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

In the Matter of	)	
	)	
Amendment to the Commission's Rules to Provide for Unlicensed NII/SUPERNet Operations in the 5 GHz Frequency Range	)	ET Docket No. 96-102 RM-8648 RM-8653

REPLY COMMENTS OF THE CONNECTIVITY FOR LEARNING COALITION

The **CONNECTIVITY FOR LEARNING COALITION**[1] submits the following Reply Comments in the above referenced proceeding.

I. Introduction

The **CONNECTIVITY FOR LEARNING COALITION** (the **COALITION**) submitted comments applauding the Federal Communications Commission (FCC) for undertaking this rulemaking to provide for unlicensed, high-speed digital communications to facilitate affordable access to the National Information Infrastructure (NII) for schools and libraries and other public interest applications.

The **COALITION** believes that the Commission's NII/SUPERNet proposal can, if properly structured, contribute significantly to the goal of providing affordable access to the NII for students, teachers, parents, librarians, administrators and others.

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[1] The Connectivity for Learning Coalition is an ad-hoc coalition of organizations concerned about school and library connections to the NII.

In our Comments, the **COALITION** expressed the following concerns: (1) The very low power level proposed by the Commission -- .1W -- severely limits the ability of NII/SUPERNet devices to communicate through walls and between floors of school and library buildings; and (2) NII/SUPERNet rules should accommodate use of the 5.8 GHz band by spread spectrum Part 15 devices.

II. Increase Allowable Power Levels

Several Commenters urged the Commission to increase power levels for NII/SUPERNet devices.[2] Any such increase should, at a minimum, ensure that NII/SUPERNet devices can be used to provide wireless connections throughout a school or library building. In our Comments, the **COALITION** noted that, as proposed, NII/SUPERNet devices would not be able to penetrate the walls, floors and ceilings in a typical school or library building. Connectivity would have to be provided through a hybrid wired/wireless network. NII/SUPERNet devices would act as routers, transmitting signals from a fixed wired point within a classroom to multiple receivers in the same classroom.

Such hybrid networks would be expensive and include virtually all of the costs associated with providing wired access to the NII for classrooms and libraries. The NII/SUPERNet proposal is designed to provide schools, libraries and other community users

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[2] See, for example, Comments of The Benton Foundation and Computer Professionals for Social Responsibility, California State University, et. al., The Consumer Electronics Manufacturers Association, Motorola, Western Multiplex Corporation, and Northern Telecom, Inc.

affordable, wireless access to the NII. Hybrid networks would not achieve this important goal.

III. Protect Beneficial Part 15 Uses of the 5.8 GHz Band

Several Commenters oppose or raise serious concerns regarding use of the 5.725 - 5.875 GHz Band for NII/SUPERNet devices.[3] The National Science Foundation Wireless Field Test for Education Project ("NSF Education Project"), for example, believes that NII/SUPERNet devices in the 5.725 - 5.875 GHz band will "seriously degrade"[4] the ability to use spread spectrum Part 15 devices. The NSF Education Project also believes that spread spectrum Part 15 devices operating in the 915 MHz, 2.4 GHz, and 5.8 GHz bands are better able to meet the needs of schools and libraries in both urban and rural communities than NII/SUPERNet devices proposed by the Commission.

In our Comments the **COALITION** recognized the important contribution that spread spectrum Part 15 devices are making to connecting schools and universities to the NII. For example, the public library in Alameda County, California, is using spread spectrum Part 15 service to provide connectivity from its bookmobile. Patrons are able to access the library's public

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[3] See, for example, Comments of Alstatt Associates, The American Radio Relay League, Cylink Corporation, ITS America, Larus Corporation, Metricom, Inc., The National Science Foundation Field Test for Education Project, Resound Corporation, San Bernardino Microwave Society, and Western Multiplex Corporation.

[4] Comments of the National Science Foundation Field Test for Education Project at par. 9.

catalog, and call up special services that the library makes available such as internet access, an employment database, and the library's Infotrac Information Access Center. Patrons will have the same access to online services in the bookmobile as they do in the library's central facility.

Spread spectrum Part 15 devices operating in the 5.725 - 5.875 Ghz range are also providing point-to-point community networks. In Avondale, Arizona, for example, municipal buildings throughout the city are linked wirelessly at a cost that is far less than a wired network.[5] The **COALITION** encourages the Commission to provide for unlicensed NII/SUPERNet devices in the 5.725 - 5.875 GHz in a manner that does not jeopardize these important uses of the band by spread spectrum Part 15 devices.[6]

Furthermore, the **COALITION** believes that the Commission should encourage the development of NII/SUPERNet devices that anticipate and are capable of adapting to interference, rather than adopting a hierarchy among unlicensed wireless uses in the 5.8 GHz band or mandating a specific protocol or etiquette for the management of interference.[7] Spread spectrum Part 15 devices are designed to

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[5] See, Ron Brown, "Connectivity Goes to the Wire(less)," American City & County, July 1994.

[6] Several Commenters raise a similar caution flag. See, for example, Comments of Apple Computer, Inc., Cylink Corporation, L/Q Licensee, Inc., and Metricom, Inc.

[7] Several Commenters also raise concerns about mandating specific technical solutions to potential interference problems. See, for example, Comments of 3 Com Corporation, The Benton Foundation and Computer Professionals for Social Responsibility, Motorola, Mulcay Consulting Association, and Resound Corporation.

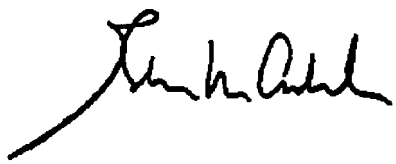
anticipate and manage interference. They are, in effect, engineered not to avoid interference but to respond to interference should it occur. The **COALITION** believes that requiring NII/SUPERNet devices to anticipate and manage interference will encourage innovation. Protocols and etiquettes mandate a single solution and make the spectrum "safe" for technologies which may or may not meet the needs of the education and library communities.

V. Conclusion

The **COALITION** is encouraged by the development of spread spectrum Part 15 devices and the application of spread spectrum Part 15 technology to connecting schools and libraries to the NII. Spread spectrum Part 15 devices can also be used in concert with NII/SUPERNet devices. For example, spread spectrum Part 15 point-to-point links can be used to connect schools and libraries to each other and to the NII. Both spread spectrum Part 15 and NII/SUPERNet devices can be used to bring those connections to the classroom and library facilities. They are both important elements in achieving the goal of connecting classrooms and libraries to the NII. The Commission should, therefore, eschew hierarchies and etiquettes that thwart innovation, and promote the development of NII/SUPERnet devices without limiting the contribution that spread spectrum Part 15 devices can make to achieving our goal.

Respectfully submitted,

CONNECTIVITY FOR LEARNING COALITION



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