

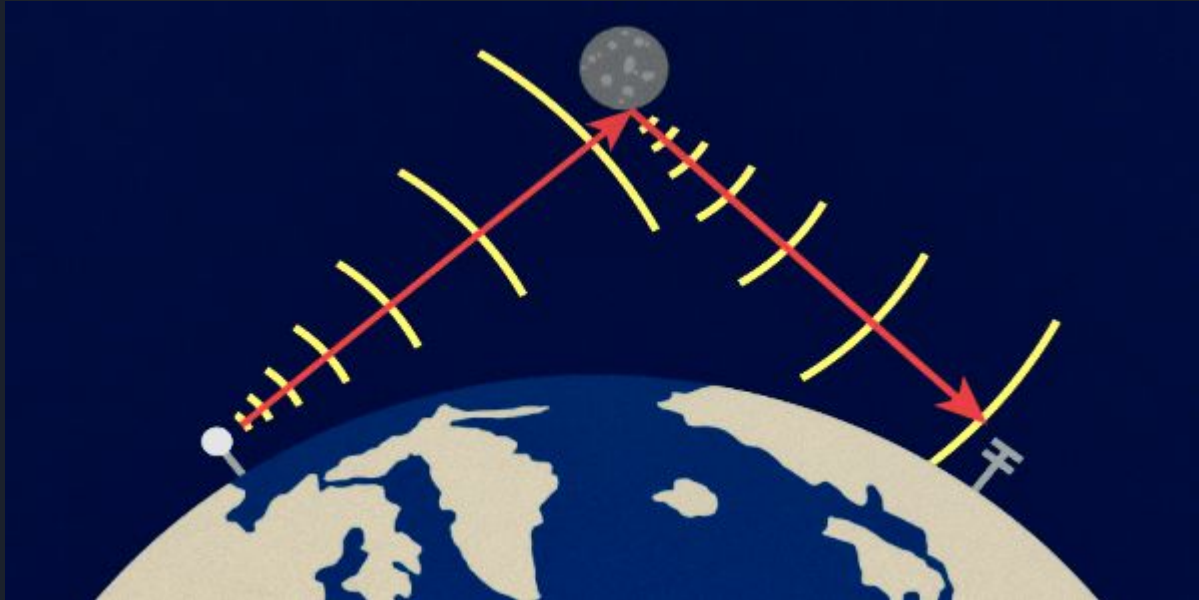
Moon Bounce with K2GXT

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Earth - Moon - Earth (EME) Communications

Bounce radio signals off the moon allows amateur radio operators to talk around the world. An operator can talk to any other station that can see the moon at the same time. K2GXT, RIT's Amateur Radio Club decided to try it out!



Antenna

To successfully make a contact, an antenna with lots of gain needs to be used. The club already had a 18 element cross polarized UHF yagi antenna with 14 dBd of gain. This gain is like having 29 times more power. The antenna is tuned to 432 MHz.

An antenna rotator is used to be able to point the antenna at the moon remotely.



Radio

The club has a Kenwood TR-9500 UHF radio. This is a multimode radio that supports FM, AM, USB, and LSB modulation. It is connected to a pre-amp to boost the received signal, as well as a 100W amplifier. With the amplifier and the antenna gain, we have an effective power of about 3000 watts!

The radio is connected to a computer to allow us to use digital modes.

