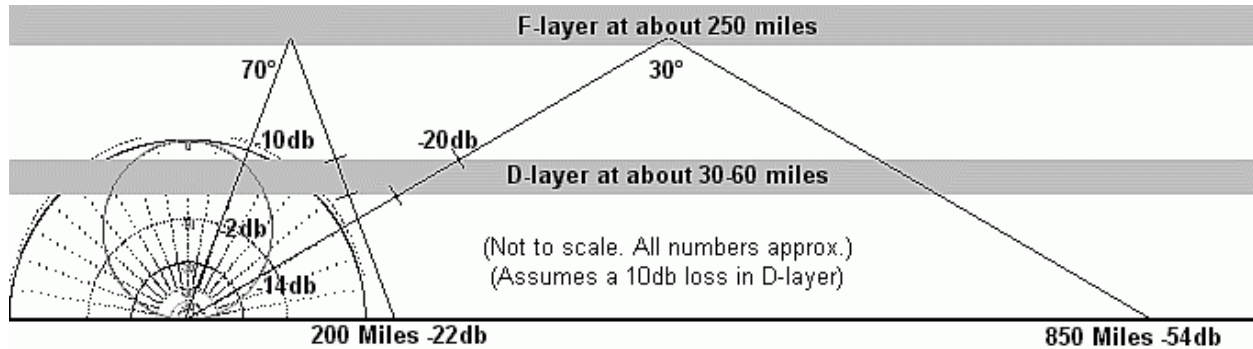


Introduction to NVIS

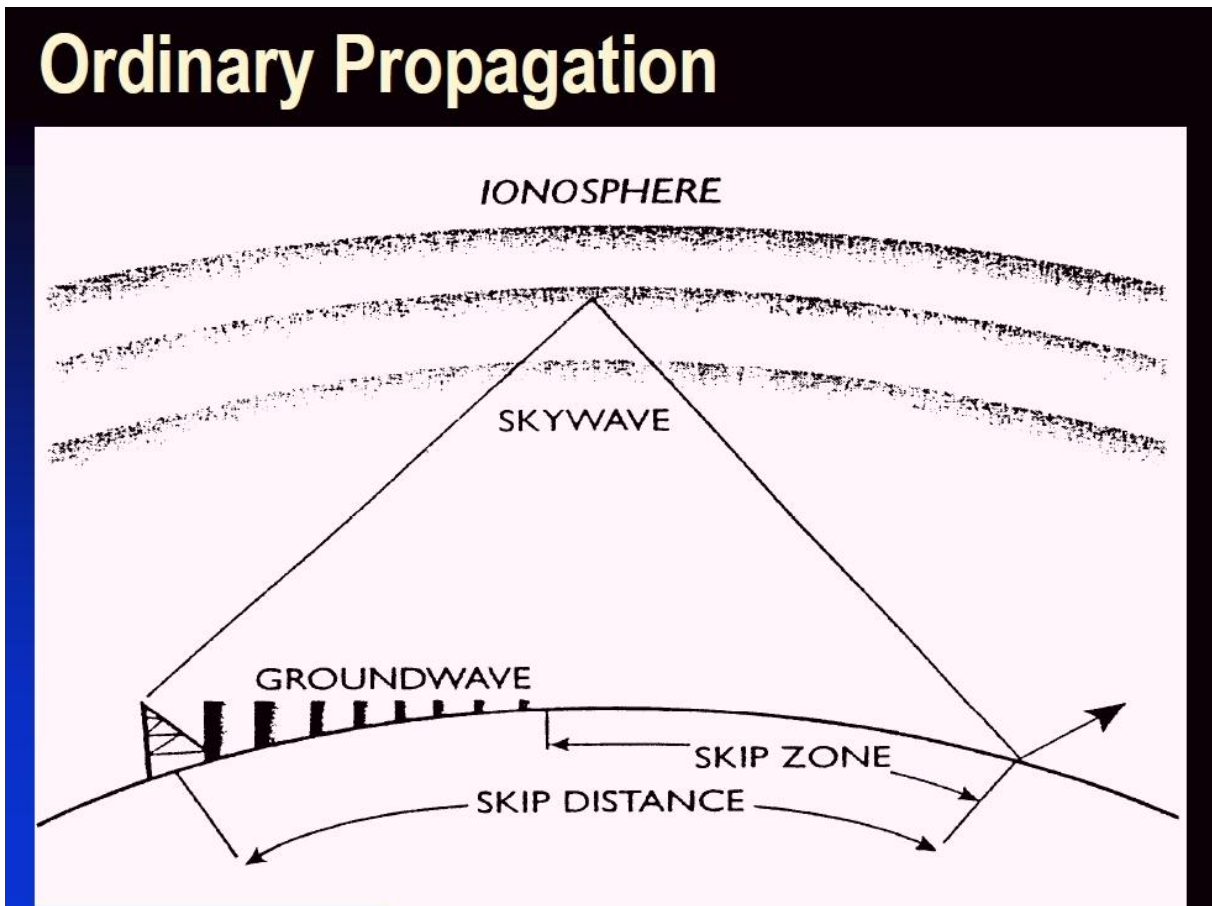
NVIS is often thought of as a special antenna though it is more of a skill and method of communication on HF (short wave) radio.

NVIS or Near Vertical Incidence Skywave is a great way to communicate in a zone that is otherwise a void for radio.

