THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

APRIL 2001

http://www.barconline.org

HAM PROFILE

By Boyd Humpherys W7MOY

Normally anything generated around the 1st of April might be suspect, however the subject of this article deserves proper recognition. It is none other than one who many have described as the Patron Saint of Amateur Radio, Hiram Percy Maxim.

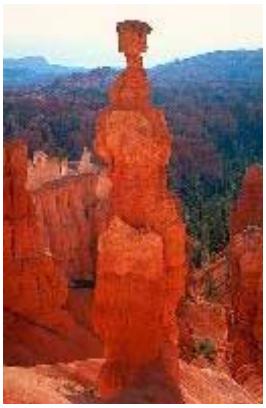
Although space permits just a brief peek at a family of notable inventors, let's begin with the birth of Hiram Stevens Maxim near Sangerville Maine in 1840. Of modest rural beginnings, legend has it that he and his brother Hudson stood atop a large boulder outside their home and with raised arms pledged to themselves that someday they would become famous. His only schooling consisted of five years in a one room schoolhouse. At age 14 he was apprenticed to a carriage maker and there perfected his first invention, an automatic mousetrap which soon rid the local gristmill of mice. He subsequently garnered some 271 patents, including devices for preventing rolling of ships, bombs for aircraft, a flying machine, smokeless powder, and ultimately perfecting the machine gun, a device the U.S. War Department labeled "unworthy". His later demonstration in England to Her Majesty's

(Continued on page 4)

Announcing the 2001 Utah Hamfest

The Utah Hamfest is again being held at Ruby's Inn in South-Central Utah near Bryce Canyon National Park.

Ever been to a hamfest? Do you even know what a hamfest is? Would you know what to do when you got there? Find the answer to this and other questions by going to the Utah Hamfest site at www.UtahHamFest.org. This event is scheduled to be held from July 13 through July 15, 2001, at Ruby's Inn (near Bryce Canyon National Park) in south-central Utah.



Among those events scheduled to happen at the hamfest are:

Swapmeet: Be sure you bring your junque!

Dealers: Have you been eying that new rig in the magazine? This will be your chance to get your hands on one...

Seminars: Learn new skills and techniques. Find out what others are doing (and how!)

(Continued on page 2)

Did you know that a goldfish has a Memory span of about three seconds?

At the BARC Club Meeting in March N7XZ had an excellent presentation on satellite communications. For those who are interested, he put the slides from the presentation on his web site. The BARC egroups page has a link to the site, or you can go directly to http://riknet.tzo.com/amsat.htm

Club Officers

President

Dave Fullmer N7RRZ
webmaster@spectradesign.com
(435)753-2685

Vice President

Jim Lofthouse K7OA
lofthouse@mtwest.net
(435)245-6632

Secretary

Julie Dabb KC7RPP
juliebugbug@hotmail.com
(435)797-6724

Treasurer

Kathy Brooksby KD7FXC
kathy@brooksby.com
(435)787-2984

Board Members

Mark Hebert AA1HR
aa1hr@arrl.net
(435)563-1135

Lem Earl KC7VLV
leme@sisna.com
(435)752-2255

Tyler Griffiths N7UWX
(Past president)
tyler@n7uwx.net
(435)752-7269

Newsletter Editor

Dale Cox KB7UPW
dalec@qwest.net
(435)563-3836

Repeater Chairman

Ted McArthur AC7II
tmac4@uswest.net
(435)245-4904

Web Page Editor

Kevin Reeve N7RXE
kevree@mdls.usu.edu

Presidents Message

Station Hints and Kinks

Aren't the new handhelds nice? They are so small and lightweight you can carry them about anywhere you go, and they are loaded with features. Unfortunately they can be rather frustrating at times. They have this thing about running out of battery power just when you need it. It is a good idea to have a spare battery pack. With relatively low power and a rubber duck antenna, one is often disappointed in the coverage you can get. Fortunately, most handhelds now days are able to operate on 13.8 VDC and can be operated from an automobile's battery, or a 120 VAC to 12 V regulated supply. This permits running full power indefinitely and sure saves on the batteries. Unfortunately it is usually folly to try to run the rig on the battery charger supplied with the unit as they are not filtered and regulated adequately and you will get a nasty AC hum on your signal. When you go looking for a regulated AC supply get one that is rated for at least 25% more than the current drain of your rig in the high power mode. This will insure that the supply doesn't drop out of regulation and induce a hum on the signal. Caution: when hooking up external power, be very careful to get the polarity right. Reverse polarity can damage the rig instantaneously. If you are only marginal into the repeater, there are a few things you can do to help out the situation. First keep the antenna pointing up so the polarization is correct. Search for a hot spot. Sometimes just moving a few inches or feet will show a dramatic improvement. Once you have found the right spot, stay put and don't wander around, or your signal will bounce in and out. Rubber duck antennas are not very efficient, though they are convenient for their small size. The best thing you can do to improve your signal is to use a better antenna design. For mobile use I suggest a 5/8-wave magnetic mount antenna for a quick and easy installation. A 5/8-wave antenna will give your signal a tremendous boost over a rubber duck antenna. The mag mount may also be used for home base

