THE OHM TOWN NEWS
Voice of the Bridgerland Amateur Radio Club

January 2005

>>>>>>>>   http://www.barconline.org   <<<<<<<<

Happy New Year

PRESIDENTS MESSAGE

Happy New Year everyone. Hope Santa was good to you, and you had a chance to relax with family and friends. It was great to see so many of you at the Christmas Party. I had a good time and enjoyed my visits with each of you. I spent my holiday working on a room in the basement that will become our family's hobby room. I will have an area for the HF and other ham gear, a HO scale model train layout, and sewing and crafts. It is not quite finished, but closer than it was a month ago.

January's club meeting will feature Brett Sutherland N7KG, who heads up the Official Observer program in the state. Come learn what an official observer does, and how they monitor the ham frequencies to help keep everyone legal. Brett will also talk about how you can become an official observer.

February's club meeting will feature a few mini seminars. Eugene Bodrero, AC7DG will show some software tools he has developed to assist with designing a small scale solar power install. Bob Wood will demonstrate how to solder a PL-259 connector. We hope to add at least one more mini seminar for that day. We will also vote on the budget for the year. The Repeater Committee is working on a proposal for the .20 repeater, so look for some info on that as well.

In March we will have our bunny hunt. One of the gifts at the Christmas Party was a PIC controlled transmitter system, or a Bunny. Paul Hoth will be in charge

HAM PROFILE
by Boyd Humpherys W7MOY

We have an interesting veteran of the Central Utah Indian wars and Ship Builders insurrection amongst us. None other than Kevin Kessler, KE7AAF, receiving his tech license in June of this year and a scenic hillside resident of Hyde Park for about 5 years. A 100' tower was not detected, not even 50' for that matter (more on that later). We had to mosey around his new sub division at about dusk, peering at obscure house numbers, at the risk of being challenged by the local gendarmes for nefarious activities. A tower in every back yard ought to be mandatory.

Kevin joins our group with some good Yaesu gear, an HT & 8900R for the truck. Some of you may have had an eye ball with Kevin at some of the recent club meetings.

He was born in Fillmore and raised in Cove Fort, an interesting historical spot with roots back to the turn of the 19th century. He mentioned that the family resided in the rooms once occupied by Bryant Hinckley, father of Pres. Gordon B. Hinckley, when he supervised the diggings down there many years ago. I asked if they ever experienced any difficulties with the Native Americans while living within the walls of the Fort. No problems at all, came the reply; in fact we used to go horseback riding regularly with several in the vicinity. He attended schools in the area and graduated from Millard High School. He also indicated he and his future spouse, Robyn Carling knew

UPCOMING ACTIVITIES

A brand new year for all kinds of fun things to happen!

January 8 - Club Meeting - Official Observer Program

February 12 - Club Meeting - Mini Seminars - Club Budget to vote on

March 12 - Club Meeting - Bunny Hunt

Lots of other fun activities coming during this new year!!

BARC Club Meetings are normally on Saturday mornings at 10:00 A.M. at our new meeting location, on the 2nd floor in the EOC at the Cache County Sheriffs Complex on 200 North and 1225 West in Logan, Utah

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(Presidents Message Continued from page 1)
of hiding it, so get those DF'ing antennas ready to go. We hope to have monthly bunny hunts after that.

The rest of the year is still in the planning stages. We hope to have a speaker from NOAA Weather, and a demo on working the new satellites that are in space.

Look forward to seeing you at club meeting, on the air with our nets, and at the activities.

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VE test sessions are your opportunity to become a ham, or upgrade your current license. Exam sessions are held in Logan every few months, *usually* the second Saturday in March, June, September, and December. Other sessions are held often in the region. It is possible to find a test session every month somewhere in northern Utah or southeastern Idaho.

Next VE Test Session in Cache Valley:
Date: **March 12 th 2004 - 8:00 AM**
Location: **Utah State University - Old Main Building 4th Floor**

Contact: Heidi Black AC7ZC 753-7487
or Beanie Lofthouse KJ7LQ 245-6632
Cost: $14.00

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Answers to questions on page 6:
1-B, 2-A, 3-B, 4-C, 5-B, 6-C, 7-B

each other beginning in Kindergarten. Can anyone beat that record? They get involved in serious negotiations at an early age down in that part of the state.

