

5G and Air Safety

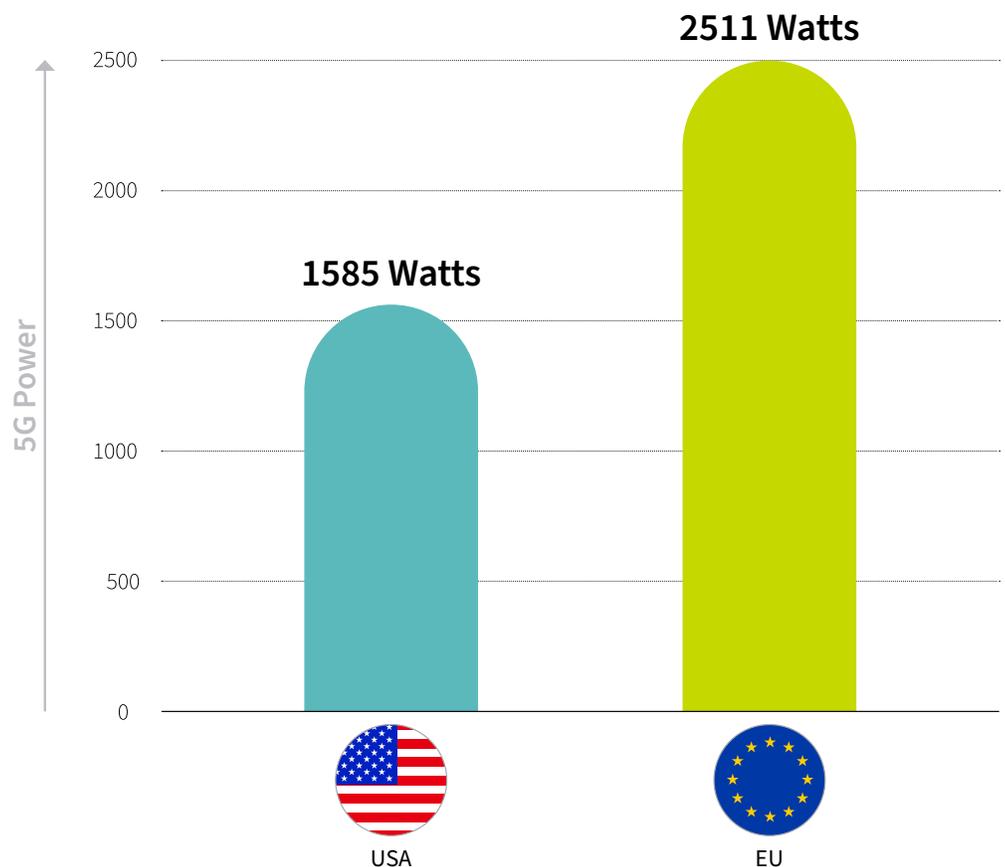
5G operates safely in the C-band in nearly 40 countries around the world without causing harmful interference to aviation operations. On January 19th wireless providers will launch 5G in this spectrum band in the United States following an agreement developed in collaboration with the FCC, FAA, aviation industry and the White House.¹

The FAA recently shared some incorrect information about how the U.S. deployment compares to deployments in France and other countries. These are the facts.

Safe Power, Far From Aviation

The United States will launch 5G in spectrum which is the same distance from aviation operations, and at authorized power levels which are lower than France, Spain, Denmark, Romania, Ireland and Finland.² These countries have operated 5G in the C-band for several years without harmful interference to aviation operations.


Europe's authorized power levels will be
1.5X HIGHER ↑
than authorized power levels in the U.S.



