



THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

JANUARY 2003

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

HAM PROFILE

By Boyd Humpherys W7MOY

Sitting on the brow of a hill with a clear view of the valley, a perfect site for a multi element 160 rotatable beam, Bill Jones, KC7MYB, (mind your business) decided perhaps he didn't have enough room for all that and settled for some portable VHF stuff. We noted his original ticket as W7KIR, dated 1-24-47, a sizable chunk of ones life. He sports a dual band HT, plus a Kenwood R1000.

Bill is a native Cache Valley-ite, born in Wells-ville, graduated from South Cache High School, which doesn't exist any more. As I recall a few old memories of the place, we tried to tear the place down way back then also. Anyone recall rotten egg gas in the ventilation system, some other verboten stuff in the drinking fountains that blew up and spread smoke in the halls? Bill insists



that by the time they graduated in 1941, none of those type of capers were engaged in. It was a well known fact that for some small consideration, a key to Kellett's storehouse of goodies could be had. Bill attended USU for a short period, then joined the ranks of Uncle Sam's Navy, managed to glean some further education while in the Service, came out with Lt. JG rank, and ultimately retired from the reserve in 85 with a full Lt. rank.

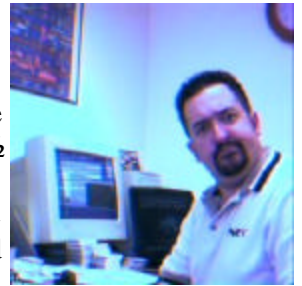
After the hostilities of WW2 were over, he came back, attended USU, taught part time in EE and finally obtained a masters in Physics, with a years sabbatical at Stanford. Probably many of you remember Bill as part of the great EE teaching staff at USU and he pounded a lot of the basics into many dense skulls, mine for one. When he finally decided to throw in the towel, 39 years on the faculty had accumulated. A gold

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PRESIDENT'S MESSAGE

Greetings and New Year's salutations! It is with great humility that I address you as the new BARC president. Tyler's is a tough act to follow, and I am grateful that he will be around as a board member to bail me out if/when needed.

The New Year gives us the opportunity to reflect upon what we have accomplished in the past. As I look back at the 2½ years since getting my ticket, I think of all I have learned, all the activities I've participated in, and all of the friends I have made. I can't help but be grateful that I got into Amateur Radio while living in an area with such a strong club. Had I not, I'm sure I would have lost interest a long time ago.



As I have listened to other hams talking about their clubs, I have noticed some interesting things about ours. First is the quality of people. Our club is fairly small, and yet year after year we are able to field enough people to support two very large events (Lotoja and the Top of Utah Marathon) and many smaller ones. Despite being very busy, people are always willing to help.

The second interesting characteristic I have noticed about our club is the range and depth of interests, knowledge and experience. Many people I talk to from other small clubs complain about the lack of diversity of interests among their membership. One thing that has always impressed me about BARC is that whatever mode you want to try, chances are someone in the club has tried it. It seems that whenever a new mode or technology is introduced, there are always at least a couple of brave souls in the valley who are chomping at the bit to give it a try. On two occasions I can remember reading about some new up-and-coming technology only to find that someone in the valley had already been playing with it. I think this is extraordinary in a club our size.

As great as things are, we do face some challenges. It seems that life gets busier every year, and it's not al-

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watch, a couple of free tickets to the Ag's football games, spending privileges at the local five & dime, plus a few other goodies, persuaded him to join the ranks of the free and uninhibited.

We need to mention here that a certain Lila Clark, also from Wellsville and attending South Cache High, didn't go unnoticed. They renewed friendships at USU after his stint in the service, decided they both ought to be titled Mr. & Mrs.

They have six children, four boys & two girls. Lila's interests have been music, she taught piano for years, is into crafts, cooking and can likely come up with a recipe for just about anything you might fancy.

Bill, incidentally admitted to a few covert activities way back when, in staging some rather indiscreet VHF transmitter hunts. One in particular involved refuge out in Clarkston in the bottom of a gravel pit, surrounded by high earthen banks. Those were the days of 2 tube superregen receivers in cigar boxes, outlandish multi element beams hanging out of car windows which when snagged on passing trees, generally caused a real spectacle, a couple of traffic tickets, and a few mutterings here and there.

Bill now manages the Logan Family History Center in the basement of the Tabernacle. If you are involved in family research to any degree, drop in and say 73s, the facilities there will amaze you. The latest state of the art, and wouldn't you expect that from a Ham? Bill is a man of few words, but those few make real sense.

