

7521097837.txt

I strongly oppose the Mimosa Networks petition RM-11715 to open up the 10.0 - 10.5 GHz band for broadband services. I concur with the arguments voiced by ARRL as well as the other well qualified engineers and scientists, experienced licensed radio operators, and groups who also oppose the proposal, such as WA1MBA, W4RX, W2SJ, K1MAP, KJ7OG, W6OAL, WA3RGO, CSVHFS. (I've experienced some of the 10GHz propagation effects mentioned over the last 20 years as an amateur operator AA2LY). This is based on the poor suitability of the 10.0-10.5 GHz band for wideband communication, and on the strong potential of interference with amateur and other communications.

1) Band unsuitable for wideband communication:

The 10.0-10.5 GHz band may be fundamentally unsuited for long-reach back-haul communications due to scattering, multi-path, dispersion and attenuation effects which would result in poor reliability, high error rate, and excessive interference. The petition makes no mention of these issues, and only acknowledges a moderate attenuation from rain fading effects. It is not clear whether they are even aware of them. Based on the comments to this effect from experts and from amateur radio operators with extensive experience, it is apparent that a more realistic proposal is needed, one which effectively addresses these limitations. I respectfully recommend that the Commission consider forming a panel to identify the issues associated with using 10-10.5 GHz band for wideband communications. Certainly, the demand for additional spectrum for wideband communications is important, but resources might be better spent on using lower frequencies than 10 GHz that are more suitable for the application, or by better utilizing those already allocated.

2) Strong potential to interfere with other communications:

The proposed 55dBW EIRP upper limit is excessive and will generate interference. This EIRP could swamp amateur communications, which require much lower power and require much more sensitive receivers. There is insufficient detail in the proposal on how interference to amateur communications would be minimized. The proposed protection bands are not nearly enough.

I urge the Commission to deny this petition RM-11715.
V/r Terry Burke, Ph.D.