# UNAVCO Resources: Communications Options

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UNAVCO has worked with and supports the following communications options for GPS and meteorological data transmission. Click on the photograph of the hardware for more information, including specifications, how-tos, and configuration examples. UNAVCO will work with individual groups to help determine the most effective communications option for each remote site or network.

| | | |
|---|---|---|
|  | Cellular Modems | Cellular modems work anywhere adequate cell service, and do not of-sight to another modem. Cost hardware and ongoing cellular se modems are currently used in the Boundary Observatory (Western BARGEN (CA, NV, UT), and N Peninsula (Costa Rica) networks. |
|  | Radio Modems | Radio modems require line-of-si proximity, directly or via a repea master radio modem connected d remotely to a download compute modems can support either serial protocol, depending on make and is no ongoing service fee as there with many of the other communi options, making radio modems ic networks or sub-networks with si visibility. Links can be effective depending on foliage, atmospher topography. Either serial or ether modems are currently in use in th Boundary Observatory (Western Negra (Galapagos), BARGEN (C and Peatland Bogs (MN) network sites CHPI (Brazil), TANZ (Tanz BOGT (Colombia). |
|  | Satellite Communications | Satellite communications options and Iridium modems can work ar worldwide; no line-of-site betwee required. Because of high ongoin other options are generally chose with cellular or internet availabili |

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| | | satellite communications allow da from remote sites in sparsely or u areas. VSAT modems are current Plate Boundary Observatory (We and Puerto Rico networks; Iridiu currently used in the POLENET (Antarctica and Greenland). |
|  | Wireless | Cisco Aironet Wireless Bridge. |
|  | Analog (Dial-up) Modems | Analog (dial-up) modems work w line is available. These modems a useful for sites with direct phone master download sites. Because t generally faster options, analog m decreasingly used but still transfe many sites established in the past Analog modems are currently in BARGEN network (CA, NV, UT |
|  | Short-haul Modems | |
|  | Serial to Ethernet | Serial to ethernet devices are typ interface older, serial-based rece Trimble 4000) with an ethernet c They are also used to connect ser directly to the internet or to tie in Serial to ethernet devices are cur the BARGEN (CA, NV, UT) and Bogs (MN) networks and at IGS (India). |

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