

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

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OFFICE OF SECRETARY

In the Matter of)
)
Allocation of Spectrum Below) ET Docket No. 94-32
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To: The Commission

REPLY COMMENTS OF THE AMERICAN RADIO RELAY LEAGUE, INCORPORATED
IN RESPONSE TO SECOND NOTICE OF PROPOSED RULE MAKING

THE AMERICAN RADIO RELAY
LEAGUE, INCORPORATED

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SUMMARY

The American Radio Relay League, Incorporated (the League), the national association of amateur radio operators in the United States, submits its reply comments in response to the Second Notice of Proposed Rule Making (the Second Notice), FCC 95-47, 60 Fed. Reg. 13102, released March 20, 1995. The Second Notice proposes certain rules to govern frequency assignment and use of the first 50 MHz of spectrum transferred from Federal Government use. The League responds to certain of the comments timely filed in this proceeding which address the 2390-2400 MHz or the 2402-2417 MHz allocations made in the First Report and Order.

The comments generally conclude that there are no additional rules necessary to facilitate cooperative use of the 2390-2400 MHz band by amateurs and data-PCS systems; nor is there any need to alter the rules applicable to the 2400-2450 MHz band, which has been used all along by both amateurs and Part 15 devices. The elevation of the Amateur Service to Primary in these segments is nothing more as a practical matter than maintenance of the status quo. Even those who would "elevate the status" of Part 15 devices do not suggest that such is necessary in order to address any actual interference potential. Rather, the matter is one of mere "perceptions" by consumers of Part 15 devices. These devices, however, benefit from a non-licensed status; they cannot at the same time request protection from interference or entitlement to interfere with licensed services. There is no allocation status of Part 15 devices, and the Commission need not and should not, and indeed under the Communications Act as it presently reads, it cannot, "elevate" the allocation status of such devices. They are by definition "at-sufferance" users of the radio spectrum, and derive benefit from that status.

There is no significant potential for interaction between Part 15 devices and amateurs, or between data-PCS and amateurs, but there should be no combining of the 2390-2400 MHz band and the 2400-2483.5 MHz band, due to the obvious potential for migration of traditional Part 15 users downward to 2390 MHz, thus to disrupt the newly-authorized data-PCS systems and amateur operations in that segment.

Finally, the Commission should allocate the 2300-2310 MHz band to the Amateur Service on a primary basis; and it should allocate the additional segments at 2400-2402 MHz and 2417-2450 MHz (or up to 2483.5 MHz) to the Amateur Service on a primary basis as well.

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IN RESPONSE TO SECOND NOTICE OF PROPOSED RULE MAKING**

The American Radio Relay League, Incorporated (the League), the national association of amateur radio operators in the United States, by counsel and pursuant to Section 1.415 of the Commission's Rules, hereby respectfully submits its reply comments in response to the Second Notice of Proposed Rule Making (the Second Notice), FCC 95-47, 60 Fed. Reg. 13102, released March 20, 1995.¹ The Second Notice proposes certain rules to govern frequency assignment and use of the first 50 MHz of spectrum transferred from Federal Government use. In response to certain of the comments timely filed in this proceeding which address the 2390-2400 MHz or the 2402-2417 MHz allocations made in the First Report and Order, the League states as follows:

¹ The Second Notice was combined with the First Report and Order in this proceeding. The First Report and Order allocated the 2390-2400 MHz band, and the 2402-2417 MHz band to the Amateur Service on a primary basis, and permitted Part 15 data-PCS systems to operate in the 2390-2400 MHz band as well.

I. Overview of Comments

1. The League's comments in response to the Second Notice urged that no additional rules were needed in order to facilitate compatible use by the Amateur Service, the primary service in both 2.4 GHz band segments after the First Report and Order, and asynchronous data-PCS at 2390-2400 MHz and standard Part 15 devices at 2402-2417 MHz. The League further advised that it would be unwise in the extreme to combine the 2390-2400 MHz segment and the 2400-2450 MHz segment for Part 15 use generally. It is gratifying to note that the bulk of the comments support these positions. A few commenters suggested, without any technical or other support, that the "allocation status" of Part 15 devices should be elevated to a co-primary status in those bands, but there is no conceptual justification for the suggestion. Those comments misperceive the posture of unlicensed devices generally, relative to domestic and international allocation tables.

