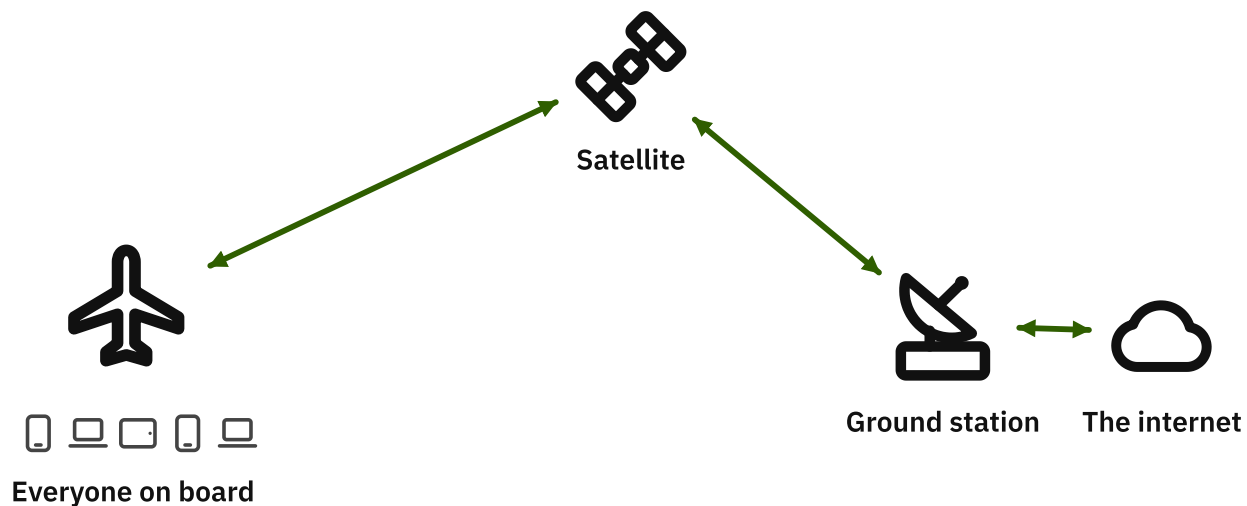


Wi-Fi on Planes, Explained

What airplane mode turns off, why plane Wi-Fi feels slow, and how to get online in your seat.



The short answer

Airplane mode turns off your phone's radios. Cellular is the one that matters in the air, so keep it off. If the airline allows it, you can turn Wi-Fi and Bluetooth back on.

The plane's Wi-Fi works, but it feels slow. Everyone on board shares one link to the ground. Often that link goes through a satellite far out in space.

This guide answers three questions. What does airplane mode turn off? Why is plane Wi-Fi slow? And how do you get online in your seat?

A word on the words

Cellular is your phone's link to your carrier's towers, for calls, texts and mobile data.

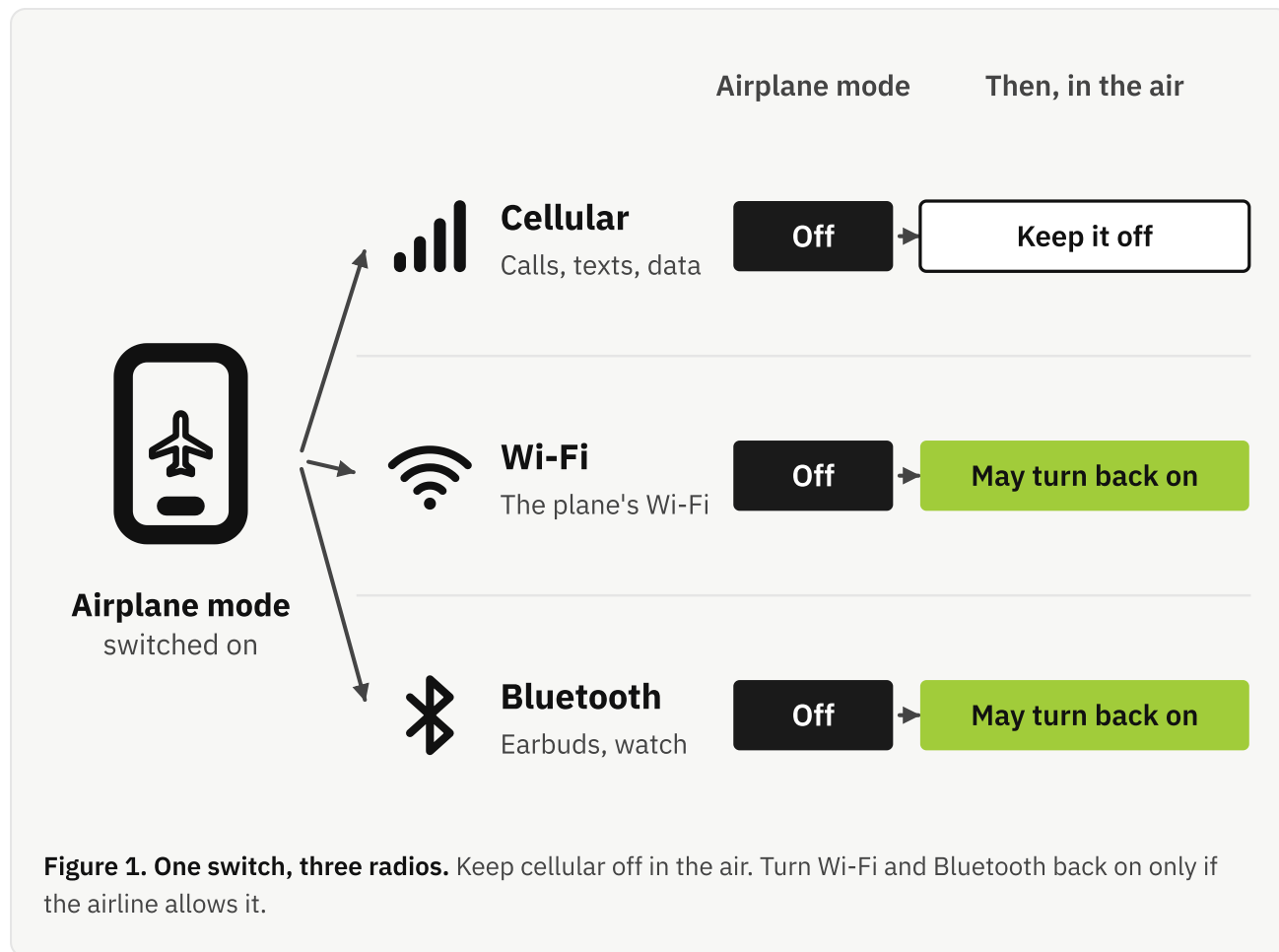
Airplane mode is the switch that turns your radios off. Some phones call it **Flight mode**.

