The Illuminator

The monthly newsletter of the Carbon Amateur Radio Club

September 2003

September Meeting

The next regular meeting of the Carbon Amateur Radio Club will be held on Thursday, September 18, at 7:30 p.m. at the EMA Center in Nesquehoning. See you there!

Treasurer's Report

By John, W3MF

Previous Balance	1235.86
Receipts (dues)	55.00
Subtotal	1290.86
Disbursements (batteries)	75.00
(newsletter)	6.66
Final Total	1209.20

FCC Puts No-Code International's Morse Petition on Public Notice

(From the ARRL Letter)

The FCC has invited public comments on another Morse code-related petition for rule making — this one from No-Code International (NCI) http://www.nocode.org/. It's designated RM-10786. When the FCC put six other Morse-related petitions in the sequence RM-10781 through RM-10787 on public notice, RM-10786 failed to show up on the FCC's Electronic Comment Filing System (ECFS) http://www.fcc.gov/cgb/ecfs/. It remained missing through September 2. NCI calls on the FCC to delete Element 1 — the 5 WPM Morse code exam — "totally" from the Amateur Service rules and grant "Tech Plus" privileges to current Technicians. It also wants the FCC to act on the matter as soon as possible, preferably in a separate rule making and without further ado.

"[T]he Commission clearly has the authority to modify its rules on its own initiative and without further public notice or comment," NCI asserted in its 20-page petition.

NCI notes that World Radiocommunication Conference 2003 (WRC-03) made optional the requirement to prove the ability to send and receive Morse signals to operate below 30 MHz. As a result, "the Commission is no longer bound to maintain any Morse proficiency requirement." The Morse requirement, NCI contends, is keeping newcomers away from Amateur Radio.

Comments poured in this week from members of the amateur community on all seven petitions. Clearly ahead in the comment-collection race is the petition filed by the National Conference of Volunteer Examiner Coordinators, RM-10787, which had collected more than 350 comments by week's end. The other petitions each have garnered more than 100 comments apiece.

Interested parties may file comments on any or all petitions now on public notice http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-238494A1.pdf by using the FCC's Electronic Comment Filing System (ECFS) http://www.fcc.gov/cgb/ecfs/. The ECFS also permits users to view all comments on file. There is a 30-day comment window.

To file a comment, click on "Submit a Filing" under "ECFS Main Links." In the "Proceeding" field, type the full RM number, including the hyphen, and complete the required fields. "RM" must be in capital letters, and you must include the hyphen between "RM" and the five-digit number. You may type your remarks into a form or attach a file. ECFS also accepts comments in active proceedings via e-mail, per instructions on the ECFS page.

To view any comments already submitted for each petition, click on "Search for Filed Comments" under "ECFS Main Links" and type in the complete RM number, including the hyphen, in the "Proceeding" field. "RM" must be in capital letters, and you must include the hyphen between "RM" and the five-digit number.

Several countries — including Switzerland, Belgium, the UK, Germany, Norway and the Netherlands — already have moved to drop their Morse requirements. Austria, New Zealand and Australia are expected to do so soon.



FCC Invites Comments on Six Morse Code-Related Petitions

(From the ARRL Letter)

The FCC has invited public comments on six separate Morse code-related petitions for rule making, some of which would altogether eliminate Element 1, the 5 WPM Morse test, from the Amateur Service rules (Part 97). World Radiocommunication Conference 2003 (WRC-03) made optional the requirement to prove the ability to send and receive Morse signals to operate below 30 MHz.

A petition from Peter M. Beauregard, KI1I, designated RM-10781, would give all Technician licensees current Novice/Tech Plus CW privileges on 80, 40, 15 and 10 meters and limited phone and image privileges on 80, 40 and 10 meters. Beauregard said the CW privileges would "encourage Technician class licensees to upgrade to General" by giving them a "practice area." He has proposed new Tech phone/image privileges on 3850-3900 kHz and 7225-7300 kHz. His petition would not eliminate Element 1, however.

