Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
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
	)	RM-9147
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; and	)	RM-9245
Applications of Broadwave USA, PDC Broadband Corporation and Satellite Receivers, Ltd. to Provide A Fixed Service in the 12.2–12.7 GHz Band	)	

REPLY COMMENTS OF ECHOSTAR SATELLITE CORPORATION

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SUMMARY

In EchoStar's view, the Commission should proceed with a new terrestrial fixed Multichannel Video Distribution and Data Service ("MVDDS") with extreme trepidation. After all, almost 15 million households now subscribe to Direct Broadcast Satellite services using this spectrum. It would be unthinkable for the Commission to compromise the integrity of that service – the only promising non-cable MVPD alternative – for the sake of making room for a wireless cable proposal like Northpoint's that could be accommodated in other spectrum.

This need for caution has now been confirmed in two ways. *First*, EchoStar and DIRECTV have commissioned a consumer survey from the highly respected Zogby organization. The survey, now complete, proves conclusively the devastating consequences of a reliability decrease in DBS reception for the DBS industry, consumers and competition alike. Specifically: picture/sound quality and reliability are ranked as important reasons for purchasing satellite service by more subscribers than listed any other factor, and reliability is similarly ranked as an important factor by a majority (59%) of non-subscribers. Equally important, a significant portion of DBS subscribers would likely take drastic steps not only in response to increased occurrences of total picture loss, but also to freeze framing and "tiling" – for example, 29% of subscribers would likely cancel their DBS service if they experienced increased picture loss, and most of those subscribers would switch to cable. Overall, seven of every 10 subscribers anticipate that increased occurrences of picture loss, freeze framing and tiling would have a great impact or somewhat of an impact on their level of satisfaction with the service. Northpoint's service is bound to increase those occurrences even by Northpoint's own admission.

So, as the Zogby consumer survey demonstrates, this is far from a question of an incremental reduction in reliability that may or may not be noticed; the decrease in DBS reliability brought about by a Northpoint service would strike at the core of what most consumers care most about, and would cause many of them to cancel their DBS service, and in most cases switch back to their cable provider.

The Commission has rightly viewed, and still views, DBS as the most promising alternative to cable. Particularly in recent years, both Congress and the Commission have relied on the promise of pressure from DBS as the most effective possible deterrent on the still-rising cable prices. The Zogby consumer survey affords a telling clue into consumers' minds in that regard. It shows that if the Commission were to allow a service that decreased the reliability of DBS service and increased the occurrences of picture loss, freeze framing and tiling, a number of DBS subscribers *that could be in the millions* might cancel their service. Such a decision would thoroughly undermine the policy of counting on DBS to discipline cable prices and would cement the dominance of cable operators for the foreseeable future.

Second, Northpoint's comments expose bare the motives underlying that company's formidable pursuit of a license in this spectrum: Northpoint is seeking free access to valuable spectrum. Northpoint has never shown adequately why its proposed wireless cable business cannot be housed in any of the ample frequency bands already allocated for such service. Oddly, the DBS band, portrayed by Northpoint as an indispensable component of its business, is in many senses worse-suited for it than the bands already allocated to wireless cable, such as the MMDS and LMDS bands. Specifically, the failure of wireless cable ventures so far has been attributed primarily to the line of sight problem: in urban areas, many households lack a line of sight to the terrestrial transmit towers. If anything, however, this would be an even

more serious problem in the DBS band, since Northpoint will have to site its towers to the north of each urban area and therefore will have substantially reduced flexibility compared to any wireless cable band (indeed, Northpoint itself claims that it will site its towers in compliance with several other restrictions). This leaves one to wonder why Northpoint would choose a band that *exacerbates* the very same problem cited as the main reason for the failure of wireless cable.

The answer is provided in Northpoint's reply comments. Choice of this band gives Northpoint the hope that it will gain access for free to spectrum that has become valuable through the efforts and investments of DBS companies, and for which EchoStar has had to pay dearly. The arguments made by Northpoint in support of a free license, however, range from the insubstantial to the frivolous.

Among other things, Northpoint tries to rely on its vaunted "Northpoint technology," which "makes possible the provision of a new service within spectrum bands already assigned to other users."[1] In Northpoint's view, "an auction in these circumstances would . . . .appropriate to the federal treasury much of the value of Northpoint's technology," "discouraging future innovation by future Northpoints."[2] Northpoint submits economic testimony to back up its claims.

This is an argument in support for the reenactment of pioneer preferences, which provided preferential access to licenses for truly pioneering technologies. Congress has unequivocally abolished these preferences, however, and the Commission should resist this attempt at their reestablishment through the back-door. The current statutory regime requires

[1] Northpoint Comments at 2.

[2] *Id.*

auctions for everyone without exception in all situations of multiple exclusivity, no matter how innovative a technology a party claims to have invented. Indeed, many auction winners, including EchoStar, hold patents for technologies that they deploy in their licensed service. An auction does not "appropriate" the value of these companies' technologies any less than it appropriates Northpoint's.

Even if the Commission could still award pioneer preferences, Northpoint would have certainly failed to meet the standard that the Commission used to apply. An award of a pioneer's preference required an extraordinary showing – much higher than the showing required to receive a patent. Northpoint's technology boils down to the idea that, because satellite transmissions come generally from a southerly direction, there would be less interference into them if terrestrial transmissions came generally from a northerly direction. Northpoint admits that this is the essence of its invention when it states, for example, that "the fundamental purpose is to make possible the coordinated reuse of satellite spectrum."[3] "Coordinated reuse" is no more than a grandiloquent label for the "you come from the south, we will come from the north" notion. This simplistic idea, however, is not enough for a pioneer's preference and is a far cry, for example, from Code Division Multiple Access or similar revolutionary technologies that earned such preferences when they were available.[4] In addition, Northpoint's idea purports to address a problem of Northpoint's own creation (and, as EchoStar has shown, does not solve that

[3] Northpoint Comments at 6.

