Q:
We are running two radios, Icom 271H and 471H's with a CT-17. It is connected to our computer through a USB – to – serial adapter (we tried as well going with an older computer with a direct serial port too). We can get the radios to change frequency when we first move from satellite to satellite or first open the program, or if we toggle the C +/- icon in the AMSAT program.

We cannot get the CAT control working fluidly where, whenever a small increment of Doppler shift has happened it does not update the change in the radios, unlike the rotor controls which updates every so many seconds.

Would you have any idea why this is not working correctly? We would prefer to have the CAT control, so that the radio operators can focus on other things rather than doing it manually. We are wondering if we are missing something in the program settings, although we have modified all that we can. We have been using the baud rate at 1200, the CAT delay we have varied from 100-140, and have ensured that the hex addresses for our radios are properly entered.

A:

The first question to ask is what is the interval setting that you are using in the CAT Tuning window? The default values are very high. I use settings of 10 (HZ) for SSB/CW and 100 HZ for FM. If these numbers are too high, then the Doppler correction will not be sent to the radios until the shift equals or exceeds these values.

Let me know what your setting are, it could just be this simple fix.

Also, your baud rate of 1200 baud seems a little low. If the settings are changed as above, and that works, why don't you try 4800 or ideally 9600 baud to communicate with the radios. I have found 9600 about as fast as normal cabling and interfaces can handle, and more than fast enough to get the data through with rapidly changing Doppler.