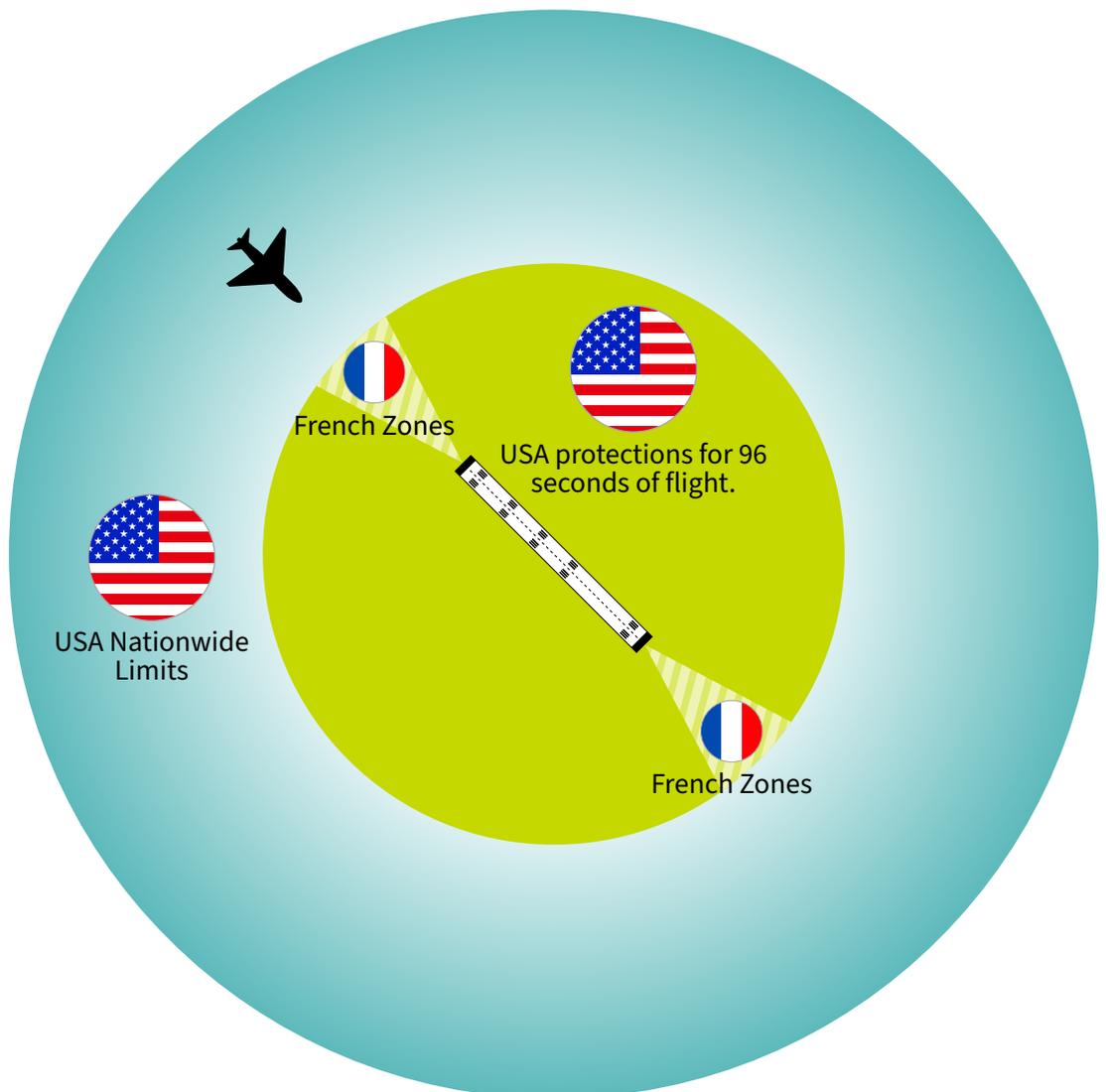
Antenna Positioning

U.S. carriers are deploying antennas with the same rules as France. Antennas will be positioned to ensure signals at aircraft are safe. No country, including France has ever mandated that antennas be tilted down below horizon.³

Stringent Airport Protections

Protections for airports are the same or greater in the United States as compared to France, and greater than each of the other nearly 40 countries currently operating 5G in the C-band. That is because U.S. providers have agreed to the same airport exclusions zones as France, in addition to larger geographic protections for air traffic around airports, as well as a nationwide limit on power levels above the horizon for six months. And as the companies set out, they adapted the French approach slightly to take into account the modest technical differences in how the two countries are deploying C Band. No other country has such a limit.

The following illustration depicts the protections for airports that will exist in both the US and France, as well as the greater protection in the U.S. achieved by greater nationwide power limits.⁴



1. Letter from Joan Marsh, AT&T, to Matthew Pearl and Ira Keltz, FCC, Coexistence Between Phase 1 C-band Deployments and Radio Altimeters, Jan. 6, 2022.
2. Letters from CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-122, (filed Nov. 3, 2021; Dec. 31, 2021).
3. Determining the size of the safety and precautionary zones (immediate measures applicable to Phase 1), France agreement between ANFR and aviation, states that base stations shall not tilt their antennas upward. There is no requirement to tilt antennas below horizon. <https://www.anfr.fr/fileadmin/mediatheque/documents/N%C3%A9gociations/Note-technique-zones-securite-precaution.pdf>
4. The France agreement requires 5G base stations to limit antenna gain above horizon, but only within the precautionary zone. The United States wireless carriers agreed to limit antenna gain above horizon on a nationwide basis.