He attended USU, majoring in Ag Education and later with involvement in International Development. He received his BS & MS at Utah State, later obtaining his PHD at Iowa State, with stints at New Mexico State and University of Nevada at Reno. With that extensive travel, one might correctly guess his specialty, which of course was Extension work. He also spent a year in Egypt, setting up Extension programs. His brief exposure to Arabic garnered him some phrases and arm signals for yes, no, and a few other necessary responses to qualify for a passing grade in haggling, category II. Both attended USU and decided to combine bills after the completion of their Masters programs.

His good spouse Robyn Carling was born in Meadow, get out the maps, guys.

They have three harmonics, Kyle 17, Tyson 14, & Kara 11. Incidentally Tyson passed his Amateur License exam a couple of Saturdays ago and can't wait to commandeer the family equipment. I suspect some form of time sharing agreement will be forthcoming.

They enjoy all sorts of family activities that will get them out doors. 4 wheeling, snowmobiling, skunk in the basement, etc.

Kevin's specialty is 4H work, and he is presently involved in teaching, organizing, and otherwise involving an eager bunch of kids in working towards a local, regional, & hopefully statewide 4H Amateur radio group. They may even get involved in satellite distribution of this type of program through the University. Now that sounds like an ambitious project, one in which we all ought to encourage. Three of the group took their tests along with Tyson, others are beginning to get involved in similar activities in Salt Lake and Davis county. Kevin assisted with some Elmering and merit badge work over at Camp Hunt recently, where eyeballs grew wide with contacts in India and other areas of the world. It works every time!!

When I asked the typical question of reaction to Ham activities, Robyn must have anticipated my intentions and came out with "you really don't want to ask do you?" A few remarks such as "no more antennas or cords". Kevin has permission to put anything he wants in the shop out back, however his good frau is really supportive and we look forward to a great association with this neat family. Welcome to the wild crew, folks.

P.S. I would think a nice box of candy and perhaps a posie or two, directed to the manager of the Kessler household would do wonders in greasing the skids, don't you?

Bridgerland Amateur Radio Club
Log-in # _____

Application for the Year 2005 Membership
Dues are in effect January 1. 2005 through December 31. 2005

Name _____Call Sign _____ Date Paid_____

P.O. Box _____ Street Address _____
City _____ State _____ Zip Code _____
Home Phone (   ) _____ Work Phone (   ) _____
Phone # for Auto-Dial Slot_____ E-mail _____

Individual Membership - $25 $ _____

Additional Family members in same household - $3 ea $ _____
     (One Newsletter per household)
Names and call signs of additional family members   Total $ _____
Name _____Call Sign _____
Name _____Call Sign _____

Are you an ARRL Member?   ☐

Mail your completed form and a check to: B.A.R.C., P.O. Box 111, Providence, UT 84332-0111
B.A.R.C. is a non-profit organization

The ARRL Letter   Vol. 23, No. 47   December 3, 2004
==>ENHANCED COOPERATION FOCUS OF ARES-RACES-MARS MEETING