[4] Motorola, for example, failed to receive a pioneer's preference for the groundbreaking IRIDIUM system – a technology for providing worldwide Mobile-Satellite Service through a complex constellation of 77 satellites.

problem). The spectrum now allocated to wireless cable is not fully used, and Northpoint could establish its service there and have flexibility to site its towers not only in the North.

In sum, therefore, Northpoint is trying to receive a free license based on the equivalent of a pioneer's preference for its technology, even though that technology would not have qualified it for a preference even before the abolition of preferences by Congress. The economic testimony submitted by Northpoint may be relevant in an effort to persuade Congress to reestablish preferences and then convince the Commission to establish a lower screening standard then the previous test, but it has no place here.

In a related vein, Northpoint argues that the Commission "typically" auctions licenses only in "new spectrum," and that the 12.2-12.7 GHz band is not some "fresh block of spectrum."[5] Northpoint cites absolutely nothing in support of this statement, and EchoStar is at a loss to fathom its basis, unless Northpoint confuses the "new spectrum" notion with the "initial license" statutory prerequisite to auctions. Northpoint's assertion about when the Commission "typically" conducts an auction is squarely inconsistent with the statutory auction directive. Under the Communications Act, in situations of mutual exclusivity, the Commission must conduct an auction for any "initial license." *See* 47 C.F.R. § 309(j). In those cases, there is no discretion for the Commission to do anything different, whether "typically" or not. And an "initial license" does not mean "new spectrum." This requirement means only that, if Northpoint already had a license, its *renewal* would not be subject to auction.

Notably, virtually all the examples invoked by Northpoint of licenses given by the Commission without auction predate the 1997 Balanced Budget Act, where Congress imposed

[5] Northpoint Comments at 1-2, 5-6.

for the first time on the Commission the *obligation* to conduct an auction.[6] In fact, the example of the Nextel licenses cited by Northpoint date from 1991, before the Commission was given (in 1993) even the *discretion* to conduct auctions. Current law requires auctions in cases of mutual exclusivity. Northpoint cannot rely on licenses given before the Commission became subject to that obligation or even before the Commission had the power to auction licenses.[7]

The LMDS auction is a good example illustrating the fallacy of Northpoint's argument. There was nothing "new" or "fresh" about the LMDS spectrum under the distinction manufactured by Northpoint. The Ka-band spectrum already had allocations to the Fixed-Satellite Service and the terrestrial Fixed Service when the Commission commenced to *designate* the spectrum for point-to-multipoint terrestrial use within the existing FS allocation. In that proceeding, the Commission also concluded that, in part of the LMDS spectrum, LMDS services would be co-primary with the feeder links for Mobile-Satellite Service systems, and the LMDS licensees were required to operate essentially on a non-interference basis in certain geographic areas – like the proposed new service. Nevertheless, the Commission proceeded to auction licenses for that spectrum, in accordance with the statutory directive. Northpoint's argument that the Commission may not conduct auctions for terrestrial service in satellite spectrum because such auctions are precluded by the Orbit Act has already soundly been rejected by the

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[6] *See* Pub. L. No. 105-33, Title III, 111 Stat. 251 (1997) (Balanced Budget Act).

[7] The *AirCell* case, also relied on by Northpoint, is also inapposite for many reasons. Among other things, that case involved *fleeting* interference from airplanes flying close to cellular service areas into these areas. There is nothing fleeting about the interference from Northpoint's fixed transmitters into the fixed dishes of DBS customers. *See In the Matter of AirCell Inc.; Petition, Pursuant to Section 7 of the Act, For a Waiver of the Airborne Cellular Rule, or, in the Alternative, for a Declaratory Ruling*, Order, 14 FCC Rcd. 806, ¶¶ 13-15 (1998).

Commission. Northpoint does not propose to provide a global satellite service. If Northpoint were correct, and depending on the retroactive application of that law, EchoStar would at least arguably be entitled to a refund of the millions of dollars it has had to pay the government for its *satellite* licenses in the same spectrum.

Northpoint also argues that subjecting it to an auction would be "unconscionable," because it is "entitled to have its applications processed under the usual and customary procedures of the International Bureau – without an auction – together with the applications of the NGSO FSS operators."[8] Under its "usual and customary procedures," however, the International Bureau would have to dismiss automatically Northpoint's applications as unacceptable for filing and return them to Northpoint. The processing rules guiding the International Bureau, codified at Part 25, contemplate the processing only of satellite and earth station applications. In accordance with these rules, the Bureau has never processed an application for terrestrial service together with a satellite application, and invocation of the IB's "usual and customary" procedures cannot help Northpoint.

EchoStar's comments have shown why "mitigation" measures proposed by Northpoint (visits to DBS subscribers and relocation or shielding of dishes) should be rejected out of hand, as they would demote DBS service to secondary status. In that connection, the Commission should also reject Northpoint's "loser pays" proposal for handling the complaints of DBS customers. This proposal appears to be another veiled effort to make the terrestrial service co-primary in the spectrum. In a sharing environment, customer complaints of picture loss, freeze framing or tiling would likely be due to terrestrial service interference, but might also be

[8] Northpoint Comments at 3.

due to other factors. The *possibility* that the terrestrial provider is not the culprit, no matter how remote, could act as a disincentive for DBS providers to pursue complaints under a loser pays regime and compel them to tolerate harmful interference from the terrestrial service. Such a system would also be chaotic to administer and would require minute and extensive Commission oversight.

With respect to the unavailability increase limit proposed by the Commission, Northpoint protests that the percentage unavailability limit is an impracticable approach, because the terrestrial operator will not know when it has been exceeded. But the function of the unavailability limit is precisely to serve as a basis for developing power limits, and this is precisely the process the ITU recently followed in connection with NGSO/GSO sharing. EchoStar endorses the power limits developed by DIRECTV based on the 10% total unavailability limit. Instead of openly challenging the limits flowing from an unavailability increase limit, Northpoint proposes its own epfd limits on the false ground that compliance with the unavailability limits is impractical. The question here, however, is how much reliability degradation the DBS system can be asked to tolerate. The ITU has already made that determination authoritatively, and it can be implemented through the epfd limits developed by DIRECTV.

