

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

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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)	

**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 with the Federal Communications Commission (“Commission”) its comments in response to the Public Notice released on June 6, 2002, requesting public comments on issues relevant to spectrum policy, to be considered by the newly created Spectrum Policy Task Force (“Task Force”).¹

CEA supports the work of the Task Force in identifying and evaluating changes in the spectrum policy that will increase the public benefits of radio spectrum uses. The work of the Task Force could assist the Commission in its stated goal to “encourage the highest and best use of spectrum domestically and internationally in order to encourage the growth and rapid adoption of new technologies.”² CEA is hopeful that its comments will aid in the evaluation of existing spectrum policies, especially as they concern unlicensed spectrum operations, and provide

¹ See Public Notice, Spectrum Policy Task Force Seeks Public Comments on Issues Related to Commission’s Spectrum Policies, DA 02-1211, ET Docket No. 02-135 (rel. Jun. 6, 2002) (“Spectrum Policy Public Notice”).

² Draft Text of the FCC’s Strategic Plan, 2003-2008, available at <http://www.fcc.gov/omd/strategicplan/strategicplan2003-2008.pdf>

helpful input for the development of any new national spectrum strategy.³ In particular, the Task Force should consider, within the framework of market-oriented allocation and assignment policies, the significant public benefits derived from unlicensed spectrum. Its recommendation to the Commission should be not only to preserve such spectrum, but also designate additional frequency bands for the exclusive use of unlicensed devices.

I. THE TASK FORCE SHOULD GIVE AMPLE CONSIDERATION TO THE BENEFITS OF UNLICENSED SPECTRUM USE.

A. Unlicensed Spectrum Has Been A Platform For Innovative Products And Services Of Great Benefit To Consumers.

A number of innovative products and services that have become an integral part of our daily lives utilize unlicensed spectrum. Remote controls (whether used to open garage or car doors), baby monitors, family radios,⁴ cordless phones, wireless headphones, wireless networking or wireless Internet access, are only a few examples.⁵ Unlicensed devices introduced in the marketplace by the consumer electronics industry have allowed Americans unprecedented convenience and mobility in accessing information. The most common wireless product is the cordless phone, with 2001 sales of almost 36 million units with revenues over 1.3 billion dollars.⁶

³ Unlicensed spectrum operations refer to use of devices regulated under Part 15 of the Commission's rules, *see generally*, 47 C.F.R. § 15.1 *et seq.* (2001).

⁴ Family Radio Service, another unlicensed service, allows direct, short-range, unit-to-unit communication between non-commercial users.

⁵ There are numerous other devices in the market that use unlicensed spectrum including wireless microphones, remote control toys, and security cards. Sales of wireless headphones in year 2001 were over 400,000 units with revenues reaching almost 22 million dollars. Source: CEA market research.

⁶ Source: CEA market research.

In recent years, the development of unlicensed devices has increased significantly, especially with the development of standards that support innovative solutions.⁷ This continued growth and development of technologies for Part 15 devices is indicative of the benefits derived from unlicensed spectrum uses. The development of the wireless networking technologies like Wi-Fi™ or Bluetooth™, which achieve throughputs at rates multiple times greater than a typical T1 connection, allow for the creation of wireless LANs, which will accelerate the adoption of broadband technologies by individuals or businesses.⁸ A simple wireless network can be created when connecting a modem and a gateway device to a broadband connection, enabling information technology or consumer electronic devices to have access to the Internet wirelessly within a 300 feet radius.⁹ Businesses deploy wireless networking technologies in vertical applications like recording retail transactions, handling inventory, creating a wireless network instead of a wired one, or extending their LAN to mobile and remote users. It is expected that by the end of the year more than 10 million computers will include wireless networking

⁷ These industry standards include Wi-Fi™ (IEEE 802.11b High Rate Standard), Bluetooth™ and Home RF and have the potential of greatly expanding the number and the variety of devices available. They are open standards that enable links between mobile computers, mobile phones, portable handheld devices, and connectivity to the Internet.

