

# THE PLATTSMOUTH AMATEUR RADIO CLUB

# Communicator

# September 2018

## Concern Rising within Amateur Radio Community over WWV-WWVH Shut Down Proposal

(ARRL 08/21/2018) ARRL members and Amateur Radio clubs are expressing increased concern over the inclusion of WWV and WWVH on a list of proposed cuts in the White House's National Institute of Standards and Technology (NIST) Fiscal Year 2019 budget request. The proposed cuts also would include the Atomic Clock signal from WWVB used to synchronize specially equipped clocks and watches. Online petitions soliciting signatures include one established by Tom Kelly II, W7NSS, of Portland, Oregon, who would like to see funding for the stations maintained. At this point, the budget item is only a proposal, not a final decision. That would be up to the Congress to decide.

ARRL is among those worried over the possible loss of WWV, WWVH, and WWVB and is suggesting that members of the Amateur Radio community who value the stations for their precise time and frequency signals and other information sign Kelly's petition and/or contact their members of Congress promptly, explaining how the stations are important to them, beyond government and military use.

Kelly's petition, which may be signed by US residents, notes that WWV is among the oldest radio stations in the US, having been established in 1920. "The station has transmitted the official US time for nearly 100 years, and is an instrumental part in the telecommunications field, ranging from broadcasting to scientific research and education," his petition says. "Additionally, these stations transmit marine storm warnings from the National Weather Service, GPS satellite health reports, and specific information concerning current solar activity and radio propagation conditions. These broadcasts are an essential resource to the worldwide communications industry."

NIST's full Fiscal Year (FY) 2019 budget request to Congress calls for the agency to "discontinue the dissemination of the US time and frequency via the NIST radio stations in Hawaii and Fort Collins, Colorado." The agency noted, "These radio stations transmit signals that are used to synchronize consumer electronic products like wall clocks, clock radios, and wristwatches, and may be used in other applications like appliances, cameras, and irrigation controllers." The specific cut, which would come from the NIST Fundamental Measurement, Quantum Science, and Measurement Dissemination budget, would amount to \$6.3 million.

In its budget request, NIST said that it plans to consolidate and focus work on its efforts in quantum science while maintaining essential core capabilities in measurement science research and measurement dissemination, as well as eliminate "efforts that have been replaced by newer technologies, measurement science research that lies outside NIST's core mission space, and programs that can no longer be supported due to facility deterioration."

WWV and WWVH broadcast time and frequency information 24/7, including time announcements, standard time intervals, standard frequencies, UT1 time corrections, a BCD time code, geophysical alerts, and marine storm warnings. Transmissions are broadcast from separate transmitters on 5, 10, 15, and 20 MHz. An experimental 25 MHz signal is also currently on the air. WWVB transmits standard Coordinated Universal Time (UTC) signals on 60 kHz to appropriately equipped timekeeping devices.

NIST Public Relations Director Gail Porter told Tom Witherspoon, K4SWL — editor of The SWLing Post, which has been tracking developments — that NIST "is proud of the time and frequency services we provide through our radio stations, and understands that these services are important to many people."

NIST Director Walter Copan has supported the overall budget request. "This budget request ensures that NIST can continue to work at the frontiers of measurement science by preserving investment in core metrology research," Copan said. "Through its constitutionally mandated role, NIST performs work that only the government can do, and produces enormous return on US taxpayers' investment. Translating measurements into technically sound standards across all industries enables effective international trade and US competitiveness."

<http://www.arrl.org/news/concern-rising-within-amateur-radio-community-over-wwv-wwvh-shut-down-proposal>

<https://www.nist.gov/>

<https://petitions.whitehouse.gov/petition/maintain-funding-nist-stations-wwv-wwvh>

**2018  
PAID MEMBERSHIP**

- AGØL .....Steve Loyd [E]
- AIØN..... Chuck Engberg\* [E]
- K3CRF.....Dave Smith [E]
- K5LBS ..... Jerry Gault [E]
- KA0IJY ..... Keith Keene [E]
- KBØFSI ..... Pat McCollum [T]
- KBØLF ..... Fred Eriksen [E]
- KBØOGO ..... Roger Behrns\* [E]
- KBØZZT ..... George Bellairs [T]
- KCØDTK..... Joan Bellairs [T]
- KCØHYD ..... John Titsworth [G]
- KCØHYE ..... Shirley Titsworth [T]
- KEØXQ..... Bill McCollum [E]
- KGØKR ..... Beth Engberg\* [E]
- KIØPY ..... Kevin Faris [E]
- N5SEZ..... Ray McNally [E]
- NØLZH..... John Harrington [T]
- WØDBW..... Derek Winterstien [G]
- WØZY ..... Dave McLaughlin [E]
- WØZYD..... Debbie McLaughlin [G]
- W3DCQ ..... Bill Pulsifer [G]

*\*Charter Members #New Ham*

Note: Thanks to all who have paid their dues and many who have given additional donations. All donations are greatly appreciated. Please let me know of any corrections.

