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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

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Federal Communications Commission
Office of Secretary

In the matter of	)	
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Rulemaking to Amend Part 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	)	FCC Docket No. 92-297
	)	
Fourth Notice of Proposed Rulemaking	)	

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August 12, 1996

To: The Commission

Comments of ComTech Associates, Inc.

ComTech Associates, Inc. ("CTA") is a company formed, in part, to pursue Local Multipoint Distribution Service ("LMDS") licenses. CTA believes that LMDS holds tremendous potential to serve as a principal source of competition not only to current monopoly and dominant video programming distributors, but also to monopoly local exchange carriers. CTA applauds the Commission for issuing its First Report and Order in the above captioned proceeding. This is the first step toward nationwide deployment of LMDS. There are, however, some issues in the First Report and Order that the Commission needs to clarify. CTA urges the Commission to clarify these in its next Report and Order.

CTA urges the Commission to issue service and auction rules for LMDS, and begin the licensing auction for LMDS, as soon as possible. The competitive landscape in the

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telecommunications world is changing rapidly, and the sooner LMDS is licensed, the sooner American consumers will benefit from competition.

Commensurate with this, CTA urges the Commission to separate the satellite issues from the LMDS issues on a going-forward basis. LMDS service rules, auction rules, and deployment have been delayed long enough. LMDS rules should not wait on the satellite rules.

I. Need for 1000 MHz in a Contiguous Band

Before CTA addresses the issues raised in the Fourth NPRM, we would like to address the Commission's efforts to allocate LMDS a single, contiguous band (the "contiguous plan"). In Paragraph 39, the Commission directs staff to continue discussions with NTIA regarding the possibility of LMDS using the 27.35 to 27.5 GHz band. CTA supports this proposition. The ability to use one GHz of continuous spectrum will allow LMDS to become a truly competitive service. Equipment costs will be less, because LMDS devices will require only one antenna, instead of the multiple antennas required under band plans with large separations in usable spectrum. Additionally, Canada has allocated 27.35 to 28.35 GHz for LMDS.[1/] Indeed, should the U.S. also allocate that band for LMDS, this will become the *de facto* world standard. U.S. companies are already producing LMDS equipment for Canadian use. U.S. customers would reap the benefits of lower equipment costs.

1/ Industry Canada call for frequency applications entitled "Local Multipoint Communication Systems (LMCS) in the 28 Ghz Range: Policy, Authorization Procedures and Evaluation Criteria" and dated March 2,1996.

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The best chance for LMDS success is a single, unencumbered, contiguous allocation of 1000 MHz in the 28 GHz band. The Commission has the opportunity to create such an allocation from 27.35 to 28.35 GHz. Without such an allocation, LMDS will be harmed in bringing low cost, high quality telephony and video services to consumers.

Additionally, when contemplating the allocation of 27.35 to 27.5 GHz and 31.0 to 31.3 GHz to LMDS, the Commission should not split the LMDS spectrum into multiple licenses within a given BTA. In order to provide true wireless broadband video and telephony service to consumers, LMDS operators will require sufficient spectrum for the provision of these services. The Commission should not parse out smaller portions of spectrum simply to create the possibility of multiple LMDS licensees within a single service area.

II. Clarification of Issues Raised in the First Report and Order

A. Co-Frequency Sharing

In addressing the questions raised in the fourth NPRM, the Commission should take this opportunity to clarify issues raised by the Commission in the First Report and Order. CTA agrees with the Commission's decision that co-frequency sharing between NGSO/FSS or GSO/FSS and LMDS is not feasible at this time. Beyond the mere technical issues, there is also an equity issue. Should the Commission determine sometime after the initial LMDS auction that co-frequency sharing between the services should be instituted, that will change the value of the spectrum the LMDS operators purchased. LMDS spectrum will be purchased on the assumption that there is only one LMDS license available in each market. Should the

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Commission alter or change that dynamic, the initial purchasers will find the economics of existing holdings drastically altered.[2/] The Commission should not permit any additional sharing arrangements, other than those sharing arrangements contained in the First Report and Order.

B. Feeder Link Location Notice

The Commission should also clarify its rules detailed in paragraph 70 regarding the notice NGSO/FSS licensees are to give the Commission about the location of feeder link stations. Once these locations have been identified, the Commission should place these on public notice, so that potential LMDS licensees will know where these locations are when bidding for LMDS licenses. We believe it is the Commission's intent that the potential LMDS licensees are aware of the feeder link locations.

C. FSS Gateways

We applaud the Commission's decision in paragraph 48 to decline protection for FSS gateways operating in the 27.5 to 28.35 GHz band. FSS gateways are intended to be secondary users of that spectrum, and, as such, are not entitled to interference protection. Additionally, FSS gateways must not cause interference to LMDS, the primary licensee of the spectrum.

