

Virtual Geo Illustrations

Illustration 1 shows a principle axis of beams from satellite VG1-1 when at the end of arc in the West North America Active Arc. This illustration shows beams 1, 2, 3, 4, 5, 6, 7, 10, 16, 23, 32, 42, 54, 67, 82, and 98 of user beams 1-127.

Illustration 2 shows a principle axis of beams from the satellite VG1-1 when at the end of its active arc in the West North America Active Arc. This illustration shows beams 1, 2, 3, 4, 5, 6, 7, 10, 16, 23, 32, 42, 67, and 98 of user beams 1-127. Both ends of the active arcs are at the same altitude.

The .gxt files appended illustrate similar beams projected from GEO at 100 W longitude. The beam in the center of the United States is illustrative of a similar beam projected from a Virtual Geo satellite in an active arc over North America. Once we obtain better .gxt-capable software we can improve on this illustration to show projections from Virtual Geo orbital locations.

The circular beams in the user link hexpack of beams are of conventional circular design with conventional roll-off characteristics of such beams. Illustration 3 shows beam contours from -2 dB by 2 dB steps to -10 dB from apogee in the West North American Active Arc.

Transmit and receive user beams overlay each other.

Feeder link beams are of a similar size, shape and contour interval, but are steerable to place and maintain the beam peak on gateways and control facilities distributed over the service area.