2. What is particularly gratifying in this proceeding are the comments of the data-PCS providers and computer companies, which forthrightly, and without the usual posturing noted in these types of proceedings, state that there is a great deal of compatibility between asynchronous data-PCS devices and amateur operations. This proceeding is a good example of advances in technology resulting in efficient frequency reuse. The "spectrum etiquette" of asynchronous data-PCS, and the rules adopted for such devices by the Commission in the First Report and Order, offer sufficient assurance to the League that there will be fundamental compatibility between data-

PCS and all amateur uses in the 2390-2400 MHz band. Furthermore, because of the robust nature of the data-PCS devices, and the operating environments of those devices, it is predicted that there will be, at worst, nominal interaction between normal amateur operations in the 2390-2400 MHz band and data-PCS devices and systems.

3. As to the comments relative to generalized Part 15 devices and amateur operations above 2400 MHz, there appears no significant concern about amateur interaction with those devices either, although the League notes with some concern that there have been some waivers granted recently to certain wireless LAN companies for use of high-gain antennas for linking between buildings at ranges up to 25 miles. The League agrees with the bulk of the commenters that the 2390-2400 MHz band, set aside for amateur and asynchronous data-PCS, should be kept separate and apart from generalized Part 15 operation at 2400-2450 MHz. To permit such would be to encourage a wholesale migration of such devices downward to the 2390-2400 MHz band, thus to disrupt the otherwise compatible environment, just created, which allows a significant amount of use of that segment by both data-PCS systems and radio amateurs.

4. It is also extremely gratifying to note the comments of Cornell University and of the Committee on Radio Frequencies of the National Research Council, which support the Amateur Service as a good neighbor at 2390-2400 MHz to their National Astronomy and Ionospheric Center (NAIC) operations at 2360-2390 MHz at Arecibo, Puerto Rico. The League pledges its continued support for any

necessary local coordination procedures to avoid interaction between amateur operations and the facilities of the NAIC.

II. There Is No Need For Further Regulation to Accommodate Compatible Uses at 2390-2400 MHz or 2402-2417 MHz

5. The Comments in this proceeding make it apparent that no new regulations are needed in order to facilitate compatibility between Part 15 operation (including asynchronous data-PCS at 2390-2400 MHz) and amateur primary operation in the bands 2390-2400 MHz and 2402-2417 MHz. Taking the former band first, the comments of Apple Computer stated:

Data-PCS will support high-speed, ad hoc data communications via unlicensed devices in large part due to the underlying spectrum etiquette governing operation in the band. The spectrum sharing rules were designed to permit coexistence among dissimilar technical approaches, vendors, and applications, within a minimal set of rules. The rules call for channel sensing, algorithms for deferral and contention of transmissions, rules for searching for available channels, RF bandwidths between 500 kHz and 10 MHz, power proportional to bandwidth, and limits on channel acquisition and upon retention of the channel before recontention.

Apple Computer comments, at 2,3.

It is these "spectrum etiquette" characteristics that make data-PCS compatible with primary operations in the Amateur Service. While the League looks forward to cooperative testing with Apple² and any

² The League appreciates the cooperative approach to this proceeding that has been displayed by Apple Computer throughout this proceeding, and the support for Amateur Radio that has been recited in Apple's comments:

Apple strongly supports Amateur operation in the 2390-2400 MHz band. The very nature of amateur experimentation, and its value in extending the state-of-the-art, makes shared use of this "frontier" frequency band of special interest: it is one of the places where pioneering is needed and possible. Indeed, the ARRL earlier approved a volunteer "band plan" for 2390-2400

other data-PCS manufacturers to determine actual interaction parameters, there is theoretically little possibility of interaction. Apple states specifically:

...(L)ow power unlicensed data-PCS operations are generally compatible with amateur operations. The low power, low spectral power density, restricted antenna implementation, predominantly indoor operation, and channel-sensing algorithms required of data-PCS all suggest that the geographic area in which data-PCS devices could potentially cause interference will be relatively small, in most cases no more than a few hundred feet.

