

Feedline



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The Voice of The Cary Amateur Radio Club
N4NC

July 2002

CARC FEEDLINE

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The deadline for submission to the Cary Amateur Radio Club FEEDLINE newsletter is the second Thursday of the month. Information should be forwarded by e-mail to the editor at w4kaz@arrl.net.

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Swapfest Czar: Alf Johnson, KQ4FP
Field Day Czar: Herb Lacey, W3HL
Listserv admin: Will Harper, K4IWW
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Kaz, W4KAZ

SWAPFEST

Saturday July 20th

Please come help out!

This year's Swapfest will be discussed at an **early meeting** on Thursday, July 18th, at 7:30 pm. **This months meeting will be one week early!**

Participation will be important to make this years 'fest a success, and provide this service to the local Ham community.

Anybody planning to make a purchase, consider buying from one of our vendors at the Swapfest. Our vendors will come back only if it is worthwhile. With ham flea markets disappearing from year to year, we have a chance to keep ours.

SWAPFEST

Saturday July 20th

Please come help out!

Thanks to all who participated in Field Day 2002. I'd like to thank everyone who pitched in with equipment items at the last minute, and with help during station setup and break down. Every little bit helps.

Please see the article from the "ARRL Letter" on page 7 below about "public comments" to the FCC pertaining to new bands. This is OUR chance to provide input to public policy decisions. Smoke 'em if ya got 'em.....or quit whining.

Field Day 2002

Kaz, W4KAZ

A Field Day Fast One.....

Just when you think plans are final....well, I guess plans are never final until after they have been executed.

Wednesday afternoon before Field Day weekend, Herb, W3HL, got the word that we had been approved to use the Cary High parking lot for "only" \$650.00 USD , which turned out to be "only" \$650.00 USD more than was originally indicated.

Okay, so it was a mistake, and not on our part. The big problem was that the club had already put out information via the e-mail reflector, the Feedline, and The Cary News. The Wake County Public School System finally decided to let us in on the \$650.00 dollar secret. (by the way, the article in "The Cary News" was quite good)

The best laid plans at times go awry....this turned out to be one of those times. Fortunately, Herb had also presciently obtained previous approval for the old Bond Park site in the weeks prior to the change. Thanks to Herb, the CARC stations were able to go forward.

The Setup

The operation this year was in the 2A class, with a CW and a SSB station. A "GOTA" station and a VHF station were also set up for operation throughout the weekend. A last minute generator was provided by Brett, AG4RH, borrowed from his workplace and used to power the CW station. The SSB station was located near the GOTA and VHF stations, which shared a screen tent.

The Operation

Scores this year will be low due to a sudden scarcity of operators as the afternoon of the 22nd approached 1800 UTC. 20 meters was open into the wee hours of the morning this year, and the SSB activity never really seemed to heat up on 80 meters because of that factor. Signals on 20 meters were subject to fading, especially later in the evening. Activity on 40 meters was normally heavy. The SSB station logged QSO's on 80, 40, 20, and 15 meters. The weather was warm, but not unbearably hot, with a nice breeze on the evening of the 22nd and a bonus beautiful moonlight lake view....and lots of fine "radio-activity". Station tear down on Sunday afternoon was warmer.

Observations of an "amateur" Amateur

Field day is a great learning exercise. I have learned something every time I participate. There's just nothing like actually getting out there, setting up a station in the field as a lesson in humility, human nature, Murphy's Law, liddish frequency poachers, "tuner uppers" and last but not least, the care and operation of two-way radio equipment.

I'm going to file away the lessons learned, and be glad to have the chance to gain them in a "fun" environment. (I mean "fun" as opposed to "actual emergency".) This year's operation might not be a gangbuster contesting success, but it was certainly a great learning exercise.

Thanks to the experienced hands who offered patient advice and assistance, and welcome to the new hands that pitched in with enthusiasm.

Field day 2002 photos



An early Sunday morning shot of the GOTA station, which shared space with the VHF station.



Lee, N4AJF, with an awfully big smile for so early on Sunday morning.



The SSB operator is missing in action—off to take pictures!

A little Sunday morning CW magic being prestdigitated.....



The Amateur's Code Installment

By Murray Merner, K4MHM from Greenville, North Carolina
Reprinted by permission from August 2000 BARC Ham Chatter
(<http://www.qsl.net/w4amc/hc/hc0008.html>)

The original Amateur's Code was written by Paul M Segal, W9EEA in 1928. Following an introduction, every month one of the six elements of the code is covered. The Code is a good guide for good Amateur Radio practice and for other aspects of our life. The fourth element is ...

