

America's Wireless Future Requires More Spectrum

The AIRWAVES Act

The AIRWAVES Act would create a pipeline of spectrum auctions for commercial use.

2018

Auction in **3.5 GHz** band

Auction of high-band spectrum

2019

Auction of high-band spectrum

2020

Auction of high-band spectrum

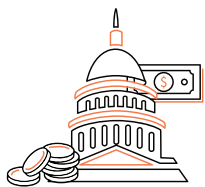
2021

2022

Auction up to 500 MHz within **3.7–4.2 GHz**

2023

Auction 100 MHz of federal spectrum below **3 GHz**



The 2023 Auction alone could raise **\$53B** for the U.S. Treasury.

The AIRWAVES Act (S.1682; H.R.4953), a bipartisan bill from Sens. Gardner and Hassan and Reps. Lance and Doyle, enhances existing wireless service and unleashes next-generation broadband in communities across America by creating a spectrum pipeline, encouraging rural wireless deployment, and reallocating underused spectrum.

The Need for More Spectrum

The United States is in a global race to 5G, competing for the significant economic and consumer benefits that flow from leading the world in next-generation wireless services. While nations around the world, including China, Japan, and South Korea, are moving aggressively to make more spectrum available for 5G, America does not have another spectrum auction date scheduled.

Unlocking a mix of new low-, mid-, and high-band spectrum for wireless use will position the U.S. to win the 5G race. More spectrum will also help support increased consumer demand—a 238% increase in just the last two years. Additional mid- and high-band spectrum will be critical for enabling the Internet of Things and deploying new technologies like autonomous vehicles and drones.

A Spectrum Pipeline Encourages Large-Scale Investment

The AIRWAVES Act sets a timeline for auctioning a series of critical low-, mid-, and high-bands, including those already identified by the federal government. For example, the bill requires an auction of up to 500 MHz of spectrum between 3700–4200 MHz to repurpose valuable mid-band spectrum for 5G in the same bands as other countries, which is key for global harmonization. Knowing when and what spectrum will be auctioned creates certainty, encourages investment, and allows wireless carriers to plan and build their 5G networks to maximize efficiency and robustness.

A clear pipeline of spectrum auctions can also fund much-needed upgrades to agency systems, support government priorities, and reduce the deficit—over the years, spectrum auctions have contributed more than \$114B to the U.S. Treasury.

Benefits of 5G



3 Million
New Jobs



\$275 Billion
New Wireless Investment



\$500 Billion
Contribution to GDP

More Spectrum Needed to Serve Rural Communities

The AIRWAVES Act sets aside 10% of proceeds from the auctions required by the Act to deploy wireless in underserved, often rural areas. The Act also requires the FCC to study the impact of unlicensed spectrum on rural healthcare, education, agriculture, and broadband access.

While 99% of Americans have access to at least one 4G provider, the AIRWAVES Act will help connect even more rural communities across our country by providing support for areas that are economically challenging to serve.

Underused Spectrum Should Be Repurposed

The AIRWAVES Act asks NTIA to report on relocating federal operations in the 1300-1350 MHz and 1780-1830 MHz bands. It requires an additional 70 MHz of federal spectrum—building on the 30 MHz already required by the Bipartisan Budget Act of 2015 for a total of 100 MHz—to be identified for reallocation and accelerates the resulting auction by one year. And the Act asks GAO to study how efficiently federal entities are paid when they willingly vacate federal spectrum.

These actions will free up underused federal spectrum for commercial use, a critical step considering the private sector has exclusive use of only 31.7% of the valuable bands below 3100 MHz, where most of today's wireless communications occur.

In addition to auctioning more spectrum for licensed use, the bill would explore the 5925–7125 MHz band and the 7125–8400 MHz band for unlicensed use, while protecting incumbent licenses.

With a Clear and Predictable Spectrum Pipeline, America's Economy and Consumers Win

With the right spectrum policies in place, the wireless industry is poised to invest \$275B to build out 5G networks, generating \$500B in economic growth and 3M new jobs.

5G will be faster (up to 100x faster than 4G), support more devices (100x more than today's networks), and respond in real-time. With 5G, we will see breakthrough innovations around remote healthcare and connected vehicles, as well as energy, education, and other key parts of our lives. With the right spectrum policies—like those in the AIRWAVES Act—the U.S. will be well positioned to win the race to 5G.