

FCC Adopts Limited Sharing Arrangements in the Upper 37 GHz and 50 GHz Bands

Chip Yorkgitis

April 30, 2019

At its April Open Meeting, the FCC approved a [Fifth Report and Order](#) (“R&O”) in the *Spectrum Frontiers* Proceeding that adopted sharing rules in two settings. The new rules will allow the federal government to deploy, in limited circumstances, additional station sites in spectrum to be auctioned for flexible mobile and fixed use in the 37.6-38.6 GHz frequency range (the “Upper 37 GHz Band”). The rules also will allow fixed satellite service (“FSS”) operators to individually license earth stations in the 50.4-51.4 GHz band (the “50 GHz Band”) while the FCC considers whether spectrum in the 50 GHz Band should also be auctioned for flexible mobile and fixed use. By acting now on these matters, the Commission intends to help provide Upper Microwave Flexible Use Service (“UMFUS”) providers with certainty regarding their potential future use of the spectrum before the auctions commence.

The FCC, following National Telecommunications and Information Administration (“NTIA”) recommendations, established a little less than a year ago coordination zones for non-Federal licensees to protect fourteen existing Department of Defense (“DoD”) sites where fixed and/or mobile operations are present and three active Federal scientific services sites which will enjoy co-primary status in the Upper 37 GHz Band. (In response to an NTIA request, the R&O also added a small coordination zone around a new location, the Edwards Air Force Base in China Lake, California, and the FCC consolidated four of the existing coordination zones that were overlapping into one single area under the China Lake site.)

The R&O noted that the new rules would supplement that effort and facilitate the ability of Federal agencies to add future sites on a coordinated basis. While the 37.0-37.6 band (the “Lower 37 GHz Band”) has long been targeted for coordinated co-equal, or co-primary, sharing between Federal and non-Federal users as part of the *Spectrum Frontiers* proceeding (although certain details are still being worked out), DoD has more recently informed the FCC that the capacity available in the Lower 37 GHz Band would not be sufficient in all locations and that it requires the flexibility to deploy additional sites in the Upper 37 GHz Band. That spectrum will be a part of the [auction that also includes the 39 GHz and 47 GHz Bands](#) (specifically 38.6-40.0 and 47.2-48.2 GHz). The FCC’s motive for adopting rules to facilitate DoD growth and sharing is to minimize possible uncertainty that potential bidders may have about the coordination rules for the Upper 37 GHz Band.

The DoD spectrum leaders have for some time been pushing for reverse sharing, whereby the military services could get access to spectrum within frequencies used predominantly by the commercial mobile industry. This new framework—much of it contained in a letter to the FCC from NTIA—is a measured step in that direction, but not likely the complete fulfillment of DoD’s vision in this regard. In the R&O, following a Third Further Notice of Proposed Rulemaking in the *Spectrum*

Frontiers matter issued in June 2018, the FCC adopts a process in conjunction with the NTIA to allow the DoD to deploy to add sites in the Upper 37 GHz Band in select circumstances and modifies some of the arrangements related to the existing coordination zones. In addition, new procedural arrangements reflected in the rules allow DoD to provide its request for access to the Upper 37 GHz Band to the FCC for specific additional military bases and ranges for the limited purpose of defense applications or national security.

Such requests will be considered under a new coordination process that would only allow DoD access to the Upper 37 GHz Band when the proposed military operation could not be accommodated with the Lower 37 GHz Band spectrum. DoD will need to provide information to justify the necessity of its request for access to the Upper 37 GHz Band. Under the new process, FCC staff would review any request for the potential impact on non-Federal licensees and determine whether the request can be accommodated without creating a risk of harmful interference to current or planned non-Federal deployments. Respecting the non-jurisdiction of the FCC over the DoD, the FCC will determine whether the request for access can be accommodated without creating a significant risk of harmful interference to current or planned deployments by non-Federal licensees. The NTIA, given its authority over Federal use of spectrum, would provide the applicable military departments with any new or revised frequency assignments once they are successfully coordinated with the FCC.

The approach adopted in the R&O differs from the original fourteen military sites mentioned above because it would involve DoD coordinating its use with non-Federal licensees rather than the other way around. This may be small victory for the DoD to gain access to non-Federal spectrum (outside of secondary market transactions, which present another option for access) that will, in all likelihood, go to members of the commercial mobile industry. While the Commission relates its expectation that such requests by DoD will be “relatively rare,” it may be a small sign of something that may be seen more frequently. The Repack Airwaves Yielding Better Access for Users of Modern Services Act of 2018, or the RAY BAUM’S Act of 2018, requires the Commission and NTIA to complete a bidirectional sharing study to determine the best means of providing Federal entities flexible access to non-Federal spectrum on a shared basis across a broad range of timeframes, including for intermittent purposes like emergency use.

In addition, the R&O amends existing rules in the 50 GHz Band to enable FSS operations with a limit of no more than three earth stations in any county and no more than fifteen in any Partial Economic Area (“PEA”). A notable number of FSS non-geostationary orbit (“NGSO”) satellite operators seeks access to this band, among others, as part of their applications with the FCC. The deployments would be subject to certain technical rules, including population coverage areas related to their -77.6 dBm/m²/MHz PFD contours, and certain geographic restrictions, designed to prevent the earth stations from being deployed in more urban environments where UMFUS deployments are considered more likely. These limits parallel geographic-quantitative limits the FCC has established in other high frequency bands, such as the recently auctioned 34 GHz Band (24.25-24.45 and 24.75-25.25 GHz) and the 39 GHz Band. The FCC acknowledges that part of this band and an adjacent band (51.4-52.6 GHz) are still under consideration in the FCC’s *Spectrum Frontiers* proceeding for possible UMFUS licensing. However, the FCC concluded that the question of FSS operations’ freedom to deploy earth stations in the band could be resolved now because “a limited number of individually licensed FSS earth stations can share the 50.4-51.4 GHz band with minimal impact on terrestrial operations in this band,” extending the conclusions it reached in those lower bands.