

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

In the Matter of)	
)	
)	
Spectrum Policy Task Force’s Request)	ET Docket No. 02-135
For Public Comments on Issues Related)	
To Commission’s Spectrum Policies)	

**REPLY COMMENTS OF THE
CONSUMER ELECTRONICS ASSOCIATION**

The Consumer Electronics Association (“CEA”), by its attorneys and pursuant to Section 1.415 of the Commission’s Rules, 47 C.F.R. § 1.415, hereby respectfully submits to the Federal Communications Commission (“Commission”) its reply comments in the above-captioned proceeding.

As CEA and several other commenters highlighted in the initial round of comments, tremendous public benefits are derived from the use of unlicensed spectrum. The Spectrum Policy Task Force (“Task Force”) recommendations to the Commission should be not only to preserve unlicensed spectrum, but also to designate additional frequency bands for the exclusive use of unlicensed devices. As an appropriate first step in the allocation of additional spectrum, the Task Force should recommend to the Commission the allocation of additional spectrum for unlicensed use in the 5 GHz band. In addition to encouraging the development of new home networking technologies, such an allocation will foster further innovation and development of wireless broadband networks, advancing the deployment of broadband by enhancing broadband facilities-based competition.

I. THE TASK FORCE SHOULD RECOMMEND THE ALLOCATION OF ADDITIONAL SPECTRUM FOR UNLICENSED USE IN THE 5 GHZ BAND.

In their comments, a number of parties acknowledged the public benefits of unlicensed spectrum use, and voiced the need for additional spectrum for unlicensed uses.¹ As a result of the rapid growth and innovation of wireless broadband networking technologies, the demand for additional spectrum has increased as well. The Commission has previously acknowledged the need for spectrum for unlicensed short-range, high-speed wireless digital communications (U-NII devices) when it allocated 300 MHz in the 5 GHz band, indicating that accessibility “to a substantial amount of spectrum is necessary for these devices to develop and mature to their full potential.”² At that time, U-NII devices were capable of providing data at a maximum rate of 20 Mbps. Today, technological advances allow for throughput rates up to 54 Mbps.³

¹ See, e.g., Comments of Cisco Systems, Inc., ET Docket No. 02-135 (filed July 8, 2002) at 1 (“Cisco Comments”); Comments of Wireless Ethernet Compatibility Alliance, ET Docket No. 02-135 (filed July 8, 2002) at 4 (“WECA Comments”); Comments of Motorola, Inc., ET Docket No. 02-135 (filed July 8, 2002) at 13 (“Motorola Comments”); Letter to M. Edward Thomas, Chief, Office of Engineering and Technology, Federal Communications Commission from Craig J. Mundie, Senior Vice President, Chief Technical Officer, Advanced Strategies and Policy, Microsoft Corporation, (dated July 8, 2002), ET Docket No. 02-135, (“Microsoft Comments”) at 2; Comments of IEEE 802, Local and Metropolitan Area Network Standards Committee, ET Docket No. 02-135 (filed July 8, 2002) at 6 (“IEEE802 Comments”).

² Amendment of the Commission’s Rules to Provide for Operation of Unlicensed NII Devices in the 5 GHz Frequency Range, *Report and Order*, 12 FCC Rcd. 1576 (1997) (“U-NII Order”).

³ The IEEE 802.11a standard, also referred to as Wi-Fi5, operates in the 5GHz band and supports data rates of up to 54 Mbps; *but see* Eric Griffith, *Wi-Fi5, We Hardly Knew Ye*, siliconvalley.internet.com, (July 17, 2002) available at <http://siliconvalley.internet.com/news/article.php/1428541> (visited July 19, 2002) (indicating that WECA will be dropping the Wi-Fi5 brand name and instead using “Wi-Fi Certified” branding for products it certifies).

As the Wireless Ethernet Compatibility Alliance (“WECA”) pointed out in its comments, there are clear indications of an upcoming spectrum shortage for unlicensed use.⁴ Such a shortage, and the anticipated congestion in the spectrum already allocated to unlicensed use in the 5 GHz band, would inhibit further development of unlicensed spectrum devices. As the 2.4 GHz band becomes more populated with unlicensed devices, the 5 GHz band will become more important for unlicensed spectrum use.⁵ CEA urges the Task Force to recommend the allocation of additional spectrum for unlicensed use in the 5 GHz band.⁶ Such an allocation will allow for higher throughput rates, and would also be in line with the Commission’s directive under the Communications Act to promote vigorous competition and technological advancement, as well as the policies outlined in the *U-NII Order*.⁷ An allocation in the 5 GHz band is imperative for the continued growth and development of unlicensed home networking devices, like those using the 802.11a standard.⁸

⁴ See *WECA Comments* at 3 (citing a study conducted by the HIPERLA/2 Global Forum on behalf of the European Telecommunications Standards Institute).

⁵ See generally, The FCC’s Advisory Committee for the 2003 World Radiocommunication Conference Approves Draft Proposals, WAC/115, Minority View of American Radio Relay League, Opposition Letter of GlobalStar, NTIA Proposal for Agenda Item 1.5, *Comments of Apple, Cisco, Intel and Microsoft*, DA 02-1415 (commenting on policy positions under development in the FCC’s advisory committee for WRC 2003).