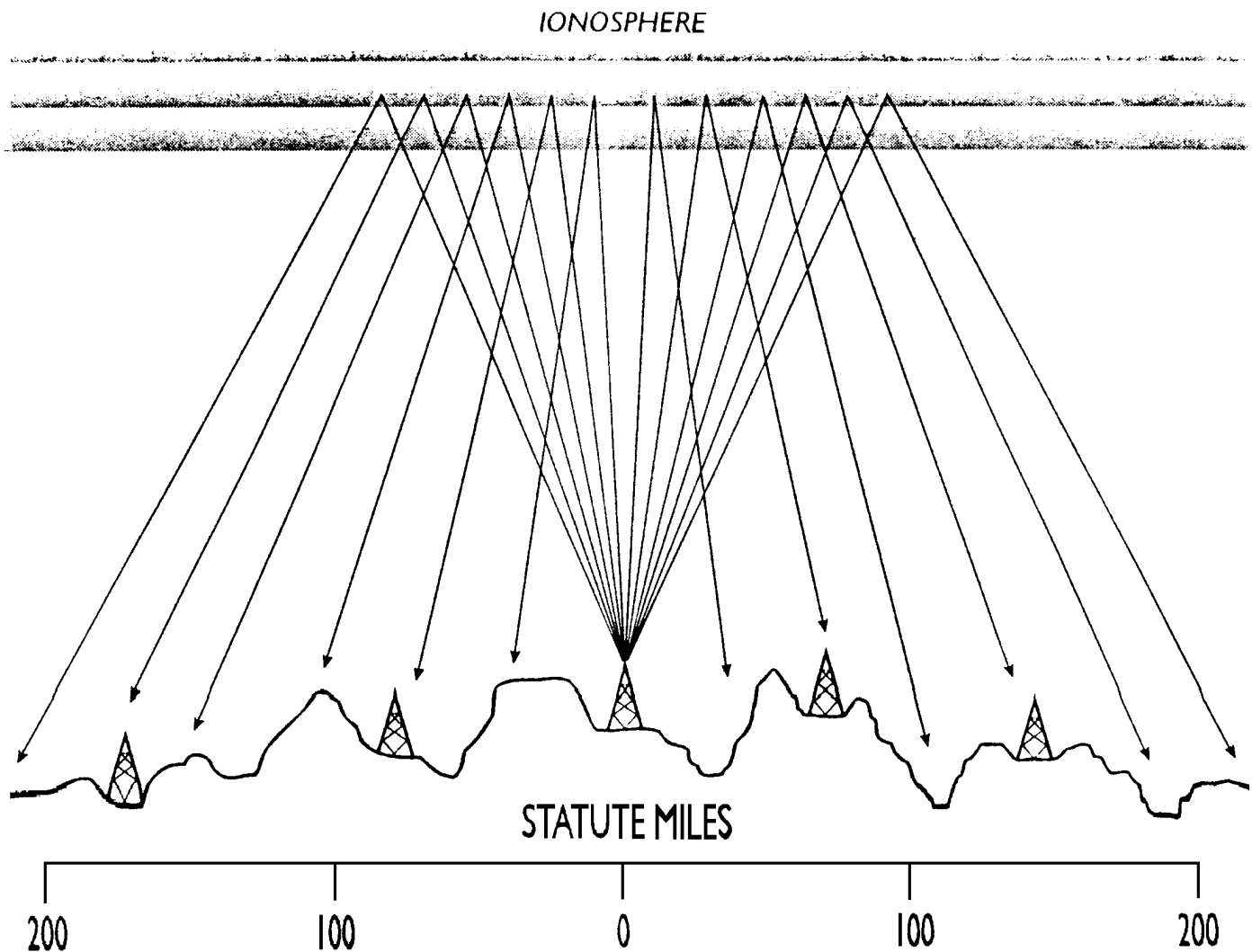
Most radio, VHF, UHF, HF work line of sight to about 15 miles and after this the curvature of the earth pretty much blocks the signal as radio does not penetrate earth well. A high position or repeater allows for VHF/UHF to be heard farther, a 200 foot tall repeater can be heard 27 or so miles away.



But HF bounces off the "F" layer of the ionosphere and can communicate hundreds and often thousands of miles...but leave the area between 15 mile ground wave and the 300 to thousands of miles away zone where the signal is normally NOT HEARD...while you can talk thousands of miles away there is a area of coverage that you often need that is SKIPPED OVER..



Well with NVIS ,we point your power UP (almost straight up) to be able to bounce a small percentage of it back to earth CLOSER TO YOU and this allows coverage BEHIND HILLS,IN VALLEYS and places you cannot reach. Your signal goes almost straight up and scattering it from the reflecting layer 75 to 125 miles above earth...Kind of a pool shot that makes your signal rain down all around you from right at your feet to about 300 or so miles away.



With NVIS...you are able to talk closer in the 'normal' HF signals and have much more reliable 0 to 300 or so mile area of coverage...

PLUS distant stations will still hear and be heard by you with the NVIS antenna...just not quite as strong of a signal.

The NVIS signals are normally effective on 80-60-and 40 Meters as the higher frequencies penetrate the ionosphere while the lower frequencies 'bounce' more readily. The antenna is just a horizontal dipole or other antenna placed about 1/10 wavelength above the ground. So this is how you get the best area coverage and most consistent communications in woods, hills and valleys.