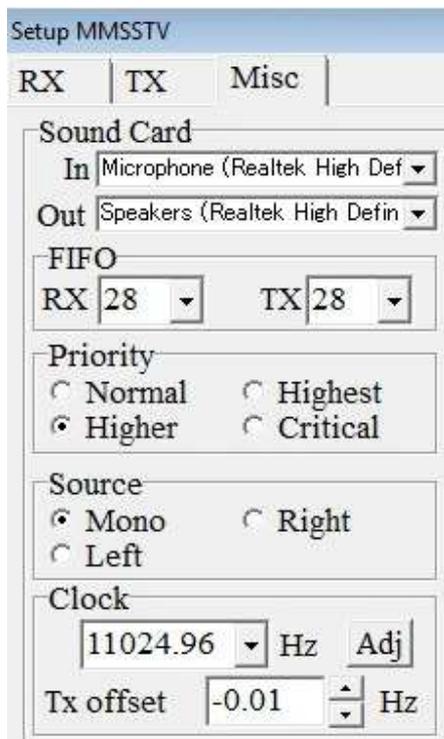
That will bring up the following screen with a few instructions which I will cover in detail here.

Let this signal come through for a couple minutes until you get a nice stable set of red marks on the screen. Left mouse click on a good representative location, as I have done and then you can drag the line a bit to one side for a temporary placement out of the way.

Now you are going to wait for about 10 minutes until you get a nice long, vertical line of red marks.
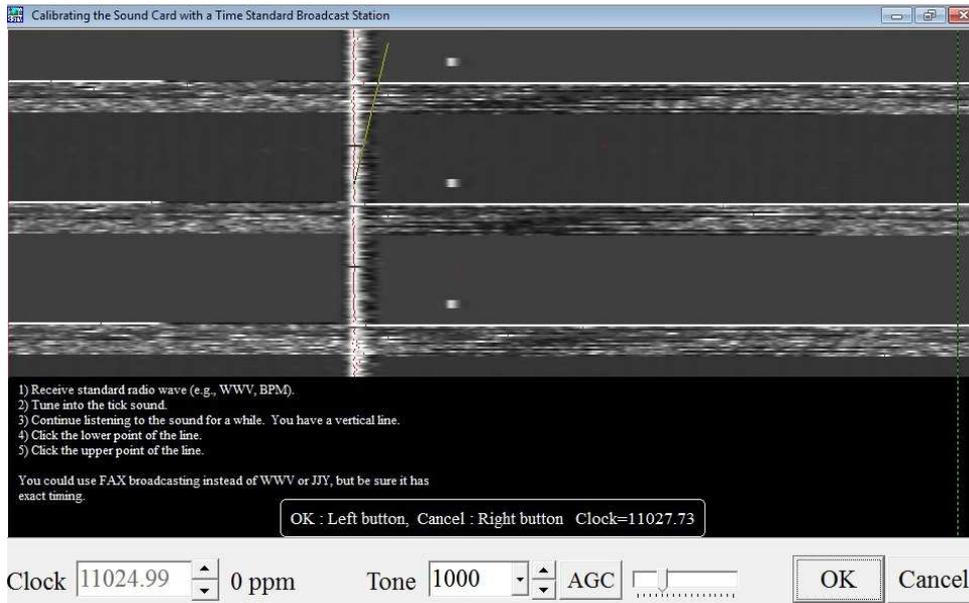
After about 10 minutes, carefully align that line until is vertical and once it is, left mouse click on another representative red mark. That will set your clock RX frequency. In my case, it is set to 11024.99. You are now done with RX alignment. Congratulations!
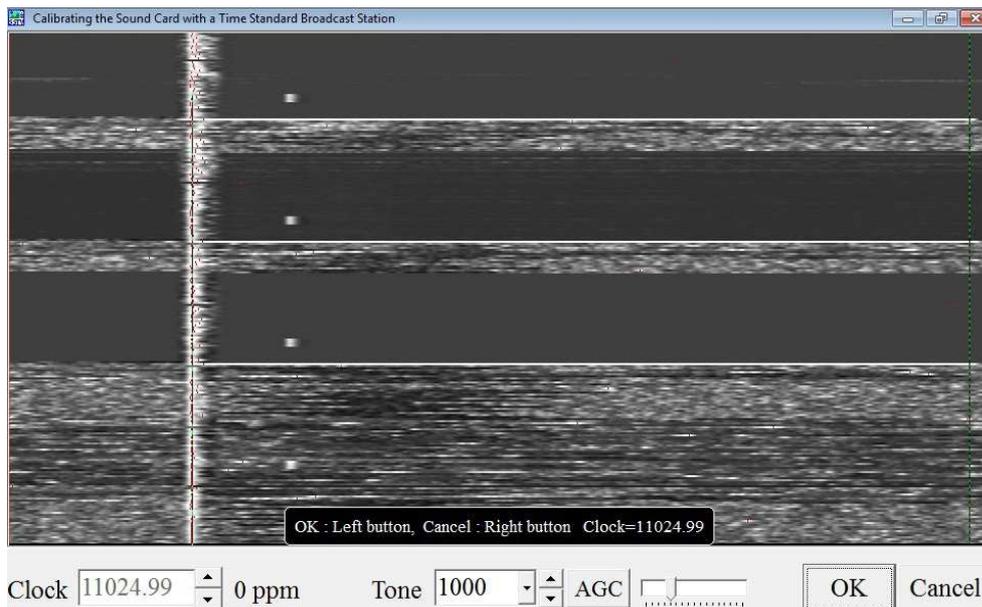
Next **TURN OFF** your transceiver. We don't want to transmit over the air.

