

Ohm Town News

May 1994

Voice of the Bridgerland Amateur Radio Club

BYLAWS PASS

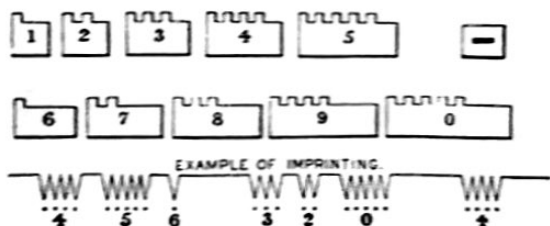
April Club Meeting

The April meeting of the Bridgerland Amateur Radio Club, Inc., was well attended. First item of business was that of voting on the new bylaws. They passed unanimously. The new bylaws take effect immediately. Most of the changes in the bylaws were minor clarification items. The most significant change allows for proxy or absentee votes by members of the club who can not attend the club meetings. Ballots will appear in the *Ohm Town News* before the voting takes place. This ballot can be used by members who can not attend the meeting.

After the voting President Dean Stevens, N7WDY talked about upcoming events the club might be asked to help with. These include the Mountain man Rendezvous, Pony Express, Field Day, Lo-to-Ja, Cache Valley Biathlon, and several others. A sign up sheet was passed around for sign up to help out with these events. The County is having a mock disaster on May 17th. This will also involve the club. Amateurs are needed to staff the EOC and the mobile command post.

The program for the evening allowed club members to show off home-brew equipment. Participating in this were Harl Goodsell, Jim Lofthouse, Kevin Reeve, Mike Farr, Tyler Griffith, Boyd Humpherys, and Dave Allen. Items shown included antennas, power supplies, QRP rigs, chargers, and antenna tuners.

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Samuel Morse's first alphabet had only numbers. A combination of numbers made up words. This required a reference dictionary to decode.

MORSE CODE

A Brief History

By Kevin Reeve N7RXE

Morse Code seems to be becoming less important as a means of communication as new digital modes and satellite technologies emerge, but years ago it was the state of the art technology. A display on the history of communications caught my eye while visiting the American History Smithsonian Museum in Washington DC. The display started out with the invention of the Telegraph and Morse Code. My only recollection of the telegraph and Morse code comes from movies where the telegraph operator is tapping on the key or listening to the clicks of the relay and writing down the message. That's not far from how we do it today. We still use a key, but listen to tones instead of clicks. The first part of the display features Samuel F. B. Morse and his electro-magnetic Telegraph. Only one problem. There is no key and the receiver looks nothing like the simple relay system that I saw in the movies. I have since read some books on Samuel F. B. Morse and the Telegraph. I was fascinated and I learned things I never knew before. I decided to write this article to share them with you. I hope you find them as interesting as I did.

Samuel F. B. Morse was born in 1791 in Charlestown, Massachusetts. Attended Yale College and upon graduation aspired to be a great painter. He did paint, traveling to Europe to study and paint portraits. Along with his brother, he invented a fire-engine. His idea for the telegraph didn't happen until he was in his 40's. While returning from a trip to Europe aboard a ship, the conversation with friends was that of the recent discoveries in electro-magnetism and Amperes experiments with electro-magnets. Samuel learned that someone had discovered that electricity passed instantaneously over several miles of wire. Hearing this he made the statement, "If the presence of electricity can be made visible in any part of the circuit, I see no reason why intelligence may not be transmitted instantaneously by electricity." He excused himself ...

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BARC Club Officers

President	Dean Stevens	N7WDY
Vice President	Niel Holt	N7PEO
Secretary	Cheryl Thurgood	N7YUE
Treasurer	Brian Potts	KB7FUB
Board Member	Joe Corbett	N7NJR
Board Member	Tyler Griffiths	N7UWX
Board Member	Terry Zollinger	N7PEG

Calendar of Events

Club Meeting	May 12, 7:30 PM
MARA Seminar	May 7, 8:00 AM
Exams (Brigham City)	May 11 & 14
UTAH HAM FEST	May 21, 8:00 AM
RACES map course	May 25, 7:00 PM
BARC Board Meeting	May 26, 7:30 PM
RACES NET HF	May 19, 9:00 PM

The *Ohm Town News* is published monthly except August. Please send any correspondence, articles, or address changes to the Editor...

