

Pennsylvania EMnet Satellite Aiming Information

Receive Only Dish

Receiver – Westport, B2C2 (internal receiver card) or Optibase

Satellite – AMC-1

Orbital Position – 103.0° W

Transponder Downlink Frequency – 12.144.5 Mhz

Polarization –VERTICAL

FEC- $\frac{3}{4}$

PID- 0x0401

LNB Polarization is Vertical

The Pickup wire will be Vertical.

The opening (waveguide) will be horizontal.

Using the Westport Receiver to Align the Dish

Depress the down arrow until the display indicates receiver utilities. Once there press the enter key, followed by the down arrow until you reach the display that says “Press enter to align dish now”.

Assuming that the receiver was in the “no signal” state after initialization, when you enter the alignment mode the receiver will start a steady beeping that sounds somewhat like a busy signal on your telephone. This “beeping” signal is actually conveying two pieces of information to you. First, the use of a “beep” as opposed to a steady tone says that the current signal (if any) is not the correct satellite. Second, the frequency or pitch of “beep” says how strong the signal is. As you “pan” the azimuth of the antenna left and right, searching for the satellite, the frequency of the beeping tone may go up and down as you encounter signals from other satellites, but until the correct satellite is found the “beeping rate” will remain constant. When the correct satellite is found the “beep” will switch *to a steady tone*. This is your indication that you have located the correct satellite. Now small changes in the azimuth (direction) or elevation of the dish will cause the frequency of the *steady tone* to raise or lower. The higher the frequency, the stronger the signal you will hear. Your goal is to find the antenna position that yields a peak in the *steady tone* frequency, and then secure the antenna in that position.

Once you have found the proper satellite, the first line of the display will change from “no signal” to “signal lock”. The AGC number directly relates to the signal strength. A low number represents a low signal level, while a high number represents a strong signal. The maximum value that will be displayed for the AGC number is 255. Press the enter button once again to exit the alignment mode.

Once the receiver is properly aligned, the Westport Research receivers require entering the proper Time Zone for the site. Consult the NFS4 document for the procedure. Please make sure that the Time Zone entry is correct. If it is incorrect then the logs that the receiver provides will also be incorrect. It is also necessary to turn “Lock Alarms” to off so that the receiver does not beep every time signal lock is lost.