Apple Computer comments, at 5.

Apple understands, as does the League, that there can be cases in which an individual amateur's operations could be affected by the operation of data-PCS devices, but the League suggests that these will be rare enough that formalized sharing arrangements are not necessary. There are some comments in this proceeding from individual amateurs and amateur groups which take the position that certain portions of the 2390-2400 MHz band should be restricted for amateur use only. The current allocation status of the band, however, is sufficient to address any stray cases of interference to amateur operations in the band, and a cooperative approach, rather than additional regulation, is, at least at this point, the

MHz that encourages fast-scan TV at 2390-2396 MHz, high-rate data (not completely unlike unlicensed data-PCS, but allowing substantially greater technical flexibility, including transmitter power and antenna gain) at 2396-2399 MHz, packet data transmissions at 2399-2399.5 MHz, and control and auxiliary links at 2399.5-2400 MHz. The informal designation for such operations itself symbolizes some of the advances that can be anticipated.

Apple Comments at 6.

preferable way to proceed. Formal coordination procedures are at present an unnecessary encumbrance, absent some test data showing a need for such. Neither are they practical, given the nomadic nature of unlicensed data-PCS systems and amateur operations in that band.

6. To the same effect, the League commends the comments of Compaq Computer Corporation. Compaq notes practical reasons why amateur and data-PCS operations are unlikely to interact, thus to make formal coordination requirements unnecessary as well as impractical. Noting first, as has the Commission,³ the apparent compatibility generally between certain Part 15 devices and amateur operations, Compaq notes that the operating environments of the Amateur Service and data-PCS are quite different:

Neither Amateur Service use of 2390-2400 MHz nor data-PCS use of that band is continuous throughout the day or even large parts of the day. Rather, in both cases, use of the frequencies occurs episodically and, in the case of data-PCS, involves the transmission and receipt of information in short bursts. Thus, the very nature of the services...makes conflicting use unlikely...(T)he power and emission limitations applicable to data-PCS assure that, even if the number of Amateur facilities substantially increase over time, data-PCS will not interfere with the important public safety uses that are made of the spectrum. Thus, as a practical matter, conflicting use could arise, if at all, only in cases where a data-PCS device is being operated in extremely close proximity to the Amateur Service facility and both are operating at the same time; and the conflict would only affect the data-PCS device, which is portable. These conditions, if they arise at all, are certain to be exceptional. They do not necessitate the establishment of cumbersome, formal standards for coordination.

³ See the First Report and Order, at paragraph 17.

In any case, the nomadic nature of data-PCS service would make enforcement of restrictions on use of these devices extremely difficult. Similarly, short of restricting future growth of Amateur Service in the 2390-2400 MHz band, which the Commission has declined to do (citing the First Report and Order, at para. 17) there is no practical nor fair way of limiting amateur use of the band.

Compaq comments, at 2,3.

The League concurs with Compaq generally. While it is not entirely safe to conclude at this point that there will be no adverse effect on Amateur operations from data-PCS at 2390-2400 MHz, it appears that, because the power and antenna gain of data-PCS systems are each strictly limited in accordance with §§15.319-15.321 of the Rules,⁴ there will not be significant interference potential to amateur operations in the band. Compaq is correct that the best means, at this point, to address any problems that arise is on a cooperative, case-by-case basis.

