

FEDERAL COMMUNICATIONS COMMISSION
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An amendment through simple deletion of Part 97 of the Commission's Rules to Remove Notification and Permission Requirements for Amateur Radio Service and Part 80 to Remove Notification Requirements for Automated Maritime Telecommunications System from Open Research Institute, a non-profit dedicated to open source digital radio research and development.

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I. INTRODUCTION

1. We propose to amend Parts 97 and 80 of the Commission's Rules to streamline operations for both the Amateur Radio Service and maritime Automated Maritime Telecommunications System (AMTS) service by removing certain notification and permission requirements. We believe that eliminating these administrative barriers would benefit both services by reducing regulatory burden while maintaining appropriate technical safeguards to prevent harmful interference.

2. The Amateur Radio Service has long served as a vital platform for technical self-training, operator skills development, and technical investigations. Similarly, AMTS was established to provide important communications services. The original purpose of AMTS was for maritime operations. This service did not fully

develop or deploy. AMTS licenses were eventually leased to railroads. Deployment is increasing across the United States. Our proposed rule deletions modernize regulations for both services by eliminating unnecessary and burdensome administrative requirements while preserving all the technical and pre-existing regulatory parameters necessary to prevent harmful interference between services.

3. We believe these proposed amendments fully align with our ongoing efforts to modernize our rules, eliminate unnecessary regulatory burdens, and promote more efficient shared use of spectrum resources while continuing to protect vital communications services.

II. BACKGROUND

4. The Commission's rules currently impose notification and permission requirements on Amateur Radio Service operators who wish to transmit in the 219-220 MHz band, which is shared with the Automated Maritime Telecommunications System (AMTS). Specifically, under 47 CFR § 97.303(1), amateur stations must:

- a) Notify the American Radio Relay League (ARRL) at least 30 days prior to transmitting in the 219-220 MHz band;
- b) Notify AMTS licensees at least 30 days prior to transmitting from locations within 640 km (398 miles) of an AMTS coast station; and
- c) Obtain written approval from AMTS licensees before transmitting from locations within 80 km (50 miles) of an AMTS coast station.

5. These requirements were established to protect AMTS operations from potential harmful interference at a time when digital technologies, the ability to contact individual amateur radio licensees, and automatic interference mitigation techniques were substantially less developed. Since that time, AMTS licenses have increasingly been utilized for Positive Train Control (PTC) systems rather

than their original maritime purpose, with licensees including railroad operators such as Amtrak, BNSF, and Union Pacific.

III. DISCUSSION

A. Proposed Rule Changes

6. We propose to eliminate the following specific provisions:

From 47 CFR Part 97 (Amateur Radio Services):

a) 47 CFR § 97.303(l)(3), which requires amateur operators to notify ARRL before transmitting;

b) 47 CFR § 97.303(l)(4), which requires notification to AMTS licensees for operations within 640 km; and

c) 47 CFR § 97.303(l)(5), which requires written permission from AMTS licensees for operations within 80 km.

From 47 CFR Part 80 (Maritime Services):

a) 47 CFR § 80.475(b), which requires AMTS licensees to send notification of a station's location to the American Radio Relay League, Inc. and to Interactive Systems, Inc.

7. We note that Section 97.303(l)(1) and (2), which state the general principle that amateur stations must not cause harmful interference to AMTS operations and must accept any harmful interference from AMTS operations, would remain fully in effect, preserving the secondary status of amateur operations in this band.

B. Technical Justification

8. Eliminating these administrative notification and permission requirements will not increase the potential for harmful interference to AMTS operations for

several reasons:

a) The fundamental technical protection for AMTS operations, the requirement that amateur stations not cause harmful interference to AMTS operations, is a long-standing and fundamental rule and it remains in place. Amateur operators would continue to be bound by this requirement regardless of whether they have provided notification or obtained permission. Providing notification or obtaining permission does not prevent harmful interference and may inadvertently give a false sense of security about the potential for harmful interference.

b) Modern digital amateur radio equipment used in the 219-220 MHz band typically incorporates automatic frequency selection, power control, and digital modulation techniques that minimize the potential for interference. Digital protocols used by amateur operators in this band, such as those employed in digital message forwarding systems, are designed to coexist with other services through techniques like listen-before-transmit and dynamic channel selection. Fixed digital message forwarding stations tend to use directional antennas to close the link between stations, which further reduces potential interference.