The Radio Amateur is:

Friendly... slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

We, as amateur radio operators, have a common bond - the love of wireless communication. The operative word is bond. Our similar interests have drawn us together -- in our clubs, the ARRL or on the air. This bonding is a natural phenomenon. With this bonding comes interaction in one form or another. That's where the "friendly" comes in. Amateur Radio has all levels of competency new to old timer - not every one is on our level of proficiency. Quite often we come across those less experienced and giving them a helping hand, taking time to explain or slowing down the code speed is a friendly thing to do. On the other hand, coming in contact with a more experienced person we need to be respectful of their advice and perspective.

We are individuals with our own thoughts and opinions, but our friendliness and our eagerness to be inclusive and helpful will profit Amateur Radio and ultimately ourselves. - K4MHM

CARC Minutes - 20 June 2002

Lee H. Swanson, N4AJF Secretary, CARC

The June meeting of the Cary Amateur Radio Club was held on 20 June, 2002, at the Field Day site in Bond Park. The meeting was opened at 7:31 P.M. by the Field Day Czar, Herb, W3HL. There were 16 in attendance, 13 members and 3 guests.

The purpose for this meeting being the final planning for Field Day on June 22/23, most other business was not discussed.

Herb explained that the Field Day location had returned to its old location due to the inability to work out the financial details with the school system. This location had been a contingency location, so it was used.

Final verification of the availability of Band Captains, tents, generators, natural power, etc., was done. The band captains are Keith, W4KAZ - SSB, Ed, AB4S - CW, Lee, N4AJF - VHF, Herb, W3HL - GOTA (Get On The Air), and Will, K4IWW - Satellite. Drinks, etc. will be provided by the CARC, through Susan, WA4AKB and Ed, AB4S.

Al, KQ4FP, gave a short status on the upcoming Cary Swapfest, and then the meeting was adjourned to the actual site, to scope out station sites, antenna sites, and so forth.

New Extra Class Question Pool Effective July 1

The ARRL Letter, Vol. 21, No. 24, June 14, 2002

Starting July 1, a new Amateur Extra class (Element 4) question pool goes into effect for examinations given on or after that date. The new pool contains more than 800 questions—up from the present 685. There is no change in the number of questions or the passing grade for examinations derived from the new question pool, however, and no other examination elements are affected. A representative from ARRL VEC sits on the Question Pool Committee, which is composed of representatives of four of the nation's Volunteer Examiner Coordinator organizations. Question pools are revised and updated on a timetable determined by the QPC, which is soliciting candidate questions based on the recently released Technician (Element 2) syllabus. All current question pools are available on the ARRL Amateur Exam Question Pools Web site <<http://www.arrl.org/arrlvec/pools.html>>.

FCC Dismisses EMP Shielding Proposal

The ARRL Letter, Vol. 21, No. 24, June 14, 2002

The FCC has dismissed a petition that would have required all electronic equipment subject to the Commission's jurisdiction—possibly including amateur gear—to be shielded against electromagnetic pulse (EMP) damage. The petition, filed last fall by Don Schellhardt and Nick Leggett, N3NL, was put on public notice in December and designated as RM-10330.

EMP—(Electro Magnetic Pulse)—a high-voltage wave of electromagnetic energy—already is known to be a side effect of a thermonuclear explosion. But Schellhardt and Leggett claimed that terrorists could initiate an EMP using other technology—so-called "E bombs"—developed by the US military but, as yet, untested on a major scale.

A voluntary EMP standards development process, the FCC concluded, "is the best method for developing guidelines and safeguards to address protection of the communications infrastructure." In light of that activity, the FCC added, "it appears that government intervention is not warranted."

White House Greets Amateur Radio Operators

The ARRL Letter, Vol. 21, No. 25, June 21, 2002

President George W. Bush has sent his greetings to all Amateur Radio operators, acknowledging their role in emergency communications and in generating international goodwill. The White House letter came as hams in the US marked Amateur Radio Week June 17-23 and got ready to participate in ARRL Field Day—an emergency preparedness exercise.

"I salute amateur radio operators for your work on behalf of public safety officials," the President said. "I also commend your interest in communicating with persons in other parts of the world and learning about other cultures and countries. Your involvement builds understanding and goodwill around the globe."

For the first time, Field Day will be open to participation by amateurs throughout the Americas and the Caribbean.

