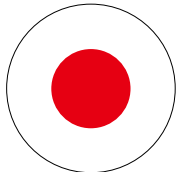


U.S. Military Systems Coexist with 5G in Over 30 Countries

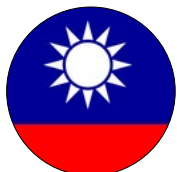
KEY EXAMPLES OF 5G COEXISTING WITH MILITARY RADARS IN THE LOWER 3 GHz BAND



Japan



Mexico



Taiwan



South Korea



Philippines



NATO

The global wireless industry relies on the lower 3 GHz band as a core 5G workhorse, providing the capacity needed to fuel economic growth and connect the industries of the future. Today nearly 50 countries operate full-power 5G networks in the 3.3-3.45 GHz range. In more than 30 of these countries, 5G operates alongside the same military radar systems that are used domestically—demonstrating that 5G can operate in the 3.3-3.45 GHz band in the U.S. without risking our national security. This real-world evidence of successful coexistence, as well as the clear trend of expanded commercial access to the 3 GHz band globally, should be fully reflected in the Administration and Congress’s evaluation of future commercial access to the lower 3 GHz band.

Evidence of Successful Coexistence in Lower 3 GHz Abroad

Key U.S. military systems in the lower 3 GHz band include Station-Keeping Equipment (SKE) and airborne radars such as the Airborne Warning and Control System (AWACS), shipborne systems such as the AN/SPY-1/6, as well as ground-based radars like the AN/TPQ-53. Research from GSMA, CCS Insight, and DLA Piper show that in many countries, these systems already operate alongside 5G.

Examples of successful coexistence abound: Nearly 20 countries throughout Asia have deployed 5G in the lower 3 GHz band, with key examples of Japan, South Korea, Taiwan, and the Philippines demonstrating 5G operating alongside deployed U.S. military radar systems. Throughout Europe, several NATO allies operate AWACS radar systems in countries with lower 3 GHz 5G deployments.

The U.S.-Mexico border provides another example. Mexican 5G networks already use the lower 3 GHz band at full power. Recent drive tests conducted confirm that these 5G signals are present across the border at Fort Bliss in El Paso. The U.S. operates ground based radar in the lower 3 GHz band less than 30 miles from the border at the Fort Bliss Doña Ana Range Complex.

Band Segmentation, Forward-Looking Upgrades, and Coordination Can Enable Coexistence

There are several paths the U.S. can pursue to further ensure that 5G can coexist with existing U.S. military systems in the lower 3 GHz band without the need for complex sharing mechanisms:

Segmentation: Segmenting the band at 3.3 GHz would be consistent with international trends and would be most efficient in enabling coexistence with radar systems. Radar systems can tune existing equipment or otherwise relocate below 3.3 GHz to facilitate coexistence. Commercial wireless providers would then be strictly limited to the 150 megahertz above 3.3 GHz to avoid interference.

Frequency Coordination: Coordination techniques likely already being used abroad—such as retuning, compression, and frequency coordination—would enable 5G networks to be deployed in the U.S. at full power from 3.3-3.45 GHz, while maintaining the ability to meet critical government missions that depend on radar systems. Such efforts could be accelerated with Spectrum Relocation Fund revenues from auctioning lower 3 GHz spectrum for commercial wireless use.

Forward-looking Upgrades: As military systems are upgraded, such as the scheduled replacement of AWACS radars starting in 2027, new radars can be designed to coexist with 5G deployments in the U.S. and around the world. Other countries are already using the chosen AWACS successor in L-band spectrum, below the 3 GHz band.

The U.S. Needs More Commercial Mid-Band

The U.S. wireless industry faces a looming spectrum deficit, requiring 400 megahertz by 2027 and nearly 1500 megahertz by 2032 in order to keep up with expected consumer demand. The federal government has access to over 600% more mid-band spectrum than the wireless industry today and does not face the same incentives to use it efficiently. Other nations are moving forward more aggressively to expand commercial access. China has already made 1160 megahertz of mid-band spectrum available, roughly 2.5 times more than the U.S.

MEXICO'S 5G DEMONSTRATES CO-EXISTENCE WITH DOD RADARS

