

THE OHM TOWN NEWS *Voice of the Bridgerland Amateur Radio Club*



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PRESIDENTS MESSAGE

by Boyd Humpherys W7MOY

HAM PROFILE

Over where the sun comes up early and goes down early, Mendon, to be exact reside a great couple who have seen this type of thing for a long time. Ken Buist, KC7QES, one of our BARC board members and involved club members, and spouse Pam, decided Cache Valley was the place to live and with an active Radio club, we are inclined to agree.

Ken was born in Mendon, has held a Tech license for about 10 years, and graduated from Skyview in 72. He sports a couple of 2 m HTs, a couple of 50 watt mobiles, some mag mounts and a J pole out in the shop.

As a matter of historical interest and nostalgia, Mendon was a regular stop for the old UIC electric train that brought the early pioneers into the valley and the fur traders out. It made the circuit around the valley



and when the snow was cleared off the tracks and horses and cows out of the way, eventually wound up in Preston ID. It was fondly dubbed the Galloping Goose. As I recall Ken didn't mention riding this thing, but I

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shy of the new year. So I will go ahead and wish you all a happy new year! This year promises to be another fun one. We have January – March already planned out. Probably a build it party in May, so that leaves April left to plan. I wish to thank last the 2005 board members

I am writing this on New Years Eve, 2 hours

and officers. A club does not run without everyone

pitching in and helping out. I have been so lucky to work with these fantastic folks. We welcome Jacob Anawalt KB7YKO, as this years Vice President. Jacob is already a fantastic doing iob. Tammy Stevens N7YTO moves from Vice President to Secretary. The secretary is the one that keeps the President out of trouble and on Tammy has already task. called me about Januarys Thanks Tammy. meeting.



We bid farewell to Julie Dabb, KC7RPP. Julie has served in various club positions over the years. She is a student at USU. Thanks Julie. Everyone else is the same as last year. It is so good to work with an experienced bunch of folks.

In December we received a donation from the Top of Utah Marathon of \$500.00. This was such a nice gesture from them. Thank you Top of Utah. We will use this money to continue our efforts in supporting them and other public service events. This year we purchased a really nice antenna for the portable repeater. It worked really great this year for the TOU as John Waldron KB7WET took the repeater up an old mountain goat trail to overlook Black Smith Fork Canyon. You will have to ask him about his adventure. Almost had the truck on it's side.

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UPCOMING ACTIVITIES 2006

January 14, 8:15 A.M. - Breakfast (buy your own) at Golden Corral, North Logan Primarily those interested in HF

January 14, 10:00 A.M. - Club Meeting Open House to show off Ham Radio, bring a friend

February 11, 10:00 A.M. - Club Meeting Wally Gibbons WA7ASQ will speak about old time radio

> February 25 - Annual Utah VHF society swap meet in SLC

March 11, 10:00 A.M. - Club Meeting Mel Parkes, AC7CP, ARRL Section Manager will speak

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

ARES Meetings are usually held on the Third Wednesday of each month at 7 P.M. at the Cache County Sheriffs Complex. Contact Tyler Griffiths for more information or if you want to be involved.

Secretaries Corner

Thanks to all those who supported the club Christmas party at the Bluebird. We had a lot of good food and lots of door prizes. Congratulations to the Godfrey family and Mrs. Paul Hansen on winning the grand prizes.

N7YTO

Special Event

We are inviting all amateur radio operators -especially the old-timers - to the Golden Corral for breakfast on the second Saturday of January at 8:15 AM for an opportunity to meet other hams with your interest. This is a buy your own breakfast event. Several older hams with interests in HF and CW have asked who else around is interested in these areas. Now is your chance to come out and meet each other and socialize. Anyone old or young, especially those interested in HF and CW communications are invited to attend this event.

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

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(Presidents Message Continued from page 1)

In January we have our ham radio open house. The goal here is to bring a friend and show them what it is all about. We will have several stations so folks can learn more about the various aspects of ham radio. It is for new hams as well. A Buy your Own breakfast event will start at 8:15 am at the Golden Corral in North Logan. This event is to bring together all the folks who are into HF. I hope you will spread the word.