2/ CTA assumes that, should a co-frequency sharing arrangement be deemed feasible, that the Commission would auction off LMDS licenses located within such shared spectrum. The Commission should not permit the satellite licensees to use ability to share the frequency to either provide their own LMDS service, or to sell the right to another LMDS operator. This, of course, would be patently unfair to the incumbent LMDS operator.

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D. Digital Mandate

The Commission, in paragraph 50, raises the issue of mandated digital technology for LMDS. The Commission states it will look at this issue in the LMDS service rules.[3/] We believe it is not appropriate for the Commission to determine which technologies LMDS operators can and cannot use. In some areas and for some companies, digital systems may be appropriate. Such systems may not be appropriate in other areas. The Commission should permit as much flexibility as possible.

E. Point-to-Point Microwave Use in the 28 GHz Band

CTA also supports the Commission's determination in paragraph 93 to not designate any portion of the 28 GHz band for point-to-point microwave use. CTA, however, believes that the prohibition on point-to-point microwave use should not include use of point-to-point microwave use for LMDS backbone operation by the licensed LMDS operator in that particular license area.

III. Fourth Notice of Proposed Rulemaking

A. Use of the 31 GHz Band

The Commission seeks comments in paragraph 101 regarding the assignment of spectrum in the 31 GHz band. CTA strongly urges the Commission to adopt its proposal that the 300 MHz of spectrum in the 31 GHz band and the 1000 MHz of spectrum in the 28 GHz band be assigned as a single block. Without a single block assignment, an LMDS operator

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3/ As stated above, CTA implores the Commission to issue its LMDS service and auction rules as soon as possible.

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winning a 28 GHz license with intentions of providing two-way services, could be held hostage by another entity in the 31 GHz band. The LMDS license could be rendered useless, the costs to the LMDS operator could escalate to the point where the services contemplated are no longer economically viable, or the delay in initiating the LMDS service could be significant, thereby eliminating or severely harming potential competitors for the incumbent local exchange carriers and video service providers.

CTA again reminds the Commission that there is a solution -- LMDS can be allocated one continuous block of spectrum from 27.35 to 28.35 GHz. This allocation may obviate the need for an LMDS allocation in the 31 GHz band. CTA also strongly supports the Commission's intent to commence the licensing process for LMDS as soon as possible.

The Commission should initiate the licensing process, under its proposal in the First Report and Order (including the 31 GHz spectrum). Then, if a solution is found that would allow LMDS to be located in a single, contiguous 1000 MHz band, the Commission could assign that spectrum to the auction winner in addition to the spectrum contemplated under the plan outlined in the First Report and Order. Potential licensees will know that, at worst, the license will include 850 MHz in the 28 GHz band, 150 MHz shared in the 28 GHz band, and 300 MHz in the 31 GHz band. At best, the license will be a contiguous 1000 MHz in the 28 GHz band.

B. Relocation Costs

In paragraph 102, the Commission asks if the current 31 GHz band licensees should receive any compensation for relocation costs. CTA believes that these licensees should not be

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granted relocation costs. The current licensees in the 31 GHz band operate on a secondary basis. These licensees have never been promised protection from interference. If they cannot operate on a non-interference basis, it is their legal and financial responsibility to correct that interference.

The Commission should also learn from the experience PCS providers had with incumbent microwave users. There, the microwave users operated on a primary basis, and the band was cleared for PCS. The process for negotiating the relocation for microwave users has been a nightmare. The fights between the microwave users and the PCS licensees have been well-documented.[4/] The Commission should do everything possible to avoid a replay of this situation. Should the Commission somehow determine that 31 GHz users should be compensated if they move, the Commission should predetermine the amount of compensation which is reasonable, and reimburse the current 31 GHz users from auction revenues.[5/]

Should the Commission decide to compensate these 31 GHz licensees, the Commission should not then issue additional licenses for the 31 GHz band. It makes no sense to pay for secondary users to move, and then license additional secondary users.

If the Commission does not decide to compensate the users of the 31 GHz band, then CTA does not object to additional applications in the 31 GHz band. These additional

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4/ See Letter from Mark Golden of PCIA to Chairman Reed Hundt, RM-8643 (Filed September 22, 1995) This letter contains examples of allegedly unreasonable requests by microwave incumbents.

5/ CTA hastens to point out that this exercise would not be necessary if the Commission follows the contiguous plan and allocates 27.35 to 27.5 GHz to LMDS.