Kevin Reeve N7RXE
162 North 500 East #B
Logan Utah 84321

May Club Meeting

Date: May 12, 1994

Location: Cache County Sheriff's Office

50 West 200 North, in Logan

Enter the East Doors and take the elevator down.

Army Mars

Mike Lawyer, State MARS Director will give a presentation on Army MARS. Dave Rhodes, and Neil Erickson local Mars members will also help with the presentation.

.72 Repeater still down

At press time the 146.72 Mount Logan repeater was still not operational. A donated antenna would not tune up on the amateur band so another one was ordered. A trip is planned as soon as it arrives.

Nets

VHF Nets

Bridgerland	Tuesday 9:00 PM	146.72
Cache RACES	3rd Thur 1 hour prior to state	146.72
MARA (local)	Sunday 9:00 PM	147.20
UARC info Net	Sunday 9:00 PM	146.62
UARC Packet	Sunday 8:00 PM	146.62
UBET	Wednesday 8:00 PM	145.29/145.43
VHF Swap-Net	Tuesday 8:00 PM	146.94
RACES*	3rd Thur. 8:00 PM	145.49

UHF Nets

Bridgerland UHF	Wednesday 8:00 PM	449.80
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HF Nets

Beehive	Daily 12:30 PM	7.272
HF slow code	Daily 7:30 PM	3.710
FARM	Daily 8:00 PM	3.937
MARA (voice)	Saturday 7:30 AM	3.918
MARA (cw)	Saturday 8:00 AM	3.723
RACES*	3rd Thur. 9:00 PM	3.870
Utah MARA (voice)	Saturday 8:30 AM	3.873

Code Practice

K7HLR	Daily 7:10 & 9:10 PM	146.58
	also on 3.698 MHz & 7.092 MHz	

*NOTE: RACES Net is on VHF in even months and on HF during odd months. You must have a RACES number to check in. Cache RACES net is 1 hour prior to the state net.

MARA SEMINAR

Mara is sponsoring a one day seminar on May 7, at 8:00 AM at the BYU Marriott Center. Topics will include Packet, Amlink, Neighborhood watch and others. A slide show on the LA quake, and booths and displays. Everyone is invited to attend.

BRUSHING UP

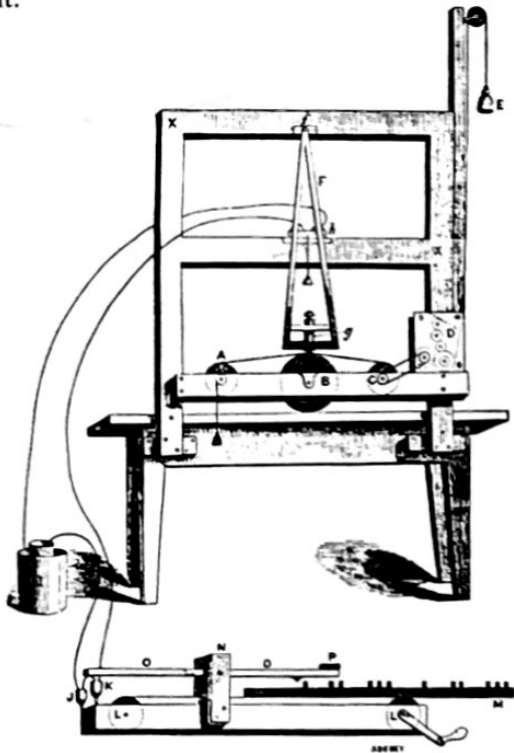
What is the opposition to the flow of AC caused by an inductor called?

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

Morse continued from page 1

proceeded to make notes and drawings of how his telegraph would work. "The current of electricity passes instantaneously to any distance over a wire; the current being interrupted, a spark appears. The spark shall be one sign; its absence another; the time of its absence another." Before completing the voyage he had worked out the series of dots and spaces to represent the numbers 0-9. These numerals would then be used to represent words (Morse early notes showed how the number 215 stood for the word war).

The most interesting thing about Morse early drawings was that he intended for the information sent to be printed at the other end mechanically. This way nobody had to be present to receive a message. His early drawings and eventually his working device used an electromagnet to draw a pencil across a moving strip of paper causing dots and dashes to be recorded on the paper. The sending end consisted of a series of metal strips with indentations in them, each representing a numeral, that when passed across a lever caused the lever to move up and down closing and then opening the circuit.



