

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Allocation and Service Rules for the 1675-1680) WT Docket No. 19-116
MHz Band)

**REPLY COMMENTS OF
THE FREE STATE FOUNDATION***

These reply comments are filed in response to the Commission's request for comments in its rulemaking proposing to reallocate spectrum in the 1675-1680 MHz band for shared use between incumbent federal operations and new non-federal fixed and terrestrial mobile wireless services. These comments recommend the Commission adopt its proposal to expand the availability of spectrum resources needed for deploying 5G and other next-generation broadband services to all Americans. Also, this reply rebuts arguments that the Commission delay its proposal and also that it grant new rights or adopt new data transmission technology mandates specially benefitting unlicensed, non-federal users of the 1675-1680 MHz spectrum.

Time is of the essence in making additional spectrum resources available for commercial providers of next-generation mobile broadband services. Hundreds of megahertz of new spectrum are needed to supply the future data-rich demands of American consumers and enterprises. Reallocating the 1675–1680 MHz band for shared federal and non-federal commercial use, as the Commission proposes, would enable the

* These reply comments express the views of Randolph J. May, President of the Free State Foundation and Seth L. Cooper, Senior Fellow and Director of Policy Studies. The views expressed do not necessarily represent the views of others associated with the Free State Foundation. The Free State Foundation is an independent, nonpartisan free market-oriented think tank.

band to be auctioned for fixed and terrestrial mobile services. This would help meet burgeoning wireless infrastructure needs and further U.S. competitiveness.

The National Oceanic and Atmospheric Administration (NOAA) uses frequencies in the 1675–1680 MHz band for weather tracking and monitoring. As the Commission's proposal acknowledged, some of NOAA's current uses of the 1675–1680 MHz band "are scheduled to be relocated to the 401-406 MHz band" by early 2021.¹ The Commission's proposal would not change federal allocations in the 1675-1680 MHz band. And any new, non-federal mobile operations in the band would be required to "protect incumbent (current and planned) federal operations from harmful interference."²

The Commission's proposal to create an auctionable spectrum block out of the entire 5 megahertz and "to afford licensees the flexibility to assign licenses in the 1675-1680 MHz band with licenses in other spectrum bands... including the adjacent 1670-1675 MHz" is most likely to ensure that the spectrum is put to its most efficient and economical use. Although the 1675-1680 MHz band consists of just 5 megahertz, it has the potential to be combined with adjacent bands to create a larger spectrum block that will enable enhanced speeds and reliability. Also, the Commission also should undertake all reasonable efforts to license the 1675-1680 MHz band on a nationwide basis, increasing the spectrum's attractiveness to industrial enterprises operating nationwide.

To further the aims of its proposal for the 1675-1680 MHz band, the Commission also should take decisive action on Ligado Networks' amended applications to deploy a hybrid terrestrial-satellite network in adjacent L-Band spectrum that would use 35 MHz

¹ Allocation and Service Rules for the 1675-1680 MHz Band, WT Docket No. 19-116, Notice of Proposed Rulemaking and Order (NPRM) (released May 13, 2019), at ¶ 8.

² NPRM, at ¶ 14.

for terrestrial commercial mobile use.³ A prompt decision by the Commission on Ligado's amended L-Band applications would likely increase the interest of Ligado as an auction bidder for the adjacent 1675-1680 MHz band and lead to a more competitive auction. Ligado has the potential to combine that 5 MHz of spectrum with its 35 MHz of adjacent L-Band spectrum into a larger block, thus enhancing the capabilities and attractiveness of that larger block. It is consistent with the public interest for the Commission to facilitate competitive auctions that net high winning bid amounts for deposit in the U.S. Treasury.