Enhancing cooperation among Amateur Radio's emergency service organizations was the subject of a groundbreaking conference November 20 in Castle Point, New York. On hand were Amateur Radio Emergency Service (ARES), Radio Amateur Civil Emergency Service (RACES) and Army, Air Force and Navy-Marine Corps Military Affiliate Radio System (MARS) leaders. While informal cooperation is nothing new to ARES, RACES and MARS members—many of whom participate in all three organizations—the focus of the Castle Point gathering was on launching more formal regional and national collaboration. ARRL Field Organization/Public Service Team Leader Steve Ewald, WV1X, said he was pleased to be able to participate. "I thought it was an excellent meeting, and it should lay a foundation for further cooperation between ARRL and our Field Organization and MARS," he said afterward. Ewald also used the occasion to call attention to the ARRL Amateur Radio Emergency Communications courses and the tuition grants available for radio amateurs completing them. Joining him under the League banner were ARRL Field Organization appointees Pete Cecere, N2YJZ, the Eastern New York Section Manager, and Tom Carrubba, KA2D, the New York City-Long Island Section Emergency Coordinator. Newly designated New York Army MARS-ARRL Liaison Officer Richard Meirowitz, WA2ELE, organized the session, and New York MARS Director Steve Pertgen, W2FXJ, chaired the meeting at the Castle Point Veterans Administration Medical Center. Keynote speaker was Army MARS Eastern Area Coordinator Robert Hollister, AAA9E/N7INK, from Ft Huachuca, Arizona (and the author of "A Portable NVIS Antenna," which will appear in the January 2005 QST). He expressed the hope that MARS management and ARRL would join forces to pursue the goal of interoperability. To jump start that initiative, Hollister provided an overview of the US Department of Defense (DoD) MARS program and its emphasis on providing emergency communication support to a wide variety of military and government response agencies. In September, Hollister asked MARS stations and nets to coordinate with ARES/RACES and local ham radio operators to assist in handling hurricane-related health-and-welfare traffic. Amateur Radio and the military already collaborate informally each May during the Armed Forces Day communications tests, when hams and military stations engage in crossband contacts. Several pilot operations also have employed ARES/RACES members in past Army Reserve exercises at the local level. Among proposals was a suggestion to seek FCC permission to conduct year-round interoperability training and emergency operation. It also was proposed that the amateur community assist MARS in providing early warning notification of emergency situations—so-called "Essential Elements of Information" messages—for relay to the DoD and the Department of Homeland Security. Following Hollister's briefing, MARS Eastern Area Emergency Operations Chief John Scoggin, W3JKS, of Wilmington, Delaware, discussed last summer's nationwide Grecian Firebolt 2004 (GF-04) Army Signal communication exercise—the biggest MARS drill ever. At Pertgen's suggestion, Meirowitz tested the feasibility of MARS-ARES-RACES collaboration during GF-04, and ARES volunteers from eastern New York took part in the exercise, which involved a homeland defense/homeland security scenario. Meirowitz called it "a small but successful joint effort." Ewald noted that the Grecian Firebolt exercises were similar in nature to the ARRL's Simulated Emergency Test each fall. Hollister suggested that ARES/RACES participation in the next annual Army Signal exercise be worked out on a state-by-state basis. Also proposed was the designation of additional MARS-ARRL liaison

officers at the state level.—Bill Sexton N1IN

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Senate confirms Adelstein for new FCC term: The US Senate has confirmed the White House nomination of FCC Commissioner Jonathan Adelstein to remain on the FCC until June 30, 2008. Adelstein said he was gratified to have the opportunity to continue to serve. "The issues before us are critical to our economy and touch people in deeply personal ways," he said in a statement following his November 20 confirmation. "I will continue to promote the interests of the American public in having access to the best possible communications opportunities in the world." ARRL CEO David Sumner, K1ZZ, wrote Adelstein this week to congratulate him on his appointment and confirmation. "It is good to know that you will continue to be in a position to ensure that the legitimate concerns of radio amateurs and other users of the radio spectrum are reflected in the Commission's decisions," Sumner said. One of two Democrats on the five-member FCC, Adelstein joined the FCC in November 2002. A protégé of and former aide to US Senate Minority Leader Tom Daschle (D-SD), Adelstein is the first South Dakotan ever to serve on the FCC. The term of the FCC's other Democrat, Commissioner Michael J. Copps, does not expire until next year.

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The ARRL Letter   Vol. 23, No. 48   December 10, 2004
==>SCAMP ON-AIR TESTING COMMENCES