The First Telegraph

Samuel Morse finally realized that it would be impossible to represent every word with a series of numbers and eventually devised an entire alphabet using the dots and dashes or spaces. It is this alphabet that the International Morse Code we use today was derived.

What intrigued me the most was that the first telegraphs in use recorded on paper the message sent. What he probably did not realize that operators would learn by the sound the spark and electromagnetic relay made the code could be learned. As telegraph operators spent time they eventually were able to interpret the sounds into the letters. This proved to be useful later as radio was invented and wireless communication became an important venture.

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DIRECTION FINDING IN RACES

Direction finding - the process of locating Radio Frequency signals by other radio equipment - has tremendous role for Amateur Radio Operators, particularly in urban areas. RACES units have been called upon to locate spurious signals from a variety of sources from malfunctioning equipment, such as stuck transmitters, to deliberate jamming of local government or other facilities.

One direction finding response involved successful location of a moving radio that virtually crippled a major police department radio system. One of the departments handheld radios moved from officer to officer as the shifts changed and as they moved about the city. The particular radio had an unknown habit of keying up at odd intervals while in the belt holster of the officer. Since the mike was against the officer's body, little could be done heard in the way of sound but it was wiping out the entire system. Each time the interference went off the air, and the others on the frequency were advised to switch channels, so did the unknowing officer. Consequentially the interfering signal followed every move to a different channel. Until the problem was solved, the department thought they had a deliberate jammer, when in fact it was malfunctioning commercial equipment in an "impossible configuration that just couldn't happen" but did"

In addition to such uses for direction finding, as in the RACES type operations, there are others as well; the "fox hunt" (direction finding contest) of the local...

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Amateur Radio club being an example. Such activities range from an ongoing "sport" to the real preparation for serious and dedicated direction finding. Both aspects have their place, but those who see "fox hunts" only as a pastime and purposely overlook the serious nature of the work that can be done, are a discredit to the primary purpose - as set forth in FCC regulations - is public service.

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ARMED FORCES DAY COMMUNICATIONS TEST SET

By Dave Rhodes, N7PEI

The annual Armed Forces Day Communications Test is set for Saturday, 21 May 1994 and marks the 45th anniversary of this event which emphasizes a continuing climate of mutual assistance and warm esteem between the military and amateur radio communities. The traditional military-to-amateur cross band operation and broadcast of the secretary of defense messages are the featured highlights and include operations in CW, SSB, RTTY, and digital modes.

These tests give both amateur radio operators and short wave listeners, (SWLS) the opportunity to demonstrate their individual technical skills. Special commemorative acknowledgment, (QSL), cards will be awarded to those amateur radio operators achieving a two-way radio contact with any of the military radio stations. Interception of these contacts by SWLS will not be acknowledged by QSL cards, however, anyone who receives and accurately copies the Armed Forces Day CW, RTTY, or digital mode messages signed by the secretary of defense can qualify to receive a special commemorative certificate.

The military-to-amateur cross band operations will be conducted for the 24-hour period commencing at 1300 UTC on 21 May 1994. Some military stations may not operate the entire 24-hour period due to propagation, signal paths, and station parameters.

The following is a list of military stations participating. These stations will transmit on the listed frequency and will announce the specific amateur bands/frequency range being monitored. Where type of emission is listed as 'various' the military station will frequently announce what mode is being used and monitored for. (Ed note.. Due to space not all freq are listed)

FREQ (KHZ)	EMISSION	STATION
4005.0	VARIOUS	NAM

4008.5	VARIOUS	NPG
4015.0	VARIOUS	NMH
4018.5	LSB	WAR
4021.5	VARIOUS	AAH
4025.0	LSB	AIR
4030.5	LSB	AAE
4033.5	LSB	AAR
4036.5	LSB	AAZ
4040.0	VARIOUS	NAV
6835.0	VARIOUS	NBL
6908.0	CW	AAZ
6970.0	VARIOUS	NMN
6988.0	VARIOUS	AAH
6997.5	CW	WAR
7301.5	VARIOUS	NAV-8
7309.5	CW/DIGITAL	AAR
7315.0	LSB	AIR
6908.0	CW	AAZ
6911.5	VARIOUS	AAR
6988.0	VARIOUS	AAH
6995.5	CW	AIR
6997.5	CW	WAR
7301.5	VARIOUS	NAV-8
7309.5	CW/DIGITAL	AAR
7312.5	VARIOUS	AAH
10225.0	VARIOUS	NAM
10259.5	CW/DIGITAL	NAV
12997.5	CW	AIR
13986.5	TTY/DIGITAL	AIR
13994.5	USB	AAE
14465.0	VARIOUS	NPG
14480.0	VARIOUS	NZJ
20105.0	USB	AAR
20941.5	CW	AAE
24783.0	VARIOUS	NMN
27992.5	USB	AAE