In June 2019, Ligado filed a petition seeking prompt action on its amended applications pursuant to Section 7 of the Communications Act.⁴ In February 2017, Free State Foundation scholars proposed that the Commission rely, more so than in the past, on Section 7 as a means of spurring the development and implementation of new technologies and services. As we explained in our *Perspectives from FSF Scholars* paper titled "A Proposal for Spurring New Technologies and Communications Services": "Reliance on Section 7 could prove useful at different points in the ongoing development and rollout of next-generation 5G wireless services and other new broadband services that may employ new technologies."⁵ Consistent with the contention in our February

³ Ligado Networks LLC, IB Docket No. 11-109, *et al.*, Amendment to License Modification Applications (May 31, 2018), at: [https://ecfsapi.fcc.gov/file/1053120688074/Ligado%20License%20Modification%20Cover%20Letter%20and%20Amendment%20\(5-31-2018\).pdf](https://ecfsapi.fcc.gov/file/1053120688074/Ligado%20License%20Modification%20Cover%20Letter%20and%20Amendment%20(5-31-2018).pdf). See also Reply Comments of the Free State Foundation, IB Docket No. 11-109, *et al.*, Amendment to License Modification Applications (July 19, 2018), at: http://freestatefoundation.org/images/FSF_Reply_Comments_Ligado_s_Modification_Applications_071918.pdf.

⁴ Ligado Networks, LLC, IB Docket No. 11-109, *et al.*, Request for Prompt Commission Action Under Section 7 (June 25, 2019), at: <https://ecfsapi.fcc.gov/file/106250368626083/Ligado%20Request%20for%20Prompt%20Commission%20Action%20Under%20Section%207%20%5BJune%2025%202019%5D.pdf>.

⁵ Randolph J. May and Seth L. Cooper, "A Proposal for Spurring New Technologies and Communications Services," *Perspectives from FSF Scholars* (February 21, 2017), at 2, available at: http://www.freestatefoundation.org/images/A_Proposal_for_Spurring_New_Technologies_and_Communications_Services.pdf.

2017 *Perspectives*, Ligado presents a strong case that its proposed hybrid network fits within the Section 7 definition of new technologies and services. To enhance interest in 1675-1680 MHz band, and consistent with Section 7's direction, the Commission expeditiously should reach a decision on Ligado's L-Band applications.

Some commenters have urged the Commission to sideline its proposal and instead wait for feedback from a promised study by NOAA.⁶ That likely would mean delaying the proposal for a year or more. And the study identified by commenters is itself much delayed. As the Commission's proposal notes, "multiple Administrations have proposed reallocating the 1675-1680 MHz band for non-Federal use to improve spectrum management and enact sound policy," and "budgets submitted by the President for Fiscal Years 2014 through 2019 all proposed that the Commission should reallocate the 1675-1680 MHz band for non-federal shared use."⁷ More than ample time has been allowed for federal and non-federal users of the band to study reallocation, and the time has come for the Commission to act. It would be contrary to the public interest for the Commission to delay reallocation given the importance of speeding spectrum resources to market in the absence of any clear showing of evidence of harm from reallocation, and also when the Commission's proposal includes rules designed to protect current federal uses of the spectrum band.⁸

[ations_Services_022117.pdf](#). See also Comments of the Free State Foundation, Encouraging the Provision of New Technologies and Services to the Public, GN Docket No. 18-22 (May 21, 2018), at: http://www.freestatefoundation.org/images/FSF_Comments_-_Encouraging_the_Provision_of_New_Technologies_and_Services_-_052118.pdf.

⁶ Comments of AccuWeather, at 7; Comments of the American Geophysical Union, American Meteorological Society, and the National Weather Association (AGU/AMS/NWA), at 2; at Comments of AWCIA; Comments of OTT Hydromet Corp, at 1.

⁷ NPRM, at ¶ 5.

⁸ See NPRM, at ¶¶ 46-51.

Additionally, in adopting its proposal the Commission should not be deterred by calls for the agency to grant new rights or mandates specially benefitting non-federal users of the 1675-1680 MHz spectrum. Some non-profit and for-profit entities access weather-related data transmitted by satellite from NOAA using their own unlicensed earth stations, and they do not transmit data using that spectrum. And some non-federal users, such as AccuWeather, are commercial enterprises that monetize the data they receive, selling it to the public for profit.

