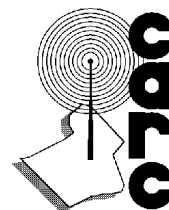




The Illuminator



The monthly newsletter of the Carbon Amateur Radio Club

July 2002

July Meeting

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



Treasurer's Report

By John, W3MF

Previous Balance	1025.98
Receipts (dues)	0.00
Subtotal	1025.98
Disbursements (newsletter)	6.46
Final Total	1019.52



Amateurs Support Arizona Wildfire Response; ARES Stands Down in Colorado

(From the ARRL Letter)

Amateur Radio support of the Arizona wildfire response has continued this week. Arizona ARRL Section Manager Cliff Hauser, KD6XH, reports that there are enough Amateur Radio operators on hand to support the fire-fighting efforts. President Bush this week declared parts of the state federal disaster areas.

In addition to VHF and UHF repeaters, amateurs are maintaining HF nets on 3990 and 7265 kHz. An FCC communications emergency has put both HF frequencies, plus or minus 3 kHz, off limits to anyone not involved in handling emergency traffic. The ban will remain in effect until lifted. W1AW has suspended its bulletin transmissions on 3990 for the duration of the ban.

The combined Rodeo-Chediski Fire now has scorched more than 420,000 acres of Arizona woodlands. Upwards of 600 homes and businesses have been destroyed, and some 30,000 Arizona residents have been evacuated as a result of the fire.

The Salvation Army Team Emergency Radio Network (SATERN) has taken on the job of coordinating communications during the emergency. SATERN Western Area Coordinator Warren Andreason, K7CWA, reports SATERN has stations and operators at six locations in Arizona, including one in the threatened community of Show Low, where the National Guard asked The Salvation Army to set up a kitchen operation. Another has been set up at The Salvation Army's Camp Ponderosa near Heber, which is serving as a FEMA incident command post as well as a responder staging area.

SATERN Coordinator Pat McPherson, WW9E, said the HF network has been very effective in smoothing the flow of goods and supplies coming into the affected area. At one point, McPherson said, an on-the-air conference of Salvation Army principals established procedures and refine supply-chain logistics. "This only occurred due to the opportunity for all the principals to be on the air via Amateur Radio," he said. McPherson said that, so far, SATERN has had a good supply of volunteer reinforcements from the amateur community.

Hauser said other amateurs are supporting Red Cross facilities in Flagstaff, Holbrook and Phoenix. Operators from the Arizona Amateur Radio Club's W7IO are staffing the Arizona Emergency Operations Center in Phoenix. Cris McBride, KB7QXQ, told ARRL that about 30 radio amateurs from the Show Low area — including members of the Kachina Amateur Radio Club — have been helping to maintain contact between the Navajo County EOC and the state EOC. McBride, who

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lives five miles from Show Low, was among those evacuated June 19.

Hauser reports that Dave Epley, N9CZV, remains in Show Low, whose 8000 residents have been largely evacuated. Epley has been handling health-and-welfare traffic for town residents who chose not to leave. Hauser said he plans to spend next week in Show Low to help out. Epley has requested that users not attempt to connect with his N9CZV IRLP node 336 in Show Low, which is being used for the fire emergency.

Meanwhile in Colorado, Amateur Radio Emergency Service support for the Hayman Fire concluded June 25. Several Colorado ARES teams spent the past few weeks volunteering their services as needed to local governments and to relief organizations, including the American Red Cross and The Salvation Army. ARRL Colorado SM Jeff Ryan, K0RM, reports that most evacuated residents have been allowed to return home.



NJQRP Going Digital

By Lamar, N3AT

The New Jersey QRP Club, under the leadership of George Heron, N2APB, and Joe Everhart, N2CX, is planning a series of experimental projects that will be of interest to those who like to work with digital things. A series of kits is being developed that will provide a lot of excitement for hams who enjoy working with digital equipment. The first of these kits, to be made available in the near future, will be a "daughtercard," that will be the heart of many different projects that will be developed. Among those will be a digital breadboard, an HC908 commander, an antenna analyzer, and other custom projects that may need some computing power. The HC908 will offer lots more computing power and I/O capabilities than a PIC, and its simple self-programming feature will make it easily re-programmable without the need for a special hardware programmer.