7. Some comments broadly urged the Commission to "upgrade the status" of Part 15 devices generally, including those at 2402-2417 MHz, by means of creating a new Part 16 radio service for unlicensed devices. The comments of the Consumer Electronics Group

⁴ Asynchronous devices only are permitted in the 2390-2400 MHz band; minimum bandwidths permitted are 500 kHz, and devices of less than 2.5 MHz bandwidth are required to search for an available window in the band. All devices must have a mechanism for monitoring the spectrum before transmitting. Significant attenuation is required near the band edges. Peak transmit power must not exceed 100 uW multiplied by the square root of the emission bandwidth in hertz. (For example, a 100 kHz data signal would be permitted 32 mW, a 1 MHz signal 100 mW, and a 10 MHz signal 316 mW output). Power spectral density shall not exceed 3 milliwatts in any 3 kHz bandwidth. Peak transmitter power shall be reduced by the amount in decibels that the directional gain of the antenna exceeds 3 dBi.

of the Electronic Industries Association and the Part 15 Coalition each urge some elevation in the allocation status of unlicensed Part 15 devices. A related argument was stated by Motorola, which suggests that there may be some perceived (but not technical) incompatibility between the primary user (the Amateur Service) and the consumers of Part 15 devices. It urges that there should either be an elevation of data-PCS systems to "co-primary" in allocation status with the Amateur Service, or to define the parameters under which unlicensed devices are presumed not to cause interference. Motorola suggests, for Part 15 operations at both 2390-2400 MHz and 2400-2483.5 MHz, that a device operating at an average EIRP of 25 milliwatts or less measured in a 1 MHz bandwidth over a one-second period be presumed incapable of causing interference to any service of a higher priority.

8. The logic of these arguments is difficult to follow. Part 15 devices have no allocation status, and have had none, internationally or domestically. They are permitted on an "at-sufferance" basis: they must not cause interference to licensed radio services, and they must tolerate interference received from licensed radio services in the same bands. The Communications Act of 1934 is devoid of any authority to accord Part 15 type devices any allocation status at all; the only authority to permit unlicensed devices under the Act is with respect to radio control and citizen's radio service facilities. 47 U.S.C. §307(e). The only provision for Part 15 devices in the Communications Act is for the Commission to regulate the interference potential of such devices

by "reasonable regulation". 47 U.S.C. §302. This the Commission has done by permitting operation of such devices in bands allocated, on a primary basis, to one or more licensed radio services, where the operation of the unlicensed devices have been determined to be unlikely to cause interference to the licensed radio services. The benefits to the manufacturers of such non-licensed devices under the circumstances are several: their products need not be licensed before they can be used by the purchasers thereof; the equipment itself need only be authorized by the Commission by type, pursuant to Part 2 Equipment Authorization requirements; they can operate with some degree of frequency agility and bandwidth variability; and they can be used for an infinite number of purposes, without any eligibility determinations on the part of the user. The devices can be made less expensively, and operated without regulatory effort by the owner. These benefits are at the cost of an absence of any priority in the subject bands relative to licensed radio services. The suggestion of Motorola and others that the status of such devices should be "elevated" would be tantamount to a change in the entire conceptual framework of regulation of Part 15 devices: they would be entitled to the benefits of a licensed radio service but without any of the obligations attendant to shared users in shared bands. This is inequitable in the extreme.

9. Moreover, those who assert that the status of Part 15 devices should be "elevated" offer no basis therefor. They assume, but do not allege, and certainly do not document, that there will

be interaction between Part 15 devices and amateur stations.⁵

Motorola states as follows:

Motorola agrees that, at a technical level, typical operations of these two services (sic) should raise little interference potential. However, Motorola is concerned that unlicensed PCS devices remain secondary (sic) to amateur operations. This is not a technical concern given the robust design of unlicensed devices. However, customers of Part 15 devices may develop negative perceptions of secondary status if primary users arbitrarily claim interference received...As a matter of equity, the FCC should elevate the status of unlicensed PCS in the 2390-2400 MHz band to co-primary with the

⁵ The Comments of AT&T make this argument. AT&T states:

It is true, as the [Second Notice] points out, that Amateur service licensees and Part 15 device manufacturers are familiar with operating in a shared radio environment and that conflicts have not occurred. In a literal sense, it is also true that the elevation of the Amateur service from secondary to primary "will essentially preserve the status quo regarding use of this band" [footnote omitted] because the Part 15 devices will still be subordinate to the Amateur service. However, the fact that now there is no radio service superior to the Amateur service in these bands, thereby constraining amateur operations, may give rise to significantly changed circumstances.