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To: The Commission

REPLY COMMENTS OF ECHOSTAR SATELLITE CORPORATION

EchoStar Satellite Corporation ("EchoStar") hereby submits its reply comments on the Commission's development of rules to govern a new terrestrial fixed Multichannel Video Distribution and Data Service ("MVDDS").[1] In EchoStar's view, the Commission should

[1] *In the Matter of 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; 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; and Applications of Broadwave USA, PDC Broadband Corporation and Satellite Receivers, Ltd. to Provide A Fixed Service in the 12.2 – 12.7 GHz Band*, ET Docket No. 98-206, RM-9147, RM-9245, First Report and Order and Further Notice of Proposed Rulemaking, FCC 00-418 (rel. Dec. 8, 2000), ("*FNPRM*").

proceed with such a new service only with the utmost caution, if at all: almost 15 million households now subscribe to Direct Broadcast Satellite services using this spectrum. It would be unthinkable for the Commission to compromise the integrity of that service – the only promising non-cable MVPD alternative – for the sake of making room for a wireless cable proposal like Northpoint's that could be accommodated in other spectrum.

I. THE COMMISSION MUST PROCEED WITH UTMOST CAUTION BECAUSE OF THE REAL POTENTIAL FOR ADVERSE EFFECTS TO CONSUMERS

The Commission has opted to authorize a new ubiquitous terrestrial service to share spectrum with Direct Broadcast Satellite ("DBS") systems without offering any persuasive reason why the only promising non-cable Multichannel Video Programming Distribution ("MVPD") alternative (DBS service) should risk being disrupted for the sake of making room for yet another wireless cable attempt that could be accommodated in other spectrum. Significantly, as EchoStar and others have pointed out in comments and petitions for reconsideration in this proceeding, a fatally flawed analysis underlies the Commission's conclusion that such spectrum sharing is possible without causing harmful interference to DBS service. The weakness of the analysis, and most importantly, the fact that the adverse effects of the Commission's decisions will be borne by consumers, oblige the Commission to exercise utmost caution should the Commission proceed with licensing proponents of this "new" service in the 12.2-12.7 GHz band.

Accordingly, the threat of harmful interference to DBS from MVDDS should not be treated as merely academic. MVDDS operation could cause irreparable injury to a myriad of consumers, and to the reputation of DBS providers themselves.[2] The results of a recent survey

[2] As EchoStar has noted, even under Northpoint's flawed calculations, 2% of DBS subscribers, meaning currently approximately 300,000 households, would be affected. *See* EchoStar Comments at 9.

help illustrate and quantify the effects of such interference on DBS customers, prospective customers, and service providers.[3] As EchoStar has stated in its Comments in this proceeding, EchoStar believes that a very significant reason why consumers subscribe to DBS is its reliability, and has invested heavily to ensure the level of reliability that the International Telecommunication Union too has decided to protect.[4] This belief was confirmed by survey respondents. Among satellite subscribers, 78% rated service reliability as an important factor in purchasing satellite service.[5] Reliability is also important to a majority of non-subscribers, 59% of whom ranked reliability as an important consideration in purchasing satellite service. The Commission's decision to permit harmful interference to DBS systems from MVDDS operation also threatens to degrade DBS picture and sound quality, despite the importance of these characteristics of satellite service. Among satellite subscribers, 79% regard picture and sound quality as the most important factors in their decision to purchase satellite service, while 53% of non-subscribers regard picture and sound quality as the most important factors they would consider.

Among a list of factors, more subscribers listed reliability and picture/sound quality as important considerations influencing subscribers' decision to purchase DBS service than listed any other factor (such as cost and more channels), and these factors were second only

[3] Two nationwide surveys of 803 adult subscribers and 806 adult non-subscribers, were conducted by Zogby International in March 2001. Subscribers as well as non-subscribers were polled on a wide range of issues related to satellite service including issues related to this proceeding.

[4] EchoStar Comments at 9.

[5] The margin of error for the entire group in each survey is +/- 3.6%. Slight weights were added to age and gender to more accurately reflect the U.S population.

to cost in terms of the number of non-subscribers attaching importance to them.[6] MVDDS operation will adversely affect these two critical characteristics of DBS service, and the importance of these factors to consumers should not be ignored by the Commission.

In addition, there is no question that Northpoint's operation will alter subscribers' level of satisfaction, for the worse. There is specifically no doubt, even under the rosiest of possible scenarios, that occurrences of loss of picture or other phenomena such as freeze framing will increase for many subscribers; the only questions in dispute are by how much and how many. If consumers start experiencing picture loss and/or freeze framing more often, they may feel that their expectations from the DBS service have been frustrated, that DBS is less of a viable alternative for cable, and indeed may migrate to cable. The Zogby survey reflects that subscribers will not sit idly by if they experienced more frequent picture loss, freeze-framing or tiling. First, a significant majority of subscribers would call their DBS provider to complain about picture loss, freeze-framing or tiling (55% would call regarding picture loss and 58% would call regarding freeze-framing or tiling), over-burdening the DBS companies' ability to handle consumer concerns and preserve the current high level of customer service. Importantly, *more than one quarter of current DBS subscribers*, 29%, would likely take the more drastic step of *canceling their DBS service* in response to more frequent picture loss, and *nearly one-fifth*, 19%, would respond in this manner to more frequent freeze-framing or tiling. Of the subscribers who would likely cancel their service, more than half would migrate to cable. Overall, seven of

[6] Respondents were asked to rank the importance of the following factors as considerations in purchasing satellite service: picture and sound quality; reliability; more channels; cost; dissatisfaction with local cable provider; specialized sports programming; no cable available.

every 10 subscribers anticipate that increased occurrences of picture loss, freeze framing and tiling would have a great impact or somewhat of an impact on their level of satisfaction with the service.