Pete V. Coppola, KG4QDZ, and family — Tina Coppola, KG4YUM, and Pete A. Coppola, KG4QDY — have asked the FCC to eliminate Element 1 from the rules. The Coppolas' petition, designated RM-10782, would grant Tech Plus HF privileges to current Technician licensees. It also would retain the current CW-only subbands. The Coppolas asked the FCC to make the change effective immediately on a provisional basis.

Kiernan K. Holliday, WA6BJH, has asked the FCC simply to "remove all requirements for knowledge of Morse code" from the Amateur Service rules. Holliday said there is less reason to require Morse code in the Amateur Service today. In his petition, designated RM-10783, Holliday also said the code requirement limits the ability of handicapped individuals to get ham tickets. "The Commission's policy should be to encourage the use of Amateur Radio," he said.

Dale Reich, K8AD, petitioned the FCC to delete Element 1 for General class applicants but keep it in place for Extra class applicants. Under Reich's scheme, "no-code" Techs wanting HF privileges would have to upgrade to General first. Reich's petition is designated RM-10784.

Eric Ward, N0HHS, seeks immediate elimination of "proficiency in telegraphy using Morse code." The "immediate removal of the telegraphy requirement from Amateur Radio licensing is appropriate and clearly in the public interest," Ward contended in his petition, designated RM-10785.

In a detailed, nine-page petition, the National Conference of Volunteer Examiner Coordinators (NCVEC) is calling on the FCC to delete Element 1 and give "Tech Plus" privileges to current Technician licensees. The NCVEC also asked the FCC to "take expedited action" to allow volunteer examiner coordinators (VECs) to discontinue administering Element 1 "as soon as possible."

"The Amateur Service community suffers from the loss to its ranks of a large number of potentially excellent operators who are turned away because of the CW requirement," the NCVEC petition said.

The organization, the umbrella group for the 14 VECs in the US, said there's "no longer any reasonable justification for requiring an applicant to demonstrate this antiquated skill," and that most applicants never use Morse after they pass the test. The NCVEC petition is designated RM-10787.

The ARRL-VEC abstained from voting on the NCVEC's petition question when it came up during the NCVEC's July 25 meeting in Pennsylvania. At its own July meeting in Connecticut, the ARRL Board of Directors affirmed its interest in reviewing members' input on the Morse issue as well as on other possible revisions to Part 97 arising from

WRC-03. The Board's current position is to retain the Morse requirement for HF access.

Two more recently filed petitions — one from No Code International and another from two amateur licensees — are expected to be put on public notice in the near future.

Interested parties may file comments on any or all of these petitions using the FCC's Electronic Comment Filing System (ECFS) http://www.fcc.gov/cgb/ecfs/, which also permits users to view the petitions and all comments on file. There is a 30-day comment window.

To file a comment, click on "Submit a Filing" under "ECFS Main Links." In the "Proceeding" field, type the full RM number, including the hyphen, and complete the required fields. "RM" must be in capital letters, and you must include the hyphen between "RM" and the five-digit number. You may type your remarks into a form or attach a file. ECFS also accepts comments in active proceedings via e-mail, per instructions on the ECFS page.

While a Morse code exam element remains on the books in the US, Canada and elsewhere, a handful of countries — including Switzerland, Belgium, the UK, Germany, Norway and the Netherlands — already have moved to drop their Morse requirements. Austria and New Zealand are expected to do so soon.

BPL Places FCC At Regulatory Crossroad, AMRAD Suggests

(From the ARRL Letter)

Encouraging Broadband over Power Line (BPL) technology puts the FCC at a regulatory crossroad, the Amateur Radio Research and Development Corporation (AMRAD) <http://www.amrad.org> has suggested. AMRAD's remarks came August 20 in reply comments filed in response to the FCC's BPL Notice of Inquiry (ET Docket 03-104). The Washington, DC-based organization's comments also outlined its BPL testing and measurement efforts, which included laboratory and real-world conditions. AMRAD said any departure from the "current baseline" of Part 15 rules that govern unlicensed services would invite "troublesome unintended consequences" that could prove difficult to correct.

"The FCC is facing some serious decisions on whether to continue with past rules and historical enforcement or to dispense with their historical role and substitute rules which give the unlicensed Part 15 systems priority over the licensed systems such as the amateur radio service," AMRAD said. "Such changes to Part 15 rules would tip the responsibility of compliance so as to favor the unlicensed users and leave the FCC facing a large number of harmful interference complaints to resolve."