The President's letter acknowledged ham radio's "important role in emergency communications, assisting law enforcement personnel and other emergency services as they carry out their responsibilities."

ARRL President Jim Haynie, W5JBP, expressed his delight at the presidential communication. "I'm extremely pleased that the president has decided to recognize the accomplishments of Amateur Radio operators throughout America," he said. "Amateur Radio is a real asset to America, and even more so after September 11."

President Bush said First Lady Laura Bush "joins me in sending our best wishes."

Governors in several states have issued proclamations designating Amateur Radio Week or Amateur Radio Month.

Florida Man Convicted Of Deliberate Interference, Unlicensed Operation

The ARRL Letter, Vol. 21, No. 25, June 21, 2002

A Florida CBER accused of jamming Amateur Radio operations and transmitting without a license was convicted in federal court June 19 on eight misdemeanor counts. Willam Flippo of Jupiter was found guilty of four counts of operating without a license and four counts of deliberate and malicious interference. The jury deliberated about 30 minutes.

Federal District Court Judge Daniel T.K. Hurley noted that, while the charges were misdemeanors, it was important that the amateur airwaves be free of interference in the event of an emergency. He ordered that Flippo, 60, remain in custody and undergo a psychiatric evaluation prior to sentencing.

The prosecutor in the case, Neil Karabdil, credited members of the Amateur Radio community with bringing Flippo to justice. The list included 1999 ARRL International Humanitarian Award winner Ed Petzolt, K1LNC, who helped the FCC gather evidence in the case; Bert Morschi, AG4BV; Palm Beach County Emergency Coordinator Dave Messinger, N4QPM; and Chuck Mulligan, N4SDW.

"This is a very good day for Amateur Radio, and a very good day for justice," Petzolt said following the trial. "Let the word go out that we will not tolerate this sort of thing on our frequencies, and you will be caught." Petzolt cited local amateurs and the efforts of the FCC, including Special Counsel for Enforcement Riley Hollingsworth "and everyone else who kept the faith," for helping to bring the case to a successful conclusion.

"Never give up and never surrender," Petzolt advised those facing similar malicious interference situations. "If you do, they win."

According to Petzolt, who testified in the trial, Flippo primarily had targeted the Jupiter Tequesta Repeater Group for jamming and regularly interfered with amateur operations, especially on 10 and 2 meters, over an approximately three-year period. Following up on the amateurs' complaints, personnel from the FCC's Tampa District Office visited the Jupiter area at least twice in 1999 and reported tracking the offending signals to Flippo's residence.

Known as "Rabbit Ears" within the CB community, Flippo was arrested by federal authorities in July 2000. He already faces a \$20,000 fine levied in 1999 for unlicensed operation, willful and malicious interference to Amateur Radio communications, and failure to let the FCC inspect his radio equipment.

The six-and-a-half-day trial was anything but routine. A day after attempting to fire his court-appointed attorney, Robert Adler--who countered that Flippo was trying to undermine his own trial--Flippo, then still free on \$100,000 bond, drove himself to the hospital June 13 claiming he'd suffered a stroke. He was released the following day. Hurley recessed the trial but took the unusual step of revoking Flippo's bond June 17 after a physician told the judge that medical tests determined that Flippo had not had a stroke.

Hurley said he was concerned that Flippo might not return to court for his sentencing hearing and ordered him returned to jail. Flippo reportedly hung his head after the jury returned a guilty verdict on the second count. He had no comment for a reporter as he was led back to jail.

Sentencing could take place in about a month. According to the FCC, Flippo faces a maximum penalty of eight years in prison--one year on each count. He also could be fined up to \$80,000.

FCC Invites Public Comments On New Amateur Band Proposals

The ARRL Letter, Vol. 21, No. 25, June 21, 2002

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.

It's Aliiiiive! Amsat-Oscar 7 Satellite Returns From The Dead

The ARRL Letter, Vol. 21, No. 26, June 28, 2002

After being declared dead more than 20 years ago, the AMSAT-OSCAR 7 satellite suddenly came back to life this month. First heard June 21 by Pat Gowan, G3IOR, AO-7 subsequently has been monitored--and used again--by several other amateurs. AO-7 was launched November 15, 1974. It remained operational for more than six years before succumbing to battery failure in 1981.

"I'm blown away," was the reaction of AO-7 Project Manager Jan King, W3GEY. "So, this old war horse of a spacecraft seems to have come back from the dead if only for a few moments."