In February Wally Gibbons WA7ASQ will speak to us about old time radio. He will probably show off a set or two. He has a whole slew of various antique and vintage radios. He may even show us an old 2 meter set. You will not want to miss this event. On the 25th of February in SLC is the annual Utah VHF society swap meet. The VHF society supports some of the repeaters throughout Utah. The 146.72 MT. Logan repeater is aligned with the VHF society and we have received funds from them for various aspects of the repeater. The swap meet is just a fun event to go down and visit with hams from around the state. There is usually plenty of used equipment. The Davis Club has there store there, and they give away a few prizes. You can learn more about the VHF society from their website at http://www.ussc.com/ ~uvhfs/.

In March we will have Mel Parkes, AC7CP, our ARRL Section Manager speak too us. It is always great to hear from Mel. He has a lot of enthus iasm for the hobby, and can brief us on things that the ARRL is doing for us.

We are working on a ham class to start in February and run a few times to prepare for the March exam session. Let folks who might be interested know about it. We will order some books for the class in January. We hope to spend some time this year promoting the hobby. We have a nice table top display. I just received some handouts from the ARRL that I ordered. If your community has an event that you think would be a great opportunity to demonstrated the hobby, come get the display and handouts. It is real easy to set-up. All you need is an 8 foot table.

I am looking forward to seeing you all this new year at all of our wonderful events and on the air on Tuesday nets. I realize some of you can not make it to our club activities very often. Come when you can or hop on the air and say Hi once in awhile.

(Ham Profile Continued from page 1)

suspect his parents may have done so. It came over the hill from Collinston, paused at Petersboro to pick up the crowds of eager students who attended South Cache high, with the RR right of way providing a handy escape route for those who wanted to walk home and get out of 3rd. hour history.

Ken was employed at Thiokol for quite a few years, working with the facilities group, also doing a few good things in his cabinet shop. He is presently working at USU as facilities coordinator at the new library. Those of you who haven't ventured into the new building up there, you really ought to do it. For a small stipend, such as an ice cream cone, some spare fuses, or spare coax cable, Ken might be persuaded to give you a cooks tour with all the bells and whistles, the latter two of which of course are now forbidden in the library.

Ken tells of a narrow squeak with the local draft board back during the Vietnam conflict. His brother was in the service and served there earlier. He received an official notification that Uncle Sam wanted HIM, remember the posters? He duly made an appearance at the proper office, at the proper time, to be greeted with "We don't have any paper work on you, go away". Dutifully he did (ran), and things calmed down after that. That goes to show you, good prospective members of BARC have good things happen to them.

His interests in Amateur Radio probably began when employed at Thiokol, they had a good club, a repeater, and a good bunch of members. All things said and done, he felt that if most Hams were of that type, (which they are), he ought to be associated.

Ken is an outdoorsman, loves to hunt, fish, camp, 4 wheel and get out of the rat race. He related where on several instances, tough situations with accidents out in the boonies, were happily resolved with the use of Ham gear. Those types of situations still happen and thank heavens more and more people are recognizing the advantages of communications capability provided by our clan.

He met his future supervisor, Pam Worthen, at school, her dad attending USU. She hails from Panguitch, a former Indian encampment South of the Point of the mountain. Generally located on the way to Henrieville or Hatch. Got that?

They have 4 harmonics, all married and living within the valley, which keeps the gas budget within limits. Pat gets involved in painting murals, especially on the walls. She indicated she was proud of one in their house, I'm guessing it's one depicting the Welle svilles. Anyone else good for a guess?