⁶ Spectrum below 5 GHz is too congested. See Amendment of the Commission’s Rules to Provide for Unlicensed NII/SUPERNet Operations in the 5 GHz Frequency Range, *Notice of Proposed Rulemaking*, 11 FCC Rcd. 7205, 7217, ¶ 34 (1996).

⁷ See 47 U.S.C. § 257(b); see generally, *U-NII Order*, 12 FCC Rcd. 1576.

⁸ See, e.g., AsiaBizTech, Nikkei BP Network, Industry Insights, *5GHz WLANs Extend 2.4GHz Usefulness* (January 2001), available at http://www.asiabiztech.com/nea/200101/inst_120479.html (visited July 19, 2002).

As stated in its Comments, CEA supports WECA's Petition for Rulemaking filed earlier this year asking the Commission to extend the frequency allocation in the 5GHz band for radio local area network ("RLAN") and other unlicensed services devices.⁹ The Commission should initiate a rulemaking proceeding in response to WECA's petition and allocate additional spectrum in the 5 GHz band for unlicensed devices. CEA agrees with Motorola that the Commission along with NTIA and industry should make an effort to estimate future spectrum requirements of unlicensed use, similar to those prepared by the Public Safety Wireless Advisory Committee ("PSWAC") for public safety and the International Telecommunications Union ("ITU") for third general mobile services and unlicensed services.¹⁰ CEA stands ready to assist the Commission in assessing future needs for unlicensed spectrum and identifying potential new spectrum for such use.

II. WIRELESS BROADBAND NETWORKS UTILIZING THE 5 GHZ BAND WOULD ADVANCE THE DEPLOYMENT OF BROADBAND BY CREATING BROADBAND FACILITIES-BASED COMPETITION .

The Commission has recognized that to assure delivery of information and services to everyone, regardless of income or location, new, flexible and inexpensive communications networks will have to be developed.¹¹ Technologies utilizing unlicensed spectrum have the

⁹ See Petition for Rulemaking of the Wireless Ethernet Compatibility Alliance To Permit Unlicensed National Information Infrastructure Devices to Operate in the 5.470-5.725 GHz Band, RM-10371 (Jan. 15, 2002); *see generally*, ITU Radiocommunication Study Groups, *Draft CPM Text-Chapter 2, Mobile, Mobile-Satellite and Space Science Services*, Document 4-7-8-9/TEMP/17-E (WRC-2003 Agenda Item 1.5)(stating RLAN standards include ARON HiSWANa, ETSI HiperLAN/2 and IEEE802.11a which support data rated from 6 Mbits/s to 54 Mbits/s) ("ITU Agenda Item 1.5").

¹⁰ See Motorola Comments at 10-11.

¹¹ See *U-NII Order*, 12 FCC Rcd. at 1584, ¶ 16.

potential of creating flexible and inexpensive networks to provide broadband services to business and individuals in metropolitan and rural areas. As Cisco and Microsoft, among others, indicate in their Comments, unlicensed bands have the potential of creating wireless broadband connections to the home across the United States, with all the capabilities of cable and wireline networks.¹²

CEA believes that an allocation in the 5 GHz band will foster the development of wireless broadband networks, creating an alternative infrastructure for the deployment of broadband to consumers and advancing the Act's goal of providing "advanced telecommunications capabilities to all Americans."¹³ The development of new unlicensed wireless broadband networks will be less costly and easier to implement than broadband access via traditional networks and will facilitate competition with cable and telephone-based broadband service providers.¹⁴ As the Part-15 Organization's comments note, small wireless Internet service providers utilizing unlicensed spectrum are leading the way in providing broadband wireless access not only in metropolitan areas but rural areas as well.¹⁵

Therefore, the Task Force should recommend to the Commission an allocation for additional spectrum for unlicensed use by wireless broadband networking technologies in the

¹² See *Cisco Comments* at 5; see also *Microsoft Comments* at 4.

¹³ See 47 U.S.C. § 254(b), (h); see also Section 706 of the Telecommunications Act of 1996, Pub. L. No. 104-104, 100 Stat. 56 (1996).

¹⁴ See, e.g., FCC Commissioner Kathleen Q. Abernathy, Remarks at the FCBA Seminar West (Jul. 20, 2002) available at <http://www.fcc.gov/Speeches/Abernathy/2002/spkqa219.html> (stating that "spectrum-based services will provide that next pipe to the home or to wherever you are – and I believe it is essential that our regulatory policies not hinder the development of that third (or fourth or fifth) platform").

¹⁵ Comments of Part-15 Organization, ET Docket No. 02-135 (filed July 8, 2002) ("Part-15 Comments").

5GHz band, in line with Commission policies of encouraging the development of unlicensed devices and of promoting broadband facilities-based competition.

III. CONCLUSION

CEA urges the Task Force to recommend to the Commission the allocation of additional spectrum for exclusive use of unlicensed devices. Further, CEA recommends the allocation of additional spectrum in the 5GHz band for unlicensed devices, such as wireless broadband networking technologies, as part of a national spectrum policy. Such an allocation would spur innovation, benefit consumers and advance the deployment of broadband. CEA requests that the Task Force put forward policy suggestions consistent with CEA's views concerning the unlicensed use of the spectrum. CEA will continue to provide input to the Commission for the development of a national spectrum strategy.

Respectfully submitted,

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