Exclaimed satellite enthusiast and AMSAT Vice President for User Services Bruce Paige, KK5DO, "This is really awesome!" Paige said the latest turn of events makes AO-7 the oldest amateur satellite that's still working. AMSAT-NA has now listed AO-7 as "semi-operational."

AMSAT says it seems certain the satellite is running only off its solar panels, not from the onboard batteries, so it will be operational only while it's in sunlight. King speculates that the batteries, which shorted as they failed two decades ago, now are "un-shorting" and causing the satellite to come back to life.

For those attempting to use AO-7, Mode A (2 meters up/10 meters down) is not a problem, but Mode B (70 cm up/2 meters down) is. Because of changes in the international Radio Regulations that went into effect in the 1970s as AO-7 was under construction, the 432.1 MHz uplink frequency is no longer authorized for space communications.

AMSAT advises potential users that when uplinking to a satellite, they are operating in the Amateur-Satellite Service. AMSAT says uplinking to AO-7 "is possibly illegal since the Amateur Satellite Service is not permitted at 432.1 MHz." The current band plan earmarks the 432.1 MHz range for weak signal work. Sections 97.207(c)(2) and 97.207(b)(2) of the FCC's rules authorize space station and earth station operation only in the 435-438 MHz segment.

Built by a multinational team under the direction of AMSAT-NA, AO-7 carries Mode A (145.850-950 MHz uplink; 29.400-500 MHz downlink) and Mode B (432.180-120 MHz uplink; 145.920-980 MHz downlink) linear transponders plus beacons on 29.502 and 145.972 MHz. A 2304.1 MHz beacon was never turned on because of international treaty constraints.

AMSAT has additional information on AO-7 on its Web site <<http://www.amsat.org>>.

CC&R Bill Attracts Additional Cosponsors:

The ARRL Letter, Vol. 21, No. 26, June 28, 2002

The bill now in Congress aimed at providing relief to amateurs faced with private deed covenants, conditions and restrictions--CC&Rs--in erecting antennas has gained additional cosponsors. Freshman Rep Steve Israel (D-NY) introduced the "Amateur Radio Emergency Communications Consistency Act" on May 14. The measure--HR 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. Rep Greg Walden, WB7OCE (R-OR) and Rep Pete Sessions (R-TX) signed on as original cosponsors of HR 4720. Since its introduction, the bill also has attracted additional cosponsors--Rep J.D. Hayworth (R-AZ), Rep Patrick Tiberi (R-OH), Rep Patsy Mink (D-HI), Rep Ken Calvert (R-CA), Rep Rick Boucher (D-VA), Rep Joseph Hoeffel (D-PA) and Rep John Duncan Jr (R-TN). 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 ARRL 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, HR 4720, as well as their name and address on all correspondence.

Dayton Hamvention Attendance Dips Again In 2002

The ARRL Letter, Vol. 21, No. 26, June 28, 2002

Dayton Hamvention reports that attendance for this year's 50th anniversary event was 24,832--down about 5 percent from 2001's crowd of 26,151. The 2002 number marks the second year in a row that Hamvention attendance has dipped. Over the past five years, attendance numbers had climbed to 28,804 in 2000, the year of the ARRL National Convention at Dayton. Hamvention attendance peaked in 1993 at 33,669--before the event date changed from April to May.

Higher Amateur Vanity Call Sign Fee Effective September 9

The ARRL Letter, Vol. 21, No. 27, July 12, 2002

The FCC has officially set \$14.50 as the cost to apply for, renew or reinstate an Amateur Radio vanity call sign. According to a Report and Order adopted July 3, the new fee will become effective for applications received on or after September 9. The current vanity fee is \$12 for the 10-year license term. The FCC had proposed the new, higher fee in a Notice of Proposed Rulemaking (MD Docket No. 02-64) released March 27 to set Fiscal Year 2002 fees.

In its R&O, the FCC took the opportunity to justify its charging the vanity fee for vanity renewals as well as for initial applications. In comments filed in the proceeding, the FCC said, Steven Karty, N5SK, and William J. Hanrahan, W1WH, supported the payment of a regulatory fee to cover the initial administrative cost but questioned having to pay the fee upon renewal.

Hanrahan suggested that the FCC should be able to reasonably adjust the fee it charges initial vanity call sign applicants based upon actual administrative costs and that renewals should not incur any additional overhead. "Further, subsequent to the initial license term, no distinction should be made between vanity calls and systemically assigned calls," Hanrahan commented. The FCC now distinguishes between vanity and sequential call signs in its database as "HV" and "HA" respectively.

