

Packet Radio Frequency Recommendations of the Ad Hoc Committee on Amateur Radio Digital Communication

These recommendations are in response to Board Minutes 45(a) (study designation of packet-radio traffic channels) and 45(h) (study recommended operating frequencies for VHF packet and HF packet radio) of the 1986 Annual Meeting and Minute 80 of the 1987 Annual Meeting.

1. General

According to Part 97 of the FCC rules, packet radio may be operated on any frequency where digital communications is permitted.

2. Frequency References

A. The primary references to packet-radio frequencies should be by center frequencies.

B. Display frequencies (what appears on the transceiver frequency readout) are not uniform and should be used only for secondary reference when transceiver settings and modem center frequencies are known. Mark and space frequencies vary according to the modem in use.

3. 80-20 Meter Bands

A. General:

(1) The packet-frequency selection objective is to minimize impact on existing operations, recognizing that the spectrum in these HF bands is a limited resource.

(2) Using the spectrally conservative mode of minimum-shift keying (MSK), 1200-baud operation should be possible within a 2-kHz bandwidth. Thus, a 2-kHz raster is recommended for packet frequencies in these bands.

B. The use of the RTTY subbands is encouraged for packet operations in these bands. The frequencies listed below are exceptions to this general rule to provide usable channels for automatic message forwarding:

(1) 80 Meters (kHz)

3594.3 Intercontinental message forwarding
3607.3 North American message forwarding

(2) 40 Meters (kHz)

7038.3 Intercontinental message forwarding
7091.3 North American message forwarding

(3) 30 Meters (kHz)

10145.3 Intercontinental message forwarding
10147.3 North American message forwarding

Note: These frequencies are subject to noninterference with fixed stations outside the United States.

(4) 20 Meters (kHz) (Experimental)

14102.3 Intercontinental message forwarding
14108.3 Intracontinental message forwarding

Note: The lowest frequency provides sufficient protection to receivers using CW bandwidths to receive 14100-kHz beacons.

4. 160 and 17-10 Meters

The frequencies listed below conform to the RTTY subbands and are suggested for automatic message forwarding when propagation is favorable.

A. 160 Meters (kHz)

1802.3

B. 17 Meters Pending FCC Allocation (kHz)

18106.3

18108.3

C. 15 Meters (kHz)

21096.3

21098.3

D. 12 Meters (kHz)

24926.3

24928.3

E. 10 Meters (kHz)

28102.3

28104.3

Note: These 28-MHz frequencies may be considered for both automatic message forwarding and network entry points for Novices and Technicians.

5. VHF/UHF Frequencies (MHz)

A. Specific VHF/UHF channels recommended below may not be available in all areas of the US.

(1) Prior to regular packet-radio use of any VHF/UHF, it is advisable to check with the local frequency coordinator.

(2) The decision as to how the available channels are to be used should be based on coordination between local packet-radio users.

B. 6 Meters

(1) National packet simplex frequency: 51.70

(2) Duplex pairs to consider for local coordination for uses such as repeaters and meteor scatter:

50.62/51.62 50.72/51.72

50.64/51.64 50.74/51.74

50.66/51.66 50.76/51.76

50.68/51.68 50.78/51.78

Note: Where duplex packet-radio stations are to be co-sited with voice repeaters, use high-in, low-out to provide maximum frequency separation from low-in, high-out voice repeaters.

C. 2 Meters

(1) Automatic/unattended operations should be conducted on 145.01, 145.03, 145.05, 145.07 and 145.09 MHz.

(a) 145.01 should be reserved for inter-LAN use.

(b) Use of the remaining frequencies (above) should be determined by local user groups.

(2) Additional frequencies within the 2-meter band may be designated for packet-radio use by local coordinators.

D. 1.25 Meters

(1) 100-kHz-bandwidth channels:

220.55 220.75 220.95

220.65 220.85

(2) 20-kHz-bandwidth channels:

221.01

221.03

221.05

221.07

221.09

223.40 National packet simplex

223.42 Candidate packet simplex channels

223.44 shared with FM voice simplex. Check

223.46 with your local frequency coordinator

223.48 prior to use.

