

## **FHH Telecom Law January 2004**

### **Satellite and Fixed Service**

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The FCC has proposed to adopt an industry-negotiated compromise on frequency coordination between fixed service users and NGSO satellite providers.

Since the 1960s, the FCC has presided over a fractious relationship between satellite earth stations and fixed microwave users that share certain frequency bands on a co-primary basis. Any new installation by either service must avoid causing interference to, and must accept interference from, pre-existing facilities of both services. The FCC requires new applications to be "frequency coordinated" against a database of facilities already in place to check the likelihood of interference. That seems simple enough in principle, but the details of the coordination process have been a source of continuing friction. Of particular concern to fixed microwave users is the fact that each earth station takes up a wide range of frequencies for many miles around, often blocking expansion of overloaded microwave facilities.

Frequency coordination is hard enough in the vicinity of earth stations for geostationary satellites -- those that stay put in the sky. A company called SkyBridge complicated the picture in 1997 when it proposed a non-geostationary (NGSO) system whose satellites move across the sky. Skybridge needs large "gateway" earth stations for connecting its satellites to terrestrial networks, and proposed having those share a frequency band with fixed microwave users. Because the earth stations move while in operation to track satellites across the sky, they make frequency coordination far more difficult. In particular, they threaten serious limitations on fixed microwave expansion. The stage was set for yet another intractable conflict.

But in 1999 the Fixed Wireless Communications Coalition (FWCC), representing fixed microwave users, and the SkyBridge proponents were able to negotiate a resolution. They agreed to identify fixed microwave "growth zones," defined as counties having certain levels of fixed microwave activity in the shared band. NGSO gateway earth stations locating in those zones agree to accept restrictions that permit fixed microwave expansion, if needed. In exchange, earth stations outside the growth zones have considerably more flexibility, and fixed microwave operators must accept more stringent limitations.

The two groups submitted their agreed-upon compromise to the FCC in December 1999. The FCC promptly published the proposal for public comment, which was generally favorable. Now the FCC has issued a formal Notice of Proposed Rulemaking aimed at incorporating the FWCC/SkyBridge into its rules, with only minor modifications. There is no explanation for the four-year delay.

Comment and reply due dates had not been published at press time.