The FCC said that because it continues to incur costs related to vanity call signs even after their issuance or renewal, it believes the regulatory fee at renewal is appropriate. "Section 9 of the Communications Act, as amended, provides for the recovery of the Commission's costs associated with its enforcement, policy and rulemaking, user information, and international activities," the FCC said in its Report and Order.

"Every day, Commission staff are engaged in activities involving amateur vanity call signs, such as protecting the assignment of vanity call signs, investigating complaints on the improper or illegal usage of call signs, requests for call signs that are already assigned to someone else, and all related research that is necessary to insure the proper assignment of call signs."

The FCC said it must collect nearly \$218.8 million through regulatory fees to recover its costs for FY2002. That's \$18.6 million—or approximately 9.3 percent—more than the amount designated for recovery through regulatory fees in FY2001. Of the total, the FCC estimated vanity fee revenue for FY2002 at \$130,500. The FCC has estimated that 9000 applicants would apply for vanity call signs in FY2002.

A copy of the FCC Report and Order is available on the FCC Web site <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-02-205A1.doc>.

Mother Nature Forces Postponement Of Amateur Rocket Effort

The ARRL Letter, Vol. 21, No. 27, July 12, 2002

High winds in late June forced postponement of an attempt by a group of Amateur Radio operators and amateur rocket enthusiasts to make aerospace history by putting the first amateur rocket into space. The Civilian Space Xploration Team (CSXT) had hoped its suborbital vehicle would carry several Amateur Radio payloads to an altitude of more than 60 nautical miles.

"We came soooo close to a launch," said Eric Knight, KB1EHE, of Unionville, Connecticut—one of the hams involved. "The rocket was ready to go. All we had to do is push the ignition button." Knight says Amateur Radio is central to the whole flight. Its Automatic Position Reporting System (APRS), amateur TV and packet telemetry gear will enable the team to document success, defined as 50 nautical miles above Earth.

"Our team was ready. The rocket was ready. But Mother Nature had other plans," Knight explained. He said wind gusts of up to 60 miles per hour caused a brutal sandstorm at the Western US desert launch site. The high winds continued throughout the team's three-day launch window, he said.

"We're currently evaluating our options for a future launch date," Knight said. "We're dusty—but undaunted—and still very optimistic of a launch in the not-too-distant future."

Knight said all of the equipment and sections of the rocket remain on the West Coast as the team works with the FAA to secure a new launch window.

Overseeing the CSXT effort has been Project Director Ky Michaelson of Minnesota, a semi-retired stuntman and veteran hobby rocket enthusiast who holds dozens of rocket speed records. Knight credits Michaelson with conceptualizing what he called "our grand project." Michaelson was a guest July 12 of radio taker Art Bell, W6OBB, on Bell's nationally syndicated AM Coast to Coast program.

Other amateurs involved include Rod Lane, N1FNE—whose Southington, Connecticut, garage and basement workshop have been largely given over to rocket construction and integration—and Don Skinner, N1HWR, of Tariffville, Connecticut. Assisting in the project for the past three years has been

high school senior Julia Cohn, KB1IGU, of West Hartford, Connecticut. Cohn has been involved in constructing and programming some of the sequencing electronics that will go aboard the vehicle. Her electronics instructor and mentor at Hall High School is Chet Bacon, KA1ILH, of Plantsville, Connecticut, and other students in Bacon's electronics classes also have contributed to the project.

Funding for the project has come from team members' pockets. Knight estimates the costs to date are approaching \$100,000.

More information on the rocket project is on Knight's "Spaceshot 2001/Spaceshot 2002" Web site <<http://www.remarkable.com/rocket>>.

SWAPFEST

Saturday July 20th

Please come help out!

Notes on Tent Packing After Field Day....

When tearing down the screen tents, keep in mind that the person setting them up "next year" may have never set up a tent before. A bit of extra effort when packing will go a long way.

- Use tape to bundle the tent stakes together
- Each of the three tent supports for the club's screen tents is made up of five or six swagged tubes that fit together in a certain way. The tubes for the center support are different from the tubes for the two side supports. Use tape to bundle all of the tubes for each individual support. (i.e., if one of the side supports is made up of six tubes, bundle and tape those six tubes together.) This effort takes very little time during tear-down, but this bit of organization may save much stress for the next person to use the tent.