(Continued on page 3)

++++++++++++++++++++++++++++++++++++

(Utah Hamfest Continued from page 1)

Fun & Games: There are activities and contests to be held.
Meeting others: Get a chance to finally put a face with that voice...

Also, being that this is to be held near one of the most spectacular national parks, there is plenty to do that is not ham-related.

Riley Hollingsworth, K4ZDH
FCC Special Counsel
for Amateur Radio Enforcement

Special guests:

Rosalie White, K1STO
Manager, ARRL
Field & Educational Services

(Presidents Message Continued from page 2)

operations, or anywhere you want to plop it down. There are several commercial antennas that fit directly on your radio that perform much better than the duck. You can also build a variety of antennas to increase the performance, such as the ever popular J poles, or yaggis, and quads for some really good gain. For a home base installation, there are plenty of choices for high gain antennas. If you decide to permanently mount an antenna on your vehicle, I suggest that you steer clear of the front fenders, and bringing the coax through the engine compartment and through the firewall. This may seem like an easy route, but unfortunately this type of installation often picks up a whole lot of engine noise. The question often comes up: Should I buy a handheld or a 50-watt mobile rig? That depends of course on your intended use. If you think much or most of your operations will be from the auto, by all means go for the 50-watt rig. By the time you get a decent antenna to go with a handheld, a speaker mike, and a power cable to get it working right in the mobile it would probably be cheaper in the end to buy the 50 watt rig which comes packaged with a mike and power cable. The only extra you need is the antenna. Believe me, you will be impressed with the performance of the 50 watt rigs over the 5 watts you can expect to get with most handhelds. If your main objective is to pack the radio afield, for sporting events, then the handheld is the logical choice. Either one will do quite well for a base installation with a good antenna and power supply. How about one for the house, one for each auto, and one to pack around in your pocket? (Don't tell your spouse that was my idea.) Have fun! See you at club meeting.

Jim K7OA

P.S.: Thanks to the VEs, and congratulations to those who passed exams on March 10th.

73,Jim

++++++++++++++++++++++++++++++

VE Test Session

Coming up at 8:00 a.m. on June 9, 2001

At Campbell Scientific Inc.

815 West 1800 North

Logan, Utah

RACES Workshop Anouncment

IMPORTANT RACES ANNOUNCEMENT: The State of Utah RACES organization has scheduled a workshop for all RACES members in the State of Utah. The date is April 14, 2001 at the Draper National Guard Building. I don't think a time has been set as of yet. There will only be room for 225 attendees.

To attend this meeting you must fill out an application which is located on line at:

http://www.cem.state.ut.us/Radio/radio_enroll.htm

and you must be a RACES member. An application can be found on line at:

http://www.cem.state.ut.us/Radio/Application%20Races.pdf

if you are not currently a RACES member and are interested in joining. This workshop is always a interesting meeting to attend and a good experience for all. Also there is still plenty of opportunities for hams to help out UOPSC for the 2002 Olympics. An application can be found at:

http://www.cem.state.ut.us/Radio/HAM2002.pdf

These forms must be sent in ASAP because each person applying must have a background check performed on them before they can be accepted as a volunteer. If you need more information on any of these items please feel free to contact me!

Thanks for your time,
Tyler N7UWX

Did you know: In England, the Speaker of the House is not allowed to speak?

Thanks to Bill Neville for letting us know the source of the article that was published last month. He writes: Dave, I think your article in the Ohm Town News about balancing a two way radio system was verrry interesting. We should give credit where credit is due. That article originally appeared in the January 2001 issue of Mobile Radio Technology. The article was written by Pat Buller, W7RQT. Many of our older members will remember when Pat lived in Salt Lake City and worked as a radio engineer for Utah Power and Light. Pat was very active with UARC & WIMU. He was instrumental with installing the first AM 2 meter repeater in SLC as well as the .94 repeater. Pat was an electrical engineering student at USU. He also owned and operated a broadcast consulting business, that he purchased from Dr. Clark, AC7O, and Dr. Cole, until he moved to the Northwest. Pat currently works as a special projects engineer for Tacoma Power and is a regular contributor to Mobile Radio Technology Magazine. We should also acknowledge Mobile Radio Technology Magazine as the source of the article.