Go to the TX panel, and select **Internal** for your Loop back setting.
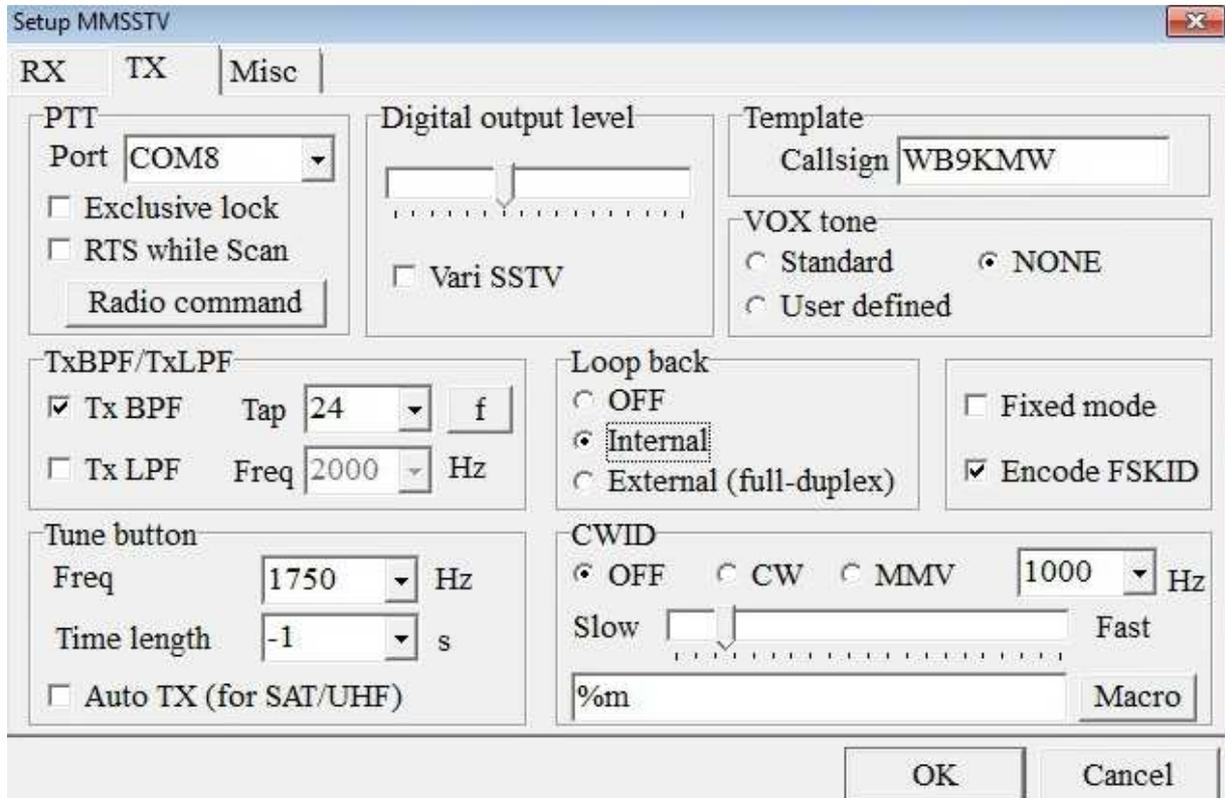
Then select a picture/template and hit the TX button in the MMSSTV pane. Remember, DON'T have your transceiver turned on!