VE Test Session

Coming up at 8:00 a.m. on 8 March 2003

At Campbell Scientific Inc.

815 West 1800 North

Logan, Utah

VE Test sessions are your opportunity to become a ham, or upgrade your current license. Exam sessions are held in Logan every few months. Other sessions are held throughout the state. It is possible to find a test session every month somewhere in the Northern part of the state. Those seeking a ham license should bring two forms of ID, one of which must be a picture ID. Those seeking an upgrade to a current Amateur should bring a copy of their current license, any CSCE, and a picture ID. Calculators are allowed. Calculator memories must be cleared before use. Decisions of the VEC is final.

The ARRL VEC, the VEC our local VE group is affiliated with, has increased the test fee to \$12. This will be the fee starting with this test session. For info Contact Clyde Best AC7KN at 563-9492.

BARC Club Meeting

9 January 2003

Hyde Park City Offices

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

The ARRL Letter Vol. 21, No. 47 December 6, 2002
FIRST AMATEUR TRANSATLANTIC HF
DIGITAL VOICE QSO REPORTED

Radio communication pioneers Ten-Tec and Thales have announced that they've used an Amateur Radio linkup to span the Atlantic on HF digital voice for the first time. Ten-Tec's Doug Smith, KF6DX, and Thales' Didier Chulot, F5MJN, successfully transmitted and received HF digital speech signals November 22 between Paris, France, and Ten-Tec's Sevierville, Tennessee, headquarters. "We view this as a significant accomplishment," said Smith. "Amateur Radio has long been at the forefront of technological development. It's nice to be able to show that our legacy is alive and well." Tests are being conducted under the auspices of ARRL's Digital Voice Working Group, which Smith chairs. A written report on the tests is due in January. Calling it "a major breakthrough," a Ten-Tec news release said the two amateur stations "demonstrated the advantages of digital audio during the conversation, including noise-free, FM-like reception and the potential for simultaneous voice and data." The feat was accomplished on 15 meters using Ten-Tec transceivers and Thales Communications Skywave 2000 digital audio software. Operating as F8KGG, Chulot spoke with Smith for several minutes over the HF digital link, operating within a 3-kHz bandwidth. Smith said he and F5MJN used unmodified Ten-Tec transceivers in upper-sideband mode, although AM or FM mode also would work. No additional hardware was required beyond the cables connecting the transceiver and the microphone to the PC sound card. Smith said audio quality was roughly the same as a conventional telephone circuit. An Amateur Radio version of the Thales system is expected to appear on the market early next year. "At this stage, the system is experimental-only for ham radio, but it looks like it's going to take off," Smith predicted. In terms of Amateur Radio, Alinco was the first manufacturer to come out with a digital voice option for some of its transceivers. ICOM debuted its D-Star digital "concept radio" system last May at the Dayton Hamvention—where Smith chaired the Digital Voice Forum—and demonstrated it at the ARRL-TAPR Digital Communications Conference in September. The unit, which operates on 1.2 GHz, was scheduled to hit the ham radio market this fall. Technical details of the Thales system will appear in an article "International Digital Audio Broadcasting Standards: Voice Coding and Amateur Radio Applications" in the January/February issue of QEX, which he edits. The article is available on the ARRL Web site <<http://www.arrl.org/tis/info/pdf/x0301049.pdf>>. He

also has authored two articles on digital voice in QST: "Digital Voice: The Next New Mode?" <<http://www.arrl.org/tis/info/pdf/0201028.pdf>> in the January 2002 issue, and "Digital Voice: An Update and Forecast" <<http://www.arrl.org/tis/info/pdf/0202038.pdf>> in the February 2002 issue. Additional images and background are available on the TAPR Web site <<http://www.tapr.org>>. Look for the Digital Voice Forum page and the presentation by Cédric De-meure.—Ten-Tec news release; Doug Smith, KF6DX