What's inside

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What airplane mode turns off

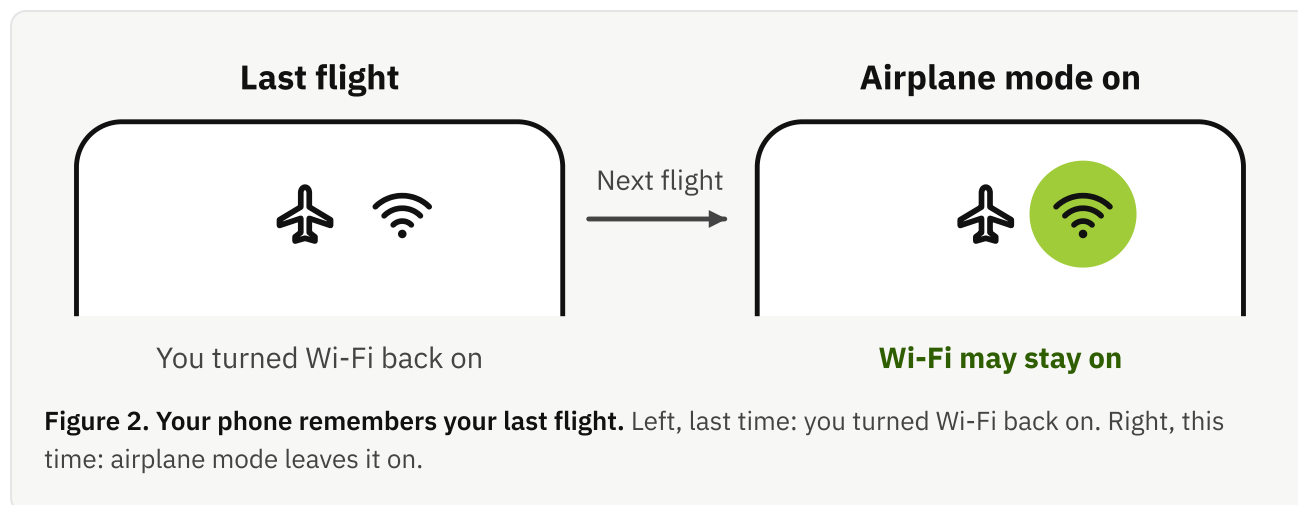
One switch turns off cellular, and usually Wi-Fi and Bluetooth too.



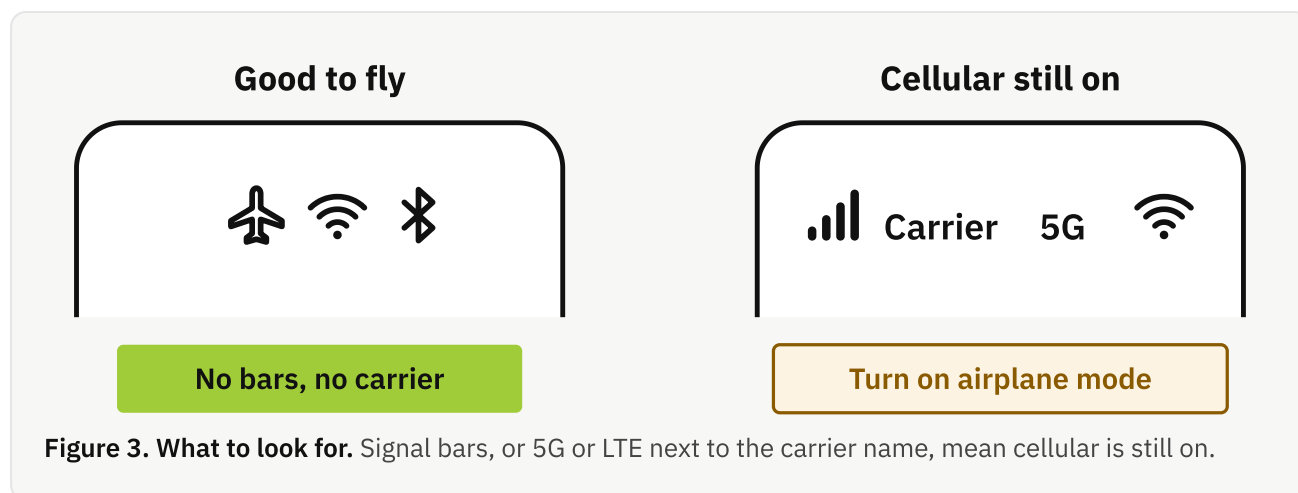
AIRPLANE MODE

Check the top of your screen

Here's the surprise. Your phone remembers what you did last time. If you turned Wi-Fi on during your last flight, it may stay on next time.