The Sound Card Amateur Message Protocol—or SCAMP—is not just a conference paper topic anymore. On-the-air testing of the digital communication protocol began in late November, and the first transcontinental communication using SCAMP occurred on December 4. SCAMP is designed to eliminate the need for pricey external hardware for passing e-mail traffic on relatively narrow-bandwidth channels. Rick Muething, KN6KB, prepared a presentation on SCAMP for the ARRL-TAPR Digital Communications Conference in September. "SCAMP is an example of what is now possible with sound card, computer and software technology using cooperative amateur efforts," he says. "SCAMP and similar programs like DIGTRX for image transmission offer low-cost alternatives to dedicated or proprietary hardware." As Muething explains, SCAMP is intended for transmitting messages—text with binary attachments—via 2-kHz bandwidth HF and VHF voice channels. The program is compatible with Winlink2000. SCAMP uses the Redundant Digital File Transfer (RDFT) transport layer, developed by Barry Sanderson, KB9VAK, with the addition of Automatic Repeat Request (ARQ)--the technique all "linked" modes use to ensure error-free transmission—and message layer protocols that Muething developed. He says SCAMP offers a moderate-throughput, error-free protocol that works using conventional sound cards and modestly powered computers. The RDFT utilities and documentation for the Windows and Linux operating systems have been released under the GNU General Public License (GPL). Muething says a dozen dedicated testers began initial on-air testing on HF and VHF November 27 using the alpha version of a Windows-based SCAMP client called Paclink SCD that he and Vic Poor, W5SMM, developed. In addition to Muething and Poor, alpha testers included Scott Thile, K4SET; Bud Thompson, N0IA; Bill Hickey, AB7AA; Howard White, VE3GFW; Dave Wagner, WA2DXQ; Lor Kutchins, W3QA; Larry Trullinger, KB0EMB; Mike Burton, N6KZB; Bill Kearns, WB6JAR, and Steve Waterman, K4CJX. Primary testing was done on 40, 30 and 20 meters, and VHF testing was carried out on 2-meters using both FM and SSB. Alpha testing will continue over the next several weeks, and beta testing is set to crank up in February, Muething says. The first successful transcontinental exchange of Amateur Radio email messages using SCAMP took place December 4 on 20 meters be-

tween N6KZB in Temecula, California, and W3QA in West Chester, Pennsylvania. Each station ran 70 W. "Several other two-way exchanges were also made over the weekend as operational and protocol bugs were fixed in the alpha software," Muething reports. "The throughput of SCAMP adjusts to the channel quality, reaching a current net maximum of about 4800 bytes per minute before compression gains." Muething says SCAMP doesn't require anything more than a 1-GHz class Pentium or Celeron processor with a minimum of 128 MB of memory to reach full throughput. Lesser systems may be used at reduced throughput. The complete SCAMP specification is available and will be released under the GPL as a blueprint for client developers to insure compatibility across different implementations. Muething says further protocol optimization continues to up system throughput and improve its robustness in poor HF multipath channels. He'd also like to see some band plan restructuring to "open up spectrum for digital modes and encourage new experimentation and development like SCAMP." The ARRL has sought comment from the amateur community on draft proposals <http://www.arrl.org/announce/bandwidth.html> seeking to regulate subbands by emission bandwidth rather than by mode. At this point, the proposals remain a work in progress, and the ARRL has not petitioned the FCC for any changes. Muething has more information on SCAMP. Contact him via e-mail <kn6kb@arrl.net>. Information on RDFT is available on the Web <http://www.svs.net/wyman/examples/hdsstv/index.html>.

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The ARRL Letter   Vol. 23, No. 50   December 24, 2004
==>AMATEUR RADIO COMMUNITY FUELS "BEST YEAR EVER" FOR UNITED WAY TOY DRIVE

Contributions from the Amateur Radio community to the ARRL Holiday Toy Drive resulted in "the best year ever" for its benefactor, the United Way's White Doves Holiday Project in Martin County, Florida. Martin County United Way agreed to serve as a collection point and to coordinate toy distribution. "They have enough toys to cover their own program and three others, all over the region," said ARRL Media and Public Relations Manager Allen Pitts, W1AGP, who says a toy stuffed bear inspired him to spearhead the program. The toys and donations will help brighten holidays for youngsters and families whose lives were devastated by the hurricanes that hit Florida earlier this year. Carol Hodnett, a director at the United Way site, says the storms and their aftermath were especially traumatic for children. "In addition to the frightening experience of going through the hurricanes, youngsters are coping with a great deal of stress felt within their families and at school," she says. In Central Florida, more than 22,000 homes were destroyed and another 40,000 received significant damage. Thousands of families remained homeless as the holiday season approached. Pitts says that radio amateurs, who had helped provide emergency communication in the hurricanes' immediate aftermath, came to the rescue yet again in the toy drive. Hams and ham radio clubs from Maine to California purchased thousands of new children's toys. Most hams included QSL cards with their toy or cash donations. Among the elves: Phil Royce, KE4PWE, of the Palm Beach Amateur Radio Council—representing radio clubs in Palm Beach County—recently delivered a toy donation to Martin County. "The place is loaded with toys," he said of the fair-

