Delivered Electronically

Marlene H. Dortch

Federal Communications Commission

Office of the Secretary

445 12th Street, SW

Washington, DC 20554

Re: **REPLY COMMENT**

*Use of C Band (3.7-4.2 Ghz) spectrum for purposes other than satellite down link service.*

GN Docket Nos. 18-122, 17-183

Dear Ms. Dortch:

After reading the comments on this proceeding, they seem to fall into a few categories:

- The current **Satellite users** that wish to have their spectrum remain pristine.

- The **Cellular companies** that demand any spectrum available, otherwise there will be NO 5G cellular.

- The Individual **“Free TV” users**, that use the C band to scan for and watch available media.

- The **Fixed Wireless providers**, that wish to be able to use the frequency to provide better service.

The existing Satellite users, as the primary users of this spectrum have a right to have their systems protected. However, technology has changed over the last few years. **“COMCAST’s”** comment showed that many of the C band headends were now being feed by fiber, as the primary feed to their media content, and the C band spectrum was used primarily as a “Back-up”.

This prompts a question….*Is the FCC willing to PROTECT spectrum, and not have it available for other uses, that may ONLY be used several hours a year to backup a high proficiency fiber connection?*

Or should C band facilities that are used for back-up use, be considered as “Secondary Users” on the spectrum, and not be given Priority protection?

Many of the Satellite Engineers have commented on how detrimental it would be if Mobile use was allowed on the band. They believed that there would be NO efficient way to control the mobile devices, and it would cause interference to their current uses on the band.

**NONE of these Satellite Engineers, said anything derogatory, if the band was to be “shared” with Fixed Wireless users !**

*Fixed Wireless (Part 101) has shared the 3.7-4.2 band for many years now, without detrimental effects to C band users!*

The majority of the Cellular comments seem to demand that these frequencies (and any other frequencies) are needed to be given to the Cellular Industry, otherwise there can’t be any 5G service. “Sean Markis” commented on an FCC study that stated that even after the Cellular Industry was given additional frequencies that coverage in the Rural and Tribal areas has continued to remain flat ! The Cellular Industry also wants the FCC to auction off these frequencies in large blocks. Even if it was done in smaller County blocks, (many of which are thousands of square miles wide in the Western United States), the coverage of Rural areas would still be lacking due to the high ROI costs of Cellular facilities.

“T-Mobile” wants to further complicate sharing the band with existing C band users, by requesting to have transmitters to be able to run higher power (60 Db -1000 watts) for mobile uses. Existing Part 101 fixed microwave stations that are sharing the band with Satellite users currently have a Transmit limit of 55 Db (316 watts), and the Fixed Wireless (PtMP) users that are requesting to share the band are requesting between 36 Db(10 watts) and 50 Db (100 watts).

The Cellular Industry would like the FCC to clear all Satellite users off the existing band, or at least have the lower 100 Mhz (3.7-3.8 Ghz) cleared for their use. This would be a horrendous, and very expensive task to accomplish. Being that a large part of the devices that are on this band are thousands of miles out in space with no direct access to them. Even if the C band satellite transponders were replaced with the new frequencies as they wore out, it would take many years to replace all of them. If the FCC stated that the Satellite Industry couldn’t use the lower 100 Mhz., it could not control the possibility that interference to any new service on those frequencies could occur from the existing transponders that still had their outputs on those lower 100 mhz. This would also mean that the FCC would have to RESTRICT the use of the lower 100 Mhz on the C-Band Satellite “Uplink” spectrum.

The “Free TV” users, are primarily users that wish to watch Free Satellite programming, either as a Hobby, or for personal use. Many of them state that Internet service is not available to them. I would point out that many of those media providers are probably also streaming their content on the internet, and those users could have access to it, if they could be provided Fixed Wireless Internet connections.

The Fixed Wireless Providers (WISP’s), would like to use the 3.7-4.2 Ghz band to provide Internet service to the public. As the FCC already has a data base from the Form 477’s that ALL broadband providers must submit, it should show how many WISP’s are providing service in the rural areas, and what they are providing. If WISP’s are providing better service in rural areas than Cellular, then it would be of the “Public Interest” to help those WISP’s by providing them with the spectrum that is needed to expand and cover those rural areas.

Majority of WISP’s are using the unlicensed 5 ghz band to provide their services. This band is slowly becoming congested with interference from “unlimited” routers, many of which are being installed with Satellite TV. As more Satellite TV is installed in the rural areas, more interference is being generated there. There is the need for prime spectrum that could be set aside and used by Fixed Wireless Internet.

Thank you,

Wayne Markis

President

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