

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of )  
 )  
AMERICAN RADIO RELAY LEAGUE )  
 )  
Emergency Request for a Temporary Waiver of )  
Section 97.307(f) of the Commission's Rules )

**ORDER**

**Adopted: September 27, 2022**

**Released: September 27, 2022**

By the Deputy Chief, Mobility Division, Wireless Telecommunications Bureau:

1. *Introduction.* We have before us a request filed by the American Radio Relay League (ARRL) for a temporary 60-day waiver to permit amateur data transmissions at a higher symbol rate than currently is permitted by section 97.307(f) of the Commission's rules, in order to facilitate hurricane relief communications within the United States and its territories.<sup>1</sup> For the reasons set forth below, we grant the waiver request.

2. *Background.* Section 97.307(f) limits the symbol rate (also known as the baud rate)—the rate at which the carrier waveform amplitude, frequency, and/or phase is varied to transmit information<sup>2</sup>—for high frequency (HF) amateur radioteletype (RTTY)/data transmissions as follows to 300 bauds for frequencies below 28 MHz (except the 60 meter band), and 1200 bauds in the 10 meter (28-29.7 MHz) band.<sup>3</sup> The digital code used to encode the signal being transmitted must be one of the codes specified in section 97.309(a) of the Commission's rules, but an amateur station transmitting a RTTY or data emission using one of the specified digital codes may use any technique whose technical characteristics have been publicly documented, such as CLOVER, G-TOR, or PACTOR.<sup>4</sup>

3. ARRL seeks this waiver for those licensed radio amateurs who are directly involved with Amateur Radio Emergency Services (ARES) and other communication support groups working with Federal, state and local emergency management officials.<sup>5</sup> ARRL requests a 60-day waiver, subject to extension. ARRL states that Section 97.307(f) of the Commission's Rules prevents the use of certain protocols capable of higher data rate emissions in the High Frequency (HF) bands that many Amateur stations active in emergency communications preparedness are capable of using. ARRL also points out that the past FCC temporary waivers have allowed such protocols in similar events including Hurricanes

<sup>1</sup> E-mail from David Siddall, Counsel to ARRL, to Thomas Derenge, Deputy Chief, Mobility Division, FCC Wireless Telecommunications Bureau, and Roger Noel, Chief, Mobility Division, FCC Wireless Telecommunications Bureau (September 25, 2022 21:32 EDT) (Waiver Request); *see* 47 CFR § 97.307(f).

<sup>2</sup> *Amendment of Part 97 of the Commission's Amateur Radio Service Rules to Permit Greater Flexibility in Data Communications*, Notice of Proposed Rulemaking, 31 FCC Rcd 8485, 8485, para. 1 (2016) (*Baud Rate NPRM*).

<sup>3</sup> 47 C.F.R. § 97.307(f)(3), (4). In the 60 meter (5.3305-5.4064 MHz) band, there is no maximum symbol rate, but bandwidth is limited to 2.8 kilohertz for data and 60 hertz for RTTY. *See id.* § 97.307(f)(14).

<sup>4</sup> *Id.* §§ 97.307(f)(3), (4), 97.309(a)(4). CLOVER, G-TOR, and PACTOR are different techniques used to increase the efficiency of digital communications. *Baud Rate NPRM*, 31 FCC Rcd at 8486, n.18.

<sup>5</sup> *See* Waiver Request.

Maria, Dorian, Laura, and Ida, Typhoon relief communications in Hawaii, and wildfires in the western areas of the United States.

4. ARRL's request also states that trained amateur radio operators are working with emergency management officials and relief organizations to assist with disaster relief communications in anticipation of the arrival on the Gulf Coast of Hurricane Ian. ARRL states that equipment they plan to use exceeds the 300 baud symbol limit and that the higher data rates are critical in sending relief communications.<sup>6</sup> ARRL's request states these stations must be able to communicate with similar stations in the United States, possibly with Caribbean-based stations that are directly involved with hurricane relief efforts, and also with Federal stations on the five channels in the 5 MHz band involved with the SHARES network and other interoperability partners on those frequencies. ARRL proposes to limit the use of the higher-speed emissions to hurricane-related messages transmitted by radio amateurs in the United States and its territories that are directly involved with the relief efforts.

5. *Discussion.* To obtain a waiver of the Commission's rules, a petitioner must demonstrate either that (i) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the present case, and that a grant of the waiver would be in the public interest; or (ii) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.<sup>7</sup> We conclude that ARRL's request should be granted.

6. ARRL is preparing to assist areas impacted by Hurricane Ian to conduct disaster relief communications.<sup>8</sup> While certain radio modems with higher data capabilities are downward-compatible with slower speed versions of modems operating under similar protocols, ARRL asserts that the higher data rates offered by the newer protocols are critical to sending hurricane relief communications.<sup>9</sup>

7. We conclude that granting the requested waiver is in the public interest. Puerto Rico was recently hit by Hurricane Fiona and Hurricane Ian is predicted to cause significant damage, including disruption to electricity and communications services. Thus, to accommodate amateur radio operators assisting in the recovery efforts, we grant the ARRL's waiver request for the period of 60 days from the date of this *Order* to operate in any parts of the United States and its territories impacted by hurricanes. The waiver is limited to amateur radio operators in the United States and its territories using publicly documented data protocols that are compatible with FCC rules, with the exception of the data rate limit waived here, for those directly involved with HF hurricane relief communications.

8. Accordingly, IT IS ORDERED that pursuant to section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and section 1.925 of the Commission's rules, 47 CFR § 1.925, the Emergency Request for a Temporary Waiver of Section 97.307(f) of the Commission's Rules filed by the American Radio Relay League on September 25, 2022, IS GRANTED as set forth above.

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<sup>6</sup> See Waiver Request.

<sup>7</sup> 47 CFR §§ 1.925(b)(3).

<sup>8</sup> See Waiver Request.

<sup>9</sup> See *id.*

9. This action is taken under delegated authority pursuant to sections 0.131 and 0.331 of the Commission's rules, 47 CFR §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Thomas Deringe  
Deputy Chief, Mobility Division  
Wireless Telecommunications Bureau