AMRAD recommended the FCC proceed "slowly and with caution" in advancing BPL as a viable and economical alternative to existing high-speed Internet technologies.

The non-profit scientific and educational organization expressed concerns as to whether the FCC would be able to enforce Part 15 rules as written in the face of neighborhood Internet service interruptions caused by "a single radio amateur or other FCC-licensed radio transmitter." It said its own testing has demonstrated that a 20-meter amateur transmitter running as little as 10 W in the vicinity of an in-house HomePlug standard BPL local network could seriously impair the system's throughput. A 100 W signal would cause it to collapse altogether.

Ironically, the HomePlug standard substantially notches out the amateur bands — something ARRL convinced the HomePlug Powerline Alliance to do after amateur complaints sparked a recall of HomePlug-standard devices. The new 60-meter band is not notched out, however.

AMRAD said its observations and tests demonstrate that broadband BPL signals that conform to Part 15 "are well above the ambient noise and will interfere with many forms of reception." It said other non-HomePlug-standard systems that don't notch out ham bands "could cause more serious interference problems."

In the final analysis, AMRAD said, the FCC "must proceed with great care and take actions now to conduct testing to gather critical information" before making regulatory assessments. "The FCC efforts should remain focused on providing broadband to

the home and not focus on any specific technology," AMRAD asserted.

AMRAD member Frank Gentges, K0BRA, recently assisted ARRL Lab Supervisor Ed Hare, W1RFI, in the League's efforts to assess the impact of BPL on HF. Gentges gave Hare a guided tour of "hot neighborhoods" in Manassas, Virginia, where BPL is undergoing field trials.

Although the reply comment window closed August 20, the number of comments in response to the FCC's BPL NOI was 4553 as of August 29 and counting, with some 100 comments filed since the deadline. Many comments in the BPL proceeding have come from the Amateur Radio community.

AMRAD's reply comments are available on the FCC Web site http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6514683575.

BPL Advocates' Comments Lack Technical Substance, ARRL Reply Comments Say

(From the ARRL Letter)

The ARRL says Broadband over Power Line (BPL) proponents failed in their comments to the FCC to substantiate their claims that the technology will not cause widespread interference. In reply comments filed August 20 — the FCC's deadline to receive comments in the Notice of Inquiry, ET Docket 03-104 — the League said that if the FCC is going to rely on industry statements in making decisions on BPL deployment, the industry should back up its assertions with technical studies and hard data and make these public.

"Unfounded assurances that BPL will not cause interference are no substitute for real-world measurements," the League declared, "and the FCC should rely on documented test results and an impact of interference potential based on scientific, not marketing, criteria."

A form of power line carrier — or PLC — technology, BPL would use existing low and medium-voltage power lines to deliver broadband services to homes and businesses using frequencies between 2 and 80 MHz. Some BPL proponents — primarily electric power utilities — already are testing BPL systems in several markets and want the FCC to relax radiation limits.

"Power lines are ubiquitous, and attempts by the BPL industry to obtain relaxed emission classifications based on operating environment are obviously illogical and frivolous," the ARRL said. BPL would impact not only hams but public safety low-band VHF systems and other mobile systems, the League's comments added.

In contrast to the BPL advocates' "blanket statements" of no interference from BPL field trial sites, the ARRL said its own field tests "lead inescapably to the conclusion that BPL will, if deployed, create widespread harmful interference." It predicted signal levels of up to 30 dB over S9 on a typical amateur transceiver, "well beyond what would preclude amateur HF communications entirely."

To dramatize its point, the League urged the Commission to view video http://www.arrl.org/tis/info/HTML/plc/#video shot during recent ARRL test-and-measurement forays to BPL field trial communities in four states. The ARRL said the type of degradation expected from BPL would transform 20 meters from a band with worldwide communication capabilities to one of limited regional communication capability.

"ARRL has, in fact, done what the BPL industry should have done — brought an amateur station to the trial area," the League said. "When it did so, the interference was manifest and widespread and would be so even to an untrained observer."