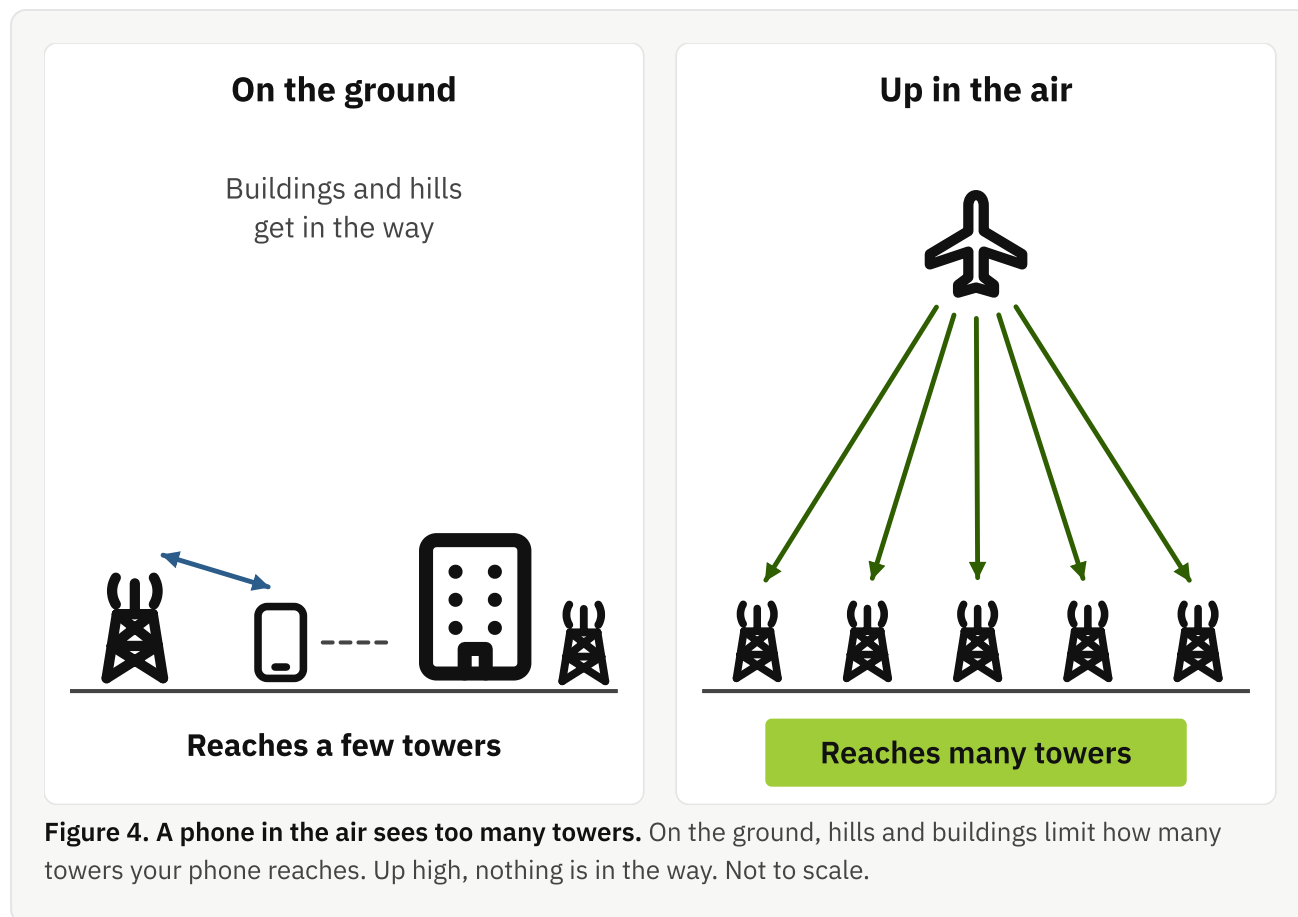


So take a quick look at the top of your screen. The Wi-Fi or Bluetooth symbol means that radio is on. You should see no signal bars and no carrier name.



Why the rule exists

Most people think phones upset the plane's instruments. In the US, the main rule is about the cell towers on the ground.