AT&T Comments, at 4.

AT&T states in a footnote that "the potential exercise by amateurs of this new primary status in these bands may necessitate making Part 15 devices primary and Amateur service secondary, or making both activities co-primary." This is nonsense; the presence of government stations in the subject bands has not been an inhibiting factor whatsoever to amateur operations, nor, as explained *supra*, can AT&T find any basis, legal or technical, for creating any allocation status for Part 15 devices, especially in relation to a licensed service. The fact is, AT&T admits, as it must, that there is no evidence of fundamental incompatibility between Part 15 operation and amateur stations. It suggests that further studies be conducted. The League has been willing to conduct further studies, but it is not willing under any circumstances to concede that any unlicensed Part 15 devices are entitled to any allocation status, or any operational status whatsoever; they are permitted to use allocated frequency bands on an "at sufferance basis" to licensed services, and no more.

Amateur service. As an alternative, Motorola recommends defining the parameters under which unlicensed devices are presumed not to cause interference.

Motorola Comments, at 11,12.

The sole basis for Motorola's concern is that consumers may "develop a negative attitude" toward a device that is not permitted to cause interference to licensed radio services and which is prohibited from objecting to interference from licensed radio services.⁶ What does that mean as a practical matter? There is not the slightest evidence that Part 15 device consumers have "developed a negative attitude" toward the devices under the current rules for the operation thereof in bands in which the Amateur Service has allocations, nor is there any evidence that amateurs have "arbitrarily" claimed interference. The League resents the inference, and challenges Motorola to justify its fear that amateurs will "arbitrarily" claim interference. Radio amateurs have absolutely no motivation to "arbitrarily" claim interference. Their desire is to operate their stations without any interaction with any other user of RF devices. If there is no actual harmful interference, there will be no interference complaints.

10. The Commission has adopted rules to facilitate cooperative, compatible use of the 2390-2400 MHz and 2400-2450 MHz bands between and among Amateur stations and Part 15 devices. There is thus no need for any minimum standards which, if met, would

⁶ In fact, most consumers are unaware of the operational limitations on Part 15 devices, because the manufacturers of consumer devices generally conduct no educational efforts on the subject. If anything, consumers are overly optimistic about the status of Part 15 consumer electronics devices.

create a presumption of non-interference. The presumption by all commenters is that there will be little interaction between the two uses. Neither Motorola, nor any other commenter has offered any showing of technical incompatibility. In fact, Motorola admits that there is no technical incompatibility, and the League, Apple Computer, and Compaq each agree. AT&T calls for additional studies. The League would be pleased to participate in further testing of systems to determine whether there are interference characteristics that should be addressed cooperatively, without Commission intervention. The League absolutely cannot agree, however, to AT&T's suggestion that the decision on further sharing rules be "deferred" pending the outcome of further tests. Amateur licensees should not be discouraged from making use of the band, or fear that any instance of interaction will result in a change in the allocation status of the band. No incompatibility can be presumed, nor inferred from the comments. Therefore, no additional regulatory restrictions are justified, and this issue should be brought to a close without delay.

III. There Should be No Combining of the 2390-2400 MHz and 2400-2483.5 MHz Bands for Part 15 Operation

11. It is no secret that there is substantial noise in the 2400-2483.5 MHz band from ISM devices, and from Part 15 devices. There is less noise in the 2390-2400 MHz segment. The data-PCS advocates have developed the spectrum etiquette that permits of significant shared operation at 2390-2400 MHz. Should the Commission permit generalized Part 15 operation in the band, there will be an inevitable migration downward, to avoid the noise in the

2400-2483.5 MHz band. The data-PCS systems, and amateurs, which are themselves compatible, should not be disrupted by generalized Part 15 operation. There is no basis in the record for any expansion of general Part 15 operation below 2400 MHz.

