

## Satellite Feed Horn Polarization and Antenna Adjustment

NPR's Transponder 1 is on Galaxy 16 at 99-degrees west longitude.

**Note:** Please consider using <http://www.dishpointer.com/> to aid in locating the exact antenna pointing coordinates for your site's physical address.

NPR's **Horizontally Polarized** Content Depot "Combined Carrier" downlink carrier is on Transponder 1. Please setup your spectrum analyzer to display our New L-Band Combined Carrier centered at 1430 MHz on transponder 1.

**Please review the L-Band downlink transponder plot provided.**

To solve any signal reception problems the site engineer needs to consider inspecting and adjusting his antenna's feed horn polarization and peaking his antenna's azimuth and elevation for optimum performance. Before making any polarization adjustments please place a "**witness mark**" showing your starting point on the antenna feed horn and ring. This can be done using a scribe or permanent marker. Doing this will enable a quick return to your original settings.

The provided plot illustrates what a properly polarized and peaked antenna at your site should look like in order to receive NPR's Transponder 1. Loosen and rotate the feed assembly until the transponder carriers are peaked and the surrounding noise floor is minimized.

**Note:** Please use the same procedure of placing "witness marks" before adjusting the antenna's azimuth or elevation.

After using the plot to complete the polarization adjustment described above one can, if he chooses to, "**peak the antenna**" using its **azimuth and elevation** adjustments. If it is already peaked as you make any of these antenna adjustments the carrier level on the spectrum analyzer will decrease. If it is not peaked adjust to achieve the **maximum downlink signal carrier level and the lowest noise floor**. You are seeking to get the maximum carrier signal level while maintaining the lowest noise floor.

**Note:** If the engineer has chosen to peak their antenna then they need to recheck the feed horn polarization afterwards.

Upon completing these steps the downlink antenna should be optimized for receiving NPR's Content Depot programming without any signal dropouts or audio problems.

We hope that this information helps to optimize your antenna for the best downlink reception of NPR's Content Depot signals at your site. If you have any problems, please contact the Network Support Center for assistance.

Thanks,  
NPR - Network Support Center  
1111 North Capitol Street, NW  
Washington, DC (PH 202-513-2650)

Here is a recent plot showing an image of the new NPR Combined Carrier:

