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November 26, 2008

Ms. Helen Domenici
Chief, International Bureau
Federal Communications Commission
445 12th Street SW
Washington DC 20554

**Re: Request by the Fixed Wireless Communications Coalition for an Audit of
Constructed and Operating Satellite Earth Stations**

Dear Ms. Domenici:

On behalf of the Fixed Wireless Communications Coalition (FWCC), I am writing to request an audit of Fixed Satellite Service (FSS) earth stations in bands that are shared on a co-primary basis with Fixed Service (FS) stations.

The FWCC corresponded on this issue with your predecessor Donald Abelson in 2002, and again in 2004, but without resolution. The Bureau neither conducted the requested audit nor refused to do so. Because the issue remains important, we raise it again with you.

The bands shared between FS and FSS range from 4 GHz to 40 GHz.¹ They cover part or all of every fixed service band essential for long-range and/or high-capacity communications.

Both FS and FSS applicants are required to frequency-coordinate a proposed usage with the other service.² The coordinators evaluate a proposed FS link or FSS earth station for interference it would both cause to, and receive from, earlier-coordinated links and earth stations. The main source of data for identifying the locations of these stations and making the calculations is the Commission's licensing database. Some FS coordinations fail because a licensed FSS earth station in the database is predicted to cause or receive interference. And yet, a first-hand

¹ The FS/FSS shared bands are 3.7-4.2 GHz, 5.925-6.425 GHz, 10.7-11.7 GHz, 12.2-12.7 GHz, 12.75-13.25 GHz, 17.7-17.8 GHz, 18.3-19.7 GHz, 24.75-25.25 GHz, 27.5-28.35 GHz, 29.1-29.25 GHz, and 38.6-40 GHz. 47 C.F.R. Secs. 25.202(a)(1), 101.101.

² 47 C.F.R. Secs. 25.203(c), 101.103.

examination of the earth station site sometimes shows the earth station was abandoned -- or, in some cases, never constructed.

In short, the presence of non-existent earth stations in the database causes the frequency coordinator to rule out proposed FS stations that, if built, would neither cause nor receive interference.

The Commission's Rules require an earth station to be constructed and brought into operation within 12 months of licensing.³ The license cancels automatically 90 days after a station is dismantled.⁴ However, based on reports from FS applicants making field inspections, it appears that a significant percentage of earth stations licensed more than 12 months earlier in fact are nonoperational or nonexistent. Their continued presence in the database continues to block urgently needed FS coordinations, especially in the 4 GHz and 6 GHz bands.

To address this problem, we ask the International Bureau to conduct an audit of licensed FSS earth stations, in bands shared with the FS, so as to delete from the database those that are beyond the construction period but not in service.

The audit could be similar to two conducted by the Wireless Telecommunications Bureau covering Private Land Mobile Radio licenses below 512 MHz and, separately, in the 220-222 MHz band.⁵ In each case, the Bureau simply mailed a printed form to all listed licensees requesting confirmation that the licensed stations in fact are constructed and operating. The Bureau subsequently cancelled a great many licenses over dozens of public notices, citing the audit. The 220-222 MHz band audit resulted in the cancellation of 32% of 956 licenses.⁶

As a preliminary step, we urge the Commission to promptly eliminate from the licensing records any earth station for which the annual regulatory fee remains unpaid after six months, and to continue this winnowing on an annual basis.

³ 47 C.F.R. Sec. 25.133(a)(1).

⁴ 47 C.F.R. Sec. 25.161(c).

⁵ *Wireless Telecommunications Bureau Announces Commencement of an Audit of the Construction and Operational Status of Private Land Mobile Radio Stations*, DA 01-1575 (released Aug. 1, 2001) (below 512 MHz); *Wireless Telecommunications Bureau Announces an Audit of the Operational Status of Certain 220-222 MHz Band Licenses*, DA 03-1089 (released April 9, 2003) (220-222 MHz).

⁶ *Wireless Telecommunications Bureau Announces Conclusion of 220 MHz Spectrum Audit*, DA 03-3666 (released Nov. 18, 2003).

We further ask the Commission to require each remaining licensee of record to certify that the station described in the license is actually in operation (unless it is within the initial year of the license) *within one second of latitude and longitude of the location specified in the application.*⁷ Respondents should be required to verify or correct coordinates. After allowing a reasonable time for response and follow-up, where necessary, we recommend that the Commission cancel any license that lacks an associated certification, and remove it from the database, under the authority of Section 25.161.

We also ask the Commission to repeat the audit process periodically, perhaps every three years.

Because of different licensing procedures, an FSS earth station ties up far more spectrum than an FS link.⁸ In consequence, an incorrectly licensed earth station is much more likely to block coordination of an FS link than the reverse. This makes a comparable audit of FS links a relatively inefficient use of resources. But the FWCC would not object to such an audit, if conducted in conjunction with the requested earth station audit.

Public Interest

A frequency-coordinated but non-operational or incorrectly located earth station takes valuable spectrum out of use. An FS station that might otherwise derive value from the spectrum is prevented from doing so, and the spectrum lies needlessly idle. In other respects the Commission strives to maximize spectrum efficiency. The audit we request is a relatively easy and inexpensive step that promises to return significant amounts of spectrum to productive use. The Private Land Mobile Radio audits appear to have been largely automated, and resulted in significant amounts of spectrum being freed up for productive use.

⁷ An earth station operating in a frequency band that is shared with terrestrial systems may not relocate by more than one second of latitude or longitude without prior Commission authorization. 47 C.F.R. § 25.118(a)(1)(iii).

⁸ An FS link is licensed along a specified azimuth between two fixed points, and is not allowed to hold a license for more radio bandwidth than it actually uses. 47 C.F.R. § 101.141(a) (maximum radio bandwidth limited by traffic carried over system). An FSS earth station, in contrast, is routinely licensed for the entire geostationary arc, even if it communicates with only one satellite, and for the entire uplink or downlink band (or both), even if it uses only a small fraction of the band. An earth station accordingly blocks out far more spectrum in the frequency coordination process, and far more real estate, than does an FS link.

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An important benefit of the audit will be to confirm that database locations of coordinated earth stations are correct. A wrongly located site not only denies access to proposed systems, but may produce unanticipated interference to both new and incumbent FS stations. With the availability of accurate, easy to use, inexpensive location equipment, there is no longer any excuse for mis-locating an earth station.

In short, this is a simple and cost-effective way to increase the amounts of spectrum available in critical bands.

To promote corrections where needed, we suggest that the Commission offer an amnesty both for location errors and for missing or inoperative earth stations to licensees who make a timely response to the audit.

We appreciate your attention to this matter. If you have any questions about our request, please call me at the number above.

Respectfully submitted,



Andrew Kreig
Managing Director, Eagle View Capital Strategies
Co-Chair, Fixed Wireless Communications Coalition

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