**Meetings are 8am the last Saturday of most months at Mom's Café in Plattsmouth.**

**Tuesday night get-togethers at Plattsmouth Burger King at 7 PM**



**P.A.R.C. Officers**

**President**  
**KBØOGO .....Roger Behrns**  
**rb55930@windstream.net**

**Vice President**  
**KCØHYD .....John Titsworth**

**Secretary**  
**WØDBW.....Derek Winterstien**

**Treasurer**  
**KIØPY ..... Kevin Faris**

**Newsletter Editor**  
**KBØOGO .....Roger Behrns**  
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**(402) 234-6775**

**Repeaters:**  
 443.45<sup>+</sup> is located in downtown Omaha  
 443.225<sup>+</sup> is located in Murray.  
 147.48 Simplex is also in Murray.

**Web Site**  
**www.kb0smx.com**  
 Maintained by Derek (WØDBW)

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**MINUTES of  
the  
MEETING**

The July 28, 2018 meeting was held at at Mom's Café in Plattsmouth. The meeting was called to order at 8:17 am by President Roger Behrns.

Those in attendance were Roger (KBØOGO), Kevin (KIØPY), Ray (N5SEZ), Derek (WØDBW), John (KCØHYD), Fred(KBØLF),and Keith (KA0IJY). The Minutes of the June meeting were approved on a motion by Kevin and second by Keith.

The treasurer reported no change in the funds which are \$285 in the repeater fund and \$755.35 in the general fund for a balance of \$1040.35. John moved and Keith seconded a motion to accept the treasurer's report. Passed.

There was a report and discussion on the Field Day operation.

A motion to donate \$50 to the Village of Murray in appreciation for the use of the park was made by John and seconded by Kevin. Approved.

Fred reported on the Nebraska QSO Party. A check for \$35 was sent to the QCWA chapter for a plaque for the QSO party as previously approved.

The meeting adjourned on a motion by Derek and second by Fred at 8:32.

**PLATTSMOUTH ARC MEMBERSHIP REGISTRATION FORM**

Name		Call Sign		Class	
Address		City		State	
E-Mail		Phone #			
Spouse Name		Call Sign		Class	
Membership Type <input type="checkbox"/> Primary(\$15) <input type="checkbox"/> Spouse (\$5) <input type="checkbox"/> Student (\$5) <input type="checkbox"/> New Ham		● Additional donations are gratefully accepted. ● New Hams are free during the year they receive their first license. ● Please give this form and dues to the club treasurer or any club officer.		Donation for: <input type="checkbox"/> Repeater fund <input type="checkbox"/> Insurance <input type="checkbox"/> Other _____ <input type="checkbox"/> General	
Any additional e-mail or cell phone #s?		Amount: <input type="checkbox"/> I prefer my donation to be anonymous.			

**Meeting Calendar**  
**8am, August 25, 2018**  
**8am, Sept. 29, 2018**  
**8am, October 27, 2018**  
**at Mom's Café**



## FCC Cites Baofeng Importer for Illegally Marketing Unauthorized RF Devices

(ARRL 08/02/2018) The FCC has issued a Citation and Order (Citation) to Amcrest Industries, LLC (formerly Foscam Digital Technologies, LLC), an importer and marketer of popular and inexpensive Baofeng hand-held transceivers, alleging that the company violated FCC rules and the Communications Act by illegally marketing unauthorized RF devices. The FCC asserts that Amcrest marketed Baofeng model UV-5R-series FM hand-held radios capable of transmitting on “restricted frequencies.” The Baofeng models UV-5R and UV-5R V2+ were granted an FCC equipment authorization in 2012 to operate under Part 90 Private Land Mobile Radio Service (Land Mobile) rules.

