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## Introduction

Described is a simple way to find an aim-point for a directional antenna using Google Maps. It is assumed that you will be able to visually aim the antenna from where it is mounted. This method will provide the optimum aim-point for a directional antenna. Clearly, this method is intended for use in aiming an antenna with a fixed azimuth such as those used for linking.

Google Maps provides a distance tool that draws a point to point line. This feature, along with the satellite view, allows for picking an exact aim point.<sup>1</sup>

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## Start with Your Site

1. Open a browser and go to Google Maps, <https://maps.google.com>.
2. Zoom in on your antenna site - be exact.
3. Right-click on your antenna's location.
4. Select "Measure distance"



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<sup>1</sup> Sorry, this won't work in featureless or forested areas where you can not select an aim point.

Remote Site

Zoom-out and then zoom-in on your remote site. Use either the satellite view or the map view whichever is most convenient. Left-click on the remote site location.

Navigating the map gets a bit tricky unless you understand how it works. That next 'left-click' places a second point on the map and draws a line between the two points. It is easy to put that second point in the wrong location. No worry - either point can be dragged anywhere on the map.

Now you have a direct line between the two points. As 'gravy', it gives you the distance between the points and clicking anywhere on the line gives you the distance from your site to the selected point on the line.



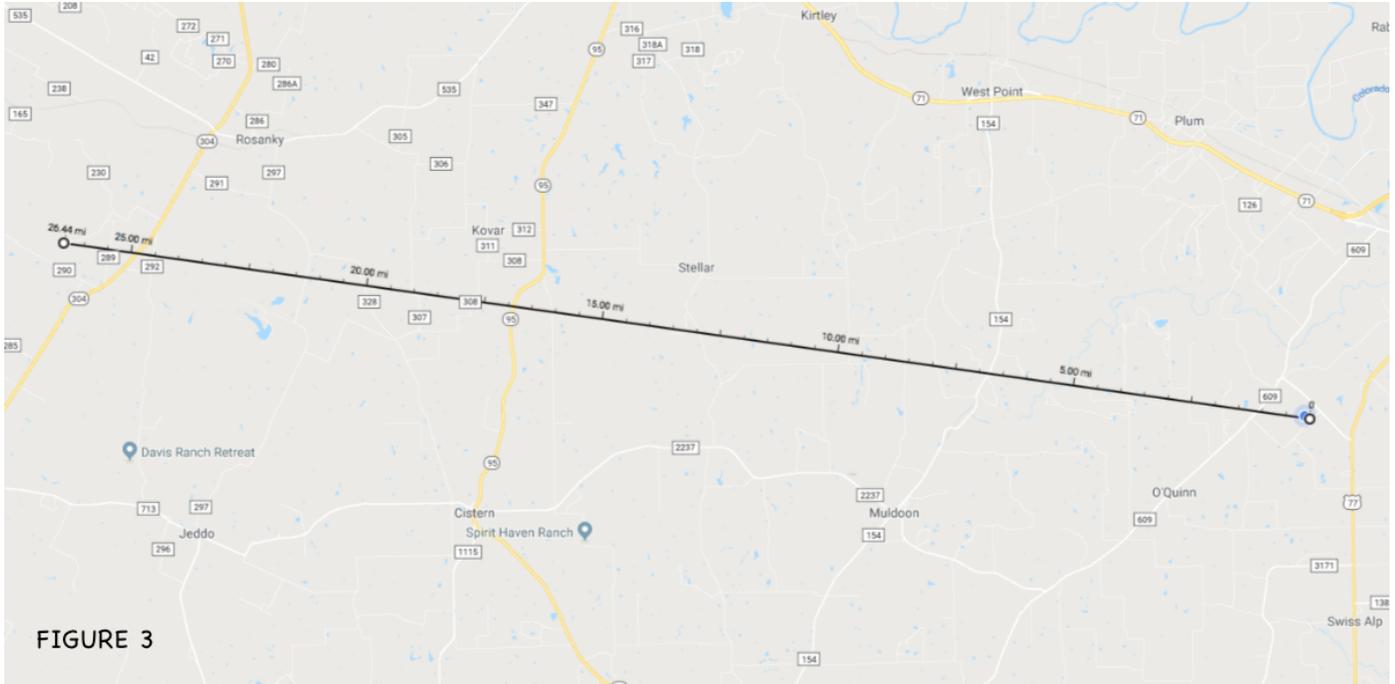


Figure 3 shows an actual path for a link in our system.

Selecting Your Aim-Point



I selected a cluster of buildings about a mile out - always use the satellite view for this selection.

My site is a Rohn 25G tower - when I mounted the antenna, I just looked down the boom straight at my aim point. I'm running the link at 4W EIRP, and it is full quieting at over 26 miles. A significant portion on the path is in the Fresnel zone, but it works great.

As an aside, depending on the band used and path particulars, consider aiming for a reflection off a building or water tower.

In summary, this method gives an exact aim-point and it works very well.