

Cellular and Satellite Telephone Considerations

CDMA or GSM? Check with your carrier to see which system they use before ordering.

Plan Ahead: Satellite and cellular telephones used for emergency communication should be ready to use with no further action. You should not have to contact the carrier before beginning operations. Why? During a major emergency, or in the middle of the night, they may not be available. You need that phone to work NOW, not in two hours, or on the next business day. Yes, it can be expensive to keep a phone ready to use, but the alternative is not having the phone when you need it most.

Authorizations: Most carriers want the names of specific persons who are authorized to make changes to your account. Only those persons will be allowed to make changes or get information. Be sure to put several different people on this list, from different work shifts. If someone leaves your agency, update the list right away. Why? If Sue is the only authorized person, and she is out sick, on vacation, or has left the agency, you are out of luck.

Wireless Priority Service (WPS): During emergencies, circuits can become jammed with calls, and your priority calls may not get through. The FCC created the Wireless Priority Service for emergency response agencies at all levels to allow priority access to the GSM cellular networks of participating carriers. The program is administered by the National Communications Service (NCS). Contact them for details at 866-627-2255.

Cellular coverage: Cellular telephone coverage can vary widely from company to company. If your agency has several areas or specific locations from which it is likely to use your system, you should get a "loaner" phone from them and check the actual signal strength at each location and area before choosing a carrier. If the signal is not strong at a specific location, try going to an upper floor or roof to see if it improves. Remember that in certain severe weather conditions, the signal may be weaker than it is on the sunny day you are doing your test. High-gain (long range) antennas are available from Northmark Communications and may help. If available, unlocked phones will allow you to roam onto competing carrier's networks in areas not covered by your primary carrier's towers.

Satellite coverage: Two fleets of orbiting satellites cover the entire continental United States and many other parts of the world. These two fleets are owned by Iridium and Globalstar. Iridium's fleet is larger, and offers better coverage with fewer dropped calls. The satellites are known as "low earth orbit" or "LEO" satellites. They spin around the earth in different orbits, much like the Global Positioning System (GPS) satellites. One or more should be in view at all times. Satellite antennas must be placed outdoors as high as possible above obstructions. At the antenna, you should have a clear view above 15 degrees above the horizon all the way around to ensure continuous service. Coverage at street level between buildings and in deep valleys can be spotty or nonexistent.

Antenna orientation: All portable cellular and satellite antennas sold by Northmark Communications should be installed as close to vertical as possible, following the included instructions. If the antenna is on its side or at an angle, the signal may be considerably weakened or lost.