E. ANERCOM shall consist of one ARRL Headquarters staff member, one ARRL Board of Directors Liaison, each of whom shall have a background in emergency communications, and not fewer than six nor more than eight additional radio amateurs, each with demonstrated expertise and experience in two or more of the following areas: emergency communications preparedness, high-volume traffic handling, volunteer management, communications networks, digital communication modes, dealing with served agencies working with the news media and effective practical writing.

Though no one appointee is expected to be knowledgeable in all of these areas, all areas shall be represented on the Committee.

F. ANERCOM shall be funded in the amount of \$10,000 for its first year of operation.

After discussion, it was moved by Mr. Hurlbert, seconded by Mr. Grauer, that the matter is referred back to the Volunteer Resources Committee. On the motion of Mr. Holladay, seconded by Mr. Haynie, it was VOTED that the matter is LAID ON THE TABLE.

31) It was moved by Mr. Frenaye, seconded by Mr. Haynie, that the Board of Directors approve the draft ARRL/National Weather Service Memorandum of Understanding and that the President of the ARRL is authorized to sign the Memorandum of Understanding on behalf of the ARRL. After extended discussion, Mr. Haynie, seconded by Mr. Heyn, Moved the Previous Question, but the motion was lost. After further discussion, the question being on Mr. Frenaye's motion, the same was ADOPTED. Mr. Milius requested to be recorded as voting no.

32) It was moved by Mr. Stafford, seconded by Mr. Frenaye, that the Rules and Regulations Concerning American Radio Relay League Conventions be amended to provide that any group, or any parties sponsoring an ARRL-sanctioned hamfest or convention shall be an ARRL affiliated club at the time of application for ARRL sanction. It was moved by Mr. Heyn, seconded by Mr. Haynie, that the motion be amended by substituting the word, "should," for the word, "shall." On motion of Mr. Wilson, seconded by Mr. Grauer, it was VOTED at 10:25 PM, that the Board recess until 8:15 AM on the morrow.

33) The Board was called to order at 8:15 AM. All persons hereinbefore mentioned were present, except Mr. Drake, who entered the meeting at 8:28 AM, and Messrs. Holladay, Comstock, and Imlay, who were attending a meeting of Volunteer Examiner Coordinators on behalf of the Board.

34) Discussion resumed on the motion regarding conventions, moved the previous night by Mr. Stafford. After further discussion, the question being on Mr. Heyn's amendment, the same was LOST. The question then being on the original motion, it too was LOST.

35) On motion of Mr. Stevens, seconded by Mr. Heyn, it was VOTED that Paragraph 1 of the Rules and Regulations Concerning American Radio Relay League Conventions be amended to read as follows: "American Radio Relay League conventions and hamfests are meetings of persons interested in Amateur Radio which are authorized and conducted in accordance with the rules to follow. ARRL conventions may be sanctioned at the section, state and division levels, and in some cases as operating-specialty conventions;

there will not be more than one convention at each level in a given area per year."

36) On motion of Mr. Stafford, seconded by Mr. Mendelsohn, it was VOTED that the motion at Minute 30, regarding the ARRL National Emergency Response Committee, be lifted from the Table. On motion of Mr. Mendelsohn, seconded by Mr. Frenaye, it was VOTED that paragraphs E and F of the resolution are amended to read as follows:

E. ANERCOM staff shall consist of one ARRL Headquarters staff member, one ARRL Board of Directors Liaison, the Chairman of the Public Service Advisory Committee, each of whom shall have a background in emergency communications, and not fewer than four nor more than six additional radio amateurs, each with demonstrated expertise and experience in two or more of the following areas: emergency communications preparedness, high-volume traffic handling, volunteer management, communications networks, digital communication modes, dealing with served agencies, working with the news media and effective practical writing.

Though no one appointee is expected to be knowledgeable in all of these areas, all areas shall be represented on the Committee.

F. ANERCOM shall be funded in the amount of \$5,000 for its first year of operation.

Whereupon, the question being on the resolution as amended, the same was ADOPTED.

37) On motion of Mr. Frenaye, seconded by Mr. Stafford, it was VOTED that the Board of Directors adopts the change in the name of the Emergency Com-