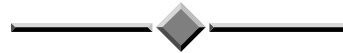
The daughtercard will be usable for many different applications and projects. It will be a little 2-inch square standalone card. A 9- to 12-volt power source and a serial communications port from a PC will enable one to download and burn new

programs into it. The unit will have ample on-board flash memory, which will simplify the design, and make possible a non-volatile project. It will retain its memory even when power is removed.

The daughtercard is planned as the first of a number of kits to be developed and sold by NJQRP. Its price will be \$25, including shipping. And, shipping is expected to begin by July 25.

A digital QRP breadboard will be made available for a number of other projects that NJQRP is planning. The board will be approximately 6 x 9 x 1.5 inches in size, and will contain a number of peripherals that QRPers will find useful in applications around the shack — these will include an LCD, shaft encoder, DDS chip, audio amplifier, RS-232 serial port, general purpose I/O buffers, and a daughtercard expansion port, providing convenient design flexibility.

To learn more about this project, and other projects that NJQRP has underway, check the club's website. For this particular project, the URL is: <http://www.njqrp.org/digitalhomebrewing/index.html>



ARRL DX Bulletin

DX Bulletin 27 ARLD027
From ARRL Headquarters
Newington CT June 27, 2002
To all radio amateurs

This weeks bulletin was made possible with information provided by Tedd, KB8NW, the OPDX Bulletin, The Daily DX, QRZ DX, 425DXnews, The DXNL and Contest Corral from QST. Thanks to all.

UGANDA, 5X. Christian, 5X1CW has been QRV on 15 meters from 1600 to 1700z. He will be here until July. QSL via F6GQK.

CROATIA, 9A. Bill, ON5JE is QRV as 9A/ON5JE from Dugi Otok, IOTA EU-170, until July 20. QSL to home call.

ST. PAUL ISLAND, CY9. Look for VE1AAO, VE9DH, W7XU, N0QJM, W0SD, WV2B and W0OE to be QRV from June 29 to July 8. They will

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be on 40 to 10 meters, including the newer bands, using CW, SSB and RTTY. QSL via W7XU.

CEUTA AND MELILLA, EA9. Toni, EA9AK has been QRV using RTTY on 15 meters just before 1900z.

IRAN, EP. Stig, EP3UN has been QRV on 17 meters around 1500z and 30 meters around 1900z. QSL via LA7JO.

TROMELIN ISLAND, FR/T. Jacques, FR5ZU/T has been QRV using PSK31 on 20 meters around 1350 and 1730z. QSL via JA8FCG.

SOUTH ORKNEY ISLANDS. Jose, LU1ZA has been QRV on 40 meters around 1030z. QSL via LU4DXU.

SWEDEN, SM. Kjell, SM4DDS is QRV as 8S4C/5 on Stora Alo Island, IOTA EU-177, until July 6. He is active on 40 to 10 meters using CW and SSB. QSL via the bureau.

ICELAND, TF. Ramon, XE1KK will be QRV on HF and satellite UO-14 as TF/VE7RKK from July 2 to 8. He may take a side trip to Greenland during that time frame and operate as OX/VE7RKK on satellite UO-14. QSL both calls via XE1KK.

VIETNAM, XV. Eddy, XV9DT has been QRV on 17 meters SSB between 1630 and 1930z.

LAOS, XW. XW0X has been QRV on 20 meters between 2000 and 2200z and 17 meters around 1130 and 2000z.

INDONESIA, YB. Wis, YB0AZ has been QRV using RTTY on 15 meters around 1400z. QSL via W7TSQ.

TRISTAN DA CUNHA AND GOUGH ISLAND, ZD9. Chris, ZD9IR has been QRV using RTTY on 15 and 20 meters between 1400 and 1600z. QSL via ZS6EZ.



ARRL Propagation Forecast Bulletin

Propagation Forecast Bulletin 27 ARLP027

From Tad Cook, K7VVV
Seattle, WA July 3, 2002
To all radio amateurs

This is a short bulletin this week because of the Independence Day holiday. On July 12 we will be back with the sunspot, solar flux and A index data for two weeks.

Conditions remain quiet, with solar flux dipping below 140 and sunspot numbers below 100 around June 27 and 28. The outlook still appears flat for the near term, with solar flux around 140-145 for the foreseeable future.

Because June has ended, we may now look at some monthly and quarterly averages.