NEW TECHNICIAN CLASS QUESTION
POOL RELEASED

The Question Pool Committee (QPC) of the National Conference of Volunteer Examiner Coordinators has released a revised and expanded Amateur Technician class (Element 2) question pool into the public domain. The new question pool becomes effective July 1, 2003, and must be used to generate all Technician written examinations administered on or after that date. "The newly revised pool released this week by the QPC includes significant efforts to present the pool in a more friendly and understandable fashion for beginners while maintaining appropriate emphasis on safety, rules and operating procedures," said ARRL VEC Manager Bart Jahnke, W9JJ. "The Technician syllabus was completely revised during 2002 to allow for the revamping of the new question pool." The new Element 2 question pool contains 511 questions—up from 385 in the April 2000 release that occurred around the time of Amateur Radio restructuring. The new question pool, available on the Amateur Exam Question Pools Web page <<http://www.arrl.org/arrlvec/pools.html>>, includes all questions and answers as well as graphics related to the questions for Element 2. The FCC rules (§97.523) require each question pool to contain at least 10 times the number of questions required to appear on any examination drawn from that pool. QPC Chairman Scotty Neustadter, W4WW, says the QPC has attempted to apply that same "10 times" principle to each subelement. Neustadter said "insignificant changes" to the Element 2 syllabus were made as they became obvious, although they were not specifically highlighted in this week's release. VECs have a certain amount of flexibility with the format of their examinations. Outside of the fact that questions, answers, distracters and related graphics must appear as they do in the question pool itself, "the manner of presentation is not interpreted to be of impact to Amateur Radio as long as clarity of presentation is preserved," Neustadter said. On behalf of the QPC, he

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also thanked all amateurs who assisted in the effort to revise Element 2. In addition to Neustadter and Jahnke,

members of the Question Pool Committee are Fred Maia, W5YI, and John Johnston, W3BE. The Question Pool Committee now will turn its attention to developing an outline for the General class (Element 3) question pool, which will be revised during the fall of 2003. The QPC has put out a call for input by January 31, 2003, to the Element 3 syllabus and question pool.

Commenters may address specific Element 2 questions as well as inputs to the Element 3 syllabus and question pool to the Question Pool Committee via e-mail <qpc@arrl.org>.

Vol. 21, No. 48 December 13, 2002

AMATEURS RESPOND TO CAROLINA ICE STORM

Accompanied by the worst power outages since Hurricane Hugo in 1989, a severe snow-turned-ice storm swept along through the Carolinas early on December 5, prompting area Amateur Radio operators into action to aid their neighbors during the emergency. "Sleet and snow began falling across the state the

afternoon and evening of December 4, but overnight it turned to freezing rain," said ARRL North Carolina Section Public Information Coordinator Gary Pearce, KN4AQ. "SKYWARN nets operated overnight across the state, providing the National Weather Service with updated information on changing ground conditions." More than 1.5 million customers in the Carolinas were left without power for much of the rest of the week and weekend. Power was not expected to be restored to many residents until after the this week. North Carolina Gov Mike Easley declared a state of emergency in the Tar Heel State. Four deaths in North Carolina were blamed on the storm; eight others died in Arkansas and Kentucky. With a half-inch of ice coating practically everything, widespread power outages, tree-blocked roads and temperatures uncharacteristically in the 20s, a number of North Carolina ARES groups activated, and hams provided support at numerous shelters across the state. ARES in Guilford County supported four shelters, the Red Cross and the county's Emergency Operations Center (EOC). Alamance County hams provided damage assessments to county emergency management teams, Wake County ARES supported four shelters, ARES in Gaston County was at two shelters and the county EOC, Harnett County hams helped at

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Bridgerland Amateur Radio Club Log-in # _____

Application for the Year 2003 Membership

Dues are in effect January 1, 2003 through December 31, 2003

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

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five shelters and amateurs in Nash County provided almost all communications from the town of Rocky Mount, according to Pearce. While a statewide ARES net was not activated December 5, the North Carolina state EOC in Raleigh was staffed with hams helping to pass traffic between there, county EOCs and the state's 25 open shelters. The Tarheel Net—the statewide ARES Net—operated throughout the day December 7, while operators from many of the affected counties maintained watch, but no requests were received for ham radio assistance. ARES EC Liaison for North Carolina Emergency Management John Guerriero, KG4HDT, demonstrated the HF and VHF Amateur Radio operation to the National Guard coordinator at the EOC. Over the weekend, Alamance County ARES operators also assisted with communications among the state EOC, the Red Cross and shelters. During a visit to the Alamance County EOC, Gov Easley thanked the volunteers and workers for their exceptional effort. Hams also were able to help in other ways, Pearce pointed out. "In the Raleigh-Durham area, there were long lines at the few grocery stores and gas stations that were able to open," he said. "Many repeaters remained on the air with emergency power, and hams passed tips on where to find open stores, gas, batteries and other supplies." All ARES activity secured December 10.



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ways possible to participate as much as we would want. Other technologies compete with Amateur Radio for the technology-oriented kids that used to flock to get their tickets. Industry is constantly looking for ways to steal our spectrum. It seems we are beset on all sides by forces much bigger than ourselves.