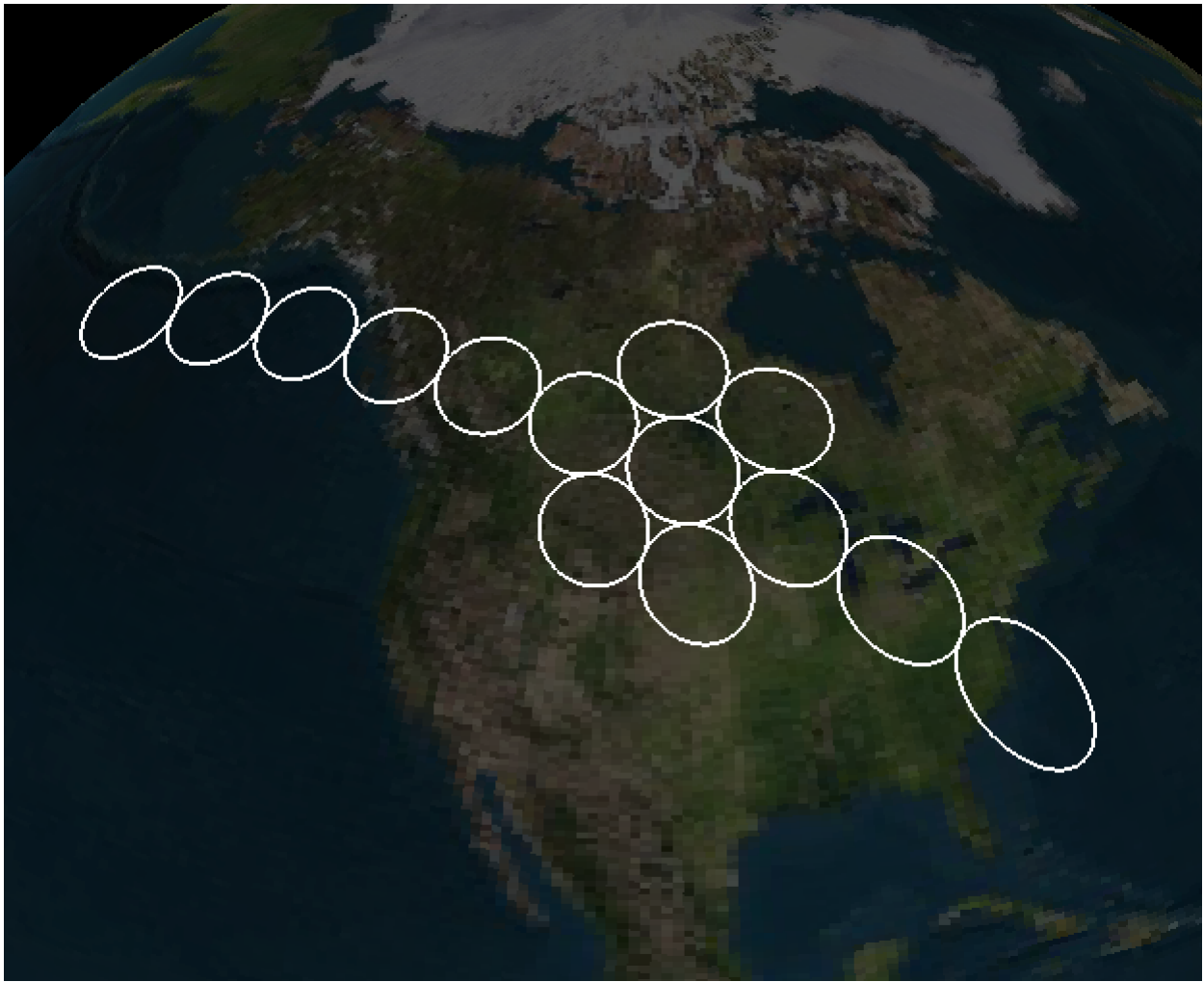


Illustration 1: , Principle axis of hexapack beam array from West North America Active Arc end-of-arc



Illustration 2: Principle axis of hexpack beam array from West North America Active Arc apogee

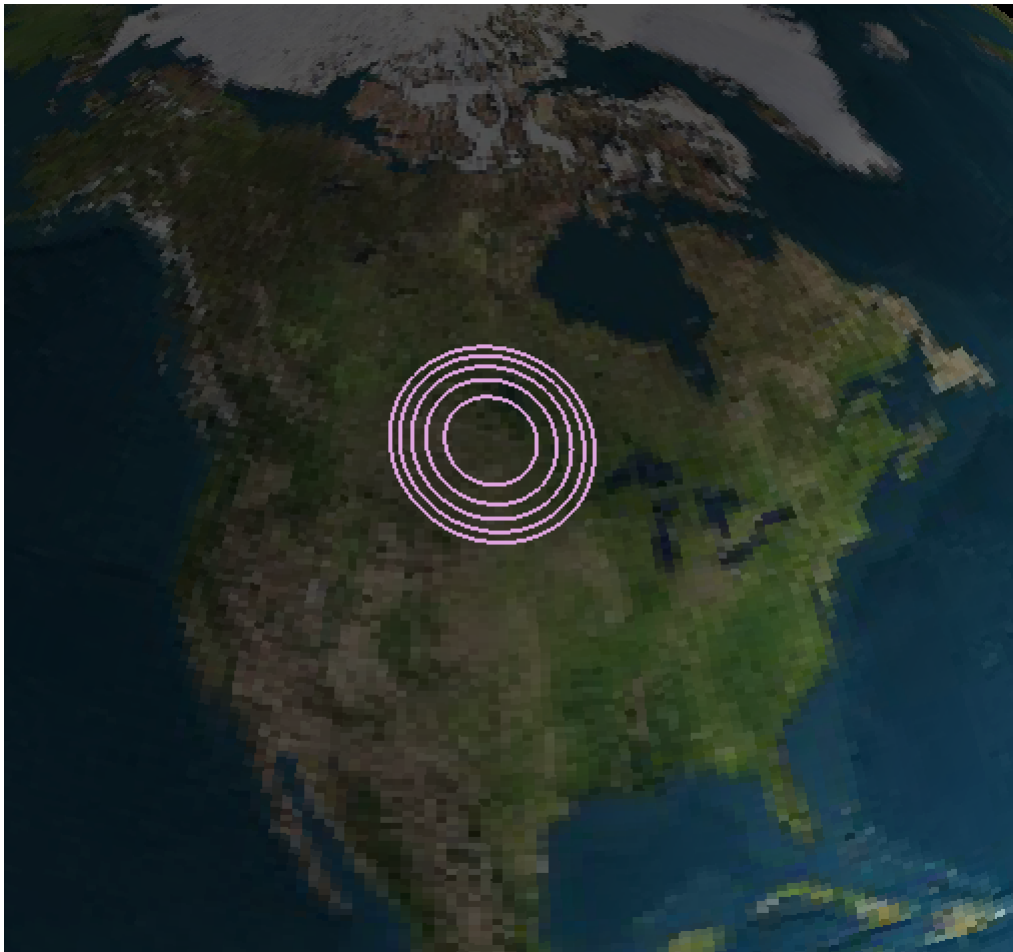


Illustration 3: Center beam contours in 2 dB steps to -10 dB