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licensees, of course, will be required to operate on a secondary basis. The Commission should be judicious in its awarding of these licenses to ensure that LMDS services are not harmed by these secondary users.[6/]

C. Eligibility

i. LECs and MSOs Should Be Excluded In-Region

CTA has previously filed comments with the Commission advocating open eligibility for incumbent local exchange carrier ("LECs") and cable television multiple system operators ("MSOs") to participate in the upcoming LMDS spectrum auction, to be balanced by strict build-out requirements for LECs and MSOs that win licenses. On the basis of new information about the flexibility of LMDS equipment configurations, CTA now alters its position on LEC/MSO eligibility; LECs (be they regional Bell operating companies ("RBOCs") or independent telephone companies) and MSOs should be prevented from bidding for licenses in BTAs where they serve 15% or more of the households. This restriction should also apply to areas where the incumbent has an attributable interest in cellular properties. It is CTA's firm belief that open entry of LECs and MSOs would strongly deter potential new entrants, inhibit the development of LMDS services, and delay competition in current monopoly markets.

Since CTA's reply comments on the Third NPRM, dated October 9, 1995, CTA has gained greater understanding of the flexibility of LMDS technology. The modular nature of

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6/ The Commission's resources could be strained if the Commission has to constantly deal with interference caused to LMDS by 31 GHz secondary users.

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LMDS architecture, with its individual nodes, multiple sectors and scaleable RF carriers, may enable LECs and MSOs to utilize their existing infrastructure to meet any build-out requirements with a minimal investment. Such a build-out would not be intended to maximize the capabilities of LMDS; rather, its goal would be to prolong the viability of the incumbent's wired infrastructure. It is highly unlikely that the Commission could devise build-out requirement that would ensure a genuine deployment without micromanaging the sincere operator that is contemplating diverse services.

The Commission suggests in Paragraph 131 of the NPRM that one possible solution to the LEC/MSO entry issue would be "to limit the incumbent LECs and cable companies' use of the LMDS spectrum", the idea being that the LEC and MSO in a given BTA could utilize LMDS to compete with each other. While this may be true, CTA believes that a duopoly between two entities that have previously been monopolists is not the competitive situation envisioned by the Telecommunications Act of 1996. Such a situation could lead to implicit collusion or Commission-imposed service restrictions that would, as the Commission also suggests in Paragraph 131, "impair the deployment of LMDS as a market-driven flexible broadband service and [are] inconsistent with the Commission's flexible spectrum policy." More importantly, this would still not ensure competition in both voice and video services. Competition from new entrants empowered with a significant new technology such as LMDS will result in much more robust services offerings to consumers and is more in the spirit of the '96 Act than is a strengthening and concentration of incumbent market power.

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A critical factor affecting CTA's position is that only one LMDS license will be awarded in each BTA. Sole ownership of such a license in-region by an incumbent LEC or MSO would, regardless of how it is utilized, remove LMDS as a competitive threat to that incumbent. CTA strongly agrees with the Commission "that LMDS is a potentially important source of competition to both LECs and cable operators," (Paragraph 125, Fourth NPRM). LMDS can only fill this role if it is licensed to a new entrant unaffiliated with a LEC or MSO serving customers in the licensed BTA.

While CTA believes that incumbent eligibility restrictions should be temporary, they should not be lifted until certain competition tests have been met. In the Communications Act of 1934, as amended by the Cable Act of 1992 and the Telecommunications Act of 1996, Congress has provided a series of benchmarks that define competition in the local exchange and cable industries. CTA believes that these tests are equally useful when determining LEC/MSO participation in LMDS. Specifically, all LECs -- including independent telephone companies as well as the RBOCs -- should be governed by the Section 271 Bell operating company entry test for in-region interLATA services. Similarly, MSOs should be governed by the effective competition test of Section 623 of the Communications Act of 1934.[7/] Until all elements of these tests have been met, LECs and MSOs should be prohibited from offering LMDS services in-region and from participating in companies operating as Designated Entities.

7/ Specifically, MSOs should be subject to effective competition, as defined in Section 623(l).

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ii. Licensing of Incumbent LECs and MSOs Would Deter Potential New Entrants

In CTA's view, there is no question that incumbent ownership of an LMDS license will act as a great deterrent to potential new entrants. First, an incumbent LEC or MSO will value an in-region LMDS license much differently than will outside bidders. Whereas a potential new entrant will try to establish a maximum value for spectrum that will allow an acceptable return to be earned in a competitive market by building a stand-alone LMDS system, an incumbent will consider the opportunity cost of its monopoly profits, along with its substantially lower build-out costs, and will accordingly bid at levels that are uneconomical for new entrants to match.