grounds staging area, where the donated toys have been stored and sorted since they began arriving. ARES New York City District Emergency Coordinator Mike Lisenco, N2YBB, said the ARRL Holiday Toy Drive provided hams in his area an opportunity to pay back the assistance hams from all over the US rendered in the wake of the September 11 terror attacks. "This is just one way we can say 'thank you,'" he said, "to be able to reciprocate and help someone else in their time of need. Paying it forward, if you will." Lisenco also offered special thanks to Bill Davis, KC8CQT, and to FedEx. "Bill, who works as a member of the FedEx Customer Advocate Team, went out of his way to arrange for FedEx to pick up the cost of shipping the toys to Florida," he explained. "His help, and the generosity of the FedEx Corporation, is greatly appreciated." Diane Tomasik, associate director of the Volunteer & Community Resource Center at the United Way of Martin County, said the toy distribution started Monday, December 20, even as more donations continued to arrive from the Amateur Radio community. "We will not only serve about 1200 families from our own site but also have plenty to share with Indiantown and the Children's Home Society—which covers the whole Treasure Coast region," she told ARRL. "We also will be able to give toys to children though the sheriff's department programs." Tomasik noted the more than $8000 in cash donations will allow the agency to fill the gaps for age groups that were short of toys. "The White Doves Project has had a phenomenal success this year, thanks to the efforts of the ARRL nationwide," she said. "It's our best year ever." Pitts said the event's success has shown Amateur Radio's best side. "The ARRL is all of us working together," he said, "and the League should feel very proud of what we accomplished together for these children of the storms."

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FCC approves first software defined radio: The FCC for the first time has approved use of a software defined radio (SDR) device in the US. This new class of equipment allows users to share limited spectrum, increases flexibility and reduces interference concerns. "This is the first step in what may prove to be a radio technology revolution," FCC Chairman Michael K. Powell said after the November 19 action. "The industry's pioneering work to find more creative and efficient use of our airwaves will continue to bring benefits to consumers." The Laboratory Division of the Commission's Office of Engineering and Technology issued a Grant of Certification to Vanu Inc, a software development company, for a cellular base station transmitter. SDRs can change frequency range, mode or output power without resorting to hardware changes or switches. This programmable capacity permits radios to be highly adaptable to changing needs, protocols and environments. An FCC rule making proceeding, ET Docket 03-108, is pending to further streamline SDR requirements. The ARRL has told the FCC that Amateur Radio is "a fertile testing ground" for SDRs and that the technology would be especially valuable to facilitate disaster communications.

Questions for General Class License

1. (G1A05) What are the frequency privileges for a General Class control operator in the 20-meter band?
A. 14025 - 14100-kHz and 14175 - 14350-kHz
B. 14025 - 14150-kHz and 14225 - 14350-kHz
C. 14025 - 14125-kHz and 14200 - 14350-kHz
D. 14025 - 14175-kHz and 14250 - 14350-kHz

2. (G1D09) If you are a Technician Class operator with a CSCE for General Class operator privileges, when mu st you add the special identifier "AG" after your call sign?
A. Whenever you operate using your new frequency privileges
B. Whenever you operate
C. Whenever you operate using Technician frequency privileges
D. A special identifier is not required as long as your General class license application has been filed with the FCC

3. (G2B05) When selecting a single-sideband phone transmitting frequency, what minimum frequency separation from a contact in progress should you allow (between suppressed carriers) to minimize interference?
A. 150 to 500 Hz
B. Approximately 3 kHz
C. Approximately 6 kHz
D. Approximately 10 kHz

4. (G2E01) What type of messages may be transmitted to an amateur station in a foreign country?
A. Messages of any type
B. Messages that are not religious, political, or patriotic in nature
C. Messages of a technical nature or personal remarks of relative unimportance
D. Messages of any type, but only if the foreign country has a third-party communications agreement with the US

5. (G3B01) If the maximum usable frequency (MUF) on the path from Minnesota to France is 24 MHz, which band should offer the best chance for a successful contact?
A. 10 meters
B. 15 meters
C. 20 meters
D. 40 meters

6. (G4D10) What would be the voltage across a 50-ohm dummy load dissipating 1200 watts?
A. 173 volts
B. 245 volts
C. 346 volts
D. 692 volts

7. (G5A10) What unit is used to measure impedance?
A. Volt
B. Ohm
C. Ampere
D. Watt

THE OHM TOWN NEWS
PO BOX 111
PROVIDENCE, UT 84332

January, 2005

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