“Under § 2.803 of the Commission’s rules, an entity may not market a device that is capable of operating outside the scope of its equipment authorization,” the FCC Citation said. “RF devices that have been authorized under Part 90 rules, such as the model as issue, must operate within the technical parameters established in those rules.” The FCC also maintained that the UV-5R 2+ is capable of operating at 1 W or 4 W, while the Part 90 Equipment Authorization limits the power output to 1.78 W.

Amcrest conceded that the units were capable of operating on restricted frequencies but told the FCC that, per discussions with the manufacturer, were “only capable of operating at 1 W, the FCC said. The company instructed the manufacturer to fix the problem and later confirmed with the manufacturer that all Amcrest inventory on order and in the future would operate only on 145 – 155 MHz and 400 – 520 MHz.

While the Citation does not mention Amateur Radio, the UV-5R series radios can be programmed in a channelized configuration to function on 2-meters and 70-centimeters. According to the Citation, Amcrest had added a warning in its user manuals and marketing and sales materials implying that the UV-5R V2+ could operate on unauthorized and restricted frequencies, including Part 87 Aviation Services frequencies, Part 80 Maritime Services frequencies, and frequencies reserved for federal government use. The FCC said Part 90 radios that permit the operator to use external controls to program and transmit on frequencies other than those programmed by the manufacturer are “generally prohibited.”

Amcrest told the FCC that it had ceased marketing four models in the Baofeng UV-5R series “a few years ago,” but it did not remove them from its website until last February. Numerous online retailers continue selling UV-5R series radios for less than \$25, with some ads indicating that these are “ham” equipment.

Amcrest Industries, LLC, which owns and operates Baofengradio US, is an import, distribution, and marketing company based in Houston, Texas. It also sells hand-held transceivers under its own label.

“While we recognize Amcrest’s efforts to date to achieve compliance with the Commission’s rules, the company must nonetheless ensure the version of the UV-5R V2+ it is marketing operates only on frequencies specified in its Equipment Authorization,” the FCC said in its Citation. The FCC directed

Amcrest “to take immediate steps to come into compliance with the Commission’s equipment authorization rules and cease marketing unauthorized RF devices in the United States.” Amcrest could face fines of nearly \$20,000 per day if it fails to comply.

<http://www.arrl.org/news/fcc-cites-baofeng-importer-for-illegally-marketing-unauthorized-rf-devices>

<https://docs.fcc.gov/public/attachments/DA-18-801A1.pdf>

## Consent Decree Settles FCC Noncompliant Drone Transmitters Marketing Case

(ARRL 08/22/2018) The FCC Enforcement Bureau has entered into a Consent Decree with Horizon Hobby, LLC to resolve a case involving the marketing and sale of noncompliant audio/video (A/V) transmitters intended for use on drones. The Consent Decree was attached to an FCC Order released on August 16. The Enforcement Bureau said the transmitters violated the FCC’s equipment marketing and Amateur Radio rules.

“These laws ensure that radio frequency devices comply with the Commission’s technical requirements and do not interfere with authorized communications,” the Enforcement Bureau said. “Because the noncompliant A/V transmitters could operate in bands that are reserved for important operations, including Federal Aviation Administration Terminal Doppler Weather Radar, they must not be marketed or operated by anyone. Moreover, entities that rely on amateur frequencies in operating compliant A/V transmitters must have an amateur license and otherwise comply with all applicable laws for such operation.”

In the Consent Decree, Horizon Hobby concedes that it marketed A/V transmitters that did not comply with FCC equipment marketing rules. The company has agreed to implement a compliance plan and to pay a \$35,000 civil penalty.

On December 20, 2017, the Bureau’s Spectrum Enforcement Division issued a Letter of Inquiry (LOI) to Horizon Hobby, directing it to respond to a series of questions relating to its marketing of A/V used with drones in the US. “The investigation revealed that some of the A/V transmitters Horizon Hobby marketed were capable of operating outside of the authorized Amateur Radio Service bands, but were not certified or otherwise compliant with the Rules. These A/V transmitters are considered intentional radiators and must comply with the Equipment Marketing Rules.”

The FCC said that after it received the LOI, the company stopped marketing the noncompliant A/V transmitters.

A privately held limited liability company, Horizon Hobby advertises and sells fully assembled drones through several websites, as well as parts and accessories for those systems.

<http://www.arrl.org/news/consent-decree-settles-fcc-noncompliant-drone-transmitters-marketing-case>

<https://docs.fcc.gov/public/attachments/DA-18-743A1.pdf>

## New FCC Part 95 Personal Radio Services Rules Published

(ARRL 08/14/2018) Reorganized and updated FCC Personal Radio Services (PRS) Part 95 rules have been published in The Federal Register. Among other things, the PRS covers the Family Radio Service (FRS), General Mobile Radio Service (GMRS), and the Citizens Band Radio Service (CBRS).