The average daily sunspot numbers for the last six quarters, from January 1, 2001 to June 30, 2002 were 147.3, 164.8, 170.4, 198.1, 178.3 and 165.3. The average daily solar flux for the same quarters was 164.4, 166.7, 175.5, 219.1, 203.9 and 156.4. As you can see, solar activity has declined this quarter.

The average daily sunspot number per month for January through June was 189, 194.5, 153.1, 144.4, 204.1 and 146. Average daily solar flux values for the same months were 227.3, 205, 179.5, 141.1, 178.4 and 148.7. While the trend is down, it looks like May wasn't a bad month.

KC0DXK wrote in to reminisce about 6 meter contacts in 1998, and said he looks forward to the next high sunspot period. When might the next solar cycle peak be? It is quite a ways off in the future. Current projections (which you can see at <http://www.sec.noaa.gov/weekly/pdf/prf1397.pdf>) show the minimum between the cycles around the end of 2006. The next peak is so far off that it isn't shown in this table, but 11 years from Spring 2000 is 2011. Quite some time from now.

Last week's bulletin mused about spaceweather.com being a dot-com instead of dot-gov, and AA7VL pointed out that the Spaceweather site isn't really sponsored by NASA. It takes lots of data from NASA, but it is put together by Dr. Tony Phillips, and isn't actually a government site.



CC&R Bill "The Right and Fair Thing," Sponsor Says

(From the ARRL Letter)

The sponsor of a bill aimed at providing relief to amateurs faced with private deed covenants, conditions and restrictions – CC&Rs in erecting antennas – says he introduced the measure because "it's the right and fair thing to do." Freshman Rep Steve Israel (D-NY) introduced the "Amateur Radio Emergency Communications Consistency Act" on May 14. The Measure – H.R. 4720 – would require private land-use regulators – such as homeowners' associations – to "reasonably accommodate" Amateur Radio communication consistent with the PRB-1 limited federal preemption. PRB-1 now applies only to states and municipalities.

H.R. 4720 has been assigned to the Telecommunications and Internet Subcommittee of the House Energy and Commerce Committee.

Israel, whose father, Howard, is K2JCC, told amateurs in his home district recently that he's already hearing from Commerce Committee members who have been contacted by their Amateur Radio constituents regarding H.R. 4720. His remarks May 29 during a special meeting of the Great South Bay Amateur Radio Club in Long Island, New York, marked his first public effort to drum up support for the measure within the amateur community. Members of other Long Island clubs also were on hand for Israel's visit.

Israel says the FCC currently does not apply the PRB-1 limited federal preemption policy consistently, a situation he called "patently unfair" to those living in developments, where they face antenna restrictions or even outright prohibitions. H.R. 4720, Israel explained, would require entities imposing private land-use restrictions – such as homeowners' associations – to enter into good faith negotiations with amateurs in an effort to "reasonably accommodate" Amateur Radio communication – just as they do now with public land-use regulators."

"In America, we are fair and consistent," Israel said.

Rep Greg Walden, WB7OCE (R-OR) – the only Amateur Radio operator in Congress – and Rep Pete Sessions (R-TX) have signed on as original cosponsors of H.R. 4720. Since its introduction, the bill also has attracted two additional cosponsors – Rep J.D. Hayworth (R-AZ) and Rep Patrick Tiberi (R-OH).

The measure, which ARRL assisted in drafting, contains a single sentence: "For purposes of the Federal Communications Commission's regulation relating to station antenna structures in the Amateur Radio Service (47 CFR 97.15), any private land use rules applicable to such structures shall be treated as a state or local regulation and shall be subject to the same requirements and limitations as a state or local regulation."

The ARRL encourages its members to contact their congressional representatives and urge them to sign on as co-sponsors and to support H.R. 4720. Visit the US House of Representatives "Write Your Representative Service" Web page <<http://www.house.gov/writerep/>> for information on how to contact your representative.

The League requests those writing or e-mailing members of Congress – whether or not they are supporting this legislation – to copy ARRL on their correspondence – via e-mail to ccr-bill@arrl.org or via US Mail to CC&R Bill, ARRL, 225 Main St, Newington, CT 06111. Correspondents should include the bill number, H.R. 4720, as well as their name and address on all correspondence.