c) Amateur radio transmissions in this band are typically intermittent and low-power, further reducing interference potential. The maximum power allowed for amateur operations in these bands is limited to 50 watts PEP output and 100 kHz bandwidth, significantly lower than AMTS operations.

d) In the years since these notification requirements were established, there have been few, if any, documented cases of harmful interference to AMTS operations from properly operated amateur stations, suggesting that the technical characteristics of amateur operations, rather than any administrative notification requirements, have been effective at preventing interference. Looking at other bands, such as 60m, where amateur operations caused significant concern when introduced, we can see that the existing rules and good amateur

radio practices have resulted in zero interference complaints to the primary users. We are confident that zero interference complaints is the most likely outcome on 219-220 MHz due to previous consistently demonstrated compliance with existing rules about secondary use, and the technical realities of VHF / UHF amateur radio solutions.

e) PTC systems used by railroads that now operate under AMTS licenses are designed to be robust against various forms of interference through techniques such as frequency hopping, error correction, and redundant communications paths.

C. Benefits to Amateur Radio Service

9. Removing these notification and permission requirements would provide significant and enduring benefits to the Amateur Radio Service:

a) Reduced Administrative Burden: The current requirements create substantial paperwork for amateur operators, who must research AMTS station locations, prepare and send notifications, and in some cases obtain written permissions before operating.

b) Elimination of Operational Delays: The 30-day waiting period after notification currently prevents amateur operators from quickly deploying communications systems in response to changing needs or emergency situations.

c) Increased Access to Spectrum: Many amateur operators report that they avoid using the 219-220 MHz band entirely due to the administrative requirements, effectively reducing the amount of spectrum available to the Amateur Radio Service. Removing these barriers would promote more efficient use of this spectrum by qualified operators.

d) Support for Digital Communications Innovation: The 219-220 MHz band

is particularly valuable for amateur digital message forwarding systems. Removing administrative barriers would facilitate experimentation and development of new digital communication technologies and applications.

e) Alignment with Commission Goals: Streamlining these rules furthers the Commission's goals of reducing unnecessary regulation and promoting more efficient use of radio spectrum through modern and effective spectrum sharing techniques.

D. Benefits to AMTS and PTC Operators

10. We believe that removing these requirements would also benefit AMTS licensees, particularly those using the spectrum for PTC operations:

a) Reduced Administrative Burden: AMTS licensees would no longer need to process notifications and permission requests from amateur operators or maintain up-to-date contact information for these purposes.

b) Focus on Technical Solutions: Resources currently devoted to administrative coordination could be redirected toward technical interference mitigation measures if needed.

c) Regulatory Certainty: The continued prohibition on harmful interference provides clear protection for AMTS operations without relying on a notification system that may be incomplete if some amateur operators fail to comply with notification requirements.

d) Modern Interference Management: Current AMTS and PTC systems utilize sophisticated interference management techniques that provide more effective protection than administrative notification requirements.

E. Potential Concerns and Responses

11. We recognize potential concerns about removing these requirements and address them as follows:

a) Interference Concerns: Some may argue that removing notification requirements could increase interference potential. However, as discussed above, the technical characteristics of amateur operations and the continuing prohibition on harmful interference provide effective protection for AMTS operations.

b) Knowledge of AMTS Station Locations: Amateur operators may benefit from knowing the locations of AMTS stations to avoid potential interference. We note that this information should be publicly available through Commission databases, and amateur operators would still have access to this information through these sources.

c) Coordination Mechanisms: While formal notification would no longer be required, voluntary coordination between amateur operators and AMTS licensees remains possible and encouraged, particularly in cases where amateur operations are planned near AMTS stations.

d) Enforcement: The Commission retains its full enforcement authority to address any harmful interference that might occur, providing a backstop protection for AMTS operations.

IV. CONCLUSION

12. Removing the notification and permission requirements for amateur radio and AMTS operations in the 219-220 MHz band would reduce unnecessary regulatory burdens while maintaining appropriate technical safeguards to prevent harmful interference between services, benefiting both the Amateur Radio Service and AMTS licensees.