The revised rules allot additional FRS channels and increase the power on certain FRS channels from 0.5 W to 2 W. FRS channels are in the 462.5625 – 462.7250 MHz range.

Effective September 30, 2019, it will be illegal to manufacture or import handheld portable radio equipment capable of operating under FRS rules and under other licensed or licensed-by-rule services. The FCC no longer will certify FRS devices that incorporate capabilities of GMRS capabilities or of other services. Existing GMRS/FRS combination radios that operate at power levels of less than 2 W ERP will be reclassified as FRS devices; existing GMRS/FRS radios that operate above that power level will be reclassified as GMRS devices, requiring an individual license.

Radios that can transmit on GMRS repeater input channels will continue to be licensed individually and not by rule.

Once the new rules are effective, CBers will be allowed to contact stations outside of the FCC-imposed — but widely disregarded — 155.3-mile distance limit.

<http://www.arrl.org/news/new-fcc-part-95-personal-radio-services-rules-published-in-the-federal-register>

<https://www.federalregister.gov/documents/2017/08/29/2017-17395/personal-radio-service-reform>

## US Coast Guard Warns of LED Lighting Interference to Marine Radios, AIS Reception

(ARRL 08/21/2018) The US Coast Guard says it's received reports from crews, ship owners, inspectors, and other mariners regarding poor reception on VHF radiotelephone, digital selective calling (DSC), and automatic identification systems (AIS) when in the vicinity of LED lighting systems. This could include interior and exterior lighting, navigation lights, searchlights, and floodlights found on vessels of all sizes.

“Radio frequency interference caused by these LED lamps [was] found to create potential safety hazards,” the Coast Guard said in an August 15 Marine Safety Alert. “For example, the maritime rescue coordination center in one port was unable to contact a ship involved in a traffic separation scheme incident by VHF radio. That ship also experienced very poor AIS reception. Other ships in different ports have experienced degradation of the VHF receivers, including AIS, caused by their LED navigation lights. LED lighting installed near VHF antennas has also shown to compound the reception.”

ARRL has determined a wide range of interference-causing potential from consumer lighting devices.

“While some are relatively quiet, other devices — even those that meet the required FCC emissions limits — can still cause harmful interference,” said ARRL Electromagnetic Com-

patibility Engineer Mike Gruber, W1MG. “My best recommendation is to try LED lights before you buy, especially if there is a possibility that the device will be used while you're operating. “Once you have determined that a particular LED device is quiet, then purchase as many as you need from that same store.”

Over the past few years, ARRL has provided the FCC with reports of LED and other lighting systems that are not in compliance with FCC regulations. In several instances, these devices greatly exceeded the FCC's emissions limits, in one case by as much as 58 dB, creating as much noise as 650,000 legal devices.

“Several recent FCC enforcement actions involving LED manufacturers have been encouraging,” Gruber said. “These actions can and will make a difference. I would also like to emphasize that the ARRL remains committed to working with both the FCC and manufactures help facilitate that positive difference in any way it can. It is possible for LED and other lighting technologies to coexist with both amateurs and other users of the radio spectrum.”

The Coast Guard said that, while radio interference from LED sources may not be immediately evident, it's possible to test for it through several steps, including turning off all LED lighting systems on board to see if the interference disappears. The Coast Guard suggested adjusting the VHF radio's squelch just to the point where it cuts the audio on a vacant channel. If the noise returns, LED lights have raised the noise floor.

If this is the case, the Coast Guard said, it's “likely” that shipboard VHF radio and AIS reception are being degraded by LED lighting. The Coast Guard has asked mariners experiencing this problem to report their experiences to the Coast Guard Navigation Center, selecting “Maritime Telecommunications” from the menu on the left and providing details on the online form. — Thanks to gCaptain.com and Frank Smith, WS1MH

<http://www.arrl.org/news/us-coast-guard-warns-of-led-lighting-interference-to-marine-radios-ais-reception>

<https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/CG-5PC/INV/Alerts/1318.pdf?ver=2018-08-16-091109-630>

## What is it?

The NIST has found several unidentified items in their “archive”. They don't know what they are. Do you?

<https://www.nist.gov/blogs/taking-measure/unidentified-museum-objects-iv>

