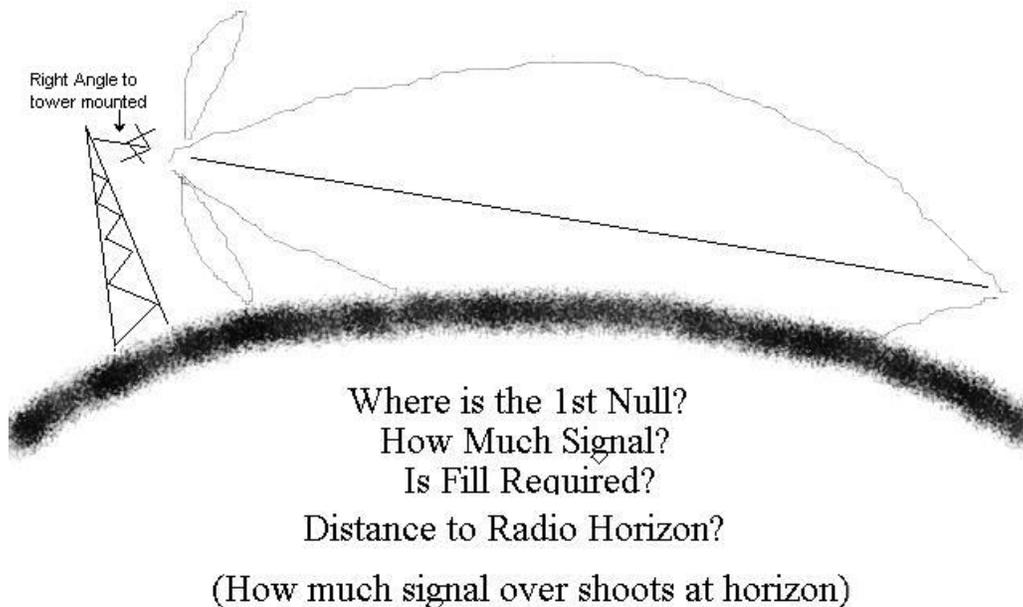




## Why Electrical Beam Tilt and/or Null Fill?



In some cases, for relatively flat land, the maximum power point of the RF envelope will touch the Earth's surface. This is Good! In others, the envelope will be above or below the Earth's curvature. While this would be Bad! It may be desirable to electrically tilt the signal so your maximum signal is not above the earth, nor pounding your RF into the dirt limiting your potential coverage.

Why Electrical tilt and not mechanical? With electrical, you get the same bending on all sides of the tower while mechanical will meet the need in only one direction from the tower and make the signal in all other directions much worse.

And Null Fill? From above you can see an area close to the tower where the signal approaches zero. In many cases, this null falls very close to the tower and is of no consequence. But with a tall tower, or a tower on a hill overlooking a lower reception area, and/or with lots of antenna bays, the null might fall where there are many potential receivers. This can be overcome by the use of 'filling in the null' with a slight trade off in the energy sent to edge of the coverage pattern.

Your Jampro sales engineer and the Jampro Senior Staff Engineers can work with your Consultant and your station Engineers to decide if either of these techniques is applicable to your new construction.