These survey figures make clear that DBS operators are threatened here with a decrease in customer satisfaction and an outright loss of customers that is simply intolerable. Even if Northpoint were to shut down after causing harmful interference, nothing can sufficiently compensate for this type of consumer disappointment, which will undoubtedly be communicated to other consumers. Nor can the harm to the DBS operator and its reputation be remedied, as such consumers may feel let down by the DBS provider, and may not know that the reason for the interference is beyond EchoStar's power to control. The survey results go to the heart of why the Commission should not authorize a new ubiquitous terrestrial service to share DBS spectrum, and is compelling evidence of why the Commission should follow recommendations to start by licensing such a new service in only one area if the Commission insists on going forward at all with its harmful spectrum sharing plan.

II. MUTUALLY EXCLUSIVE MVDDS APPLICATIONS REQUIRE AN AUCTION

Northpoint's comments expose bare the motives underlying that company's formidable pursuit of a license in this spectrum: Northpoint is seeking free access to valuable spectrum. Northpoint has never shown adequately why its proposed wireless cable business cannot be housed in any of the ample frequency bands already allocated for such service. Oddly, the DBS band, portrayed by Northpoint as an indispensable component of its business, is in many senses worse-suited for it than the bands already allocated to wireless cable, such as the MMDS and LMDS bands. Specifically, the failure of wireless cable ventures so far has been attributed primarily to the line of sight problem: in urban areas, many households lack a line of

sight to the terrestrial transmit towers. If anything, however, this would be an even more serious problem in the DBS band, since Northpoint will have to site its towers to the north of each urban area and therefore will have substantially reduced flexibility compared to any wireless cable band (indeed, Northpoint itself claims that it will site its towers in compliance with several other restrictions). This leaves one to wonder why Northpoint would choose a band that *exacerbates* the very same problem cited as the main reason for the failure of wireless cable.

The answer is provided in Northpoint's reply comments. Choice of this band gives Northpoint the hope that it will gain access for free to spectrum that has become valuable through the efforts and investments of DBS companies.

Northpoint makes many and diverse arguments against auctions.[7] The creativity of Northpoint's arguments, however, cannot compensate for their lack of merit from both a legal and policy perspective. Notwithstanding its arguments, what Northpoint seeks here is, at its core, to appropriate to itself the value of the spectrum.

A. Northpoint's "Innovation" Argument Is A Thinly Disguised Attempt To Appropriate A Public Resource To Itself

Northpoint argues that the Commission should not auction spectrum already used for other purposes because to do so would discourage innovation by firms that develop ways to re-use spectrum by imposing "a direct levy on innovation."[8] Northpoint's innovation argument is a red herring designed to divert attention from its effort to appropriate the value of the spectrum at issue to itself, rather than the public.

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[7] Northpoint Technology, Ltd. and Broadwave USA will be referred to collectively as "Northpoint."

[8] Northpoint Comments at 8.

Northpoint's argument that it should receive a free license on the strength of its technology would be more properly addressed to Congress, as the question is a legislative one, not an administrative one. But this question has already been answered by Congress – free licenses are not available on the basis of claims of innovation. 47 U.S.C. § 309(j).

The fact that Northpoint has patented its plan for spectrum re-use, which Northpoint has reiterated ad nauseum, is much ado about nothing here. Many bidders for spectrum have patented technology for use of that spectrum. The fact that bidders have patents does not mean that they are absolved from paying for spectrum, or have an argument before the Commission that, because of their innovation, any effort to auction the spectrum they desire to use constitutes an appropriation of the innovator's intellectual property.

Northpoint argues that its development of patented "proprietary technology" should confer upon Northpoint an exemption from the competitive bidding process.[9] In essence, what Northpoint really seeks is a "pioneer's preference." Such preferences, now prohibited, at one time allowed recipients to do precisely what Northpoint requests here: to receive a license without facing competing, mutually exclusive applications.[10] However, Congress expressly abolished pioneer preferences, reflecting its judgment that the public interest favors compensating the public for use of the spectrum, regardless of any "innovation" the applicant

[9] *See id.*

[10] *In the Matter of Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services*, 6 FCC Rcd. 3488 at ¶ 19 (1991). Significantly, the Commission noted that pioneer's preferences permitted recipients to apply for a new license without facing competing applications, but would not exclude others from providing the service. The preference instead effectively guaranteed that the recipient would obtain a license. *Id.* at ¶ 32.

may have developed for using the spectrum.[11] Thus, Northpoint's alleged "innovation" is not grounds for an exemption from competitive bidding.

Furthermore, Northpoint would not be entitled to a pioneer's preference even if such preferences had not been abolished. Again, the focus of Northpoint's "innovation" argument is on Northpoint's development of patented "proprietary technology" that entitles it to a guaranteed license. Northpoint's technology, however, boils down to the idea that, because satellite transmissions come generally from a southerly direction, there would be less interference into them if terrestrial transmissions came generally from a northerly direction. Northpoint admits that this is the essence of its invention when it states, for example, that "the fundamental purpose is to make possible the coordinated reuse of satellite spectrum."[12] "Coordinated reuse" is no more than a grandiloquent label for the "you come from the south, we will come from the north" notion.

This kind of invention would have fallen short of the standard employed by the Commission to award pioneer's preferences – a test much more rigorous than simple ownership of a patent or proprietary technology. To be granted a pioneer's preference, among other things "an applicant was required to demonstrate that it has developed the new service or technology; *e.g.*, that it has developed the capabilities or possibilities of the service or technology or has brought the service or technology to a more advanced or effective state."[13] The Commission

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[11] *See* Balanced Budget Act of 1997, Pub. L. 105-33, 111 Stat. 251 (1997); *In the Matter of Dismissal of All Pending Pioneer's Preference Requests*, 12 FCC Rcd. 14006 at ¶ 3 (1997).

