

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)
)
 Reorganization and Revision of)
 Parts 1, 2, 21, and 94 of)
 The Rules to Establish a New)
 Part 101 Governing Terrestrial)
 Microwave Fixed Radio Services)
)
 Amendment of Part 21 of the)
 Commission's Rules for the Domestic)
 Public Fixed Radio Services)
)
 McCaw Cellular Communications, Inc.)
 Petition for Rule Making)
)
 Amendment of Part 101 of the Commission's)
 Rules to Streamline Processing of Microwave)
 Applications in the Wireless Telecommunication)
 Services)
)
 Telecommunications Industry Association)
 Petition for Rulemaking)

WT Docket No. 94-148

RECEIVED

JUL 20 2000

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

CC Docket No. 93-2

RM-7861

WT Docket No. 00-19

RM-9418

COMMENTS OF DIRECTV, INC.

DIRECTV, Inc. ("DIRECTV")¹ hereby offers the following brief comments on one aspect of the Commission's actions proposed in the above-captioned Notice of Proposed Rulemaking ("Notice").

DIRECTV is the nation's leading provider of multichannel video programming and other services via Direct Broadcast Satellite ("DBS"). As of the end of June 2000,

¹ DIRECTV is a wholly-owned subsidiary of DIRECTV Enterprises, Inc., a licensee in the DBS service and wholly-owned subsidiary of Hughes Electronics Corporation.

No. of Copies rec'd 014
List A B C D E

DIRECTV had more than 8.7 million subscribers nationwide.² DIRECTV currently offers more than 225 national channels of digitally-delivered entertainment, educational, and informational programming directly to homes across the United States.

In this proceeding, the Commission has proposed numerous changes to its Part 101 microwave rules, and specifically seeks comment on “the possible technologies for terrestrial microwave users concerning a new proposal for frequency reuse in the 12.2-12.7 GHz band.”³ The 12 GHz frequency band, as the Commission well knows, is the “mission critical” frequency band for U.S. DBS operators, and the technical linchpin to the DBS operators’ success in offering the most formidable source of multichannel video competition to incumbent cable television operators. The band is used to downlink programming from DBS satellites directly to subscribers’ 18-inch dish antennas, which are ubiquitously deployed on a nationwide basis.

At the outset, DIRECTV is puzzled as to why the Commission has chosen to raise the subject of 12 GHz spectrum-sharing in the context of this proceeding. The Notice acknowledges that the spectrum sharing proposal to which it specifically refers -- the introduction of a terrestrial system developed by Northpoint Technology, Ltd., which is proposed to be deployed through affiliated entities operating under the name of “Broadwave” (collectively, “Northpoint”) -- already is the subject of several contentious proceedings pending before the Commission.⁴ In those proceedings, virtually the entire

² This figure includes customers subscribing to the *PRIMESTAR* by *DIRECTV* medium-power service.

³ Notice at ¶ 6.

⁴ *Id.* at ¶ 77; see Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency With GSO and Terrestrial Systems in the Ku-Band Frequency Range and Amendment of the Commission’s Rules to Authorize Subsidiary Terrestrial Use of the 12.2-12.7 GHz Band by Direct Broadcast Satellite Licensees and Their Affiliates, *Notice of Proposed Rulemaking*, ET

U.S. satellite industry, both geostationary satellite (“GSO”) operators and non-geostationary satellite (“NGSO”) operators alike, have expressed the view that the introduction of Northpoint technology at 12 GHz is completely ill-advised. Thus, seeking comment at this time on amendment of the Commission’s Part 101 rules to accommodate Northpoint technology, on a co-primary or any other basis, is entirely premature.

In any event, however, the Commission should not amend its rules to accommodate Northpoint technology in the DBS downlink band.

First, from a technical perspective, DIRECTV and other satellite operators have submitted numerous studies that demonstrate the serious interference and disruption to subscriber service that the introduction of a Northpoint system at 12 GHz would cause.⁵ To date, Northpoint has completely failed to show that its technology can co-exist with the DBS service without causing unacceptable levels of interference to U.S. DBS operations and subscribers’ receipt of DBS service.

Docket No. 98-206, 14 FCC Rcd 1131 (1998); “Wireless Telecommunications Bureau Seeks Comment on Broadwave Albany, L.L.C., et al. Requests for Waiver of Part 101 Rules,” Corrected Public Notice, DA 99-494 (WTB rel. Mar. 11, 1999).