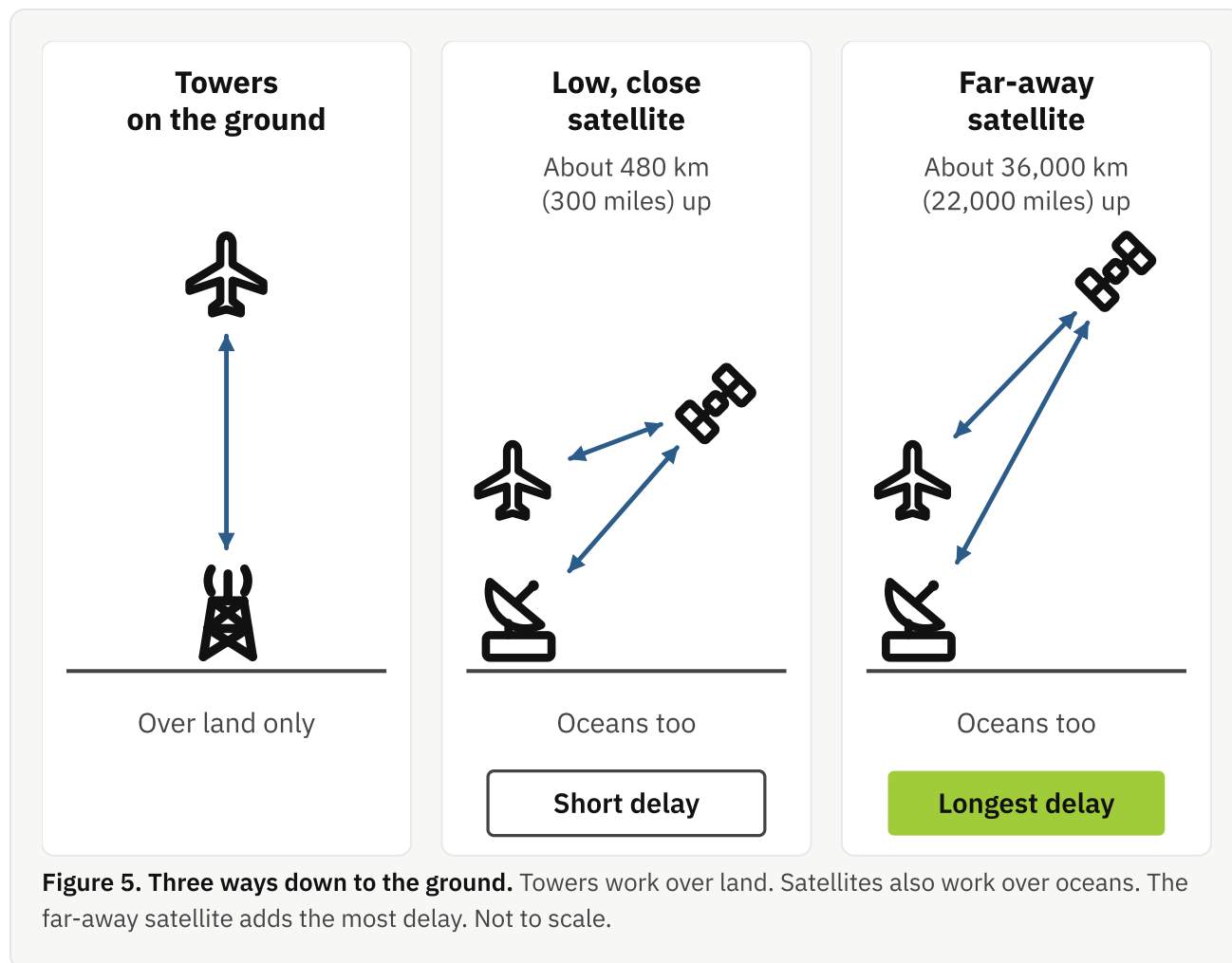
A phone up high can reach many cell towers at once. That would jam up the network for people on the ground. So US rules ban using cellular in the air.

Wi-Fi and Bluetooth are a different story. Each airline decides which gadgets are fine to use. That's why the rules can change from one airline to the next.

When the crew gives an instruction, follow it.

How the internet reaches a plane

Inside the cabin, the Wi-Fi is ordinary Wi-Fi. The hard part is the next step, from the plane down to the ground.

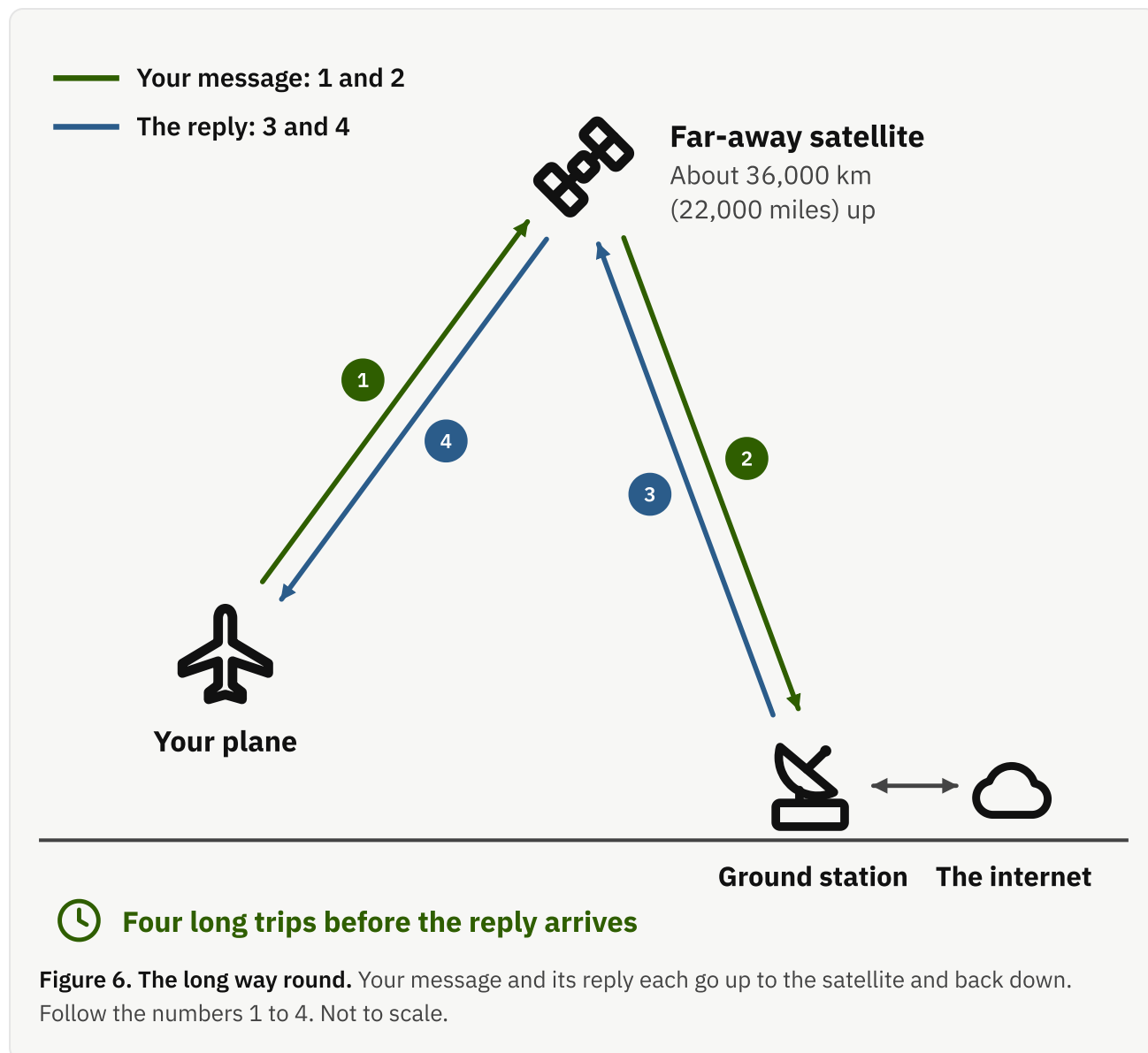


Over land, some planes talk to special towers that point up at the sky.

