

Tips For Getting Accurate Coordinates With Your Cell Phone

By Joseph Elfelt - mappingsupport.com

Online at: https://findmesar.com/p/pdf/tips_for_accurate_cell_phone_coordinates.pdf

GPS chips in cell phones and other devices produce coordinates and an accuracy value. If a circle is drawn centered at the coordinates and the accuracy value is used for the radius, then there is a good chance you are inside that circle. So obviously, **smaller accuracy values are better.**

Typically if a cell phone is outside with a good view of the sky then it will produce coordinates with an accuracy value of around 15 feet or maybe a bit better. However, there might be settings on your phone that will prevent your phone from producing the most accurate coordinates possible. If you are having trouble getting coordinates with good (i.e. low) accuracy values, then below are some ideas that might help.

Tip #1 - Almanac data.

This tip applies if you usually keep location services turned off. If that is you, then your phone likely does not have current "almanac" data which is essential information your phone needs in order to produce coordinates. So when you are getting ready to go out on a hike/ride/drive, turn on location services before you leave home. Then open FindMeSAR (<https://findmesar.com>) and let it find you. Your phone now has current almanac data and you are good to go. If you want to you can turn location services off.

Tip #2 - iOS 14

A new feature in iOS 14 lets the user tweak the phone's settings to intentionally degrade the accuracy of coordinates produced by the phone. For more information see this article: <https://9to5mac.com/2020/08/12/ios-14-precise-location/>

I tested this by turning off "precise" location for the safari browser on my iPhone 11 and then opening the FindMeSAR (<https://findmesar.com>) webpage with safari. FindMeSAR gave me coordinates with an accuracy value of just over 2 miles. Yikes!

If an iPhone is giving terrible accuracy then check the settings as follows:

1. Open up settings
2. Go to the screen where location services are turned on/off
3. Scroll down to your default browser (usually Safari)
4. Do you see a switch for "precise" location (new in iOS 14)? If so, turn it on and try FindMeSAR again.

Tip #3 - Android

1. Open up settings
2. Go to the screen where location services are turned on/off
3. Find the 3 options for location “mode” or “method”. Make sure it is **not** set to “Power saving”.

The “power saving” setting does not use any data from the satellites and can result in very poor accuracy. Change that setting to the middle one which often is called “GPS only”.

The “GPS only” setting on Android phones produces coordinates just using satellite data. This method produces the best accuracy. Note that the first of the three options in the list is often called “High accuracy”. When this first choice is selected the phone determines coordinates by using satellites, cell towers, wi-fi hotspots and anything else it can find. However, this first setting can allow data from cell towers to degrade the more accurate data from the satellites. Thus, this first choice should be called medium accuracy.

Tip #4 - Airplane mode

If you are right on the fringe of cell phone service then sometimes a phone will produce coordinates that keep jumping around and never settle down. If that seems to be happening to you, then put your phone into airplane mode to see if that fixes the problem.

Additional resources - PDF reports

https://findmesar.com/p/pdf/reasons_why_911_cannot_find_cell_phones.pdf

https://findmesar.com/p/pdf/smart_way_call_911_with_cell_phone.pdf

You are reading ==> https://findmesar.com/p/pdf/tips_for_accurate_cell_phone_coordinates.pdf

https://findmesar.com/p/pdf/911_cell_phone_tips.pdf

Additional resources - Web Apps

FindMeSAR - <https://findmesar.com>

FindMePro - <https://findmesar.com/p/findmepro.html>