⁸ Wi-Fi™ (or IEEE 802.11b) can achieve speeds up to 11 Mbps while the IEEE 802.11a standard can achieve speeds up to 54 Mbps. *See generally* Wireless LAN Association, *High-Speed Wireless LAN Options, 802.11a and 802.11g available at* <http://www.wlana.org/pdf/highspeed.pdf>

⁹ Sharon Pian Chan, *Wireless where you want: Wi-Fi is the guerilla revolution of wireless computing*, Seattle Times (Monday, February 11, 2002) *available at* http://www.seattletimes.nwsourc.com/html/business/technology/134402814_wirelesslan11.html (last visited Jun. 30, 2002)(“Chan Article”).

technology.¹⁰ The wireless LAN industry is one of the fastest growing segments of the communications industry, expected to reach \$5.2 billion by year 2005.¹¹

As people become more mobile, moving from the office to the home, to the coffee shop, or to the airport, wireless networking application will become increasingly pervasive, accelerating the deployment of broadband services and helping to bridge “digital divide.”¹² Even municipalities have begun using wireless networking technology to reach out not only to their employees, but their citizens as well. A number of cities perceive the deployment of technologies using unlicensed spectrum as complimentary to public safety functions.¹³ For example, the municipality of Roseville, MN, purchased unlicensed devices to aid in monitoring homes in an effort to reduce costs of providing city services.¹⁴ Future deployment of wireless LAN technologies by governments or public interest organizations could have a significant positive impact on the ability of less advantaged elements of U.S. society to gain access to the Internet and information technologies.

¹⁰ See Paul Boudin, *Waiting for Wi-Fi*, available at http://www.salon.com/tech/feature/2002/03/03/wi-fi_nation (last visited June 30, 2002).

¹¹ See Jeff Abramowitz, *Wireless LANs – Poised for Untethered Growth*, Wireless LAN Association, available at http://www.wlana.org/pdf/wlana_industry.pdf (last visited July 3, 2002).

¹² See Rob Pegorato, *Boingo: A Welcome Wrinkle in the Wireless Web*, Washington Post, Page H07 (Sunday, June 23, 2002); see also Guardian Unlimited, *Start a Wi-Fi revolution in your street*, available at <http://www.guardian.co.uk/online/story/0,3605,740098,00.html> (last visited Jun. 26, 2002); see also J. William Gurley, *Above the Crowd: Why Wi-Fi is the Next Big Thing*, Fortune (Monday, March 5, 2001) available at <http://www.fortune.com> (last visited June 26, 2002).

¹³ See Brad Smith, *Cities Take the WLAN Plunge*, Wireless Week (Apr. 30, 2001) available at http://www.waverider.com/Library/WirelessWeek-april_30.PDF.

¹⁴ See *id.*

The benefits of unlicensed devices become even more evident with the deployment of broadband technologies because unlicensed devices complement the provision of these services. For example, upon the transition to digital television, consumers in a home will be able to share digital video content wirelessly without the need for multiple DTV receivers or cable/satellite boxes for every display device.¹⁵

All these benefits make it imperative that any new national spectrum strategy address and facilitate unlicensed spectrum by business and consumers. CEA believes that the Task Force should consider unlicensed spectrum issues closely and recommend policy changes that will encourage further technological innovations for unlicensed spectrum.

B. The Commission Should Encourage Greater Innovation By Allocating Additional Spectrum For Unlicensed Uses Under Part 15.

CEA appreciates that the Commission has recognized the need to encourage technological innovation for new Part 15 devices and to stimulate growth of new industries, and has been modifying its rules and regulations accordingly.¹⁶ The Commission recognized the need for additional unlicensed spectrum when in the *U-NII Order* it allocated 300 MHz of spectrum for unlicensed devices providing short-range, high-speed wireless digital communications.¹⁷ The Commission sought to facilitate the “continued development and deployment of new wireless devices for businesses and consumers” when it adopted the *Second*

¹⁵ See Junko Yoshida, *Philips uses wireless connection to bridge 1394 networks*, EE Times (June 25, 2002) available at <http://www.eetimes.com/story/OEG20020625S0032>; see also Chan Article, supra n.9.

¹⁶ See, e.g., 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”).

¹⁷ See *id.*

Report and Order revising the rules for spectrum sharing in the unlicensed band.¹⁸ CEA applauds the Commission's efforts to stay abreast with the developments in the area of unlicensed spectrum and make allocations as well as promulgate rules that allow the utilization of new digital transmission technologies.