Over oceans, planes use satellites. Some satellites fly low and close. Others sit very far away, about 36,000 km (22,000 miles) up.

THE PLANE'S WI-FI

The far ones are the slow ones. Your message has to travel all the way up and back down, and so does the reply.



A far-away satellite adds a delay you can't fix from your seat. On one of Keith's flights across the Atlantic, every test message took more than half a second to come back.

Why it feels slow

Every phone, laptop and tablet on board shares one link to the ground. At home a few people share your internet. On a plane, it's everyone.

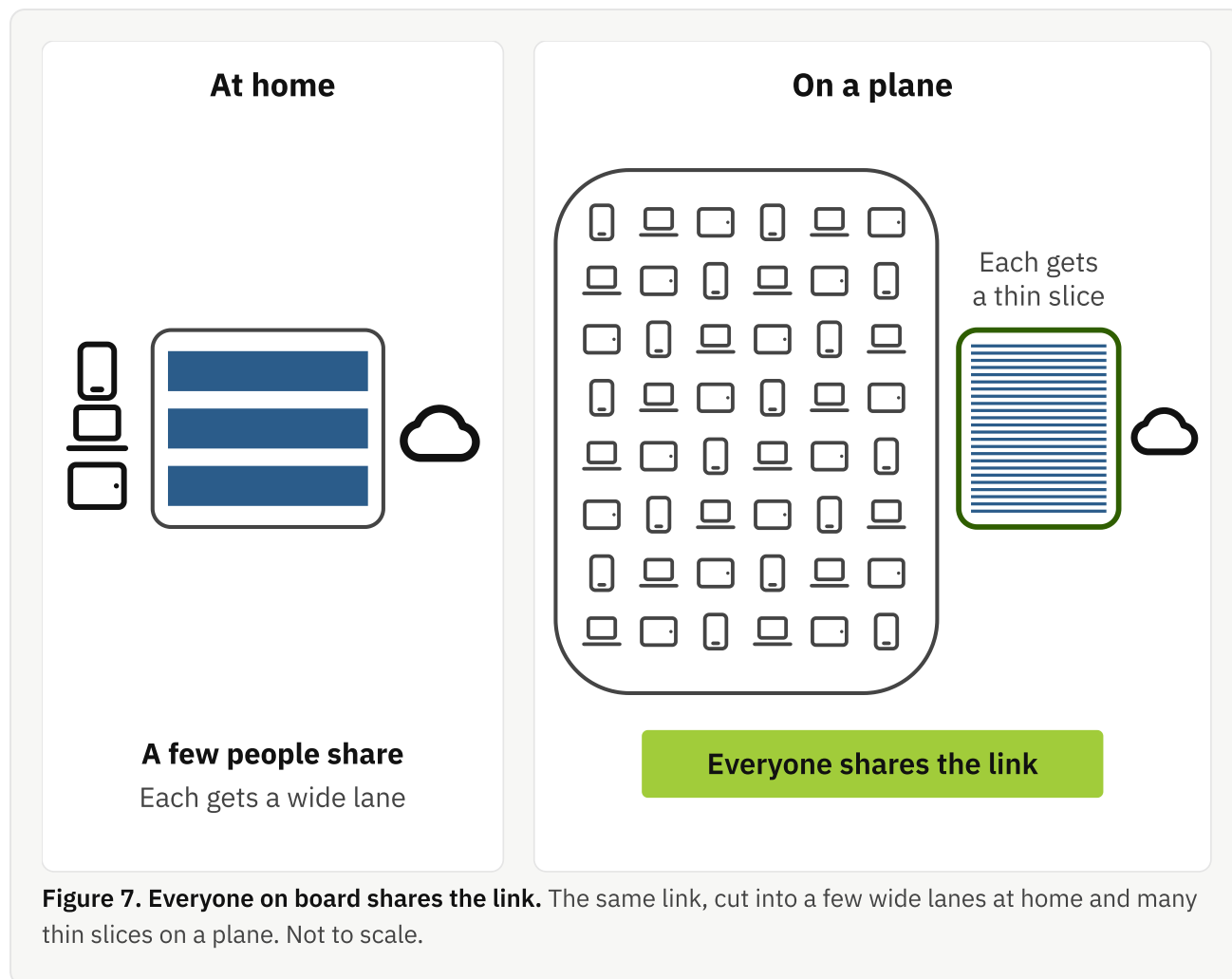
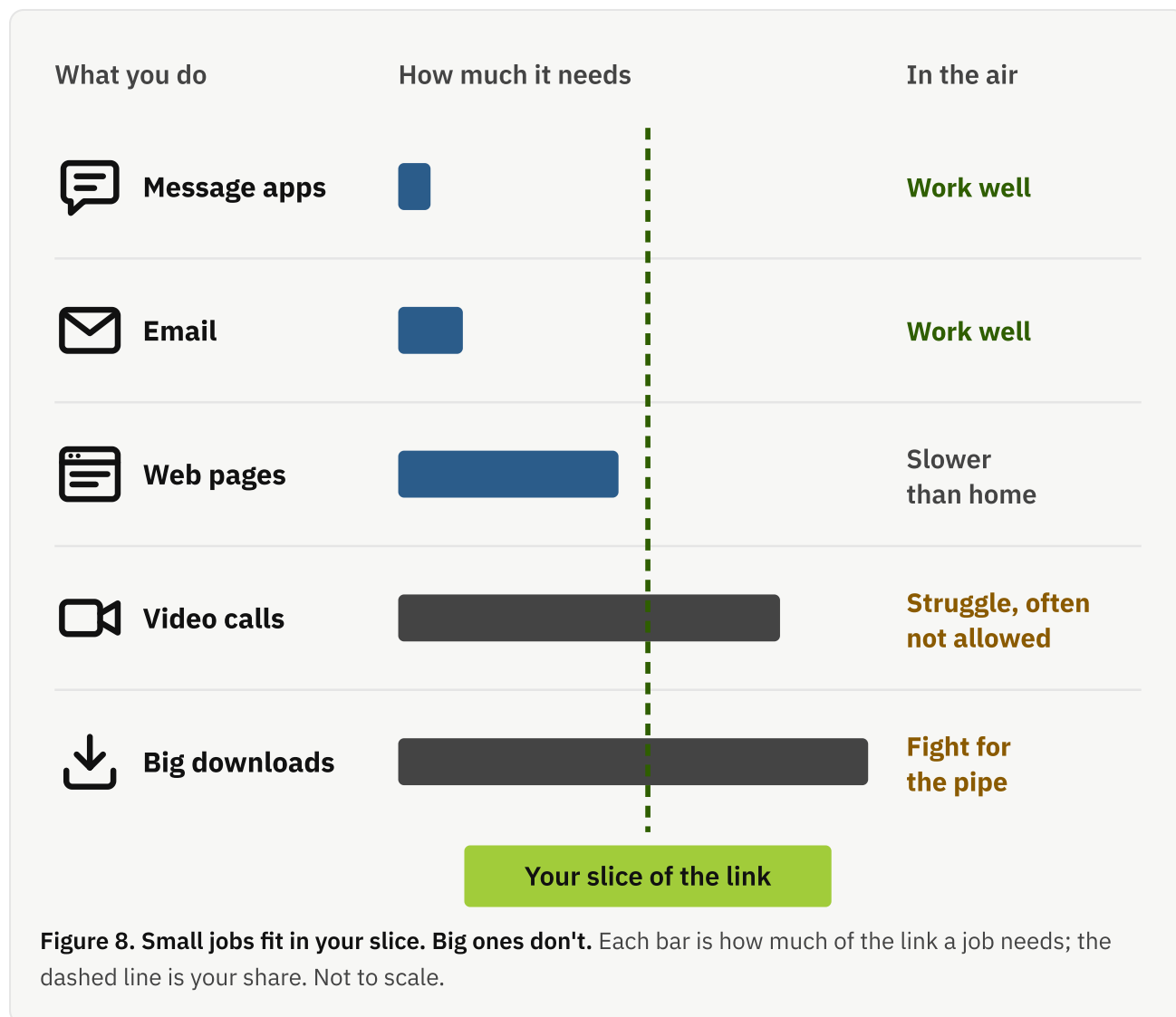