73s Bill WA7KMF

(Ham Profile Continued from page 1)
Government resulted in knighthood and becoming a naturalized British Subject. His brother Hudson became a notable chemist working in high explosives, compounds for propelling torpedoes, etc.

In 1869, a son was born to Hiram S. And Jane Budden Maxim in Brooklyn, N.Y. Thus Hiram Percy Maxim, began a notable career, fostered by a fathers association which often saw them addressing each other as "a genius in the family". Hiram Percy graduated from MIT at age 16, held many positions as a mechanical engineer, created an electrical automobile, and probably the most notable, the Maxim silencer for explosive weapons. Rather alarmed public concern that armed criminals with silent weapons would fill the countryside, emphasis was directed towards the various forms of mufflers for our auto and engine industry. He was recognized by the French for his insight into electronics.

He married Josephine Hamilton, native of Hagerstown MD, and the daughter of Governor Thomas Hamilton. Hiram Percy entered the world of Amateur Radio after his son Hiram Hamilton told him that one of his friends was able to telegraph a message across town by wireless. Once he was convinced this could be done, he was hooked. (Sound familiar?) Hiram's first Amateur Radio call sign was "SNY", which he made up. Rumor has it that the letters H-A-M were alleged to be the initials of the three operators of a powerful station in the early teens. When call signs were federally issued in 1912, he was assigned "1WH". This restricted him to 1,000 watts and a range of 200 miles. When he was allowed to make international calls, he was assigned "1AW". In 27, international agreements on call sign prefixes were adopted, he was issued the now famous "W1AW". That call sign is now the official club call sign of the ARRL's Hiram Percy Maxim Memorial station at Newington, Connecticut. Early, he envisioned the opportunities for Amateur frequency allocations and was instrumental in the founding of the International Amateur Radio Union, being their founding president. He was also co-founder of our US organization, the ARRL, being the first president. He died in La Junta, CO, 1936.

We owe our present operating privileges, allocations, and international voice to the efforts of this man of vision. Before you hit the key or the mike button, don't forget that.

++++++++++++++++++++++++++++++++++++++

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

ZCZC AG07
QST de W1AW
ARRL Bulletin 7 ARLB007
From ARRL Headquarters
Newington CT March 9, 2001

To all radio amateurs:

SB QST ARL ARLB007
ARLB007 Amateur Radio Spectrum Protection Act of 2001 Introduced

The Amateur Radio Spectrum Protection Act of 2001 is now officially HR 817. Rep Michael Bilirakis of Florida introduced the bill on March 1 in the US House of Representatives. ARRL President Jim Haynie, W5JBP, and ARRL First Vice President Joel Harrison, W5ZN, visited the Congressman's office to thank him personally for his continuing interest in protecting amateur allocations.

The measure has been referred to the House Committee on Energy and Commerce. The bill seeks to amend the Communications Act of 1934 by requiring the FCC to make no reallocation of primary Amateur and Amateur-Satellite allocations, diminish any secondary Amateur and Amateur-Satellite allocations, or make additional allocations within amateur allocations that would substantially reduce their utility without also providing equivalent replacement spectrum.

Early this month, a contingent of ARRL officials went to Washington for a three-day round of visits with senators and congressmen and their staff members. Haynie and Harrison also visited the FCC, where they spoke with Peter Tenhula, Chief of Staff to FCC Chairman Michael Powell.

Haynie was upbeat about the impact of the visits. "Once again we had an opportunity to tell our story about Amateur Radio and the important function it serves, especially in public service and education," he said.
NNNN
/EX

++++++++++++++++++++++++++++++++++++++

Preparations are starting for field-day. If you are interested in helping or if you have ideas that may help, contact Ted at 245-4904 or ac7ii@home.com, or Tyler at 752-7269 or Tyler.Griffiths@sficorp.com

1000 Marbles

(source from e-mail: author unknown)

The older I get, the more I enjoy Saturday mornings. Perhaps it's the quiet solitude that comes with being the first to rise, or maybe it's the unbounded joy of not having to be at work. Either way, the first few hours of a Saturday morning are most enjoyable.

A few weeks ago, I was shuffling toward the basement shack with a steaming cup of coffee in one hand and the morning paper in the other. What began as a typical Saturday morning, turned into one of those lessons that Life seems to hand you from time to time. Let me tell you about it.