12. As AT&T points out, "(a)synchronous PCS devices and spread spectrum devices can plainly operate in their separate bands without causing problems to each other." AT&T, however, offers nothing that would suggest that there is compatibility between data-PCS systems and generalized Part 15 devices, spread-spectrum or otherwise. It admits, however that "if spread spectrum devices can operate down to 2390 MHz without interfering with the PCS devices, they can be further away from interference caused by the [ISM] devices, particularly the huge number of microwave ovens, centered at 2450 MHz." The League agrees with Apple Computer that this is not a good outcome, and should be prohibited.

13. The League has recently become aware that there are some waivers granted by the Commission which are now outstanding for the use of high-gain directional antennas for spread-spectrum wireless LAN devices operating above 2400 MHz. Otherwise in accordance with the provisions of Section 15.247 of the Commission's Rules, these devices are apparently capable of communications over paths of up to 25 miles, and thus are antithetical to the concept of Part 15 non-licensed devices. There is also a pending petition for rule making, RM-8435, which would make the use of these high-gain antennas permissible under Section 15.247 of the Rules. Under no circumstances should the Commission extend this waiver authority

generally, and in no case should such systems be permitted to operate below 2400 MHz.⁷

IV. The Comments of Amateurs Reflect Reasonable Concerns

14. Several groups of amateurs other than the League filed comments in this proceeding. Though some reflect a misunderstanding of the interference potential of data-PCS systems at 2390-2400 MHz, hypothesizing facilities for such systems that would not be permitted pursuant to Sections 15.319-15.321 of the Commission's Rules, most have a healthy perspective on the successful cooperative use of the band 2390-2400 MHz, and of 2402-2417 MHz. For example, the Southern California Repeater and Remote Base Association states:

The Commission decision to allow unlicensed PCS operations at 2390-2400 MHz and to continue part 15 operations in 2400-2483.5 MHz provides excellent commercial "public use" of this spectrum. Elevating the Amateur Service to Primary in this spectrum allows the Amateur Service to continue and expand meaningful use of this spectrum. We applaud this decision...We state that, in general, there is a high probability of success in this proposed spectrum sharing plan. (footnote omitted).

SCRRBA Comments, at 3,4.

15. Certain amateur commenters note the continued importance of the 2300-2310 MHz band, in which there is an appreciable amount of amateur weak-signal communications and propagation research. They note that the 2390-2400 MHz, and 2402-2417 MHz allocations are

⁷ There are some Part 15 consumer devices which are susceptible to interference from amateur stations. Wireless video and audio devices at 902-928 MHz are a good example. These devices have not to date operated at 2400-2483.5 MHz, but they may in the future. The League has always viewed this as a consumer protection matter, best left to the manufacturers to address.

not a substitute for the 2300-2310 MHz band. The noise floor at 2300-2310 MHz is quite low, and is useful for the weak-signal communications now conducted around 2304 MHz, vice the higher noise floor above 2390 MHz. The League continues to urge the retention of the 2300-2310 MHz band allocation for the Amateur Service, and elevation of at least a significant portion thereof, if not all of it, to Primary status.

16. Finally, as mentioned in the Comments, the League suggests that the Commission take into account in this proceeding the Final Spectrum Reallocation Report of NTIA, which reallocated the remainder of 2390-2450 MHz for non-government use. The Amateur Service can make good use of the entirety of 2390-2450 MHz, and indeed, 2450-2483.5 MHz as well. As NTIA stated, the 2400-2402 MHz segment is of critical importance to the Amateur-Satellite Service⁸, and the reallocation of the entire 2390-2450 Mhz segment from government use will "allow continued Federal use of the band on a secondary basis or Federal use of non-licensed devices, while providing the FCC greater flexibility in developing a comprehensive plan to address the needs of the amateur service and the non-licensed device industry."⁹

V. The Comments of the Radio Astronomy Community Are Reasonable

17. The League is most pleased with the comments of Cornell University and the National Astronomy and Ionosphere Center

⁸ See the NTIA Final Report, at p. 4-30.

⁹ Id., at 4-33.

