

Q:

I have been playing around in school with WXtoIMG software and my ICOM IC 7000 with very marginal results. Can you offer any tips for using this setup. My antenna is on the school roof and is a 2 meter beam with an old TV rotator. Would I gain anything by tilting the beam upward say 25 degrees or so? Any help would be appreciated.

A:

There are two issues you are dealing with. First and most important is the narrow IF of the IC7000. That receiver is designed for voice communication and has an IF bandwidth of about 15KC, for receiving the imagery you need a radio with an IF bandwidth of about 40KC.

There is a work around that helps but it is not perfect. If you go to Options, Recording Options, you'll find a section for having the software control the frequency of the radio for Doppler. There is a driver listed for the IC7000. You will need to have a cable to connect the computer to the radio, and I believe the ICOM series of radios requires a special interface called CVI. Perhaps the modern radios already have the interface installed. You'll have to check the documentation that comes with the radio.

Another work around is to manually track the Doppler during the pass. On these frequencies the Doppler isn't too bad, I'd suggest starting the pass at 5KC high, on frequency at the middle of the pass, and -5KC at the end of the pass. Perhaps just set up 3 memory channels and click through the channels during the pass. Either of these will help, but again, only a work around for the narrow IF bandwidth.

On the antenna, many folks point the antenna up at 45 degrees and manually track the AZ during the pass. This configuration will cover 90 percent of the passes. An alternative to is try the turn-style antenna in the WX Satellite Handbook, a simple antenna project.