Second, incumbent ownership of the sole LMDS license in its operating region would deprive potential entrants of the most effective means of competing against existing telecommunications providers. In this respect, CTA's response to the Commission's question in Paragraph 126 is that LMDS does represent "a unique and necessary resource for de-concentrating the market power of incumbent LECs and cable operators." It logically follows that LMDS cannot serve this purpose when controlled by the incumbents whose market power it would de-concentrate!

iii. Incumbents are Pursuing Alternative Ways of Offering Bundled Services

While incumbents might suggest that an in-region ban would prevent them from competing in service areas outside their traditional monopolies, CTA argues that incumbent

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LECs and MSOs are actively pursuing alternative means, such as fiber optics, MMDS, ADSL, cable modems, and other technologies that can be used to provide varying bundles of voice, data, and video services. For example, according to the Commission's 1995 Fiber Deployment Update, LECs increased their fiber mileage by 20% in 1994 and 18% in 1995, in large part "to provide for future wideband digital capabilities."[8/] Much of this new deployment has been in the form of fiber rings and "fiber-to-the-curb" which, along with copper technologies such as ISDN, ADSL and HDSL are designed to increase bandwidth into the home. The Fiber Deployment Update states that "much of the interest in local loop fiber has centered around interest in video services,"[9/] a fact which CTA believes supports the exclusion of LECs from in-region LMDS bidding.

In addition to increased fiber deployment, RBOCs such as Pacific Telesis and Bell Atlantic have also made significant investments in MMDS for the purpose of providing video services in their existing telephony service areas; Tele-TV, a joint MMDS venture among PacBell, Bell Atlantic, and NYNEX, recently began broadcasting in the Los Angeles area, using digital technology to offer 120 channels of video programming and 30 channels of audio services.[10/] Clearly, LECs have access to and are developing alternative means of offering video services.

8/ 1995 Fiber Deployment Update, July 1996, pp. 2, 17.

9/ Id. at 17.

10/ Cable World. July 29, 1996, p. 20.

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Cable MSOs are no less active in using various technologies and modifying their own coaxial infrastructures to offer telephony. Virtually every major cable company in the U.S. has tested or is in the process of testing cable modems designed to allow bundled services, including telephony, to be delivered to existing subscribers. In its annual report, U.S. West touts its imminent ability to offer cable telephony, stating "only cable can deliver an expansive array of services at high speed on a fully interactive basis...cable is the only existing platform that allows true integration of voice, video and data services.[11/] Adelphia Cable Communications recently announced plans to offer local telephony using Tellabs technology.[12/] These are only two examples of MSO's intention to offer bundled services using technologies other than LMDS.

Given the level of activity by LECs and MSOs attempting to serve each other's customers using the methods mentioned above, CTA asserts that LMDS would best lead to true competition in the hands of a new entrant. A competitive landscape consisting of at least three participants is much more likely to foster service innovations and cost improvements that will ultimately benefit consumers.

iv. Incumbents Have a Cost Advantage that Could Lead to Anti-competitive Behavior

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11/ 1995 U.S. West Annual Report (via WWW).

12/ Tellabs Press Release, June 5, 1996.

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CTA initially believed that strict build-out requirements would ensure genuine system deployments and allow auctions to serve as an effective clearing mechanism for LMDS spectrum. Now, however, CTA believes that, because of the flexibility of LMDS and the inherent cost advantages of incumbents, especially LECs, any build-out requirements set by the Commission will not ensure that LMDS is put to its best use, and that an auction which includes in-region LECs and MSOs as bidders is an inappropriate device for allocating LMDS spectrum.

The cost advantages of LECs arise from numerous capabilities and resources, including switching and backhaul capabilities, existing tower sites from their cellular operations, marketing, power, billing, and customer service. These advantages would allow an incumbent LEC to meet any build-out and/or service requirement at a substantially lower cost than would be possible for a new entrant. Moreover, while CTA does not at this time advocate the complete exclusion of LECs from the LMDS auction, it should be noted that cost advantages brought about by existing switching and tower facilities will likely accrue to a LEC LMDS operator whether the system is in-region or out-of-region.

MSO's cost advantages similar to those inherent in LECs (headend facilities, deployed fiber and microwave plant, power, billing, and customer service systems that are already in place) will give MSOs a substantial advantage over potential new entrants.

The combination of minimal costs to meet Commission build-out requirements and an exclusive license for a LEC or MSO would likely result in an LMDS system with a less robust service profile and higher prices for customers than would be the case were an unaffiliated

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licensee to operate the LMDS system. The goal of an incumbent would be to remove LMDS as a competitive threat to its wired infrastructure, not to develop the total potential functionality of LMDS. Given the opportunity cost of monopoly profits, such behavior would be economically rational at bid levels exceeding those which a new entrant could logically pay.

IV. Conclusion

CTA applauds the Commission on its First Report and Order. The Commission should begin the LMDS license proceeding as soon as possible. LMDS has the potential to bring wireless broadband service directly to consumers. CTA urges the Commission to consider the effects of its service rules and allocation decisions on small, entrepreneurial companies, such as CTA.

Respectfully submitted,

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