The League also noted that comments in the proceeding so far have been silent on the interference susceptibility of BPL to ham radio signal ingress. The League predicted that even as little as 250 mW of signal induced into overhead power lines some 100 feet from an amateur antenna could degrade a BPL system or render it inoperative.

The ARRL called on the FCC to stop acting like a cheerleader for BPL. "It is past time that the Commission acted in its proper role as a steward of the radio spectrum and recognized the interference potential of BPL to the sensitive incumbent licensed services in these bands," the League concluded. "The Commission cannot stretch the

Part 15 regulations as far as would be required to accommodate BPL."

The League's complete reply comments are available on the ARRL Web site http://www.arrl.org/announce/regulatory/et03-104/reply-comments-index.html/ along with more information http://www.arrl.org/news/features/2003/07/08/1/. Additional information and video clips are on the ARRL "Power Line Communications (PLC) and Amateur Radio" page http://www.arrl.org/tis/info/HTML/plc/.

To support the League's efforts in the BPL fight, visit the ARRL's secure BPL Web site https://www.arrl.org/forms/development/donations/bpl/.

NTIA Expresses "Broad Concerns" in BPL Comments

(From the ARRL Letter)

The National Telecommunications and Information Administration (NTIA) has weighed in on the FCC's Broadband over Power Line (BPL) initiative. While urging the FCC to "move forward expeditiously" with its inquiry into BPL, the NTIA expressed "broad concerns" about interference to government users. The NTIA also has launched an extensive modeling, analysis and measurement program for BPL. A Commerce Department branch, NTIA administers spectrum allocated to federal government users.

"Notwithstanding BPL's potential benefits, the Commission must ensure that other communications services, especially government operations, are adequately protected from unacceptable interference," the NTIA said in late-filed comments in the BPL Notice of Inquiry. "In tailoring its rules to promote BPL deployment, the Commission must be certain to provide all communications stakeholders with adequate protections against BPL emissions that may cause unacceptable radio frequency interference."

Until releasing its comments this month, the NTIA has been largely silent on the issue since last spring. In an April 24 letter, then-NTIA administrator Nancy J. Victory applauded the FCC's decision to launch its inquiry into BPL, but called on the Commission to make sure that BPL does not cause harmful interference to other services.

In early July, Frederick R. Wentland, NTIA's associate administrator in the Office of Spectrum Management, told the FCC that the NTIA did not favor Current Technologies LLC's http://www.currenttechnologies.com/ request for a permanent waiver of the field strength limit specified for Class B emissions under FCC Part 15 rules. A Maryland BPL developer, Current Technologies already is field testing and marketing the technology.

Wentland worried that the pole-mounted interfaces and outdoor power lines used for BPL could interfere with public safety communication in the 30 to 50 MHz range. He told FCC Office of Engineering and Technology Chief Edmond J. Thomas that the "unobstructed and ubiquitous nature of this BPL application, and perhaps other aspects of BPL, differs considerably from the situations presently found in typical unintentional radiators" operating under Part 15.

Wentland — named recently to succeed Victory as NTIA administrator on an interim basis — also invited the FCC to coordinate its own BPL measurement activities with those of the NTIA.

The NTIA's comments, which have not been posted on the FCC Web site, are available on the NTIA Web site http://www.ntia.doc.gov/ntiahome/fccfilings/2003/bplcomments_08132003.htm

ARRL DX Bulletin

DX Bulletin 36 ARLD036
From ARRL Headquarters
Newington CT September 4, 2003
To all radio amateurs

This week's bulletin was made possible with information provided by K7BV, SM5SIC, the OPDX Bulletin, The Daily DX, QRZ DX, 425DXnews,

DXNL, WA7BNM and Contest Corral from QST. Thanks to all.

MAURITIUS, 3B8. Ian, 3B8IK has been active using PSK31 on 15 meters around 0830 and then after 1330z. QSL direct.

TRINIDAD AND TOBAGO, 9Y. Chris, DL1MGB is now active from Tobago Island, IOTA SA-009. During the IARU Region 1 Field Day and WAEDC SSB Contests he will be QRV as 9Y4TBG. Before and after the contests he will be QRV as 9Y4/DL1MGB mostly on the newer bands using RTTY. He is here until September 17. QSL 9Y4TBG via DL4MDO. QSL 9Y4/DL1MGB via DL1MGB.