⁵ See, e.g., DIRECTV, Inc., *Conclusions to Date Regarding Harmful Interference From a Proposed Northpoint Technology Terrestrial System Operating in the DBS Downlink Band, 12.2-12.7 GHz* (January 27, 2000); *Application of DIRECTV, Inc. For Expedited Review and Request for Immediate Suspension of Testing, In the Matter of Diversified Communication Engineering, Inc., Experimental Special Temporary Authorization*, File No. 0094-EX-ST-1999, Call Sign WA2XMY (June 25, 1999); *Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency, with GSO and Terrestrial Systems in the Ku-band Frequency Range, ET Docket No. 98-206, Comments of DIRECTV, Inc.* (filed Mar. 2, 1999); *Reply Comments of DIRECTV* (filed Apr. 14, 1999); see also *Comments of Pegasus Communications Corporation*, ET Docket No. 98-206 (Dec. 29, 1999); *EchoStar Preliminary Report on the Impact of Northpoint on the Direct Broadcast Satellite Service Based Upon Testing Performed to Date* (Oct. 29, 1999). All of these filings are incorporated herein by reference. DIRECTV has conducted further tests jointly with EchoStar Satellite Corp. under a Commission grant of Special Temporary Authority, see File No. 0418-EX-ST-1999, and DIRECTV will be filing imminently additional data and analyses that confirm the severity of Northpoint interference.

DBS operators have designed their systems to rely on substantial “clear skies” signal margins, which are necessary to provide very high-quality service to their subscribers. It is clear that the use of the 12.2-12.7 GHz band by primary or secondary services, at any power level, increases the operational noise floor for DBS systems, resulting in reduced DBS link availability and consequently, reduced quality of DBS service. DBS providers in the United States, led by DIRECTV, for years have been working both domestically and internationally with the Commission and the NGSO community to assess the potential effects of the introduction of NGSO operations at 12 GHz. Furthermore, as the Commission is well aware, there are still many secondary point-to-point microwave users in the 12.2-12.7 GHz band. Although the operations of these secondary users have posed a significant risk to DBS operations, DIRECTV over the past five years has worked with a number of these users in conjunction with DIRECTV subscribers to resolve specific cases of interference as they have arisen.⁶

Adding Northpoint technology to this mix is a terrible idea. The Northpoint system interference will decrease DBS system clear weather margins and increase the frequency of downlink rain outages, as well as the duration of such outages. One of the chief advantages of DBS service is its reliability, as compared to that of its cable competitors. The deployment of Northpoint equipment in the 12 GHz band would

⁶ As a primary user of the band, DIRECTV has the right to request the Commission to shut down secondary terrestrial users that interfere with DIRECTV subscribers’ receipt of service. *See Public Notice, Initiation of Direct Broadcast Satellite Service -- Effect on 12 GHz Terrestrial Point-to-Point Licensees in the Private Operational Fixed Radio Service*, 10 FCC Rcd 1211 (1994). In an effort to resolve such situations cooperatively, although it has no legal obligation to do so, DIRECTV has in some instances relocated subscriber dishes at its own expense or otherwise reduced the interference to acceptable levels. However, while such cooperation and coordination can be achieved in certain limited circumstances between DBS and a limited number of point-to-point microwave users, it will be impossible in the case of proposed Northpoint point-to-multipoint operations, which are envisioned to support, like DBS, a widely deployed, mass market consumer service.

severely impair DBS service reliability, and consequently, would weaken DBS providers as the most promising competitors to incumbent cable television operators.

Indeed, for this reason, the proposed amendment of Part 101 of the Commission's rules would be completely contrary to more than two decades of spectrum policy governing the relationship between the DBS service and terrestrial microwave uses such as the one that Northpoint has proposed. Pursuant to that policy, the Commission has sought to promote the development and expansion of DBS service by transitioning terrestrial interference sources *out* of the 12 GHz band.⁷ Amendment of the Part 101 rules to *re-introduce* terrestrial interference sources back into the 12 GHz band would inexplicably reverse course on that policy, and would expose thirteen million current DBS subscribers to a needless risk of interference.

The Commission should not accord even secondary status to Northpoint operations at 12 GHz. Now that Northpoint has unveiled its intention to become a direct MVPD competitor to DBS operators such as DIRECTV,⁸ it is not plausible to believe that Northpoint will "immediately eliminate interference" or "cease operations immediately," as the Commission's rules require of secondary users, in the event that

⁷ See Public Notice, *Initiation of Direct Broadcast Satellite Service -- Effect on 12 GHz Terrestrial Point-to-Point Licensees in the Private Operational Fixed Service*, 10 FCC Rcd 1211 (1994) (Relocation "of existing 12 GHz [terrestrial] users was deemed necessary because of the likelihood of interference that terrestrial use would cause to DBS service if both were operating in the same geographic area."); *Inquiry into the development of regulatory policy in regard to Direct Broadcast Satellites for the period following the 1983 Regional Administrative Radio Conference*, 90 FCC 2d 676 (1982).

⁸ Northpoint initially claimed that it intended to offer a complementary terrestrial service consisting of local broadcast channels. Northpoint, however, now describes its system as a "standalone" MVPD service with "enough capacity to carry at least 96 channels" and an expectation of offering "programming packages that offer our customers dozens of cable-like channels in addition to their local stations," *Statement of Sophia Collier, President and CEO, Northpoint Technology, Inc., before the House Commerce Subcommittee on Telecommunications, Trade and Consumer Protection* (Feb. 24, 1999), at 7, as well as "high-speed Internet services." *Id.* at 8. See also www.northpointtechnology.com/html/broadwave.html (describing proposed Northpoint nationwide video and data network offering featuring high speed Internet access and cable offerings).

