Backcountry Incident Management School
911 Smartphone Guide
Rev. 10-25-2022

As of the rev date for this document, the information is accurate based on research and in-field confirmation. However, 911 processes and technology continue to evolve at a rapid pace so it is expected that some of this information will become outdated… nevertheless, consider this a starting point. As an evolutionary example, Apple is currently working with Starlink to enhance the newer iPhones to act as a satellite messenger. Stayed tuned.

Finally, this document is intended to complement the processes and recommended procedures discussed within the Backcountry Incident Management School, especially in conjunction with the Incident Management and First Aid card set.

When 911 is called or texted on a cellular phone, that call will be routed to a 911 center based on the cellular tower location you have connected to. Depending on the type of call, geographical area, and other factors, your 911 call may need to be transferred to another 911 jurisdiction that is closer to your actual location, therefore, it is very important to initially confirm with 911 your actual location (see GPS coordinates below).

What's more, within Colorado not all cell phone carriers or local 911 agencies have implemented the most current 911 call handling technologies making it more challenging to pinpoint your backcountry location.

There are times when you can still make a 911 smartphone call or 911 text with no apparent cell signal (i.e., no bars). Do Emergency Calls Work Without a Signal? - Survival Freedom

Referencing the Get Help Guide, the Get Help Team should complete either the Injury – SAR Report Record or the Missing Person – SAR Report Record. These two documents contain all the information 911/SAR will mostly likely need, although not all that info will be needed every time. It is also helpful to snap a photo of both sides of the Medical Report Record (if this is an injured person scenario) as that document can provide additional info on the specific condition of the patient. Options to get help listed in order of preference:

Option 1: Call 911 via cellphone (this is the quickest and most straight forward method… when it works).
Option 2: Text 911 via cellphone (although this can be a cumbersome sequence of back-and-forth texts).
Option 3: Hike out for help (this can be a lengthy time-consuming choice and once the Get Help Team departs the incident site that team will be unaware should the incident scenario evolve).

For options 1 & 2 the Get Help Team must initially provide basic information in the event the connection is unexpectedly lost. This especially includes GPS coordinates. For an injury at a specific incident site, GPS coordinates are essential; for a missing person scenario, GPS coordinates can be helpful to identify the general area. An example:

> **"This John Doe, I am at coordinates 39.522 north and 105.234 west.**
> **We have an injured/missing hiker and I may need help."**

The Incident Manager may find that the effectiveness of the 911 call/text is intermittent or otherwise problematic. If sufficient resources are available, the IM can identify an individual to continue the on-site call/text effort in tandem with the hike out for help effort. In this case the on-site individual should have the phone number(s) of the hike out team as an option to keep all teams informed.

Option 1: Call 911

The 911 operator will ask the questions based on their protocol (not ours). They need to understand your location, the nature of the incident, and the nature of any injuries. Referring to the relevant SAR Report Record (either the

Injury or the Missing Person card) and the Medical Report Record (if appropriate), the Get Help Team should have all necessary info available. Once through the initial 911 dialogue, when asked, be prepared to offer any additional info you feel is relevant.

It should be expected that the county sheriff or SAR will call you (text you) back. As you wait for the call-back, remain available and stay current on the always evolving incident.

As a reminder, the backside of the Incident Management & First Aid Cards title card contains direct phone numbers for the sheriffs of the more frequently visited Colorado counties. However, for emergencies please call 911 first.

Option 2: Text 911

With poor cell connectivity (i.e., minimal bars), basic texting may still be a workable option, however, do not attempt to text photos, maps, or emojis because:
- If a county has Basic 911 service they may not be able to receive those enhancements.
- Those enhancements consume bandwidth which can "freeze" your phone for minutes while it attempts to send before failure. This also results in battery drain while waiting.

Although perhaps faster and more efficient than a time-consuming hike out, texting can be cumbersome due to character number limitations, small screen size, and small keypads. Once notified, 911 will text back question after question as you provide answers from the SAR Report Record and the Medical Report Record.

For those with an iPhone, you may see an "SOS" icon where the signal strength bars are normally displayed. This indicates that you have poor connectivity, to the point where you cannot reliably connect to your own carrier, but you can connect to another carrier (one you are not subscribing to). This industry standard is for the single purpose of being able to send an emergency text. The "SOS" icon is intended to act as a reminder. Obviously, if you are in Airplane Mode you will have no connectivity under any condition.

This SOS indication is not currently available on an Android phone.

Again, the backside of the Incident Management & First Aid Cards title card contains direct phone numbers for the sheriffs of the more frequently visited Colorado counties. Please note that many of these county direct lines are voice-only and do not have the capability to receive a text. Also, some that can receive a text may not be able to receive an attached photo, map, or emoji even with good signal strength..

Voice to Text Function:

Rather than typing lengthy text messages on your smartphone keypad, one method to streamline the texting effort is to use the voice texting functionality.

How to initially enable voice-to-text, on an iPhone:
1. Go to Settings.
2. Tap General.
3. Scroll down and tap Keyboard.
4. Tap the Enable Dictation toggle to toggle on.
5. Whenever you open an app that allows for dictation, there will be a microphone icon displayed.

Once voice to text is enabled, initiate a text to 911 in the usual fashion (i.e., type 911 in the "To" field). Now, rather than typing the message, touch the message window as if you were to begin a typed message, then touch the microphone icon in the lower right corner. As you speak you will see your message displayed. When done you have the option to edit your text in the old-fashioned way. To edit, touch the area (or word) you need to change and you will be given the option to Select. Make the appropriate changes as you would with a typical text, then Send.

How To Acquire GPS Coordinates Using GAIA:

Due to functionality inconsistencies between iPhones and Android phones, and the many apps that can provide GPS coordinates (GAIA, AllTrails, COTREX, Caltopo, etc.), the Backcountry Incident Management School has selected the GAIA app as our method to acquire GPS coordinates.

When using GAIA on either iPhone or Android, the top horizontal set of menu items can be configured to display GPS coordinates constantly. This upper horizontal line displays the "Record" function as well as a camera icon on the left side. There are two configurable menu items to the right. Touching either the center or rightmost parameter brings up additional menu items you can scroll through. GPS coordinates is one option.

How to Display Cell Phone Carrier Coverage Maps Using GAIA

Should you want to check cell coverage for the backcountry area you plan to visit, you can select a GAIA map layer to display. You will need to have the GAIA Premium pay option installed.

- With GAIA open, touch the "Layer" icon in the upper right corner.
- Scroll down and select "Add Map Layers."
- Scroll down and select "Feature/Weather Overlays."
- Scroll down to the "Cell Coverage" overlays and select your specific carrier (Sprint, AT&T, etc.) or select All Carriers (recommended for 911 calling).
- The selected cell carrier coverage map will now display.
- As this layer can appear intrusive, to disable the coverage map again select the "Layers" icon, then touch the cell coverage layer to disable.