[12] Northpoint Comments at 6.

[13] *In the Matter of Amendment of the Commission's Rules to Establish New Personal Communications Services*, 9 FCC Rcd. 1337, 1338 at ¶ 4 (1994) ("PCS Pioneer Preferences

(Continued …)

emphasized that "preferences w[ould] be granted only for innovations of some significance," and explained that "[a]n applicant for a pioneer's preference will have a significant burden to persuade the Commission that is proposal has sufficient merit."[14] Northpoint's northerly orientation is not enough for such a finding.

Had the standard for a pioneer's preference been simply ownership of a patent or proprietary technology, the Commission would have awarded many such preferences, for as noted above, many bidders for spectrum, including EchoStar, have patented technology deployed in their licensed services. As the Commission stated in *Ameritech*, however, the fact that "Ameritech may receive a U.S. patent for its open network architecture interface in itself does not qualify Ameritech for a pioneer's preference."[15] Similarly, the Commission ruled that Motorola's licensed NGSO/MSS system, IRIDIUM, a revolutionary technological system comprised of 77 low-Earth orbit satellites, rotating in polar orbits, capable of communicating with portable mobile units throughout the world in order to provide voice, data, and radio determination satellite services, did not qualify for a pioneer's preference either.[16] In fact, the Commission has noted that it granted only five of 140 applications it had received in the six

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Order"), *vacated in part and remanded for further consideration*, *Freeman Engineering Associates, Inc. v. FCC*, 103 F.3d 169 (D.C. Cir. 1997).

[14] *In the Matter of Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services*, 6 FCC Rcd. 3488 at n.8, ¶ 48.

[15] *See, e.g., In the Matter of Amendment of the Commission's Rules to Establish New Personal Communications Services*, Memorandum Opinion and Order, 9 FCC Rcd. 7805 at ¶ 17 (1994).

[16] *See In the Matter of Amendment of Section 2.106 of the Commission's Rules to Allocate the 1610-1626.5 MHz and the 2483.5-2500 MHz Bands for Use by the Mobile-Satellite Service, Including Non-Geostationary Satellites*, Notice of Proposed Rulemaking and Tentative Decision, 7 FCC Rcd. 6414 (1992).

years before the preferences were abolished. *In the Matter of Dismissal of All Pending Pioneer's Preference Requests*, 12 FCC Rcd. 14006 at ¶ 2 (1997).

Accordingly, Northpoint's much ballyhooed patent and technology would similarly be inadequate to justify a pioneer's preference, even if such preferences had not been abolished. Northpoint's request, in short, amounts to nothing more than an effort to administratively re-enact pioneer's preferences and, moreover, to expand the scope of such preferences by awarding them to any patent-holder. The Commission should not entertain such a request.

B. Auction of Mutually Exclusive MVDDS Licenses Is Required by Law and Consistent with Commission Precedent

Northpoint argues that the Commission "typically" auctions licenses only in "new spectrum," and that the 12.2-12.7 GHz band is not some "fresh block of spectrum."[17] Northpoint cites absolutely nothing in support of this statement, and EchoStar is at a loss to fathom its basis, unless Northpoint confuses the "new spectrum" notion with the "initial license" statutory prerequisite to auctions. Northpoint's assertion about when the Commission "typically" conducts an auction is squarely inconsistent with the statutory auction directive. Under the Communications Act, in situations of mutual exclusivity, the Commission must conduct an auction for "any initial license." *See* 47 C.F.R. § 309(j). In those cases, there is no discretion for the Commission to do anything different, whether "typically" or not. And an "initial license" does not mean "new spectrum." This requirement means only that, if Northpoint already had a license, its *renewal* would not be subject to auction.

[17] Northpoint Comments at 1-2, 5-6.

The LMDS auctions demonstrate the fallacy of Northpoint's "new spectrum" argument. The Ka-band was already allocated for, among other things, Fixed Service and Fixed Satellite Service uplinks when the Commission commenced a proceeding to *designat*e parts of the band for Local Multipoint Distribution Service.[18] The Commission developed a plan for band sharing that involved designating non-contiguous LMDS spectrum in the band, including 150 MHz in the 29.1-29.25 GHz band on a co-primary basis with NGSO/MSS feeder link earth stations.[19] The Commission ultimately auctioned the LMDS licenses.[20] The Commission therefore auctioned LMDS spectrum even though the same spectrum was already in use, and would continue to be used, for other purposes, and there was nothing "newer" or "fresher" about the LMDS spectrum compared to the DBS band. The Commission's decision to auction that spectrum was similarly not affected by the fact that, in part of the spectrum, the LMDS licensees were required to operate on a non-interference basis,[21] just like the new proposed service. In

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[18] *See generally In the Matter of Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, First Report and Order and Fourth Notice of Proposed Rulemaking, 11 FCC Rcd. 19005 at ¶ 6 (1996) ("*LMDS Band Designation Order*").

[19] *See id.* at ¶¶ 67-71.

[20] *Id.* at 5; *see also Rulemaking to Amend Parts 1, 2, 21 and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, To Reallocate 29.5-30.0 GHz Frequency Band, To Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd. 12545 (1997).

[21] In the 29.1-29.25 GHz band, LMDS was licensed to operate on a "co-primary" basis with NGSO/MSS feeder link earth stations. LMDS operations in this band were subject to restrictions designed to protect operations of the NGSO/MSS feeder link earth stations. For example, LMDS receive stations were required to accept interference caused to them by MSS feeder link earth stations in and around ten designated metropolitan areas. *See LMDS Band Designation Order* at ¶ 70. There was also a prohibition on transmission of LMDS subscriber transceivers in the shared band, restricting LMDS to one-way transmissions. *Id.* at ¶ 71.

short, contrary to Northpoint's assertions, whatever "new spectrum" means, it does not exempt the Commission from its statutory obligation to conduct auctions in all cases of mutual exclusivity.