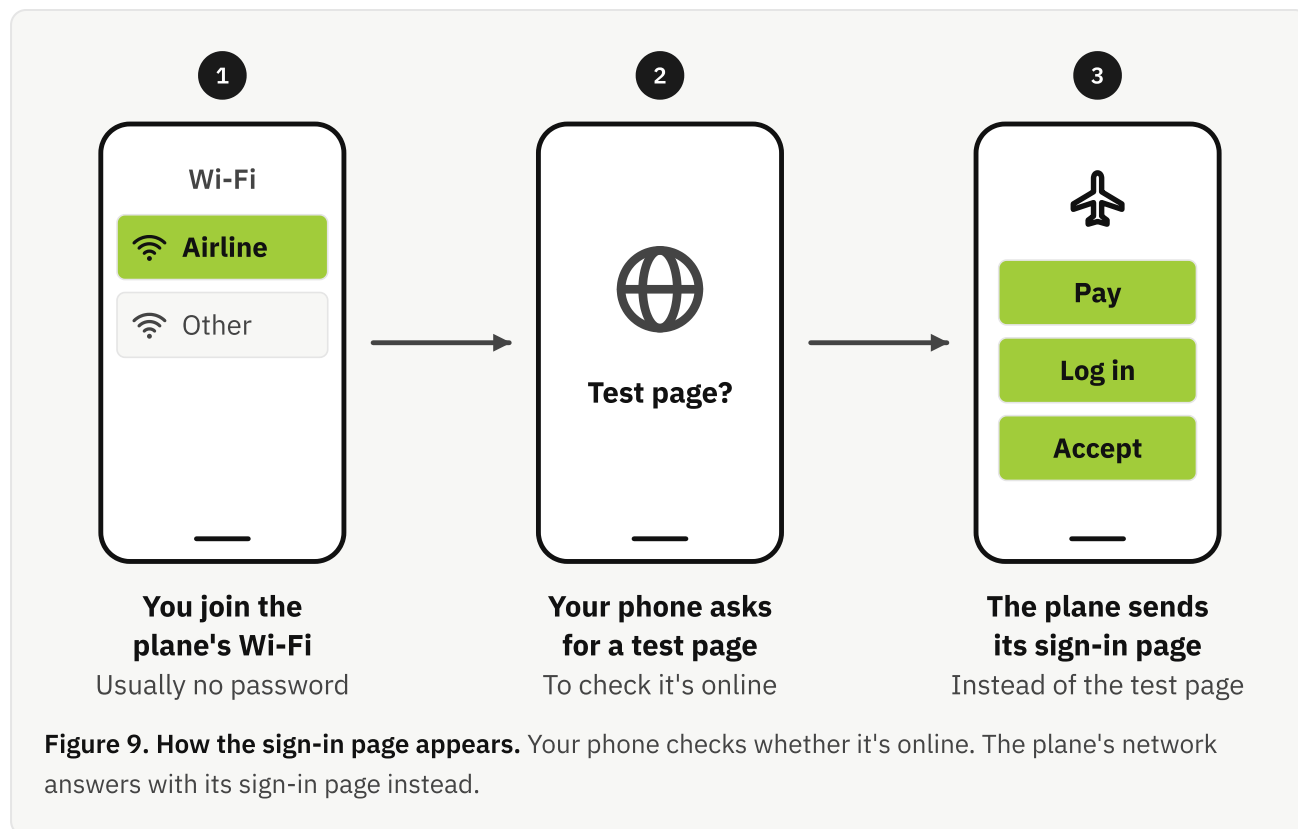
Figure 7. Everyone on board shares the link. The same link, cut into a few wide lanes at home and many thin slices on a plane. Not to scale.

