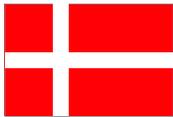


# Global 5G Operations Prove Aviation Safety

COUNTRIES OPERATING 5G  
IN SAME SPECTRUM WITH SAME  
(OR HIGHER) POWER LIMITS



Denmark



New Zealand



Finland



France



Spain



Ireland



Romania

The U.S. can safely deploy 5G in January in the C-Band. The clearest evidence demonstrating the safe co-existence between aviation and wireless is the nearly 40 countries where wireless operates today.

## Dozens of Countries Have Launched 5G in the C-Band

The U.S. can safely deploy 5G in January in the C-Band because hundreds of thousands of wireless sites are deployed in the C-Band today without harmful impacts to aviation operations—including in the 100 megahertz segment (3.7-3.8 GHz) where C-Band 5G will be launched in the U.S. starting in January. Both the U.S. Federal Aviation Administration and European Union Aviation Safety Agency recently confirmed, there are no reported incidents of harmful interference to radio altimeters operating in the 4.2-4.4 GHz band, notwithstanding the thousands of flights operating between these nations every day.

## U.S. 5G Will Operate in Same Spectrum with Same Power Levels as Global Operators

Each of the nearly 40 nations operating in the C-Band today operate in different specific spectrum bands with their own service and power rules. The aviation community has sought to greatly complicate the discussion around global operations suggesting apples-to-apples comparisons are not possible. That simply is not true.

The most straightforward comparison is to look at those nations using the exact same spectrum with the same guard band (3.7-3.8 GHz) between wireless operations and aviation equipment. Seven countries are operating in that band with authorized power levels that are higher than the FCC's rules permit: Denmark, Finland, Ireland, France, New Zealand, Romania and Spain. Two other countries' wireless operations largely overlap with initial U.S. deployment (Czech Republic and Greece) with the same or higher authorized power levels. Millions of air passengers travel every year in these countries without any harmful interference from wireless operations.

## The U.S. is One of Only 4 Countries with Precautionary Protections for Aviation Operations

The vast majority of countries operate today in the C-Band without any aviation-specific protections or mitigations. This is because the engineering and real-world experience suggests strongly that none are necessary. Of the nations operating in the same spectrum with the same (or greater) power levels only one nation has any airport-specific protections (France). Only two other nations (Japan and Canada) have airport-specific protections for operations in different parts of the C-Band. Importantly Japan has no aviation-specific measures in the band to be used in the U.S. as their protections only apply to spectrum significantly closer to aviation operations.



Many countries around the world are already deploying wireless networks in the bands from 2200-4200 MHz...There have not yet been reports of harmful interference due to wireless broadband operations internationally.

(12/23/21)



Despite the global consensus that no mitigations are necessary, the U.S. wireless industry voluntarily committed to a series of new, temporary safeguards to address any possible remaining safety concerns, including additional protections at public airports, additional protections at public heliports, power reduction in rural areas, and the first-of-its-kind nationwide limit on power above the horizon. These voluntary measures go above and beyond the substantial spectral separation between the two services and the technical limits already in the FCC's rules that were explicitly designed to reflect the aviation industry's concerns on the record. Taken together, these efforts exceed what any other nation has done to safeguard aviation operations from potential interference from 5G operations in the 3700-3800 MHz band.

## Aviation Study Suggests Existing Global 5G Operations Routinely Exceed "Safe" Parameters

The FAA's only evidence of potential interference is a single study by an aviation group. That study has been debunked. Operations in dozens of countries today exceed the "safe" levels set out in the RTCA Report. Indeed, if the predictions in the RTCA Report were correct, 5G deployments in dozens of countries would be causing demonstrable harmful interference to thousands of aircraft every day. There is, however, not a single documented instance of interference.



There is overwhelming real-world evidence that coexistence between C-Band 5G and radio altimeters is not only possible, but occurring today all over the globe—and zero credible evidence that the same will not be true for U.S. operations starting in January.