FCC Invites Public Comments on New Amateur Band Proposals

(From the ARRL Letter)

Public comments on FCC proposals to create two new amateur bands and to upgrade an Amateur Service allocation at 2.4 GHz to primary are due July 29, and reply comments are due by August 12. In response to an ARRL petition, the FCC last month released a Notice of Proposed Rule Making (ET Docket 02-98) that proposed to create a new 5-MHz HF allocation and a new low-frequency band in the vicinity of 136 kHz in addition to

elevating amateurs from secondary to primary at 2400 to 2402 MHz.

The FCC adopted the NPRM May 2 on a unanimous vote. The NPRM was published June 14 in The Federal Register. A copy of the petition is available on the ARRL Web site <<http://www.arrl.org/announce/regulatory/et02-98/>>. Interested parties may file comments via the FCC's Electronic Comment Filing System (ECFS) <<http://www.fcc.gov/e-file/ecfs.html>>. To view filed comments, click on "Search for Filed Comments;" to file a comment, click on "Submit a filing." In either case, enter "02-98" in the "Proceeding" field. More than 130 parties--most of them individual amateurs — already have filed comments.

If the proposals eventually are approved, amateurs would gain a new, secondary, domestic (US-only) HF allocation at 5.25 to 5.40 MHz and a new LF "sliver band" at 135.7 to 137.8 kHz.

The FCC has recommended permitting amateurs to operate at full legal limit on a new 5-MHz allocation, but it left open for further discussion whether to restrict band access to certain license classes. The FCC also has invited further comment on whether the band should be broken down into mode-specific subbands.

On 136 kHz, the FCC has proposed limiting output to 1 W effective isotropic radiated power (EIRP) — or 100 W PEP maximum transmitter output — and with a transmission bandwidth of only 100 Hz. The ARRL had asked for 2 W EIRP and a maximum transmitter power of 200 W PEP. The FCC has asked whether its proposed power limits are appropriate. The FCC proposed to limit access to the band to General and higher-class licensees.



**FCC WRC-03 Advisory Panel Recommends
Phase-in Worldwide 7-MHz Band**
(From the ARRL Letter)

The FCC is requesting comments on the draft recommendations of its World Radiocommunication Conference 2003 Advisory Committee (WAC). Among the panel's recommended draft proposals to next year's international gathering is a plan — still subject to

change — that would create a worldwide amateur allocation at 7.0 to 7.3 MHz by 2010. The deadline for comments on the proposals is July 12.

The draft proposals "may evolve as we approach WRC-03 and during the course of interagency discussions," the FCC noted in a Public Notice. "Therefore, they do not constitute the final national position on these issues."

While US amateurs already enjoy a 7.0 to 7.3 MHz allocation, only 7.0 to 7.1 MHz is available to amateurs in all three International Telecommunication Union regions, with 7.1 to 7.3 MHz available to broadcasting in much of the rest of the world. The draft proposal for WRC-03 agenda item 1.23 dealing with possible realignment of the 7-MHz amateur allocation calls for making 7.1 to 7.2 MHz available worldwide by April 1, 2007, and the 7.2 to 7.3 MHz segment by April 1, 2010. Broadcasting allocations would shift upward by 100 kHz at the same time — to 7450 kHz by 2007 and to 7550 by 2010. The intervening periods would permit time for international broadcasters and other services to adjust their operations accordingly.

The International Amateur Radio Union already is on record in favor of the approach. An earlier suggestion to shift the 40-meter allocation down by 100 kHz came off the table earlier this year to avoid affecting Fixed Service operations between 6765 and 7000 kHz.

