

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Wireless Telecommunications Bureau,	)	GN Docket No. 18-122
International Bureau, Office of Engineering and	)	RM-11791
Technology, and Office of Economics and	)	RM-11778
Analytics Seek Focused Additional Comment	)	
In 3.7 to 4.2 GHz Band Proceeding	)	

**COMMENTS OF THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

The Church of Jesus Christ of Latter-day Saints (the “Church”), by its attorneys, hereby files comments in response to the Commission’s request for additional public comment on proposed auction-based approaches and other transition mechanisms to introduce new flexible-use licensing in the 3.7-4.2 GHz band (the “C-band”). As discussed herein, the Church urges the Commission to adopt a proposal that allows existing C-band earth station operators the flexibility to determine for themselves the best long-term solution for delivering video content to their locations.

**I. INTRODUCTION AND BACKGROUND.**

As the Commission is aware, the Church, through its affiliated legal entities, owns and operates one of the largest networks of C-band receive-only earth stations in the United States, representing approximately 20 percent of all earth stations registered with the Commission.<sup>1</sup> As a non-profit religious organization whose earth-station network is run by local volunteers, the Church does not have a technical team that can oversee the modification of each of its C-band

---

<sup>1</sup> See Letter from Jason E. Rademacher and Christina Burrow, Cooley, Counsel for The Church of Jesus Christ of Latter-day Saints, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-122 (filed July 9, 2019).

earth stations. Accordingly, the Church needs a C-band solution that allows it to determine, for each location, the best long-term transition option. The Church also needs a C-band solution that will mandate full and fair reimbursement of all reasonable transition costs, both direct and indirect. The Church will support any plan that accomplishes both of these objectives.

With respect to the recent proposal by ACA Connects Coalition and the Wireless Internet Service Providers Association (“WISPA”), the Church respectfully submits that allowing earth station operators to decide their own long-term solution promotes efficiency and order, far more than mandating that particular operators must install a filter or move to a different technology. The Church also has serious concerns about point-to-multipoint proposals that would eliminate full band protection for operators who remain in the C-band.

## **II. ALL C-BAND EARTH STATION OPERATORS SHOULD HAVE THE OPTION TO SWITCH TO FIBER, BUT NONE SHOULD HAVE THE OBLIGATION TO DO SO.**

Earth station operators are in the best position to determine how to adjust their networks and continue operations as the Commission restructures the C-band. A one-size-fits-all proposal, such as mandatory fiber or filters for certain categories of operators,<sup>2</sup> is not a practical, long-term solution.

In contrast to satellite operators, of which there are a very limited number, there are thousands of earth station operators located in thousands of locations, and each location has a unique set of obstacles and considerations that must be taken into account when determining how to make the operator whole. Operators are in the best position to decide the most efficient

---

<sup>2</sup> See Letter from Alexi Maltas, Ross Lieberman, and Elizabeth Andrion, counsel for Competitive Carriers Association, ACA Connects – America’s Communications Association, and Charter Communications, Inc., to Marlene H. Dortch, Secretary FCC, GN Docket No. 18-122 (filed July 2, 2019) (the “ACA Coalition Proposal”).

solution for their locations. A proposal that divides earth station operators and imposes a particular solution based solely on the type of service the operator provides ignores a host of other factors, including location, access to fiber, size of the network, available bandwidth on existing satellites, orbital locations and what satellites can reach which earth stations in an operator's network, and the size of an operator's staff, that have a real impact on the cost, practicality, and efficacy of the imposed solution.

While switching to fiber should not be mandated for any earth station operator, it could be incentivized, such as by allowing an earth station operator to switch to fiber even if fiber is not the least-cost option for a particular location. The Church agrees that fiber is a viable solution for some C-band operators, and the Church supports proposals that give earth station operators the option to switch to fiber with all reasonable costs paid for using proceeds from an auction or sale. However, in creating a fiber option, the Commission should not discriminate between groups of operators, forcing some to move to fiber and forcing others to install filters. Those choices should be left to operators based on their individual needs.

As the Church has previously noted, a move away from C-band earth stations would inoculate earth station operators against further costs and institutional disruptions from future restructuring of the band, while earth station operators forced to install filters would be protected for only "an appropriate period," possibly as little as seven years.<sup>3</sup> If operators like the Church are required to install filters and stay within the C-band now, they likely will be required to transition yet again to another solution in the near future. If the Commission is willing to reimburse costs of earth station operators' move to fiber, the option should be offered to all operators, not just a limited favored few that happen to provide a particular type of distribution

---

<sup>3</sup> See ACA Coalition Proposal at 4.

service. Earth station operators can then choose for themselves the best long-term solution for their operations.