MOZAMBIQUE, C9. Andre, ZS6WPX is QRV as C91Z and will be here for about four months. He is active on all bands and will try to acquire satellite gear as well. QSL to home call.

BALEARIC ISLANDS, EA6. Christian, DL6KAC will be QRV as EA6/homecall from Mallorca, IOTA EU-004, from September 8 to October 7. He will use mainly SSB with some CW. QSL to home call.

LIECHTENSTEIN, HB0. IZ2DPX and IW2NEF will be QRV as HB0/IZ2DPX/p and HB0/IW2NEF/p, respectively, during the IARU Region 1 Field Day. Activity will be on 40, 20, 15 and 10 meters. QSL to home calls.

JORDAN, JY. JY9QJ has been QRV on 160 meters after 0230z and 40 meters around 0330z. QSL via DL5MBY.

NORWAY, LA. The Skandinavisk Radio Club will be QRV as LA3SRK/p from Stokkoya Island, IOTA EU-036, for the IARU Region 1 Field Day. Activity will be on 160 to 10 meters using CW, SSB, RTTY and PSK. They will be active near the usual IOTA frequencies. QSL via SM5SIC.

PERU, OA. Ernie, OA4CN has been QRV using RTTY on 20 meters from around 2100 to 2200z.

ST. PETER AND ST. PAUL ROCKS, PY0S. Joca, PS7JN is QRV as ZW0S until September 14. QSL to home call.

GREECE, SV. Nicolas, F5TGR will be QRV as SV8/F5TGR from the Cyclades, IOTA EU-067, from September 6 to 27. He will be active on 20 to 10 meters using CW and SSB. From September 6 to 12 he will be QRV from the island of Paros, the island of Santorini from September 13 to 19 and the island of Naxos from September 20 to 27. QSL to home call.

SAN MARINO, T7. Nazzareno, T72NC expects to participate in the IARU Region 1 Field Day. QSL via bureau.

TURKS AND CAICOS ISLANDS, VP5. Dennis, K7BV/1 will be QRV as VP5/K7BV from September 9 to 16. He will be active mainly on 6 meters, which includes meteor scatter. Activity otherwise will be on the HF bands using primarily CW and RTTY. He will also participate in the ARRL VHF contest. QSL via KU9C.

AFGHANISTAN, YA. Sada is now active as YA1D and is QRV almost daily after 1230z on 80 to 10 meters using mainly SSB. QSL via JG1OWV.

SOUTH COOK ISLANDS, ZK1. Victor, ZK1CG will be QRV as ZK1USA from Rarotonga, IOTA OC-013, during the month of September. QSL via operator's instructions.

DXCC Operations Approved. The following stations from Bhutan are approved for DXCC credit: A51AA, A51KC, A51PK, A51UD, A51WD and A51YL.

ARRL Propagation Forecast Bulletin

Propagation Forecast Bulletin 36 ARLP036
From Tad Cook, K7RA
Seattle, WA September 5, 2003
To all radio amateurs

Daily sunspot numbers were lower this week and solar flux was about the same. But the average daily planetary A index dropped by more than half to 14.3, the lowest it has been since the reporting week of July 3-9, reported in Propagation Forecast Bulletin 28 on July 11, 2003. The best day this week, in terms of stable geomagnetic conditions, was Sunday, August 31 when the planetary A index was only 7, and the mid-latitude A index was 5. The eight mid-latitude K indices for that day

(reported every three hours) were 1, 2, 1, 1, 2, 1, 2 and 1. This is rather remarkable compared to recent conditions.

The forecast for the next few days is for unsettled to active geomagnetic conditions, with the predicted planetary A index for Friday through Monday, September 5-8, at 20, 12, 12 and 15. Predicted solar flux for Friday and Saturday is 115 and 120, then 125 for Sunday through Friday, September 12.