Northpoint's operations were to interfere with subscribers' receipt of DBS signals.⁹ While DIRECTV has no qualms at all about competing with Northpoint in the MVPD marketplace, Northpoint's incentives as a competitor using the DBS downlink band will be to dispute any claims of harmful interference by DBS operators, and indeed, Northpoint may have perverse incentives not to even attempt to mitigate harmful interference at all. Furthermore, although Northpoint's interference into DBS receivers will seriously degrade DBS subscribers' quality of service, DBS subscribers will have no way of knowing that Northpoint is the source of the problem, or that Northpoint is the entity with the obligation to fix it. Such a threat to the superior quality of service currently provided by DBS systems in the United States should not be tolerated by the Commission.

There are other frequency bands that can accommodate Northpoint's technology without adversely impacting DBS as a mass-market service received by millions of consumers. Conceptually, Northpoint's technology is grounded upon the same frequency reuse methodology that has been used for decades to engineer terrestrial microwave systems when additional spectrum is required. The basic problem with Northpoint's approach, however, is that it generally requires coordination among frequency users. This coordination is of course achievable among professionally engineered microwave systems, but is far more difficult when imported into the DBS downlink band, where

⁹ *Id.*

users are not required to coordinate and the band itself was envisioned by the Commission to be clear of terrestrial services.¹⁰

Northpoint's attachment to the 12 GHz band seems to be based on a belief that operating there will allow its service to be provided more cheaply by requiring minimal changes to existing DBS equipment.¹¹ That reasoning is flawed, however. There is no question that a Northpoint subscriber will require a separate, additional antenna and LNB to receive Northpoint services no matter what frequency band is used. These services can downconvert from other frequency bands as easily as they could from 12 GHz.¹²

Part 101 itself contains rules for services such as Local Multipoint Distribution Service ("LMDS") that were created for the *precise* uses, such as video and broadband transmissions, that Northpoint proposes to offer.¹³ Functionally, Northpoint's system is no different than other terrestrial multipoint video distribution services, such as LMDS. This spectrum is not only a reasonable alternative to Northpoint's proposed 12 GHz operations, but is a much more logical home for the Northpoint technology.¹⁴ By contrast, polluting the DBS downlink band with ubiquitously-deployed Northpoint

¹⁰ See R. Conover, Senior Vice President of Engineering, US Satellite Broadcasting Co., *Northpoint interference problems* (Feb. 18, 1999), at 1.

¹¹ It is also quite clear that, by choosing to proceed via a "waiver" approach, Northpoint is attempting to avoid having to pay for the spectrum at auction.

¹² Northpoint's web site acknowledges that there is nothing unique about its technology that requires the use of spectrum at 12 GHz. Indeed, Northpoint has proposed that its technology be considered "in all spectrum planning" across a range of frequency bands. See www.northpointtechnology.com/html/spectrum_planning.html.

¹³ See 47 C.F.R. § 101.1001-1112.

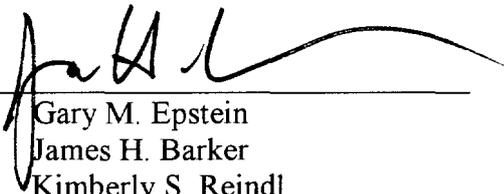
¹⁴ The service that Northpoint proposes could also be provided in frequency bands allocated for MDS, DEMS or 38 GHz uses, among others. Northpoint can also participate in the Commission's upcoming auctions for 700 MHz or broadband PCS spectrum.

transmitters when there is other spectrum *expressly allocated* for two-way terrestrial video and data services is both unnecessary and unwise.

The Commission cannot expect the DBS service to continue to grow as the most prominent cable-competitive service if a number of different interference sources are introduced into its downlink band. The prospect of now introducing thousands of additional point-to-multipoint broadcast towers into the 12 GHz band, as Northpoint has proposed, will add even more system noise at 12 GHz that will be cumulative with respect to the system noise produced by NGSO and existing terrestrial point-to-point systems. Over time, the DBS downlink band will become interference-limited, which will *eliminate* the possibility of future technical innovation by DBS operators. That would be a disastrous public policy and consumer result.

DIRECTV submits that attempting to accommodate Northpoint operations at 12 GHz simply is not close to being worth the interference risk the technology poses to DBS operations. Any attempt to facilitate development of the service that Northpoint proposes should focus on accommodating Northpoint in frequency bands where the interference effects of the Northpoint system can be more easily managed.

Respectfully submitted,

By: 

Gary M. Epstein
James H. Barker
Kimberly S. Reindl
LATHAM & WATKINS
1001 Pennsylvania Avenue, N.W.,
Suite 1300
Washington, D.C. 20004-2505
(202) 637-2200

Counsel for DIRECTV, Inc.

Dated: July 20, 2000