

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

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
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Amendment of Part 97 of the )  
Commission's Rules Concerning ) PR Docket No. 94-59  
HF Digital Communications in the )  
Amateur Service )

To: The Commission

REPLY COMMENTS OF THE AMERICAN RADIO RELAY LEAGUE, INCORPORATED

The American Radio Relay League, Incorporated (the League), the national non-profit association of amateur radio operators in the United States, by counsel and pursuant to Section 1.415(c) of the Commission's Rules [47 C.F.R. §1.415(c)], hereby respectfully submits its reply comments with respect to the Notice of Proposed Rule Making (the Notice), FCC 94-171, 9 FCC Rcd. 2850 (1994). The Notice proposes to amend the Amateur Service Rules to authorize automatic control of stations transmitting a digital emission on the High Frequency (HF) amateur bands. In response to the comments filed in this proceeding, the League states as follows:

1. It is interesting that, in this proceeding, there have been relatively few comments filed in response to the Notice, relative to the number of comments filed in response to each of the petitions for rule making, RM-8218 and RM-8280, that formed the basis for the Notice. It is equally interesting that there appears no consensus whatsoever in the comments as to the proper resolution of this proceeding.

244

2. At the time the League filed its comments in this proceeding, October 3, 1994, there were on file in the Commission's RIPS database fifteen comments. Of those, 8 strongly urged that no automatic control be permitted in the HF bands at the present time.<sup>1</sup> Five urge that automatic control be permitted for digital stations to operate only in specified subbands, as the League had proposed in RM-8218; and two urge the adoption of the proposed rules, with certain other provisions to avoid interference in the HF bands.

3. The League has been able to locate only four comments filed since that date, according to the Commission's RIPS database. These are not significantly more enlightening in terms of establishing a consensus. The comments of Mr. Ted W. Colby, WORA suggest that no rules need be adopted for automatically controlled HF data communications that are more stringent than those governing VHF and UHF data communications. Mr. Colby suggests that there are no differences between the characteristics of the HF bands on the one hand, and the VHF and UHF bands on the other. Mr. John E. Huetter, K8DZR, and Mr. Larry L. Burrs, each oppose any HF automatic control. Mr. Huetter states:

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<sup>1</sup> The only automatic control that is permitted at present in the amateur HF bands is by Special Temporary Authority. A limited number of amateur station participants appointed by the League, and who were identified on a list furnished to the Commission, are authorized to operate with HF data communications. That STA, which was extended several times already by the Commission, will expire at the conclusion of this proceeding. It was most recently extended pendente lite, to permit the resolution of this proceeding, and the possible adoption of permanent rules authorizing automatic control of HF data communications.

I hope you will consider the fact that the radio spectrum allowed the amateur radio operators in the United States is very limited, and our frequencies are used throughout the world by others...Unnecessary interference by someone not being able to hear what the unattended stations' receiver can hear would cause unnecessary interference both locally and to others; in some cases and on some frequencies anywhere in the world.

(Huetter comments, at 1)

Mr. Burrs notes that the concept of automatically controlled HF stations is inconsistent fundamentally with the concept of frequency sharing in the HF bands:

The basis of ham radio is sharing of the limited frequency spectrum. However, to operate an automatic or semi-automatic digital station successfully, one must stay on the same frequency 24 hours a day. This eliminates 500 Hz of spectrum forever by use by CW stations. Auto/semi-auto stations don't ask if the frequency is in use before transmitting, so they will clobber any CW contacts in progress on that frequency.

(Burr comments, at 1)

4. The League shares the concerns of Messrs. Huetter and Burr. Their points, and those of the other commenters are valid and the importance thereof should not be underestimated by the Commission when arriving at a resolution of this proceeding. The League agrees that there is a significantly increased risk of interference on an ongoing basis from any automatically controlled stations in HF amateur bands.<sup>2</sup> It is absolutely true that these very limited HF

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<sup>2</sup> The Commission, too, well understands the complexities and dynamics of HF communications, and the difficulties of permitting automatic control in those bands, as opposed to the VHF and UHF bands, which are considerably more stable:

Establishing and maintaining a HF communications link, however, presents operating demands not encountered on the Very-High Frequency (VHF) and higher frequency bands above 30 MHz. The variables affecting communications in the HF bands are highly complex. To maintain the

bands are quite crowded during large portions of the day and night, and that automatically controlled amateur stations could potentially cause a good deal of interference in shared bands. However, the so-called "hidden station" effect is also present when the operators of two locally controlled stations begin to communicate using a frequency that is already being used by a third transmitting station that neither can hear. Interference occurs briefly, until the two operators learn that the frequency is already in use and make appropriate adjustments. As long as appropriate operating practices are employed, a locally controlled station can initiate a contact with an automatically controlled station in a way that will be equally effective in avoiding prolonged interference to the hidden station.

5. The value of automatic control of some HF data stations should be encouraged to the extent possible without impinging on the operators of locally controlled stations. The ability to shift the sending of certain messages to periods of lower band utilization, and similar economies, and the rapidity of certain HF data communications involving automated relay stations are a useful development. It is for this reason that the League initially

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communications link and avoid causing interference to the communications of other amateur stations, the control operator constantly monitors the activity on the channel being used and adjusts the station's transmitting parameters as needed. Because the presence of the control operator has been imperative for proper operation in such systems, automatic control of an amateur station that is transmitting on an HF band has not been authorized.

9 FCC Rcd at 2850.

suggested that automatically controlled HF communications be permitted only in certain specific subbands.

6. Given that there is no consensus in the comments as to the proper course in this proceeding, and in fact the comments reflect a wide divergence of views, it would appear prudent to adopt a middle course. There are those who would suggest that no rules should restrict HF automatic control at HF, and there are those who would prohibit all automatically controlled HF communications. The League's proposal, to permit automatically controlled HF data communications in specific subbands, and to permit such stations to communicate with locally controlled stations outside those subbands where data communications are permitted, appears a reasonable middle ground in the proceeding.

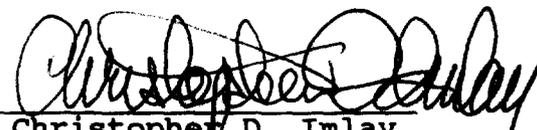
Therefore, the foregoing considered, the American Radio Relay League respectfully requests that the Commission adopt final rules for certain limited automatically controlled HF data communications as per the League's proposal and subsequent comments in this proceeding.

Respectfully submitted,

**THE AMERICAN RADIO RELAY  
LEAGUE, INCORPORATED**

225 Main Street  
Newington, CT 06111

By

  
Christopher D. Imlay  
Its General Counsel

BOOTH, FRERET & IMLAY  
1233 20th Street, N.W.  
Suite 204  
Washington, D.C. 20036  
(202) 296-9100  
November 1, 1994

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 1st day of November, 1994, to the following:

Mr. John E. Huetter, K8DZR  
2146 Chesterland Avenue  
Lakewood, OH 44107

Mr. Larry L. Burrs KA9DVT  
1407 W. Ninth Street  
Dixon, IL 61021

Mr. Ted W. Colby, WORA  
32345 Big Springs Road  
Yoder, CO 80864

  
Margaret A. Ford