What works, and what doesn't



Getting online in your seat

Plane Wi-Fi usually has no password. You join it, and a sign-in page pops up. It asks you to pay, log in or accept the terms.

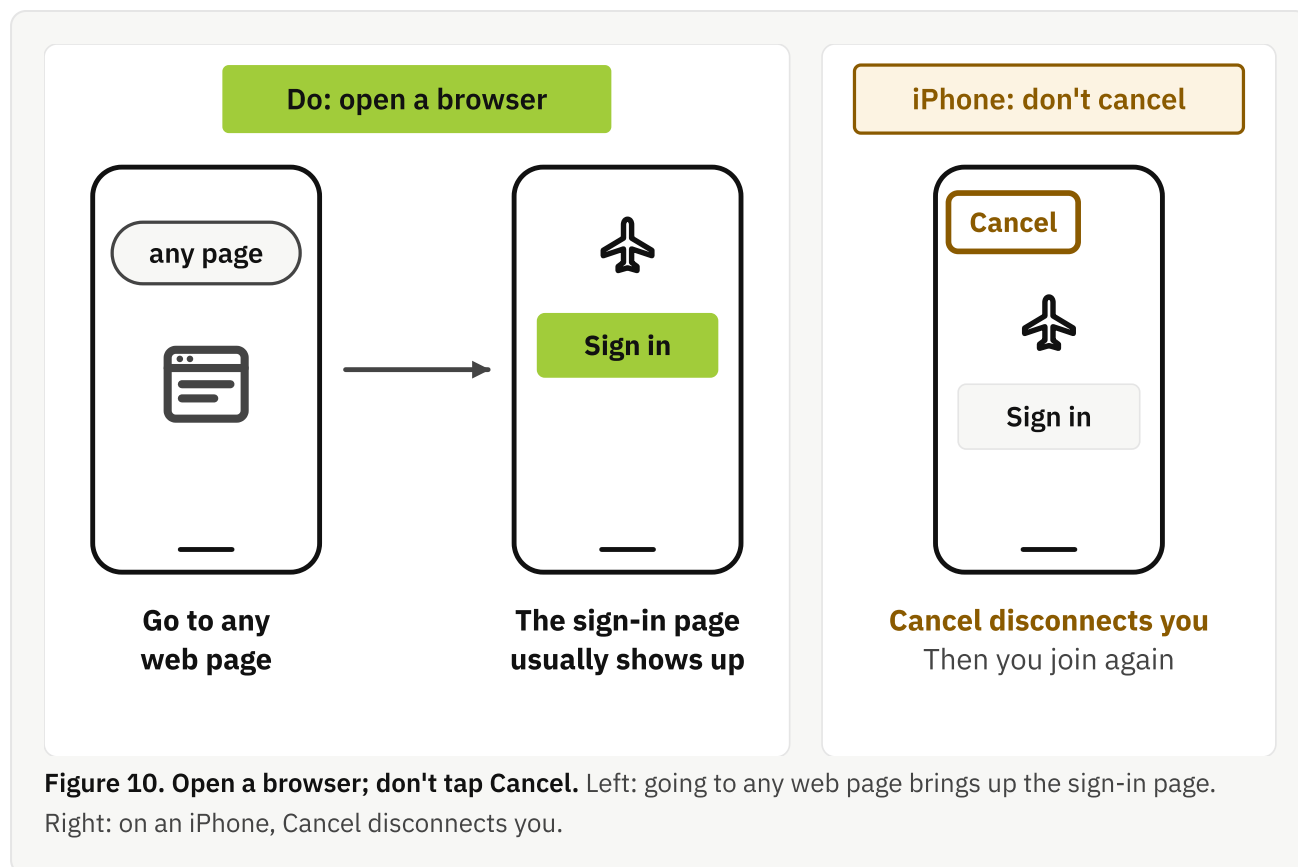


Some airlines give free Wi-Fi to members of their frequent-flyer club. Free still means signing in, so wait for the page and log in.

GETTING ONLINE

When the sign-in page won't appear

Open your web browser and go to any web page. The sign-in page usually shows up. If the airline gives a web address, type that instead.



On an iPhone, don't tap Cancel on the sign-in screen. That disconnects you, and you have to join again.

STRAIGHT FACTS

Four things people get wrong

MYTH Airplane mode always turns off Wi-Fi and Bluetooth.

FACT It always turns off cellular. If you turned Wi-Fi or Bluetooth on last time, your phone may leave them on.

MYTH Airplane mode is only about the plane's instruments.

FACT In the US, the main rule protects cell towers on the ground. Each airline decides about gadgets.

