

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C 20544**

In the Matter of)
) **February 1, 2020**
Amendment of Part 97 of the)
Commission’s Rules Expanding)
Digital Emission Privileges for)
Hawaii Amateurs Involved in HF)
Propagation Research and Digital Mode)
Training and Emergency)
Communications)

To: The Commission

PETITION FOR RULE MAKING

Petitioners, all who are FCC Amateur Radio Licensees who are active officers of their clubs, request Commission rules be modified to allow Amateurs outside the contiguous land areas in the 48 continental states additional shared phone/data privileges on frequencies suitable for Hawaii interisland communication. In support of this request, petitioners submit the following:

I. Introduction and Background

- 1. New digital modes are appearing rapidly as the cost of computer equipment continues to fall, attracting new younger entrants into the Amateur Radio Service. Recent petitions to the FCC demonstrate there is a need to adjust digital mode allocations.**

Areas outside the continental U.S. have very different HF propagation conditions justifying their special privileges. Hawaii has active 40-meter

nets that meet daily in the morning and evenings to facilitate testing of equipment and collect data on interisland propagation.

Month	Nets	Station Check-Ins
October 2019	52	531
November 2019	54	527
December 2019	63	563

There are 154 active HF stations reporting into the various nets, on average of 35 times per year¹.

These nets are forced to change to the 80-meter or even 160-meter bands to maintain communications about 20% of the time because of propagation conditions².

II. Current HF Allocations

- 2. The FCC has recognized special privileges for Amateurs in the 40-meter band that apply to Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands.**

§97.305 Authorized emission types.

Wavelength band	Frequencies	Emission types authorized	Standards see §97.307(f), paragraph:
40 m	7.000-7.100 MHz	RTTY, data	(3), (9)
40 m	7.075-7.100 MHz	Phone, image	(1), (2), (9), (11)
40 m	7.100-7.125 MHz	RTTY, data	(3), (9)
40 m	7.125-7.300 MHz	Phone, image	(1), (2)

§97.307 Emission standards

(f) The following standards and limitations apply to transmissions on the frequencies specified in §97.305(c) of this part

(11) Phone and image emissions may be transmitted only by stations located in ITU Regions 1 and 3, *and by stations located within ITU Region 2 that are west of 130° West longitude or south of 20° North latitude.*

3. Operating an Emergency net involving data transmission requires tactical phone communications.

The 7075-7100 segment is of growing importance to Hawaii hams operating FLDIGI and other wideband protocols.

- i. This is **the only HF segment** where stations can communicate using phone and data emissions on the same frequency.
- ii. Operating communications where tactical phone and data are on different frequencies requires twice the bandwidth. In this segment, Hawaii stations can use tactical voice communications to coordinate digital transmissions. The forced separation of phone and data requires use of two channels on 80-meters, the next most used band for interisland communication. Twice the bandwidth must be used due to regulations, that were written when use of Amateur Radio digital modes were rare.
- iii. Without the ability to use the same frequency for voice and phone communications, the requirement to operate on different phone and data frequencies requires controlling two separate frequencies. This increases the difficulty for a Net Control Station and net participants simply because digital modes are involved.

4. Treatment of image and digital telephony emissions.

The request to operate phone and wide band emission on limited HF sub bands is not a major deviation from current FCC regulations. SSTV (image) and digital voice are both permitted on HF phone segments. These are wide band digital modes classified by usage intent, not by differences from other digital technologies.

IARU Region 1³ and Australia⁴ have band plans for narrow and wide digital emissions under regulations not differentiating sub bands for different modes.

III. Requested HF Allocation Revisions

5. Petitioners propose to modify Subpart D-Technical Standards, as follows.

§97.221 Automatically controlled digital station.

- (b) A station may be automatically controlled while transmitting a RTTY or data emission on the 6 m or shorter wavelength bands, and on the 28.120-28.189 MHz, 24.925-24.930 MHz, 21.090-21.100 MHz, 18.105-18.110 MHz, 14.0950-14.0995 MHz, 14.1005-14.112 MHz, 10.140-10.150 MHz, 7.100-7.105 MHz, 3.585-3.600 MHz, or **1.885-1.900 MHz** segments.

§97.305 Authorized emission types.