I turned the dial up into the phone portion of the band on my ham radio in order to listen to a Saturday morning swap net. Along the way, I came across an older sounding chap, with a tremendous signal and a golden voice. You know the kind; he sounded like he should be in the broadcasting business. He was telling whomever he was talking with something about "a thousand marbles." I was intrigued and stopped to listen to what he had to say. "Well, Tom, it sure sounds like you're busy with your job. I'm sure they pay you well but it's a shame you have to be away from home and your family so much. Hard to believe a young fellow should have to work sixty or seventy hours a week to make ends meet. Too bad you missed your daughter's dance recital. He continued, "Let me tell you something Tom, something that has helped me keep a good perspective on my own priorities." And that's when he began to explain his theory of a "thousand marbles."

"You see, I sat down one day and did a little arithmetic. The average person lives about seventy-five years. I know, some live more and some live less, but on average, folks live about seventy-five years. Now then, I multiplied 75 times 52 and I came up with 3900, which is the number of Saturdays that the average person has in their entire lifetime. Now, stick with me Tom, I'm letting to the important part." "It took me until I was fifty-five years old to think about all this in any detail"; he went on, "and by that time I had lived through over twenty-eight hundred Saturdays. I got to thinking that if I lived to be seventy-five, I only had about a thousand of them left to enjoy.

"So I went to a toy store and bought every single marble they had. I ended up having to visit three toy stores to round up 1000 marbles. I took them home and put them inside of a large, clear plastic container right here in the sack next to my gear. Every Saturday since then, I have taken one marble out and thrown it away." "I found that by watching the marbles diminish, I focus more on the really important things in life. There is nothing like watching your time here on this earth run out to help get your priorities straight." "Now let me tell you one last thing before I sign-off with you and take my lovely wife out for breakfast. This morning, I took the very last marble out of the container.

I figure that if I make it until next Saturday then I have been given a little extra time. And the one thing we can all use is a little more time." "It was nice to meet you, Tom, I hope you spend more time with your family, and I hope to meet you again here on the band. 75 year Old Man, this is K9NZQ, clear and going QRT, good morning!"

You could have heard a pin drop on the band when this fellow signed off. I guess he gave us all a lot to think about. I had planned to work on the antenna that morning, and then I was going to meet up with a few hams to work on the next club newsletter. Instead, I went upstairs and woke my wife up with a kiss. "C'mon honey, I'm taking you and the kids to breakfast." "What brought this on?" she asked with a smile. "Oh, nothing special, it's just been a long time since we spent a Saturday together with the kids. Hey, can we stop at a toy store while we're out? I need to buy some marbles....

++++++++++++++++++++++++++++++++

When "Fringe" Operation can get you into trouble with the FCC…

Too often, amateurs forget that their signals have a width as well: They are using frequencies in addition to the frequency on their radio's display. As it turns out, an FM signal occupies about 12-15 KHz. The filters in FM receivers are typically about 15-17 KHz wide, and therefore, two signal of roughly equal strength must be at least 20 KHz apart to avoid interference between them.

Another problem arises occasionally that is more serious: Out-of-band operation!

This happens when someone says "Since the band goes from 144 to 148 MHz, let's operate on 144.000 - there's no-one there!

There are two problems with this example that make it illegal: First of all, only CW is permitted below 144.100. Secondly, since your signal is 12-15 KHz wide, half of it is outside the 2 meter ham band!

— ARRL Web Site —

Upcoming Activities

Mt. Man Rendezvous	May
Little Mt. Bike Race	June
C. V. Biathlon	June
Pony Express	June
Field Day	June 23-24
Cache Cruise In	July
Cache Classic	August
LOTOJA Bicycle Race	September 15
Top of Utah Marathon	September 22
Bear 100	September
JOTA	October

++++++++++++++++++++++++++++++++++

Questions for General Class License

1.(G1A04) What are the frequency limits for General class operators in the 30-meter band?
A. 10100 - 10150-kHz
B. 10100 - 10175-kHz
C. 10125 - 10150-kHz
D. 10125 - 10175-kHz

2.(G1B03) Which of the following types of stations may normally transmit only one-way communications?
A. Repeater station
B. Beacon station
C. HF station
D. VHF station

3.(G1C03) What is the maximum transmiting power an amateur station may use on
10.140 MHz?
A. 200 watts PEP output
B. 1000 watts PEP output
C. 1500 watts PEP output
D. 2000 watts PEP output

4.(G1D11) When may you participate as an administering Volunteer Examiner (VE) to administer the Element 1 5-WPM Morse code examination?
A. Once you have notified the FCC that you want to give an examination
B. Once you have a Certificate of Successful Completion of Examination
(CSCE) for General class
C. Once you have prepared telegraphy and written examinations for the Technician license, or obtained them from a qualified supplier
D. Once you have been granted your FCC General class or higher license and received your VEC accreditation

THE OHM TOWN NEWS
PO BOX 111
PROVIDENCE, UT 84332

April, 2001

Some Contents…