In support of its argument, Northpoint also cites a number of supposed instances in which the Commission declined to auction spectrum already used for other purposes, including, for example, analog cellular services that use the same spectrum for digital cellular; aviation cell phone services that used existing terrestrial spectrum; use of FM subchannels for paging service; use of the television vertical blanking interval for data transmission; "Nextel's use of taxi dispatch channels"; and the expansion of MMDS spectrum capacity to allow digital services and two-way transmission.[22] This argument may be summarily dismissed: first, most of the actions cited by Northpoint took place before the Commission was first required to auction spectrum in 1997,[23] and in some cases, before the Commission was even authorized by Congress to auction spectrum in 1993.[24] As for the MMDS and AirCell examples, they are inapposite: MMDS existing licensees were allowed to implement two-way transmissions after auctions were

[22] Northpoint Comments at 9-11.

[23] In 1997, Congress *required* the Commission for the first time to auction spectrum in the Balanced Budget Act of 1997, Pub. L. 105-33, 111 Stat. 251 (1997), *codified at* 47 U.S.C. § 309(j). Northpoint's comments cite the following dates for authorization for the secondary uses it cites: use of the television vertical blanking interval for data transmission was authorized in 1996; MMDS implementation of digital technologies, 1996; allowing CMRS providers to provide fixed wireless and hybrid service, 1996; use of analog cellular spectrum for digital services, 1993.

[24] The Commission was authorized to auction spectrum by Pub. L. 103-66, Title VI, § 6002, 107 Stat. 387, 392 (1993). Northpoint's comments cite the following authorization dates for the secondary uses it cites: use of FM subchannels for paging and other services, 1983; Nextel authorized to use spectrum allocated for taxi dispatching, 1991.

required, under a grandfathering provision.[25] Northpoint, by contrast, is not trying to expand or modify an existing license. In *AirCell*, also relied on by Northpoint, those cellular licensees potentially affected by AirCell's operating system agreed to the modification of their existing licenses and authorized this secondary use of their licensed spectrum. *See In the Matter of Aircell*, 14 FCC Rcd. 806 at ¶ 2 (1998). In addition, *AirCell* involved *fleeting* interference from airplanes flying close to cellular service areas into these areas. There is nothing fleeting about the interference from Northpoint's fixed transmitters into the fixed dishes of DBS customers.

C. Northpoint Is Not Entitled To Be Treated In The Same Procedural Fashion As Applicants Not Similarly Situated To Northpoint

Northpoint complains that it is "unfair" to "split off" Northpoint's application from those of NGSO-FSS applicants, putting MVDDS applications up for competitive bidding while awarding NGSO licenses without auction, claiming that the applications had been processed "together" under International Bureau procedures up to now.[26] Northpoint even goes so far as to characterize the Commission's proposal to auction MVDDS licenses as "an administrative bait-and-switch."[27] However, Northpoint's demand for the same procedural treatment as that accorded to NGSOs presupposes that the two are similarly situated. Courts have held that the Commission is obligated to treat similarly situated parties alike or provide

[25] *See In the Matter of Amendment of the Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, Report and Order, 13 FCC Rcd. 19112 (1998).

[26] Northpoint Comments at 13.

[27] *Id.*

adequate justification for disparate treatment.[28] It follows that parties not similarly situated have no basis for demanding similar treatment, and Northpoint cites no authority for its position.

Northpoint is not similarly situated to NGSOs; Northpoint is a terrestrial service that, as the Commission correctly observed, is subject to the Commission's competitive bidding procedures under 47 U.S.C. § 309(j).[29] On the other hand, as the Commission observed further, the auction of spectrum used for global satellite global communications services is expressly prohibited by the Open-Market Reorganization for the Betterment of International Telecommunications Act ("Orbit Act").[30] Disparate treatment of these two different services is thus not "unfair," nor is it arbitrary. It is required by the law, which the Commission may not ignore.

Moreover, Northpoint cannot really want to be judged under the "usual and customary" procedures of the International Bureau, whose application here it is requesting.[31] Under those procedures, the International Bureau would have to dismiss automatically Northpoint's applications as unacceptable for filing and return them to Northpoint. The processing rules guiding the International Bureau, codified at Part 25, contemplate the processing only of satellite and earth station applications. In accordance with these rules, the Bureau has never processed an application for terrestrial service together with a satellite application, and invocation of the IB's "usual and customary" procedures cannot help Northpoint.

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[28] *See, e.g., McElroy Electronics Corp. v. FCC*, 99 F.2d 1351, 1365 (D.C. Cir. 1993); *Adams Telecom, Inc. v. FCC*, 38 F.3d 576, 581 (D.C. Cir. 1994) (citing *McElroy*).

[29] *FNPRM* at ¶ 326.

[30] *Id.*

[31] Northpoint Comments at 3.

D. The Commission Cites Pertinent Examples Demonstrating Its Practice of Auctioning Licenses for Non-Satellite Services

Northpoint has argued that the Orbit Act prohibition on auction of spectrum used for global satellite global communications services extends to non-satellite services that happen to use satellite spectrum. The Commission has already expressed its disagreement with Northpoint's interpretation of the Orbit Act.[32] In apparent recognition of the weakness of its argument, Northpoint seeks to bolster its position by attempting to dispute the examples cited by the Commission of instances in which it plans to auction, or already has auctioned, terrestrial licenses in satellite bands. However, the Commission's examples are clearly relevant. For example, Northpoint appears to argue that licenses in the 24 GHz band are subject to auction only because "the 24 GHz band is *not* currently used for the provision of satellite services."[33] But Northpoint can cite no statement from the Commission, Congress or any other party linking the Commission's power to auction terrestrial services in the band to the fact that the spectrum is not currently used for satellite services – this is an ex post gloss put on the facts by Northpoint. If current satellite use were the relevant standard, auctions for terrestrial licenses in a specified band would be alternately permitted or prohibited from minute to minute. In addition, if Northpoint were correct, and depending on the retroactive application of that law, EchoStar would at least arguably be entitled to a refund of the millions of dollars it has had to pay the government for its *satellite* licenses in the same spectrum.