However, as demand for uses of unlicensed spectrum increases, the need for additional frequency bands also increases, making it necessary for the Commission to allocate additional frequencies for Part 15 devices. Such an allocation will serve as an incentive for further innovation in a field that clearly improves Americans' quality of life.

C. The Commission Should Formulate “Safe Harbor” Provisions for Users of Unlicensed Spectrum.

The Commission's rules concerning spectrum sharing for Part 15 devices, like the ones adopted by the *Second Report and Order*, are necessary because, as unlicensed devices become more popular, the bands become crowded, especially where they are also shared with licensed operations.¹⁹ To facilitate efficient spectrum sharing, the Commission should institute “safe harbor” provisions for harmful interference from unlicensed devices. In a limited number of circumstances, the Commission has already created such provisions. Specifically, the rules provide “safe harbor” provisions for use of unlicensed devices in the 902-928 MHz band.²⁰ In that case, the Commission created a negative definition, which provided what was not “harmful

¹⁸ See generally Amendment of Part 15 of the Commission's Rules Regarding Spread Spectrum Devices, *Second Report and Order*, ET 99-213, FCC 02-151 (May 30, 2002) (“Second Report and Order”).

¹⁹ *Id.*

²⁰ See 47 C.F.R. § 90.361 (2001).

interference” from unlicensed devices to Location and Monitoring Services (“LMS”).²¹ The “safe harbor” provision was the most appropriate way to facilitate efficient band sharing plan between unlicensed devices and LMS, a licensed service.

“Safe harbor” provisions will permit unlicensed devices to operate within set parameters and not be deemed to cause harmful interference. In the past, the Commission has noted that such “safe harbor” provisions promote efficient use of the bands by promoting the cooperative use of the bands between the different users and will protect not only the licensed service but the new unlicensed service as well.²²

D. The Commission Should Allocate Additional Spectrum for the Exclusive Use of Unlicensed Devices

To further encourage innovation in the area of unlicensed spectrum, the Commission should set aside spectrum bands exclusively for unlicensed applications. The proposed exclusive bands for unlicensed devices will afford manufacturers of unlicensed devices greater regulatory certainty by removing in-band interference considerations for licensees in those bands.

CEA’s proposal for exclusive band for unlicensed use is not novel. Recent legislation has proposed a 20 MHz band of contiguous frequencies below 2 GHz and a band of between 3 to 500 MHz of contiguous frequencies above 2 GHz and below 6 GHz to remain open to the public and unlicensed.²³ In addition, the Wireless Ethernet Compatibility Alliance (WECA) filed a

²¹ See Amendment of Part 90 of the Commission’s Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Report and Order*, 10 FCC Rcd. 4695, 4715, para. 36 (1995) (the Commission created the safe harbor provisions to accommodate the concerns of the Part 15 devices about their secondary status in light of the multilateration LMS).

²² See Amendment of Part 90 of the Commission’s Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Order on Reconsideration*, 11 FCC Rcd. 16905, para. 20 (1996).

²³ See H.R. 4641, 107th Cong. § 201(j)(1)(C)(2002) (“*Wireless Technology Investment and Digital Dividends Act of 2002*”) available at http://www.house.gov/markey/iss_telecomm_bill020520.pdf (last visited Jun. 26, 2002).

Petition for Rulemaking in January 2002, asking the Commission to extend the frequency allocation in the 5GHz band for radio local area network (“RLAN”) and other unlicensed services devices.²⁴ WECA’s request, if granted, will align the allocation to unlicensed devices with the international allocation tables.

Additionally, to the extent that spectrum is allocated by competitive bidding, the Commission should ensure that such a system does not impinge on the greater deployment of unlicensed devices, the sharing of spectrum among unlicensed and licensed uses, and the allocation of more spectrum exclusively to unlicensed use. Promoting and fostering unlicensed use, without restrictive rules beyond those necessary to avoid interference with licensed users, is directly in line with the Task Force’s focus on market-oriented spectrum management.

II. CONCLUSION

CEA urges the Task Force to recommend that the Commission give unlicensed spectrum the attention it deserves in the development of a national spectrum strategy. CEA requests that the Task Force put forward policy suggestions consistent with CEA’s views concerning the most

²⁴ 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).

