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As an amateur radio operator for over 40 years and a professional RF Systems Engineer I strongly object to Mimosa Networks proposition for changing the amateur spectrum in the 10.0-10.5 GHz band from primary to shared spectrum with high power broadband backhaul networks.

Mimosa Networks planned use for the spectrum is vague, but appears to be leaning toward point to multi-point use in a spectral region that has been traditionally served by fixed point to point links where the geographic location of the equipment and operating parameters are well understood and links are professionally planned and coordinated to minimize interference with adjacent services.

Mimosa Networks proposed ERP combined with no prior requirement for planned fixed links is likely to cause considerable interference.

The use of a contention based protocol does not provide protection to amateur operations that might be happening on or near the operating channel of the Wireless Broadband Backhaul equipment. Many amateur operators do weak signal work in the 10GHz band and it is unlikely the Broadband Backhaul equipment would detect such communications.

Operation at the power levels that Mimosa is proposing would create broadband noise due to RF power amplifier intermodulation distortion over wide areas of frequency spectrum, including the amateur exclusive channels. This would undoubtedly interfere with weak signal, EME and amateur satellite operations that have been well established in the band and are increasing in popularity and number of users at a very rapid rate. This is due in part to recent technological advances in low cost software defined radios and microwave components.

The 10GHz band is a very important band for amateur experimentation that has often led to technology that is adopted by the commercial marketplace. Many of the lower microwave bands are unusable for weak signal and EME work near the horizon due to RF pollution caused by commercial wireless broadband services. It would be a great disservice to the amateur community and the future of amateur microwave innovation to turn this band over to commercial users.

I strongly urge the commission to reject Mimosa Networks petition as outlined in RM-11715.

Sincerely,
Mark Donaldson