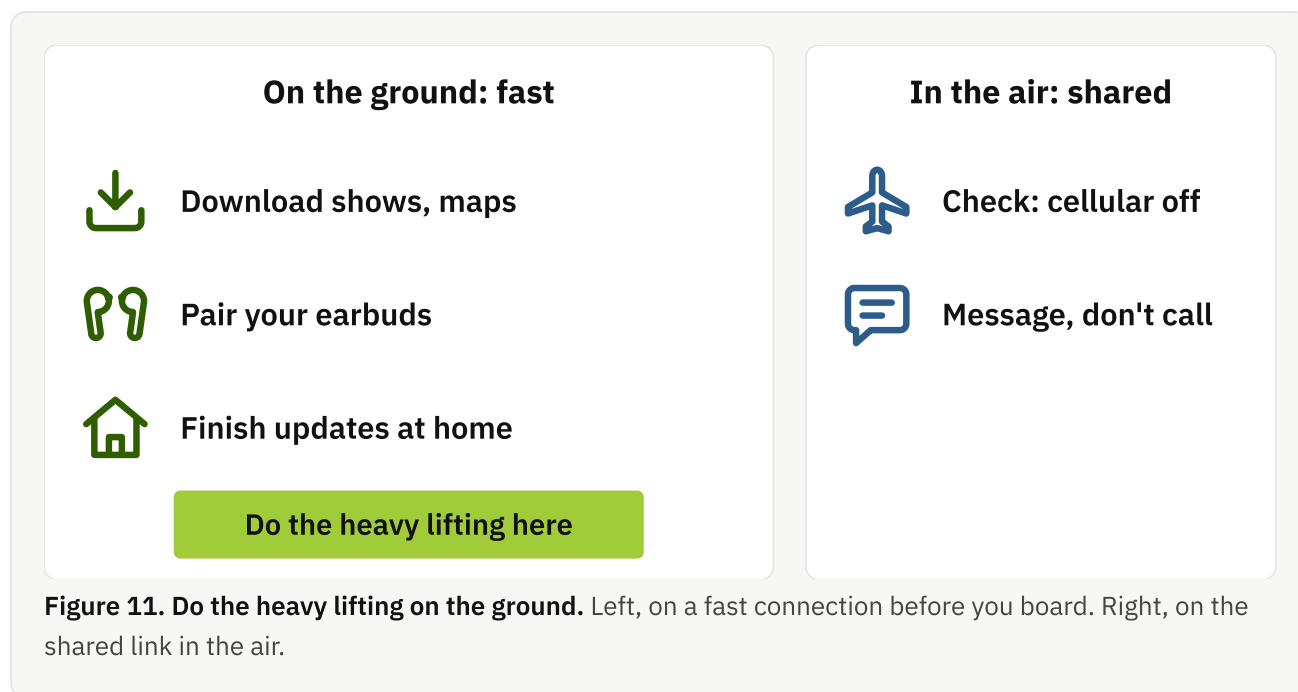
MYTH Plane Wi-Fi comes from towers on the ground.

FACT Some does, over land. Over oceans it comes from a satellite.

MYTH Free Wi-Fi means no sign-in.

FACT Free usually means a free membership and a login. If the page doesn't pop up, open your browser.

Tips for your next flight



- 1 Download before you board.** Movies, shows, music and maps. Don't count on streaming in the air.
- 2 Pair your earbuds on the ground.** It's easier before the doors close.
- 3 Finish big updates at home.** Let backups and app updates run while you're on a fast connection.
- 4 Check the top of your screen.** After airplane mode, make sure cellular is off.
- 5 Message instead of calling.** Apps like iMessage and WhatsApp get through. Plain texts need Wi-Fi Calling. Calls often aren't allowed.

SOURCES

Where these facts come from

Checked on 28 September 2026. Airline Wi-Fi offers and phone menus change often.

- Apple, iPhone User Guide (iOS 27), *Choose iPhone settings for travel* (airplane mode turns off Wi-Fi, Bluetooth and cellular at first; "it may still be on the next time")
- Apple 102554, *Use captive Wi-Fi networks* (23 April 2026); Apple Platform Deployment, *Troubleshoot Wi-Fi connectivity on iPhone and iPad* (captive.apple.com, DNS); Apple 102433, *Use Low Data Mode* (15 September 2025)
- Google Pixel Phone Help 12639358 (airplane mode remembers) and 2819583 (airplane mode settings); Pixel Phone Help 6183600 (sign in to a public network); Android Help 9654714 (treat as metered); Samsung Australia, Flight mode
- 47 CFR § 22.925, FCC prohibition on airborne operation of cellular telephones (eCFR, read 28 September 2026)
- FCC 13-157, Notice of Proposed Rulemaking, 12 December 2013 (why the rule was adopted); FCC FAQ on in-flight mobile services (2013); FCC 20-170, order terminating the proceeding, adopted 24 November 2020
- 14 CFR § 91.21, Portable electronic devices; FAA Advisory Circular 91.21-1D (27 October 2017), section 9; FAA press release, 31 October 2013 (Bluetooth, Wi-Fi, low visibility, stowing, crew instructions)
- Gogo, ATG network (coverage: contiguous US, parts of Canada and Alaska); ESA, types of orbits (35,786 km); SpaceX, Starlink latency (radio trip under 10 ms) and Starlink's orbital height, as used in *Starlink, Explained*
- Keith Parsons, packet capture from his iPhone on a transatlantic flight, 20 September 2026 (31 ping replies from 1.1.1.1: fastest 614 ms, median 659 ms; captive.apple.com requests redirected to the airline's sign-in page)

About the author

Keith Parsons, CWNE #3, has designed, installed and troubleshot Wi-Fi for over 25 years. He runs Wireless LAN Professionals and the WLPC conferences.