I chose an old computer with a horrible TX slant to illustrate for this tutorial.
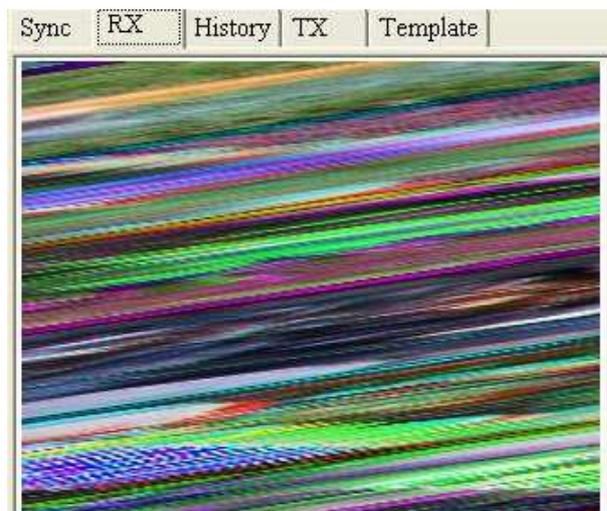
Now go to the Sync pane. Click on the yellow smiley face. That will calculate your TX slant offset adjustment. In my case, it is a whopping -76.29 Hz. Just write this down on a piece of paper. (Don't hit the Mem button.)
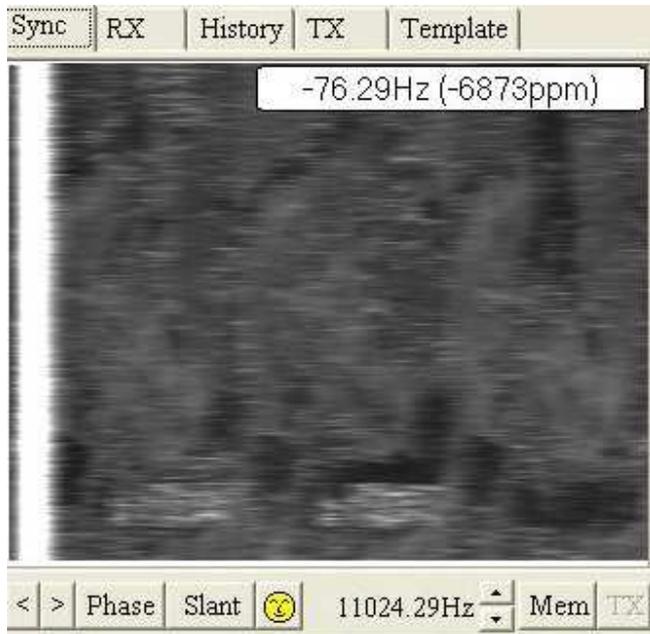
Just to show how much this helps, when I go back to the RX pane, my image is now straight. Once I correct for this in the MMSSTV configuration, I will be transmitting nice, straight images over the air!

Go back to the MISC panel in the Option>Setup MMSSTV section, and insert the TX offset adjustment (in my case, -76.29). Now you have your TX aligned. Congratulations.
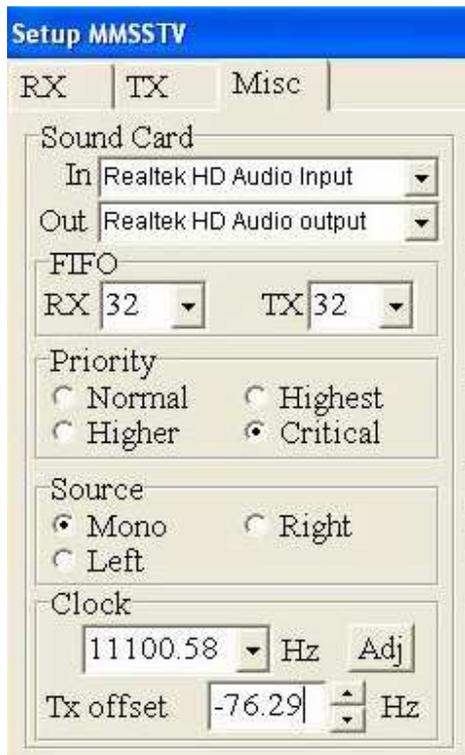
The final step is simply to go back to the TX panel and set Loop back to OFF once again.

Have fun with SSTV!

73,

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