[32] *Id.* at ¶ 326.

[33] Northpoint Comments at 15 (emphasis in original).

III. THE "DEADLINES" CITED BY NORTHPOINT DO NOT COMPEL AN IMMEDIATE DECISION TO LICENSE NORTHPOINT

Northpoint asserts that the Commission has already missed a number of "deadlines" imposed by Congress, which require that the Commission immediate grant a license to Northpoint. None of the so-called deadlines compel this result.

A. Rural Local Broadcast Signal Act ("RLBSA")

The RLBSA established a deadline of Nov. 29, 2000 by which FCC must "take all actions necessary to make a determination" regarding licenses or other authorizations for facilities that will utilize spectrum otherwise allocated to commercial use to deliver local broadcast signals to satellite television customers.[34] Northpoint claims Congress had it in mind when it enacted RLBSA, and the Commission has violated the RLBSA by not licensing Northpoint by November 29, 2000. However, the statute did not make specific reference to licensing any particular service in any particular band, and significantly, did not mention the 12 GHz band. The statute also ordered the Commission to "ensure that no facility licensed or authorized under [the RLBSA] causes harmful interference to the primary users of that spectrum."[35] Congress subsequently recognized that the Commission required time beyond November 29, 2000 to make this determination, as Congress ordered independent testing of MVDDS systems for harmful interference, and a subsequent public comment period that could not be concluded until March 2001 at the earliest.[36] It should be noted as well that Congress

[34] Pub. L. No. 106-113, Title II, 113 Stat. 1501, 1501A-544.

[35] RLBSA, § 2002(b)(2).

[36] See Section 1012(b), the "Prevention of Interference to Direct Broadcast Satellite Services" provision of Pub. L. No. 106-553, 114 Stat. 2762, 2762A-344 (2000).

ordered the Commission to make a "determination" by November 29, 2000, the plain meaning of which does not require the Commission to actually license Northpoint by that date. The Commission could certainly have met the statutory deadline by deciding not to license any terrestrial services in the band – a result that would have been far less favorable for Northpoint than the determination the Commission did make. Thus, nothing in the RLBSA required the Commission to license Northpoint by November 29, 2000.

B. Section 7(b) of the Communications Act

According to Northpoint, Section 7(b) of the Communications Act required the Commission to act within one year on Northpoint's application. However, Northpoint misreads this statute. Section 7(b) does not specify that the Commission "act" on an application in the sense of granting or denying a license application. Rather, the statute only requires that the Commission "determine whether the new technology or service is in the public interest within one year after the application is filed."[37] EchoStar believes that the Commission's determination in that regard is erroneous, but certainly licensing was not required.

C. The Satellite Home Viewer Improvement Act of 1999 ("SHVIA")

SHVIA imposes must-carry obligations on satellite operators commencing January 1, 2002.[38] Northpoint claims that Congress had Northpoint in mind as a means for DBS operators to comply with the must-carry requirements when Congress established the January 1, 2002 deadline.[39] Nothing in SHVIA indicated that the must-carry deadline is in any way related

[37] 47 U.S.C. § 157(b).

[38] *See* 47 U.S.C. § 338(a)(3).

[39] Northpoint Comments at 29.

to licensing Northpoint. In short, SHVIA's must-carry deadline is not a deadline for licensing Northpoint at all, and does not compel the Commission to immediately license Northpoint.

IV. NORTHPOINT'S CLAIMS ABOUT COSTS OF DELAY TO CONSUMERS ARE UNPERSUASIVE

Northpoint argues that delay in licensing Northpoint will cost consumers $1 billion in savings that would come from Northpoint entering the MVPD market and the high-speed internet access market as a new competitor.[40] However, this claim is not persuasive, as it is based on questionable assumptions. Northpoint's analysis assumes that Northpoint's technology (as opposed to some other) will be used no matter who wins an auction, and also assumes that Northpoint's patent would survive a challenge.[41] First, Northpoint is clearly not the only entity laying claim to having developed MVDDS technology, as the Comments filed by MDS America, Inc. in this proceeding reflect.[42] Second, the fact that other entities plan to offer MVDDS service, as well as the existence of other developers of MVDDS technology almost guarantee that there will be a patent dispute. Thus, it is unrealistic for Northpoint to simply assume that it will be the only "game in town." And most fundamentally, Northpoint does not explain why it believes that its wireless cable service will meet with more success and be more popular with consumers than all wireless cable services to date, especially since the line of sight problem would be, if anything, more serious.

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[40] Northpoint Comments at 31 and attached Declaration of Thomas W. Hazlett. EchoStar is at a loss to understand the supposed savings from Northpoint's entry into the high-speed internet access market as a new competitor, because Northpoint has stated that it intends to offer one-way data service, and it is not clear how a one-way data service will effectively compete with cable modems and DSL. *See id.* at 31, n.81.

[41] Northpoint Comments, Attachment 1 (Hazlett Decl.) at 10.

[42] *See* Comments of MDS America, Inc. (describing its MVDDS technology).

V. THE COMMISSION SHOULD NOT ENACT A HOPELESSLY COMPLICATED LOSER-PAYS REGIME FOR DECIDING MITIGATION DISPUTES

Northpoint proposes a "loser pays" principle requiring DBS to pay Northpoint's cost of showing that interference is within the permissible range where disputes arise regarding interference.[43] The Commission should decline this invitation, as it will undoubtedly lead to a hopelessly complicated tangle of disputes regarding interference that could paralyze DBS business operations. If a DBS subscriber in the vicinity of a Northpoint transmitter complains about increased picture loss or problems with picture quality, chances are that the source will be Northpoint's transmitter. However, the source of interference cannot be known with certainty without conducting tests at the subscriber's premises. However, even with as little as a 10-20% chance of prevailing, Northpoint has an incentive to dispute whether it is the source of interference under a "loser pays" principle, because such disputes will be a nuisance that DBS might be inclined to settle. The reluctance to engage in numerous nuisance-type disputes may effectively make MVDDS co-primary to DBS.