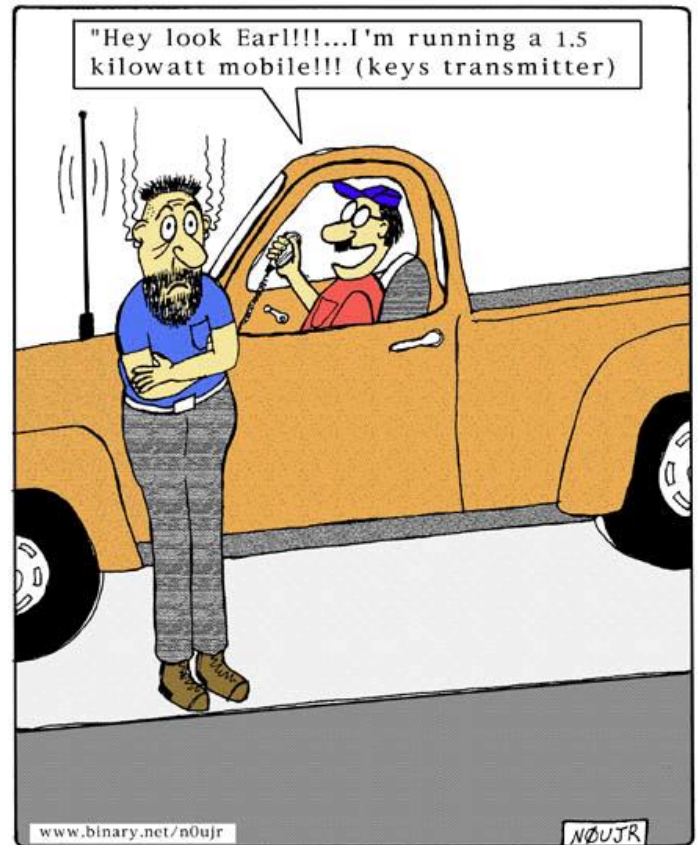
In other draft proposals affecting the Amateur Service, the FCC's WRC-03 Advisory Committee has recommended no change to the table of allocations in the band 420 to 470 MHz. Agenda item 1.38 will consider providing up to 6 MHz of spectrum to the Earth exploration-satellite service (EESS) in the band. So-called synthetic aperture radars (SARs) are used to measure soil moisture, tropical biomass and Antarctic ice thickness, and to document geological history and climate change. At issue is whether the EEES allocation could be established without interfering with incumbent services, including radiolocation and amateur.

Agenda item 1.5 will consider spectrum requirements and regulations for new and additional allocations to the mobile, fixed, EEES and space research services at 5.15 to 5.725 GHz. The FCC expressed reservations about WAC

proposals for this frequency range, citing concerns expressed by the ARRL and others. Amateur and Amateur-Satellite services allocations could be negatively affected by new mobile allocations.

The full texts of the FCC WRC-03 Advisory Committee draft proposals are available on the panel's Web site <<http://www.fcc.gov/wrc-03>>. Commenters should submit an original and one copy to the Office of the Secretary, FCC, 445 12th Street SW, Washington, DC 20554 and provide a courtesy copy to Alex Roytblat, FCC WRC-03 Director, Room 6-B505. Comments should refer to specific proposals by document number.

World Radiocommunication Conference 2003 will take place in Geneva, Switzerland, from June 9 until July 4, 2003.



Earl finds his hoop earrings allow him to sense areas of high RF energy...

Check out <http://incolor.inetnebr.com/n0ujr> for other cartoons and to purchase N0UJR's book, "N0UJR and His Friends."



Helpful Hints

Don't fork out money on expensive smoke alarms. Simply fill balloons with water and hang them from the ceiling. Then, cover the floor with air-filled balloons, each with a pin stuck to the top. In the event of a fire, the temperature will cause the air-filled balloons to rise up from the floor, and the pins will burst the water-filled balloons, thus extinguishing the fire. Maybe.



Shallow Thoughts

If a mall has signs that say "No Pets" on every door, how can they have a pet store inside?



Heard Through the Grapevine

Rumor has it that both W3MF and K3PH worked and confirmed P5/4L4FN from North Korea. It seems that John, the DX Hog, worked them on 15 meters, both SSB and RTTY on the same day!

Listen for Ed, P5/4L4FN, after 2200Z on 21225 kHz. Although he says he is listening from 21235 to 21245, both John and Bob worked him on 21245.

Your mileage may vary. Subject to change without notice. Void where prohibited by law.

Carbon Amateur Radio Club – 2001-2002 Officers

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Secretary: Larry Lilly, N3CR, ka3afy@ptd.net
Treasurer: John Schreibmaier, W3MF, w3mf@ptdprolog.net
W3HA Callsign Trustee: Bill Dale, WY3K
W3HA Repeater Trustee: John Bednar, K3CT
Public Information Officer: Bill Kelley, KA3UKL

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Newsletter Printing, Folding, and Mailing: Bob, K3PH

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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

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 2:00 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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