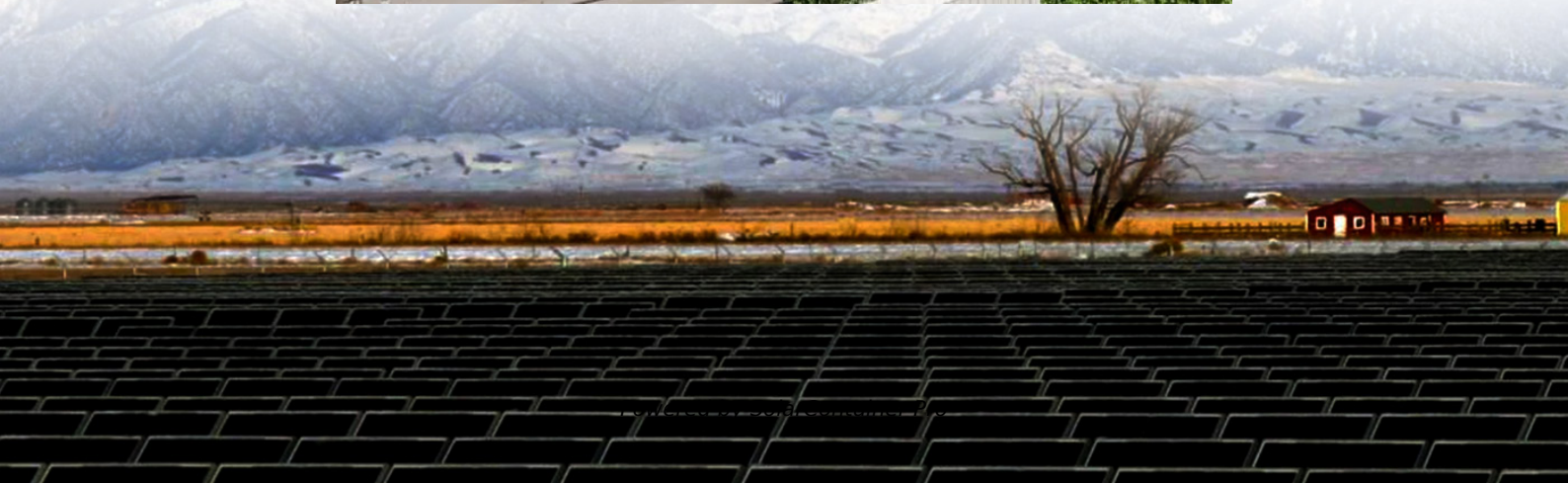


# **The base station communication distance is relatively short**





## Overview

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Does increasing base station transmitter power increase radio range?

Increasing base station transmitter power will nearly always increase the communications range, but usually by less than anticipated. For aircraft at altitudes below 8000 feet agl, even a relatively low power transmitter will reach the radio horizon with an acceptable signal level.

What is a base station in radio communications?

In radio communications, a base station is a wireless communications station installed at a fixed location and used to communicate as part of one of the following: a wireless telephone system such as cellular CDMA or GSM cell site. Base stations use RF power amplifiers (radio-frequency power amplifiers) to transmit and receive signals.

Why can't aircraft communicate with a base station?

Since vhf radio signal travel along a "line of sight", aircraft that are behind hills or beyond the radio horizon (due to earth curvature) cannot communicate with ground a station, regardless of other favorable conditions. The next most significant factor is base station antenna height.

How much exposure can a radio base station have?

On the ground, in houses, and other places where people reside, the exposure levels from radio base stations are normally below 1 percent of the limits. Only in the close vicinity of the antennas can the exposure limits sometimes be exceeded.

What is a base station antenna?

The base station antennas transmit and receive RF (radio frequency) signals, or radio waves, to and from mobile phones near the base station. Without these radio waves, mobile communications would not be possible. Radio waves have been used for communication for more than 100 years. Radio and



television broadcasting are well-known examples of this.

Do mobile phones need a base station?

Mobile phones and other mobile devices require a network of base stations in order to function. The base station antennas transmit and receive RF (radio frequency) signals, or radio waves, to and from mobile phones near the base station. Without these radio waves, mobile communications would not be possible.



## The base station communication distance is relatively short

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### COMMUNICATIONS RANGE OF AVIATION BAND BASE ...

Increasing base station transmitter power will nearly always increase the communications range, but usually by less than anticipated. For aircraft at altitudes below 8000 feet agl, even a ...

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### **What is the range of a typical communication base station**

The typical range of a base station can be from a few hundred meters to several kilometers, with practical ranges often being smaller due to interference and other factors.

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### **Satellite Based Communication - Communication technologies ...**

Within the footprint, communication with that satellite is possible for mobile users. These users communicate using a Mobile-User-Link (MUL). The base-stations communicate with satellites ...

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[EMT Chapter 5 Communication Flashcards . Quizlet](#)

Study with Quizlet and memorize flashcards containing terms like base station, Mobile transmitters usually transmit effectively at lower





power than base stations, Most mobile radios ...

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[User Guidelines for RTK Surveys Document Review](#)

One antenna is setup on a static point with fixed coordinates and is known as the base station. The RTK base station transmits its raw observations to the rover(s) in real-time and the rover ...

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[RTK and the Federal Communications Commission \(FCC\)](#)

RTK also requires a real-time wireless connection be maintained between the base station and the rover. The radio receiving antennas for the rovers will either be built into the GPS/GNSS ...

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