VI. THE COMMISSION SHOULD BAR FROM THE NEW SERVICE COMPANIES WITH MARKET POWER IN A RELEVANT MARKET INCLUDING INCUMBENT CABLE OPERATORS

As EchoStar advocated in its Comments, the Commission should bar from the new service all companies found to possess market power in a relevant market, including incumbent cable systems, as they have been found to possess market power in the relevant

[43] Northpoint Comments at 31.

market.[44] Not surprisingly, AT&T, the nation's largest cable MSO, in contrast favors MVDDS license eligibility for "all interested parties."[45] AT&T appears to innocuously suggest that incumbent cable operators should not be ineligible because they may want to provide non-video services, and that the Commission should not assume that MVDDS will be used primarily for video.[46] The Commission should make incumbent cable operators ineligible for licenses; although AT&T attempts to characterize its interests as being in non-video services, it also does not state that it has no interest in video services. Allowing cable into this band will be like letting the fox loose into the chicken coop and threaten directly the single most promising alternative to cable. Cable operators have a proven incentive to devitalize competition from DBS and, as the Commission noted, acted on that incentive before by attempting to warehouse DBS resources – an attempt that had to be stopped through the intervention of the Department of Justice.[47] Cable operators' behavior in that area to date provides a significant basis for concern that they might be inclined to act on an incentive to cause disruptions to DBS service, for example by interfering with DBS reception. Because the Department of Justice has found that cable systems have engaged in anti-competitive behavior before, this concern is significant

[44] *See e.g., In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 00-132, Seventh Annual Report, FCC 1-01 at ¶ 137 (rel. Jan. 8, 2001).

[45] AT&T Corp. Comments at 9.

[46] *Id.* at 18-19.

[47] *FNPRM* at ¶ 298; *see also id.* at p. 115, n. 609 (noting that the Commission and the Department of Justice have both acted to prevent cable interests from acquiring DBS resources, citing *In the Matter of Revision of Rules and Policies for Direct Broadcast Service*, Report and Order, 11 FCC Rcd. 9712 (1995) and *U.S. v. Primestar Partners, L.P.*, 140 L. Ed. 2d 180 (S.D.N.Y. 1994)).

enough that the Commission cannot afford to wait and act after the fact. Rather, the Commission should impose an eligibility bar on cable systems.

VII. THE CUMULATIVE 10% UNAVAILABILITY INCREASE LIMIT SHOULD SERVE AS THE BASIS FOR DEVELOPING POWER LIMITS

Northpoint alleges that the Commission should not use unavailability increase limits on terrestrial interference because "there is no accurate way for anyone to calculate compliance with these criteria."[48] This is inaccurate.

Both the Commission and the ITU are practiced in developing equivalent power flux density ("epfd") limits based on unavailability limits. As the Commission is well aware, the recent ITU actions regarding interference from NGSO systems into DBS in which the Commission was heavily involved were *explicitly* premised on a decision of the ITU about the level of performance and quality of service needed by DBS systems and the amount of decrease in this quality that DBS operators can be asked to accept. The ITU specifically found that a DBS operator "should be able to control the overall performance of a network, and to provide a quality of service that meets its C/N performance objectives," and that, to allow this, "there needs to be a limit on the aggregate interference a network must be able to tolerate from emissions *of all other networks*."[49]

The ITU Recommendation and RR Article S22 developed a limit on the interference that NGSO systems could permissibly cause to DBS operations and thereby

[48] Northpoint Comments at 34.

[49] Recommendation ITU-R BO.1444, *considering further* (a) and (b) (emphasis added) ("ITU Recommendation").

determined resulting power flux density limits on NGSO systems operating in the DBS band. In the ITU Recommendation, *recommends* 1.1 & 1.2, the ITU states that the aggregate interference caused by *earth* and space station emissions should "be responsible for at most 10% of the time allowance(s) for unavailability of the given C/N value(s) as specified in the performance objectives of the desired network, ... [and] not lead to a loss of video picture continuity ... in the desired digital GSO BSS and associated feeder-link network under clear-sky conditions ...." In the immediately following provision, the ITU goes on to specifically *recommend* that epfd limits "be derived and specified in such a way: ... that they satisfy the criteria in *recommends* 1.1 and 1.2 when applied to a set of representative GSO BSS and associated feeder-link system characteristics as provided in Annex 1." Based on this recommendation, the ITU did develop appropriate epfd limits and incorporated them in its rules.[50] The Commission's proposal to base epfd limits on degradation limits is, therefore, wholly consistent with its position advocated to and subsequently adopted by the ITU. The Commission is clearly capable of developing power limits that maintain the specific performance objectives of DBS services. Consistent with the ITU Recommendation and RR Article S22, DirecTV developed proposals for epfd limits, which EchoStar urges the Commission to adopt.

In its comments, EchoStar explained that, should the Commission proceed with licensing a new service in the DBS spectrum, the appropriate unavailability increase limit is a *cumulative* 10% from all sources of interference, consistent with the premise of the recent ITU actions – preserving certain levels of DBS service integrity. The Commission should not liberalize that limit as proposed in the FNPRM, or the DBS service will suffer beyond the levels

[50] RR Article S22 (setting epfd limits based on DBS unavailability limits).

judged tolerable by the ITU, to the significant detriment and dissatisfaction of U.S. consumers, as proven by the survey conducted by Zogby.

VIII. CONCLUSION

The Commission has erred in concluding that spectrum sharing between DBS and MVDDS is generally feasible. Should the Commission nonetheless proceed with licensing MVDDS in the 12 GHz band, it should proceed with the utmost caution, and should license applicants through the competitive bidding process for the reasons cited in the foregoing reply comments.

Respectfully submitted,

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