Some commenters who are non-federal users have claimed that alternative content delivery networks (CDNs) for receiving data currently received from NOAA satellite transmissions – which the Commission's proposal contemplates authorizing⁹ – are not as capable or reliable as the transmissions currently received by their unlicensed earth stations.¹⁰ But such claims apparently are premised on inaccurate characterizations of CDN and broadband-related capabilities and are at odds with federal policy favoring the ongoing deployment of advanced broadband services that undergird present-day high-speed, reliable Internet capabilities.

Broadband technologies now form the centerpiece of the U.S. digital economy, evidenced by such developments as substantial marketplace investment, deployment of successive generations of innovative services, and widespread deployment of broadband Internet access services to American consumers. Consider a recent snapshot of the market reflected in the Commission's *2019 Broadband Deployment Report*: (1) "Capital expenditures by broadband providers increased by approximately \$1.5 billion in 2017; (2)

⁹ NPRM, at ¶ 20.

¹⁰ See, e.g., Comments of the Alert Users Group, at 3; Comments of the American Weather and Climate Industry Association (AWCIA), at 4-6; Comments of AccuWeather, at 11, 14-15; Comments of Microcom, at 12; Comments of the National Hydrologic Warning Council (NHWC), at 2; Comments of OTT Hydromet Corp, at 1-2.

"Broadband providers, both small and large, built and upgraded networks across the country, deploying fiber to 5.9 million additional homes in 2018, the most ever recorded in a single year"; and (3) "AT&T, Sprint, and Verizon announced planned launches of 5G networks in multiple cities to begin in late 2018 and continue through 2019."¹¹ With respect to CDNs, the Commission has recognized their ability to "enhance the speed and quality of video content delivered to consumers" of online video distributor services that are increasingly popular with consumers.¹² Certainly, CDNs have other applications. Comments filed in the proceeding pointed out that NOAA itself uses CDNs as an alternative means of disseminating weather-related data,¹³ and offered an example of a content delivery system that currently delivers NOAA data to two universities.¹⁴

In their comments, non-federal users of 1675-1680 MHz spectrum seek protection levels equal to NOAA.¹⁵ But at present, no non-federal users have licenses in 1675-1680 MHz spectrum. These non-federal users have no grounds for their claims for special protections or for new mandates dictating that they receive data streams via their preferred satellite technologies versus broadband Internet technologies used every day by all manner of commercial enterprises with a need to transmit data on a high-speed, reliable basis. Certainly, such non-federal users have no basis for imposing requirements on future licensees who have obtained rights via auction and paid for the right to use the spectrum. The Commission should not concede to demands for technology delivery and

¹¹ Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 18-238 2019 Broadband Deployment Report (released May 29, 2019) at ¶ 76.

¹² Communications Marketplace Report, GN Docket 18-231, *et al.*, Report (released December 26, 2018), at ¶ 86.

¹³ *See* Comments of Ligado Networks LLC, at 13.

¹⁴ *See* Comments of Ligado Networks LLC, at 11-12.

¹⁵ *See, e.g.*, Comments of AGU/AMS/NWA, at 2, 4; Comments of AWCIA, at 5; Comments of AccuWeather, at 5; Comments of Microcom, at 8.

protection restrictions on future licensees that, effectively, would insulate profit streams of current unlicensed non-federal users. The fact that unlicensed non-federal users have profited in the past from accessing data in spectrum should not convey new rights in spectrum. To conclude otherwise would undermine the reason for spectrum licenses and their integrity and could well set a harmful precedent.

For the foregoing reasons, the Commission should adopt its proposal for the 1675-1680 MHz band in accordance with the views expressed herein.

Respectfully submitted,

Randolph J. May
President

Seth L. Cooper
Senior Fellow and Director of Policy Studies

Free State Foundation
P.O. Box 60680
Potomac, MD 20859
301-984-8253

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