Navigation

Your assignment will usually require you to navigate to a particular location, either on foot or by vehicle.

EPCSAR uses WGS84 as the datum for our operations. When using a GPS, make sure it is set to use WGS84. Note that USGS topographic maps are generally in NAD27, so know how to convert between the two using your GPS.

Most of the time, EPCSAR uses UTM to transmit coordinates. However, coordinates provided by aircrews and other agencies and cell phone (and other) coordinates provided by EPSO dispatch are usually in variations of latitude and longitude, such as decimal degrees (DD. DDDDº).

Bottom line, be CLEAR and be CERTAIN about what you are using. You should always know and be able to communicate your current location. When providing a bearing, state whether it is a true or magnetic bearing. If someone has provided a bearing to you without specifying, ask for clarification. If you have a coordinate in another datum (NAD27, for example) and cannot convert it to WGS84, indicate that to command so it is clear.

Maps Used by EPCSAR

Several different types of maps are used by EPCSAR

USGS Maps

The United States Geological Survey has systematically divided the United States into a series of precise quadrangles. There are several series of these maps, each using quadrangles of a different size. These maps provide detailed information about natural topography and man-made features. Printed maps are available from the USGS, and EPCSAR has an extensive collection of these maps. While the maps themselves are not frequently used anymore, they form the foundation of most

mapping software. Electronic maps and maps printed from mapping software are usually based on these maps. USGS maps are also freely downloadable as “pdf” files from the USGS website.

Pikes Peak Atlas

The Ormes’ Pikes Peak Atlas is a large folded, double-sided map that is a standard within EPCSAR. Every member should carry a copy. It uses a smaller scale than the USGS 7.5 minute Quads, namely 1:36,000 and a contour interval of 100 feet, but covers considerably more area. Its main value is that is covers all mountain areas within El Paso County, it is one of the best labeled maps for trails, forest service roads and names of various geographic features. Later editions have latitude and longitude on the margins and are printed on waterproof paper.

Trails Illustrated Series Maps

The Trails Illustrated Map #137, “Pikes Peak/Canyon City” is good because it covers a large area surrounding Pikes Peak, it is a topographic map with a contour interval of 80 feet and scale of 1:66,667, it labels most trails and Forest Service roads, and it is printed on tear-proof, water-proof material. It is another good backup for when you find yourself traveling off the edge of the local Quad you carry. It is also good when supporting missions in Teller County.

Forest Service Maps

Forest Service Maps provide coverage of National Forest Areas. They are good for showing forest service roads and accurate demarcation of public and private property lines.

The MacVan Map of Colorado Springs, Pikes Peak Region and Pueblo, Street Guide

This is a book map of Colorado Spring and surrounding areas.

It is one of the best, most detailed, and up to date street maps of the local area. All members are strongly encouraged to have a copy. Mission pages requiring staging in residential or rural areas will frequently cite the page number in the book and map reference grid to help members locate the EPCSAR staging area for the mission.

Motor Vehicle Use Map of Pike National Forest

This map is available online and shows all of the roads in Pike National Forest in detail with road numbers indicated. This map is generally a more complete road map than the general Forest Service map.