



October 28, 2019

VIA ELECTRONIC FILING

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

Re: *Ex Parte Submission*, GN Docket No. 18-122

Dear Ms. Dortch:

The C-Band Alliance (“CBA”) files this letter to update its proposal in support of the FCC adopting a market-based approach to clear 300 MHz of C-band spectrum, inclusive of a 20 MHz guard band. More specifically, the CBA proposes to make more spectrum available for terrestrial 5G use—100 MHz of spectrum in 46 of the top 50 PEAs within 18 months of an FCC Order and 280 MHz throughout CONUS within 36 months from a CBA-led auction.

The member companies of the CBA have been working with their customers to ensure that sufficient C-band spectrum remains available for continued content distribution, while maximizing the portion repurposed for terrestrial 5G use within 18-36 months of an FCC Order and auction. These efforts have led the CBA to be able to increase from 180 MHz to 280 MHz the amount of spectrum available for terrestrial 5G use via its market-based approach; a 20 MHz guard band is retained to protect on-going satellite operations in the band.

This increase in the amount of spectrum proposed by the CBA to be cleared for 5G use is made possible by technologies such as advanced modulation, single format transport, and advanced video compression, including High Efficiency Video Coding (“HEVC”). Each of these technologies improves the efficiency of satellite video delivery, allowing the same video content to be transmitted over less spectrum. In fact, a number of video content distributors have already adopted or are in the process of adopting these technologies, including HEVC. The CBA’s market-based plan makes it economically viable for those required to reduce their bandwidth usage to employ these technology upgrades because the CBA will pay the costs incurred by those customers adopting such technologies. The implementation costs related to the clearing of this increased amount of spectrum are expected to be between \$2.5 billion and \$3.5 billion.

Importantly, the CBA is committed to ensuring that all C-band satellite customers enjoy continued access to C-band satellite spectrum in an interference-free environment before, during, and after the transition of 300 MHz of C-band spectrum. The CBA member companies will retain all current C-band customer services and maintain the value and capability of C-band video distribution neighborhoods. In addition, the companies have provided updated, specific transition plans to their largest customers.

The CBA is committed to taking steps such that satellite operator customers enjoy continued access to 200 MHz of C-band satellite spectrum in an interference-free environment before, during, and after the transition of 300 MHz (including the 20 MHz guard band) of C-band spectrum. To that end, the CBA makes the following commitments:

- If deemed necessary by the CBA to clear 300 MHz, specific technology choices (e.g., HEVC, AVC), operating parameters (e.g., channel bit rates or modulation roll-off), and the selection of



equipment manufacturers for the purpose of clearing the 300 MHz shall be at the sole discretion of the programmer in every case;

- The CBA shall be fully responsible for all costs necessary to implement the reallocation of 300 MHz of spectrum, including, but not limited to, costs related to technology upgrades (e.g., HEVC, encoding systems, IRDs) for those customers identified by the CBA for such upgrades, antennas, filters, systems design and integration, and logistics, including payments to third-party service providers if needed;
- The CBA shall submit in the record of this proceeding an overall customer-anonymized fleet loading plan, a firm commitment to launching and deploying certain replacement satellites and the estimated dates by which such satellites will be in service, an updated customer commitment letter for those customers identified by the CBA for technical upgrades, and a transition plan describing how the transition will unfold and providing estimated costs and timelines;
- The transition plan will require the CBA to fulfill all deliverables necessary to implement the reallocation of 300 MHz of spectrum in accordance with agreed-upon timetables;
- The CBA agrees that the FCC must retain oversight and enforcement authority over the transition to ensure that the transition is prompt and that the CBA lives up to its customer commitments, and that use of the spectrum occurs in accordance with all applicable FCC rules and policies;
- The CBA shall make available to customers and their affiliates, at the CBA's cost, facilities at one or more of the grandfathered TT&C/Gateway locations, as needed, to downlink any transmissions in the 300 MHz cleared spectrum from satellites viewable from those TT&C/Gateway locations that customers or affiliates require access to in order to have comparable service as today. The CBA shall, at the CBA's cost, backhaul those downlinked transmissions to the customer or affiliate location that is currently downlinking those transmissions;
- The CBA continues to work with the FCC, C-band users, and other parties to develop technical solutions that allow for mobile production of C-band contribution and the downlinking of C-band confidence transmissions in 5G congested areas;
- The CBA commits to continue working with the FCC and industry stakeholders to develop rules for terrestrial 5G operations that minimize the likelihood that 5G transmissions will individually or in the aggregate create harmful impairments to FSS earth stations or to the services they convey. The CBA further commits to working with the FCC and industry stakeholders to develop effective interference prevention, detection, mitigation and enforcement procedures and rules for the benefit of satellite operator customers. The CBA further commits to working with customers to identify, document and attempt to resolve instances of harmful interference impacting video quality as may be relevant to enforcement efforts;
- The CBA continues to commit to its previous representations in the record of this proceeding concerning customer and user protections and interference rules.