Not only is a limited proposal unfair to operators that want to move to fiber, it also is inefficient, as some operators relatively close to fiber infrastructure will be required to install filters, with no guarantee of long-term protection. And it defeats the Commission's goal of expanding fiber to rural and underserved areas – a goal aimed at closing the digital divide – by precluding rural earth station operators from transitioning to fiber even if they want to move and even if funds can reasonably be made available through the various proposals that have been made to the Commission to aid in the installation of fiber. If the Commission offers an alternative technology solution to one group of operators, all operators should receive that same option.

In short, the Commission should ensure that (1) all registered earth station operators have the flexibility to determine for themselves how to transition and (2) all reasonable transition costs are fully reimbursed, both direct and indirect, including project management costs for an operator such as the Church, which is without paid technical staff. At a minimum, reimbursable costs should include the flexibility to choose between different options or a combination of options, including installing filters, transitioning to the Ku-band (or another band), transitioning to fixed terrestrial delivery if fiber is reasonably available in the area, or pursuing some other reasonable alternative that works for the particular earth station operator, as well as all associated administrative costs.

### **III. FULL ARC, FULL BAND PROTECTION IS VITAL**

The Church takes no position on whether fixed wireless should be allowed to use a dedicated portion of the current C-band spectrum, but is concerned that fixed wireless cannot

coexist with existing C-band users in a shared environment. It notes, moreover, that Google's July 3, 2019 characterization that the Church's use of C-band spectrum "represents an enormous consumption of spectrum for no communications purpose whatsoever"<sup>4</sup> is misplaced. The Church uses the C-band to minister to the spiritual needs of millions, a perfectly legitimate communications purpose. The Church does not oppose repurposing part of the C-band for terrestrial communications purposes, but only if the important uses that band serves today are fully preserved and protected.

While the Church uses only a portion of available bandwidth on a day-to-day basis, like other C-band users, it relies on full band protection to ensure against interference for its nationwide network and to adjust to dynamic conditions. Requiring coordination between current C-band users and fixed satellite operators with point-to-multipoint ("P2MP") operations is not a workable or efficient use of C-band. The Church is concerned that, even with the efforts proposed to reduce or eliminate interference in a shared environment, it will experience issues in the field that will be expensive and time consuming to identify and resolve. Given that the Church's programming is often time-sensitive and that the Church lacks technical staff at its many earth station receive sites, the necessary on-the-fly troubleshooting that comes from operating in a shared environment may be impossible.

A shared environment that necessitates freezing earth station locations and frequencies also would inhibit earth station operators from responding to emergencies or other unexpected circumstances. The Commission should resist any proposal that attempts to limit the rights of an earth station operator to a specific frequency it uses at an arbitrary point in time. Such a

---

<sup>4</sup> See Comments of Google LLC on Interference Protection Rights, GN Docket No. 18-122 (filed July 3, 2019) ("Google Comments") at 10.

requirement would be like forcing a mobile phone only to operate on the last band it accessed. Like mobile phones, C-band earth stations should be permitted to access all available spectrum.

The P2MP proposal also is problematic for large network operators like the Church because it could require broadcasting on multiple satellites and/or multiple frequencies, which would reduce efficient use of the band and require regular adjustments to each individual earth station receiver. The prospect of having to send technicians to adjust receivers at thousands of locations across the country is simply not tenable, especially where the Church lacks technical staff at its houses of worship.

Finally, “sharing” the band with P2MP is problematic because the latest P2MP proposal suggests that P2MP receive full rights (not shared rights) to all geographical locations without a current C-band receiver. This is not “sharing”; it shuts out current earth station operators from any growth or development of their systems. Networks are dynamic; earth station operators need the ability to grow or relocate current facilities without having to operate on multiple networks.

The Google Comments imply that the Church’s 3,476 registrations improperly requested full C-band spectrum protection instead of limiting the registrations to the frequency the Church uses currently. This comment demonstrates a lack of understanding about the satellite industry. Full-band, full-arc protection has long been the standard in satellite. From time to time, space station operators adjust the frequency assigned to a particular earth station operator and earth station operators may request a frequency change due to evolving operational needs. For example, either party may request a frequency change to better utilize the available spectrum, the earth station operator may change its space station provider, or the earth station operator may have a need for increased or decreased capacity. Thus, the long-standing practice in the industry is to register earth stations indicating the range at which the earth station receives as opposed to

the particular frequency assigned to it by the satellite operator for reception, a frequency which can and does change.

#### **IV. CONCLUSION.**

The Church urges the Commission to adopt a transition proposal that gives earth station operators the flexibility to pick the best transition solution for each of their locations. The solutions must be future-proof and all costs must be covered.

Respectfully submitted,

**THE CHURCH OF JESUS CHRIST OF LATTER-  
DAY SAINTS**

\_\_\_\_\_  
/s/  
Jason E. Rademacher  
Christina Burrow  
Cooley LLP  
1299 Pennsylvania Ave., NW, Suite 700  
Washington, DC 20004

*Counsel for The Church of Jesus Christ of Latter-day  
Saints*

August 7, 2019