Wavelength band	Frequencies	Emission types authorized	Standards see §97.307(f), paragraph:
40 m	7.000-7.100 MHz	RTTY, data	(3), (9)
40 m	7.075-7.105 MHz	Phone, image	(1), (2), (9), (11)
40 m	7.100-7.125 MHz	RTTY, data	(3), (9)
40 m	7.125-7.300 MHz	Phone, image	(1), (2)
80 m	Entire band	RTTY, data	(3), (9)
80 m	3.575-3.600 MHz	Phone, image	(1), (2), (9), (11)
80 m	Entire band	Phone, image	(3), (9)

The current §97.221 allocation for Automatically Controlled Digital Stations has no frequencies for the 160-meter band. This band is critical to interisland communications in the winter months in Hawaii.

The proposed extension to the special 40-meter allocation asks phone to be permitted in the ACDS portion of the §97.221 allocation to facilitate testing in helping stations acquire digital skills.

The requested allocation includes phone privileges for the 80-meter ACDS segment.

Therefore, considering the above, petitioners, all signatories of this petition request the Commission enact the proposed regulations, or issue an order a Notice of Proposed Rule Making if they require extensive comment.

Respectfully submitted,

Petitioners

<p>Big Island Amateur Radio Club William A. Polhemus (NH6ET), President</p>	<hr/>
<p>Emergency Amateur Radio Club Stephen Kawamae (KH6WG), President</p>	<hr/>
<p>Hawaii Emergency Amateur Radio Digital Network. Inc Joseph Speroni (AHOA), President</p>	<hr/>
<p>Kauai Amateur Radio Club Joseph Halasey (WH6FZY). President</p>	<hr/>
<p>Kohala Hamakua Radio Club Steven M. Milner (WH6N), President</p>	<hr/>
<p>Ko'olau Amateur Radio Club Kimo C. Chun (KH7U), President</p>	<hr/>
<p>Maui Amateur Radio Club Frederick T. Hill (WH6FAM), President</p>	<hr/>
<p>Health Comm Hawaii⁵ Jackson M. Tsujimura (KH6DQ), Net Control Manager</p>	<hr/>
<p>SKYWARN® Hawaii⁶ Charles J Malefyt (KH6DL) Net Control Manager</p>	<hr/>

References

- ¹ **Statistics developed as part of the ARRL Pacific Section ARES Connect Program**
- ² **Statistics curtesy of Robert Stoffer (AH6GT) HF net logging web site**
<http://40Meter.net>
- ³ <https://www.iaru-r1.org/index.php/spectrum-and-band-plans/hf>
- ⁴ **New Amateur Radio License Conditions for Australian Radio Amateurs**

10/09/2019 WIA

The Australian Communications and Media Authority (ACMA) has published changes to the Amateur Radio license conditions, effective on September 21. According to the Wireless Institute of Australia (WIA), all restrictions on emission modes have been removed for all licensees, and restrictions on permitted transmission bandwidths have been lifted for all licensees on all bands allowed for each license class, with the exception of 2200 and 630 meters, which only Advanced-tier licensees may use.

The WIA says the impact of these two changes is that all licensees are permitted to use any mode, including those not yet invented, provided the transmission remains within the band being used. ACMA is retaining the three-tier licensing structure of Foundation, Standard, and Advanced. No changes were made regarding bands and power limits permitted for each license class.

All restrictions on Foundation licensees have been removed, however, and Foundation operators may now build and use their own transmitters and transceivers, use computer control and automatic modes, and explore digital modes.

⁵ Health Comm Hawaii

Health Comm is a dedicated Amateur Radio Emergency Communications group supporting xx participating institutions. The Hawaii Healthcare Association in times of emergency when normal means of communication are overwhelmed, failing, or non-existent. The group operates a monthly 40-meter that often must move to 80-meters because of propagation conditions. The net operates tactical voice and digital modes using FEMA ICS forms.

⁶ SKYWARN[®] Hawaii

National Weather Service houses an HF Amateur Radio station with antennas installed for 40 and 80-meters. Interisland HF communications is extremely important in Hawaii as line of sight VHF/UHF interisland is unavailable. The station operates whenever the National Weather Service activates SKYWARN. Gradually digital messages are being exchanged to increase the number of reports that can be processed. When 40-meter propagation does not allow interisland communication the net moves to 80-meters but cannot easily handle digital traffic.

SKYWARN Hawaii web site: <https://www.weather.gov/skywarn/hi-skywarn>