73's,

Kevin Reeve N7RXE

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73s Gang

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The ARES E-Letter December 21, 2005 Wilderness Protocol

Recently, I found a book by fellow Floridian Reid Tillery, KG4YFE. An avid hiker and camper, he has a section in his book about radio use for those traveling in wild areas.Part of it covered the "Wilderness Protocol for Amateur Radio." In February 1994 QST, William Alsup, N6XMW, put forth this idea: a set of VHF and UHF frequencies and a basic schedule for monitoring the frequencies for contact from Amateur Radio operators in wilderness areas. The primary frequency band proposed was two-meters with secondary frequencies on six-meters, 1.25-meters, 70-centimeters, and 23centimeters. I expect by no coincidence, the simplex frequencies N6XMW suggested are also the National Simplex Calling frequencies or the Primary Simplex frequency for the bands in his proposal. The frequencies for the Wilderness Protocol are 52.525 MHz, 146.520 MHz, 223.500 MHz, 446.000 MHz and, 1294.500 MHz. The proposed schedule for monitoring the frequencies is every three hours on the hour starting at 7 AM local time until 7 PM local time. For those radio amateurs with more time or a scanner, monitoring more often is encouraged. The basic schedule gives someone who is out of cellular service range and not able to contact a repeater a specific time when someone should be listening to get word to the proper authorities in the event of an emergency situation. The base monitoring time is 5 minutes. I also found suggestions to start monitoring 5 minutes before the hour every other time so that minor differences on the clock of monitoring hams and hams in the woods would not cause them to miss each other. Making daily contact with a hiker to know an extended hike is going without incident, or to pass routine traffic to and from family was another suggested use for hams with opportunity to monitor the Wilderness Protocol frequencies regularly. It occurred to me that having hams following the Wilderness Protocol can be of use to more than hikers and campers. Throughout the country hams are on the road traveling for business and pleasure. While cellular phones have become a common belt-looped appliance, there are many locations where "no signal" is the only message they will display. Vehicle accidents, mechanical failures, and worse can happen along any stretch of road. So whether you are near a national forest, a large wooded park, or on the outer edge of suburbia, monitoring at least the primary two-meter frequency of the Amateur Radio Wilderness Protocol may provide needed assistance to someone in dire straits. I encourage all ARES groups to include the Wilderness Protocol in their local membership manuals and to recommend to their membership to monitor the associated frequencies as regularly as they want their membership to be monitoring their local ARES repeaters .-- Michael Potaczala, KC4NUS, Orange County ARES, Florida See also:

<http://www.floridaadventuring.com/>;

<http://www.tcoe.trinity.k12.ca.us/~tcarc/tcproto.html>; <http://www.arsqrp.com/ars/pages/cumlative_index/ wilderness.html>;

ARES Field Resources Manual (Appendix 10, page 87).

The ARRL Letter Vol. 24, No. 48 December 9, 2005 ARRL Web site offers Winlink 2000 page:

The ARRL now has a Web page http://www.arrl.org/tis/ info/winlink.html> devoted to Winlink 2000 <http://www. winlink.org>, the software and hardware system that links Amateur Radio to the Internet and allows sending and receiving e-mail messages via Amateur Radio. The League's new Winlink 2000 resource page contains general information about Winlink 2000, including articles, reprints, links and other useful information. A worldwide radio digital messaging system, Winlink 2000 also offers position reporting, weather bulletins and graphics, and emergency communication capabilities. It's already being used extensively by radio amateurs in the sailing and cruising communities as well as by recreational vehicle travelers, missionaries, scientists and explorers. The ARRL Board of Directors in 2004 encouraged the deployment within the Amateur Radio Emergency Service (ARES) of e-mail via Amateur Radio "as exemplified by Winlink 2000" to meet the needs of served agencies and others involved in providing disaster communications. Amateur Radio volunteers responding to help in the wake of Hurricane Katrina utilized Winlink 2000 with great success.