On August 29 a solar wind passed earth around 1500 UTC, but this and subsequent wind from a coronal hole did not cause major disturbances. Over last weekend were predictions of possible aurora for September 1 or 2, but the interplanetary magnetic field pointed north, which protects the earth from disturbances. It is when the field points south that we are vulnerable, and despite a continued solar wind, any geomagnetic upset over the next few days is expected to be minor because of the north pointing field. Participants in this weekend's All Asian DX Phone Contest or the North American CW Sprint have nothing to fear.

August has ended, and statistics show the average daily sunspot number dropped from 132.8 to 114.3 from July to August. The average daily solar flux declined by a smaller margin, from 127.7 to 122.1.

How does August compare with recent history, considering the solar cycle is declining? The average daily sunspot number for August is identical to April's value, 114.3, and only February and March had lower sunspot averages for 2003. Average daily sunspot numbers by month, from August 2002 through August 2003 were 191.0, 206.4, 153.9, 159.8, 144.8, 150.0, 87.9, 119.7, 114.3, 89.6, 118.4, 132.8 and 114.3. Average daily solar flux by month, from August 2002 through August 2003 was 183.9, 175.8, 167.0, 168.7, 157.2, 144, 124.5, 133.5, 126.8, 116.6, 129.4, 127.7 and 122.1. This looks like a steady decline in numbers. Especially dramatic are comparisons between August 2002 and 2003.

Perhaps we are coming to the phase in the cycle following the peak when geomagnetic disturbances subside. This would be good for HF operators. Although we want plentiful sunspots, we also need stable geomagnetic conditions, especially in latitudes toward the poles and for propagation over polar paths.

Currently the prediction for the bottom of the sunspot cycle is for September 2006 to May 2007. The forecast for solar flux is about the same. Looking further out, a rough estimate shows the flux and sunspot values on the other side of the minimum for December 2007 at about the same level as December of next year, 2004. Between those dates are very low levels of activity, a good time to explore 160, 80, 60 and 40 meters.

The cycle prediction is from the August 12 edition of the NOAA Space Environment Center's Weekly Preliminary Report and Forecast of Solar Geophysical Data. It is posted weekly at http://www.sec.noaa.gov/weekly/index.html, and the guide to the Report and Forecast is at http://www.sec.noaa.gov/weekly/Usr_guide.pdf.

Sunspot numbers for August 28 through September 3 were 146, 132, 120, 101, 59, 90, and 74, with a mean of 103.1. 10.7 cm flux was 118.7, 116.3, 114, 109.7, 108.1, 105.7, and 110.5, with a mean of 118.9. Estimated planetary A indices were 18, 15, 17, 7, 14, 12, and 17, with a mean of 14.3.



Helpful Hints

Re-spraying your car? Cover it with Saran wrap first. If you don't like the new color, simply peel it off and start again.



Shallow Thoughts

Isn't it a bit unnerving that doctors call what they do "practice?"

Carbon Amateur Radio Club – 2003-2004 Officers

President: Anthony "Goody" Good, K3NG, goody@fast.net
Vice President: Rob Roomberg, KB3BYT, roomberg@ptd.net
Secretary: Darryl Gibson, N2DIY, n2diy@losch.net
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ARES/RACES Committee

Bruce Fritz, KB3DZN (DC), bruce56@ptd.net
Darryl Gibson, N2DIY, n2diy@losch.net
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Services

W3HA Repeater: 147.255 MHz + PL 131.8

CARC Website: http:/www.learnmorsecode.com/carc/
Webmaster: Rob, KB3BYT roomberg@ptd.net

CARC Email Reflector: see www.qth.net CarbonARC list for details

Emergency Power Equipment Trustees: Lisa and Bill Kelley, KA3UKL, ldkelley@voicenet.com

CARC Membership Information

Regular Membership is $15.00, which includes autopatch privileges.

All amateur radio operators are invited to join the CARC ARES / RACES net held 21:00 local time every Wednesday on the W3HA repeater at 147.255 MHz + offset, PL 131.8. Any amateur radio operator or anyone with an interest in ham radio is welcome to attend our monthly meetings which occur the third Thursday of each month at 7:30 PM at the Carbon County EMA Center on Route 93 in Nesquehoning.

Carbon Amateur Radio Club
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P. O. Box 166
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