While many of these issues just seem too big to tackle, the key to solving all of them includes two easy steps. First, we have to educate others. I know all my friends are sick of hearing me talk about my ham activities, and hopefully all of yours are too! A couple of them are weakening and will hopefully soon be joining our ranks. The second step simply involves using our spectrum. Get on the air and talk to someone! Try new modes and bands. Have fun with it.

In conclusion, let me just say that I'm excited for the coming year. The board has some great people on it and there have been some exciting ideas proposed which we will be trying. Hopefully we will all have fun and maybe even learn something this year.

See you at club meeting!

73 de N7XZ

Microsoft vs. GM

At a recent computer expo (COMDEX), Bill Gates reportedly compared the computer industry with the auto industry and stated, "If GM had kept up with the technology like the computer industry has, we would all be driving \$25.00 cars that got 1,000 miles to the gallon." In response to Bill's comments, General Motors issued a press release stating: If GM had developed technology like Microsoft, we would all be driving cars with the following characteristics:

1. For no reason whatsoever, your car would crash twice a day. Every time they repainted the lines in the road, you would have to buy a new car.
2. Occasionally your car would die on the freeway for no reason. You would have to pull over to the side of the road, close all of the windows, shut off the car, restart it, and reopen the windows before you could continue. For some reason you would simply accept this.
3. Occasionally, executing a maneuver such as a left turn would cause your car to shut down and refuse to restart, in which case you would have to reinstall the engine.
4. Only one person at a time could use the car unless you bought "CarNT", but then you would have to buy more seats.
5. Macintosh would make a car that was powered by the sun, was reliable, five times as fast and twice as easy to drive but would only run on five percent of the roads.
6. The oil, water temperature, and alternator warning lights would all be replaced by a single "General Protection Fault" warning light.
7. New seats would force everyone to have the same sized rear end.
8. The airbag system would ask "Are you sure?" before deploying.
9. Occasionally, for no reason whatsoever, your car would lock you out and refuse to let you in until you simultaneously lifted the door handle, turned the key, and grabbed hold of the radio antenna.
10. GM would require all car buyers to also purchase a deluxe set of Rand McNally road maps (now a GM subsidiary), even though they neither need nor want them. Attempting to delete this option would immediately cause the car's performance to diminish by 50% or more. Moreover, GM would become a target for investigation by the Justice Dept.
11. Every time GM introduced a new car, car buyers would have to learn to drive all over again because none of the controls would operate in the same manner as the old car.
12. You'd press the "Start" button to shut off the engine.

Questions for Extra Class License

1. (E1B07) Who may accept compensation when acting as a control operator in a classroom?
 - A. Any licensed amateur
 - B. Only teachers at educational institutions
 - C. Only teachers at correctional institutions
 - D. Only students at educational or correctional institutions
2. (E1C08) What special document is required before a Canadian citizen holding a Canadian amateur license may operate in the US?
 - A. All aliens, including Canadians, must obtain an FCC authorization for alien reciprocal operation
 - B. No special document is required
 - C. The citizen must have an FCC-issued validation of their Canadian license
 - D. The citizen must have an FCC-issued Certificate of US License Grant without Examination to operate for a period longer than 10 days
3. (E2A11) What type of antenna can be used to minimize the effects of spin modulation and Faraday rotation?
 - A. A nonpolarized antenna
 - B. A circularly polarized antenna
 - C. An isotropic antenna
 - D. A log-periodic dipole array
4. (E3A01) What is the maximum separation between two stations communicating by moonbounce?
 - A. 500 miles maximum, if the moon is at perigee
 - B. 2000 miles maximum, if the moon is at apogee
 - C. 5000 miles maximum, if the moon is at perigee
 - D. Any distance as long as the stations have a mutual lunar window
5. (E4C02) What is the proper procedure for suppressing electrical noise in a mobile transceiver?
 - A. Apply shielding and filtering where necessary
 - B. Insulate all plane sheet metal surfaces from each other
 - C. Apply antistatic spray liberally to all non-metallic surfaces
 - D. Install filter capacitors in series with all DC wiring
6. (A5D07) What unit measures electrical energy stored in an electrostatic field?
 - A. Coulomb
 - B. Joule
 - C. Watt
 - D. Volt
7. (E6C01) What is the recommended power supply voltage for TTL series integrated circuits?
 - A. 12 volts
 - B. 1.5 volts
 - C. 5 volts
 - D. 13.6 volts

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PO BOX 111
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January, 2003

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