When all else fails, how will you power your communication equipment? The ARRL's new Emergency Power for Radio Communications by Michael Bryce, WB8VGE, can provide the answer, with information on emergency or backup power, energy independence, portable power and more. Emergency Power for Radio Communications explores the various means of electric power generation and shows you how to plan ahead to stay on the air when weather or other circumstances knock out conventional power-short-term or longer. It also examines how to go "off the grid" by employing alternative power-generation methods such as solar, wind and water power. There's a selection of emergency power projects and information from the pages of QST too. Emergency Power for Radio Communications is \$19.95 plus shipping and handling. Order from the ARRL on-line cata-< http://www.arrl.org/catalog/? log category=&words=Emergency+9531> or call toll-free 888-277-5289.

Thanks to the generosity of Icom, MFJ and NCG (Comet), the ARRL has embarked on a project to learn firsthand what D-Star <http://www.arrl.org/FandES/field/regulations/ techchar/> digital technology has to offer and to assess its capabilities in a real-world Amateur Radio environment. Icom, so far the only ham radio manufacturer offering D-Star equipment, has donated a D-Star voice repeater, data repeater and controller to W1AW. Eight model ID-1 D-Star 10 W mobile transceivers are on loan from the manufac-

turer. "We appreciate Icom's cooperation and support as we explore DStar's capabilities and learn more about digital radio systems," ARRL CEO David Sumner, K1ZZ, said in expressing the League's gratitude. MFJ donated an MFJ-1532N Pulsar, which is serving as the transmitting antenna, while NCG contributed a pair of Comet GP21 antennas to receive digital data and voice for the 1.2 GHz (23 cm) multipurpose D-Star system. The antennas have been installed on two of the W1AW antenna support structures. Although still in the early phase, the project plans to exercise the technology's digital voice and data capabilities as well as its capability to become part of a wider D Star digital repeater network via an Internet gateway. Icom Amateur Products Division Manager Ray Novak, N9JA, says the D-Star standard, first published four years ago, resulted from government-funded research in Japan administered by the Japan Amateur Radio League (JARL) to investigate Amateur Radio digital technologies. Novak emphasizes that D-Star is an open protocol that's available for implementation by anyone, and Icom is working with other manufacturers to get more D-Star compatible gear on the market. "Amateur Radio is again out there in the forefront of technology," Novak says. Although he concedes there's a steep learning curve ahead, he predicts Amateur Radio users will invent new ways to put D-Star technology to work as they get better acquainted with its possibilities. At this stage, the D-Star 23-cm repeater is up and running in digital voice mode, and W1AW Station Manager Joe Carcia, NJ1Q, and ARRL Web and Software Development Manager Jon Bloom, KE3Z, enjoyed the first contact through the repeater on November 30. In the meantime, Bloom has been working to interface the D-Star system with a Linux server, which will serve as an Internet gateway, to check out that aspect of the system. Novak says the digital voice stream can simultaneously handle voice at 3600 bps with error correction and data at up to 1200 bps. Since a D-Star voice signal occupies only 6.25 kHz, Novak says, the potential is there to make more efficient use of available spectrum on 2 meters by squeezing up to four D-Star repeaters into the same space as two analog channels. New repeater modules are in development for 2 meters and 70 cm. Working through a D-Star repeater is a bit different than using an analog repeater. Your call sign is the key to a D-Star system, since it's incorporated into every transmission you make. "Because of D-Star's call sign-routed system," Novak explained, "registered users are able to crosscommunicate with stations registered on another network's D-Star repeater, wherever it may be." Novak says the 1.2 GHz D-Star system's high-speed (128 kbps) data capability is another exciting feature. With the Ethernet jack on the Icom ID-1 transceiver, you now have the functionality of an ISDN (integrated services digital network) line available in your vehicle," Novak said. "We'll have to find new ways of using this technology," he continued. "That will be where ham radio changes. This opens up an unbelievable array of features for repeater systems-including graphics, schedules, tables, photos, you name it!" A D-Star Last Heard Report Web page <http://www.dstarusers.org/> lists stations heard, their location and the date and time and, sometimes,

type of transmission. The K5TIT Dallas D-Star Web site <http://www.k5tit.org/> includes a repeater listing and a discussion forum, and a promise of more to come.