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Presidents Corner ...

Our last club meeting we had was awesome!! Thanks to everyone for coming out and voting, and for the many that shared their home brew items. There were many positive comments about the meeting, and how well they enjoyed it. Even the cracker barrel was fantastic. Ted's raspberry jam from his farm sure topped that Old Grist Mill bread off nice. Thanks Ted and Tyler.

I hope our club meeting attendance continues to increase. It was sure fun meeting people that we talk to, and putting a face to the call sign. Also it is nice to visit with and see the new folks that are coming into the club. Welcome all of you.

Enclosed in your news letter, as I am sure you have already seen, is your copy of the club directory. Thanks to Jeff KF7ZX, n for doing all the work of putting this on the computer so it will be easy to update..

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in the future. I hope that each of you will take a moment and review the information. If there is anything that needs corrected, please contact me and the correction will be made for the next publication. We both apologize if there are any mistakes, and hope that all of us working together, can keep our list current.

The Utah Ham Fest is coming on May 21st as most of us know. For those that are new to amateur radio this is to get-together that you do not want to miss. You will learn so much about our wonderful hobby, have fun being with people, crazy like me or not, swapping or buying items for your station, spending all your hard earned money on all the state of the art equipment or just wandering around being totally mesmerized by everything going on. What ever it is that fits your fancy, I am sure it will be found there so make sure you get this date on your calendar, pay your fee, and be there. Most of all, it will be **FUN FUN FUN**.

I hope to see many of you at our upcoming activities that are listed here in the newsletter. We plan on having a lot of fun this year.

73's for now,
Dean N7WDY

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SCANNER BETTER THAN TV off the Internet

The following was taken off the internet by Terry Zolinger N7PEG.

Tonight we had a terrible storm with large hail and multiple tornadoes. The towns of Desto and Lancaster were heavily damaged. I tuned in the ham frequencies (144-148, 440 - 448) and found a repeater the hams were concentrating on their reports of conditions. I was impressed.

As the 10 PM news reported on hail damage reports, the hams were screaming rapid fire reports of exact location of a twister on the ground (locating it by watching power lines short out in the darkness). One ham was tracking the storm while driving through 1" hailstones, but continued on despite intense damage to his vehicle. You could hardly hear him through the hail pounding the car.

As the TV news talked of window damage, the hams were reporting vehicles flipped upside down wrapped up in power lines.

The repeater channel was moderated by one ham and well organized. They soon had to split the action to a storm tracing channel and a first aid channel.

The action went on far into the night. All power and telephone lines were taken out and police and ambulances totally depended on the hams.

My opinion of hams has changed. I used to think it was somewhat a useless hobby, where all people talked about was radio equipment.

My hats off to all you hams out there.

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WHICH WAY IS NORTH?

Polar plots, Intersection, Resection, Declination, Azimuth, Contour lines, and Grid North. You will have to ask local RACES members to find out what they are all about. In training to support the Cache County Sheriffs Office, RACES has been learning how to read maps, locate points, and how to use a map and local landmarks to find out your location. The class meets one more time in May and then will have an exercise with the Search and Rescue.

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RADIO PIRATES BEWARE

The Associated Press is reporting that the FCC has a new weapon to track down jammers and illegal radio operators. Newly equipped cars with highly sophisticated antennas, computers, and electronic snoopers will soon be on the streets. These vehicles will give agents the advantage in tracking down illegal stations. The computer will give access to databases of licensing information, which in turn will help agents determine if the station is authorized for that particular frequency. The biggest culprits according to the FCC are businesses, and boaters.

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DON'T FORGET THE UTAH HAM FEST
MAY 21, 1994
Weber State University