FORTUNE FAVORS THE PREPARED · COMMS ONE-PAGER

When Cell Service Fails

Your phone is your primary, not your only. Know what still works.

1. Why do the bars drop?
2. How do I know it's failing?
3. What still works, in what order?
4. What do we do right now?
5. How do I prep my phone today?

1 Why cell networks fail in a disaster · the tower is only one link in the chain

Power
Most sites run on grid power, with batteries that last hours, not days. Generators need fuel trucks that need open roads.

Backhaul
Every tower connects to the network by fiber, cable or microwave. Cut that link (a washed-out road, a downed pole) and the tower goes dark.

Congestion
A working tower can still jam. When everyone calls at once, calls fail first. Texts queue up and usually get through later.

Damage
Wind, fire and flood can take out antennas and towers. It is the cause people picture, but it is often the smallest one.

48.7% **Hurricane Helene, western North Carolina, 1 Oct 2024:** 707 of 1,452 cell sites were out of service. 338 were out for **power**, 303 for **backhaul** (the FCC calls it "transport") and just 3 for **physical damage**. Source: FCC Disaster Information Reporting System (DIRS).

2 The warning signs

- ☐ **Calls fail or drop** after a few seconds, but texts still crawl out.
- ☐ **Full bars, no data.** The tower is up; the link behind it isn't.
- ☐ **"SOS" / "SOS only"** showing: your carrier is gone; 911 may still work.
- ☐ **Battery draining fast.** The phone is shouting to find a tower.
- ☐ **Area power out?** Expect trouble within hours as tower batteries run down.

3 911 still works more often than you think

Dial 911 on any network. Carriers must pass every wireless 911 call to a 911 center, even from a phone that isn't on their network (FCC rule, 47 CFR 9.10). If your carrier is down, try anyway.

Call if you can, text if you can't. Text-to-911 isn't available everywhere; if it isn't, you'll get a bounce-back message. Give your location first. On Wi-Fi calling, 911 uses the address you registered, so keep it current.

Don't call 911 to ask if the network is down. Keep the lines clear.

4 What still works, and in what order · work down the list until something gets through

#	Try this	Why it works	Watch out for
1	**Text (SMS)**	Tiny; the network stores and retries it. Who, OK or not, where.	Can arrive hours late. Don't resend; it adds to the jam.
2	**Low-data apps**	iMessage, WhatsApp, Signal text and email get by on a trickle of data.	No photos or video. The whole family needs the same app.
3	**Wi-Fi calling**	Calls and texts over any internet: a neighbor's Starlink, a shelter, a library.	Turn it on *before*. Home Wi-Fi needs the router powered.
4	**Landline**	Copper line + corded phone is powered by the phone company; often works in a blackout.	Fiber/cable phones need power: ask for the 8- or 24-hr backup battery.
5	**Satellite from your phone**	iPhone 14 or later, Pixel 9/10 (not 9a) and some plans reach 911 by satellite. T-Mobile offers free satellite text-to-911 to compatible phones on any carrier (enroll first).	Needs open sky and patience. Models, plans and fees change: check your settings today.
6	**Radio**	Needs no tower at all. Your plan's Contingency step.	Only if you set it up and practiced *before*.

5 When the bars drop: do this

- ☐ **Stop calling.** Send one text to the family and one to your out-of-area contact: "Alex OK at home. Staying put. Next check 6 pm."
- ☐ **Go to your Alternate** (family PACE plan). Keep check-in times.
- ☐ **Save power:** Battery Saver on, screen dim, close apps.
- ☐ **Rotate phones:** one on, the rest off. Keep one getting alerts.
- ☐ **Get news another way:** NOAA weather radio, AM/FM, car radio.
- ☐ **Don't drive** hunting for signal through floods or debris.
- ☐ **Post once** that you're safe, then get off the network.
- ☐ **Log it:** who you reached, when, and what they said.

6 Prep your phone this week

- ☐ Power bank: 2+ charges/phone
- ☐ Offline maps downloaded
- ☐ Medical ID / ICE on the lock screen
- ☐ Satellite features checked and tried
- ☐ Router and modem on a UPS
- ☐ Car charger and spare cable
- ☐ Wi-Fi calling on, 911 address set
- ☐ Emergency alerts turned on
- ☐ One family messaging app agreed
- ☐ Contacts on paper (below)

Wallet card	Name	Phone
Out-of-area	*Example: Jordan*	*555-0123*
Out-of-area		
Local backup		
Meet at / radio ch.		

7 How service comes back

Carriers bring in **COWs** (cell on wheels), **SatCOLTs** (trucks with satellite backhaul), suitcase units and drones. In an FCC-activated disaster, carriers must let each other's customers roam. It still takes **hours to weeks**; cut backhaul usually takes longest.

8 Where radios fit

Your phone is the Primary. Radios work when no tower does. See the *What to Get to Start Your Comms*, *POC Radios and Your PACE Plan* and *FRS, GMRS, MURS or CB?* one-pagers on the Comms page.

Read more
Cell Sites and Their Services, Communications Resiliency and Personal Satellite Communications.

Build the backup
Plan it with Communications P.A.C.E., then see What Radio Should I Get?

Write it down
The Family Emergency Plan Workbook has a full communications plan section: contacts, PACE, check-in times and channels.

The full guide: *When Cell Service Fails – What Still Works*
fortunefavorstheprepared.com/comms/when-cell-service-fails/
The QR code opens the guide. Facts checked against FCC DIRS reports, FCC 911 rules and FCC/FEMA emergency communication tips.

Remember, Fortune Favors the Prepared
Semper Paratus, Semper Gumby