(Cornell) and of the Committee on Frequencies of the National Research Council (CORF). These two entities recognize the Amateur Service as a cooperative spectrum neighbor. The League recognizes the sensitive radio astronomy uses of 2370-2390 MHz and possible harmonics received in the 4825-4835 MHz bands, and will continue to cooperate and assist in the resolution of any actual interference that may result from Amateur operation at 2390-2450 MHz, though none is anticipated.

18. The League is gratified that Cornell and CORF are willing to rely on cooperative efforts to avoid interference. Cornell states:

A primary status for the amateur service in those bands is considered appropriate. NAIC is pleased to have spectral neighbors with whom few problems have occurred and which have been solved amicably...

In the past the Arecibo Observatory has had a minimum of conflicts with the Amateur service and these conflicts have always been solved amicably. The relation between the Observatory and the amateurs is very good and the Puerto Rico chapter of the ARRL¹⁰ does its best to coordinate and communicate with the Observatory staff. The Observatory will work together with the ARRL on advance coordination on actual use of frequencies within these bands.

Cornell Comments, at 1,2.

The League pledges its continued cooperation in any respect necessary, and is aware that its members in Puerto Rico have a good deal of respect for the work of the Observatory at Arecibo, and

¹⁰ Actually, it is anticipated that the reference is to the Puerto Rico Amateur Radio Club, a large and well-run ARRL-affiliated club. The League has no chapters, though the relationship is somewhat similar.

will cooperate in all respects necessary to prevent or resolve interference, should any occur.

VI. Conclusions

19. In sum, the comments generally conclude that there are no additional rules necessary to facilitate cooperative use of the 2390-2400 MHz band by amateurs and data-PCS systems; nor is there any need to alter the rules applicable to the 2400-2450 MHz band, which has been used all along by both amateurs and Part 15 devices. The elevation of the Amateur Service to Primary in these segments is nothing more than maintenance of the status quo. Even those who would elevate the "status" of Part 15 devices do not suggest that such is necessary in order to address any actual interference potential. Rather, the matter is one of mere "perceptions" by consumers of Part 15 devices. These devices, however, benefit from a non-licensed status; they cannot at the same time request protection from interference or entitlement to interfere with licensed services. There is no allocation status of Part 15 devices, and the Commission need not and should not, and indeed under the Communications Act as it presently reads, it cannot, "elevate" the allocation status of such devices. They are by definition "at-sufferance" users of the radio spectrum, and derive benefit from that status. There is no significant potential for interaction between Part 15 devices and amateurs, or between data-PCS and amateurs, but there should be no combining of the 2390-2400 MHz band and the 2400-2483.5 MHz band, due to the obvious potential for migration of traditional Part 15 users downward to 2390 MHz,

thus to disrupt the newly-authorized data-PCS systems and amateur operations in that segment.

20. Finally, the Commission should allocate the 2300-2310 MHz band to the Amateur Service on a primary basis; and it should allocate the additional segments at 2400-2402 MHz and 2417-2450 MHz (or up to 2483.5 MHz) to the Amateur Service on a primary basis as well.

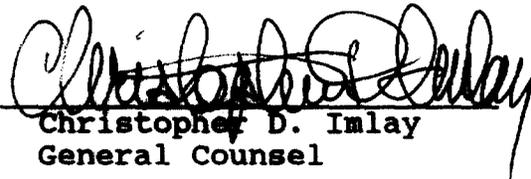
Therefore, the foregoing considered, the American Radio Relay League, Incorporated requests that the Commission take no further action toward regulation of the 2390-2400 MHz or 2402-2417 MHz bands, but rather should make additional allocations consistent with these reply comments, and the comments earlier filed by the League.

Respectfully submitted,

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April 4, 1995

CERTIFICATE OF SERVICE

I, Margaret A. Ford, Office Manager in the law firm of Booth, Freret & Imlay, do certify that copies of the foregoing REPLY COMMENTS OF THE AMERICAN RADIO RELAY LEAGUE, INCORPORATED were mailed first class, postage prepaid, this 4th day of April, 1995, to the following:

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