

A Proper Balance in the 11 GHz Band: Fixed Service Microwave and MSS Feederlinks

- The FCC is considering new rules that will promote a proliferation of microwave operations in spectrum that is shared between fixed microwave and MSS feederlinks.
- MSV and TerreStar do not object to this increased use of the band by microwave operations if minimal interference protections are implemented through adoption of clear coordination rules that will protect sensitive satellite signals in the 3 to 5 sites where MSS feeder link operations will be located.
- MSV operate its existing satellite system using feeder links that share spectrum with fixed microwave operations in the 10.7-11.7 GHz band. MSV and TerreStar are both constructing next-generation satellite systems using feeder links that share spectrum with fixed microwave operations in the 10.7-11.7 GHz band. These systems will provide innovative, reliable and ubiquitous broadband services throughout North America, including to emergency responders.
- The handful of earth stations that the companies are constructing that will be located in the United States will each cost more than \$25M to construct, must be located in an area with skilled labor and reliable power supplies, and cannot be relocated once they are built.
- If MSV or TerreStar experiences harmful interference once they begin operations, there may be no clear way to mitigate the interference and vital public safety communications would be adversely affected.
- We do not object to the Fibertower proposal, but we are concerned that the existing informal coordination process for sharing between microwave and satellite operations is inadequate to protect highly-sensitive satellite operations in the band. To correct this problem, we propose that the FCC:
 - codify the coordination standards and procedures for new microwave operations in the vicinity of MSS feeder link earth stations
 - establish a PFD limit of -162 dBW/MHz in band and -125 dBW/MHz out-of-band to protect sensitive satellite feeder link receivers
 - clarify that the limit applies to aggregate interference and not just single-entry interference
 - provide an opportunity for monitoring if the predictive analysis appears inadequate

Our proposal should have no practical impact on microwave deployment because:

- there will be no more than 3 to 5 sites MSS feeder link facilities in the United States, so the affected area will be less than 0.1% of the landmass of the United States
- in the small affected area, 500 MHz remains available for virtually unfettered microwave deployment