==>ARES EMERGENCY NET ESTAB-LISHED AFTER MISSOURI DAM BREAK When millions of gallons of water breached the wall of a mountaintop hydroelectric reservoir in rural Reynolds County, Missouri, December 14, an ARES emergency net was quickly established on the Van Buren repeater. The deluge washed down the mountainside, sweeping away homes and vehicles and flooding the valley below. A dwelling occupied by a park superintendent, his wife and three children was among those washed away. The family was found a half-mile away, and the children all were hospitalized, at least one of them in serious condition. The own of Lesterville was under a voluntary evacuation order. ARRL District G Emergency Coordinator Dave Hannigan, KN0D, reports stations checked into the net from Poplar Bluff, Piedmont, Eminence, Elsinore, Van Buren, Redford and Koshkonong. The net also heard from mobile stations near Leper, Piedmont, Van Buren and Ironton. The reservoir breach reported occurred after a pump failed to shut down at utility Ameren UE's Taum Sauk hydroelectric plant, which stores water from the Black River in an upper reservoir, releasing it to a lower reservoir to generate electricity. Hannigan said HF and VHF stations activated at emergency operations centers in Shannon and Carter counties. "I was contacted by the Shannon County sheriffs dispatcher through the NPS [National Park Service] dispatch," Hannigan said. "The various net controllers kept me updated as I was working but had a 2 meter [equipment] with me. No emergency traffic was passed but it was a good exercise, and I was really proud of the rapid wide-area VHF radio coverage." In all, 16 stations responded to the emergency callup.-Missouri SM Don Moore, KM0R

Leap second to be introduced as new year arrives: The International Earth Rotation and Reference Systems Service (IERS) has announced the introduction of a "time step" at the end of December to add a "leap second" as 2006 arrives. Leap seconds are needed to keep clocks in step with Earth's rotation, which varies by several thousandths of a second per day. Slowing down the clocks every year or two keeps them in sync. As 2005 transitions to 2006, Coordinated Universal Time (UTC) will be retarded by 1.0 second. This essentially means that the last minute in 2005 will be 61 seconds long: December 31, 2005, 23:59:59; December 31, 2005, 23:59:60; January 1, 2006, 00:00:00. This adjustment will affect UTC and all time scales based on UTC. Loran-C and GPS will not be adjusted physically, however. Times of Coincidence for LORAN-C are available on the Time Service Web Page. For GPS, the leap second correction, contained within the UTC data of the navigation message transmitted by satellites, will change. After the leap second GPS will be ahead of UTC by 14 seconds.

Questions for General Class License

1. (G1E11) What operating restrictions must amateur radio stations observe while operating in the 60-meter band?

A. They must not cause harmful interference to stations operating in other radio services

B. They must transmit no more than 30 minutes during each hour to minimize harmful interference

- C. They must use lower sideband, suppressed-carrier, only
- D. They must not exceed 2.0 kHz of bandwidth

2. (G2D05) What is the most useful type of map to use when orienting a directional HF antenna toward a distant station?

- A. Azimuthal projection
- B. Mercator
- C. Polar projection
- D. Topographical

3. (G3A12) What is the K-index?

- A. A linear index of solar activity
- B. A measure of geomagnetic stability
- C. An index of solar flux measured at Boulder, Colorado
- D. A daily value measured on a scale from 0 to 400 to express the range of disturbance of the geomagnetic field

4. (G4B01) What item of test equipment contains horizontaland vertical-channel amplifiers?

- A. An ohmmeter
- B. A signal generator
- C. An ammeter
- D. An oscilloscope

5. (G5A04) In a capacitor, what causes opposition to the flow of AC?

- A. Resistance
- B. Reluctance
- C. Reactance
- D. Admittance

6. (G8A06) How much should the carrier be suppressed below peak output power in a properly designed singlesideband (SSB) transmitter?

- A. No more than 20 dB
- B. No more than 30 dB
- C. At least 40 dB
- D. At least 60 dB

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