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

APR 4 1995

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of)
)
Allocation of Spectrum Below) ET Docket No. 94-32
5 GHz Transferred From)
Federal Government Use) DOCKET FILE COPY ORIGINAL

**REPLY COMMENTS OF THE CONSUMER ELECTRONICS GROUP
OF THE ELECTRONIC INDUSTRIES ASSOCIATION**

The Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG") hereby replies to the comments that were filed in response to the *Second Notice of Proposed Rule Making* in the above-captioned proceeding on March 20, 1995.¹ In the *Second Notice*, the Commission solicited comment, among other things, on whether and how to facilitate the use of the 2402-2417 MHz band by Part 15 devices, and on whether steps should be taken to ensure compatible use of the 2390-2400 MHz band by Amateur Service and unlicensed PCS devices.² In its initial comments, EIA/CEG urged the Commission to upgrade the status of Part 15 devices. Other representatives of the Part 15 industry uniformly agreed and urged the Commission take steps to safeguard the burgeoning market for Part 15 devices. Several of these commenters advanced concrete proposals to achieve this end. EIA/CEG

¹ See *Allocation of Spectrum Below 5 GHz Transferred From Federal Government Use*, First Report and Order and Second Notice of Proposed Rule Making, ET Docket No. 94-32, FCC 95-47 (released Feb. 17, 1995) [hereinafter "*Second Notice*"].

² *Id.* at ¶ 58.

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concur in these suggestions. Together, they offer the beginnings of a stable regulatory framework for unlicensed devices.³

I. THERE IS A PRESSING NEED FOR THE COMMISSION TO UPGRADE THE REGULATORY STATUS OF PART 15 DEVICES

The Commission's *Second Notice* unambiguously recognized the numerous social benefits which unlicensed devices have brought, and promise to bring, "to virtually every person and business in the nation."⁴ The Commission confirmed this finding in its recent decision in PR Docket No. 93-61. There, the Commission noted the "important contribution" which Part 15 technologies have made in promoting the efficiency of business and in enhancing the public welfare.⁵

Notwithstanding these findings and the salutary actions already taken by the Commission, unlicensed devices remain, by regulatory design, second-class citizens in the RF environment. The limitations of this secondary status threaten future development of such devices. The Commission's proposal to reallocate the 2402-2417 MHz band to licensed use in the first phase of this proceeding is a recent example, as EIA/CEG and others noted, which put manufacturers of Part 15 devices on the defensive. As Xircom, a producer of local area network adapters for portable computers, explained:

Indeed, even the proposal to allow licensed services in the 2402-17 MHz band is having a chilling effect on the wireless LANs

³ EIA/CEG takes no position with respect to the 4660-4685 MHz licensing issues raised by the *Second Notice*, and thus it does not discuss any of the comments on them.

⁴ *Second Notice* at ¶ 32.

⁵ *Regulations for Automatic Vehicle Monitoring Systems*, Report and Order, PR Docket No. 93-61, FCC 94-41, at ¶ 34 (released Feb. 6, 1995).

industry in the United States. . . . Entrepreneurs, manufacturers, venture capitalists and the public will not invest in developing products and services that use unlicensed frequencies if there is no assurance that the frequencies [cannot] be withdrawn so quickly by the FCC [i.e., after being made available for such use in 1989].⁶

IBM echoed that, if U.S. firms cannot rely upon a consistent regulatory framework in which to plan their investments in the NII, they will be unable to justify many of the risks of developing Part 15 devices for it.⁷ In short, the uncertainty inherent in the regulatory status of Part 15 devices will restrain the investment of otherwise available dollars into the development of unlicensed devices.⁸

In its recent comments, the American Radio Relay League has aptly summarized why the manufacturers and users of Part 15 devices are always at risk in today's regulatory environment: "Part 15 devices have no allocation status; they are by definition permitted to

⁶ Comments of Xircom, Inc., ET Docket No. 94-32, at 2 (filed Dec. 19, 1994).

⁷ Comments of International Business Machines Corporation, ET Docket No. 94-32, at 17 (filed Dec. 19, 1994). The trade press also noted the regulatory uncertainty and alerted readers to the serious problems that a reallocation of the 2402-2417 MHz band would create. *PC Week* ominously wrote: "The Federal Communications Commission could decide . . . to include wireless LAN frequencies among those it plans to auction, a move that could force the eviction of some wireless LAN users from the airwaves." Pickering, Wendy, "Auction May Disturb Wireless LAN," *PC Week*, December 12, 1994, at 135.

⁸ In PR Docket No. 93-61, EIA/CEG noted the same "chilling" effect which the Commission's proposal to facilitate use of the 902-928 MHz band by Automatic Vehicle Monitoring ("AVM") systems had on the market for Part 15 devices using that band. Major manufacturers of Part 15 equipment in the 902-928 MHz band reported to EIA/CEG that retailers were curtailing orders and manufacturing decisions were being postponed until the regulatory uncertainty created by the Commission's AVM proposal was resolved. See EIA/CEG Reply Comments, PR Docket No. 93-61, at 11 (filed Jul. 29, 1993).

operate at sufferance to licensed radio services."⁹ Thus, while the *Second Notice* retained the 2402-2417 MHz band for Part 15 use, the Radio Amateur Satellite Corporation is now urging the Commission to exclude Part 15 devices from the 2402-2410 MHz portion of the band to improve the quality of amateur satellite downlinks.¹⁰ Similarly, the Northern California Packet Association, in alleged fear of interference from Part 15 devices, has asked that Part 15 devices in the 2400 MHz range be required to sense when they are beyond their base stations' range and avoid transmitting at those times.¹¹

This spectral "to and fro" is an inherent and inevitable consequence of the current regulatory framework. As Part 15 devices become ever more sophisticated and more prevalent, their vulnerability to the kinds of operating restraints proposed in this proceeding and elsewhere will become an increasingly significant liability. If the public is to continue to benefit from the widespread availability and use of Part 15 devices, the Commission must start addressing this problem. The Commission's management of the radio spectrum is one of its most fundamental responsibilities. The Commission has correctly exercised that responsibility by promoting the development of Part 15 devices. In view of the important role those devices now play in today's society, the Commission should reinforce its commitment to Part 15 manufacturers and users by eliminating wherever possible the lingering uncertainty which its regulatory framework creates. In sum, now that the Commission has encouraged the development of these significant

⁹ Comments of American Radio Relay League, Inc., ET Docket No. 94-32, at 10 n.6 (filed Mar. 20, 1995) [hereinafter "ARRL Comments"].

¹⁰ See Comments of Radio Amateur Satellite Corporation, ET Docket No. 94-32, at 3 (filed Mar. 20, 1995).

¹¹ See Comments of Northern California Packet Association, ET Docket No. 94-32, at 2 (filed Mar. 20, 1995).

technologies, it should take all reasonable steps to promote the public's confidence in their regulatory underpinnings.

II. THE RECORD IN THIS PROCEEDING PROVIDES THE COMMISSION WITH THE OPPORTUNITY TO BEGIN UPGRADING THE STATUS OF PART 15 DEVICES

The comments filed in this proceeding, while recognizing the difficulty of the situation, have advanced a number of suggestions for upgrading the status of Part 15 devices. These suggestions, in conjunction with past Commission actions, contain the beginnings of a modified regulatory framework for Part 15 devices.

The Part 15 Coalition, which represents companies that manufacture and market Part 15 devices, has urged the Commission to allocate spectrum for primary use by unlicensed devices.¹² The Coalition volunteers to assist the Commission in the search for appropriate spectrum. EIA/CEG agrees with the Coalition that giving unlicensed devices their own spectral "home" is absolutely critical to the future role of unlicensed devices in the development of the nation's telecommunications infrastructure. Indeed, the Commission has already taken the first such step by making a primary allocation to unlicensed devices in the 1910-1930 MHz band for PCS. The benefits which unlicensed PCS -- by virtue of having its own allocation -- will bring to consumers should provide an impetus for finding more primary-use spectrum for Part 15 devices.

The 2390-2400 MHz and 2402-2417 MHz bands should be among the next spectrum bands to be considered. In its comments, Motorola has urged the Commission to elevate to co-primary status unlicensed PCS devices operating at 2390-2400 MHz in order to

¹² See Comments of Part 15 Coalition, ET Docket No. 94-32, at 3 (filed Mar. 20, 1995).

avoid customers' negative perceptions of secondary status.¹³ The amateur radio operators' comments suggest no downside to co-primary status, since they foresee no interference between their stations and unlicensed PCS stations in either direction.¹⁴ AT&T Corporation adds that it may prove necessary to make Part 15 devices co-primary in both the 2390-2400 MHz and 2402-2417 MHz bands, depending on how amateur use of the bands evolves.¹⁵ Indeed, EIA/CEG sees no reason why the 2402-2417 MHz band should not be elevated to co-primary use now. Amateur operators' have stated that they do not use the "noisier" portions of the spectrum.¹⁶

The allocation of primary-use spectrum in the 2402-2417 MHz band or elsewhere, however, should only be considered a partial solution to the problems facing Part 15 devices. An additional necessary step, both symbolic and tangible, should be taken to help minimize the regulatory uncertainty confronting Part 15 devices where primary status is not a viable option. Part 15 devices, in theory, can operate across a broad range of the radio spectrum. Just six years ago, however, the Commission decided to "authorize the operation of Part 15 devices on a number of new frequency bands, namely the frequency bands allocated to [ISM] devices."¹⁷

¹³ See Comments of Motorola, Inc., ET Docket No. 94-32, at 12 (filed Mar. 20, 1995).

¹⁴ See ARRL Comments at 4. Some amateur operators, however, do suggest that they desire greater protection from unlicensed PCS devices in the 2390-2391 MHz band. See Comments of San Bernadino Microwave Society, ET Docket No. 94-32, at 4 (filed Mar. 20, 1995).

¹⁵ See Comments of AT&T Corporation, ET Docket No. 94-32, at 4 n.5 (filed Mar. 20, 1995).

¹⁶ See, e.g., Comments of the Southern California Repeater and Remote Base Association, ET Docket No. 94-32, at 3 (filed Mar. 20, 1995).

¹⁷ *Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without an Individual License*, 4 FCC Rcd 3493, 3502 (1989) (subsequent history omitted).

At that time, the Commission concluded that "there are many possible applications for Part 15 devices within these ISM bands" and that "manufacturers, if given the opportunity to use the ISM frequencies, will develop many new and practical uses of Part 15 devices."¹⁸ As the record in this proceeding indicates, Part 15 manufacturers have met, if not greatly exceeded, the Commission's expectations by developing an abundance of such devices in these bands.

Nonetheless, only the unlicensed PCS and the 2402-2417 MHz bands now appear in the Commission's Table of Allocations as available for Part 15 use. All ISM spectrum amenable to Part 15 use should be formally allocated to that use, even if subject to existing non-interference conditions. Such action would send a clear signal to the marketplace, as well as to other radio users, that the Commission intends to keep these bands available for Part 15 devices. Again, since the Commission has encouraged the development of Part 15 devices and those devices are becoming ever more widely deployed, the Commission should take all appropriate steps to ensure their long-term viability.

¹⁸ *Id.*

III. CONCLUSION

For all of the reasons set forth above, as well as in EIA/CEG's initial comments, EIA/CEG urges the Commission to upgrade the status of Part 15 devices.

Respectfully submitted,

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