



# Squelch Tales



Newsletter from the Merrymeeting Amateur Radio Association for January 2006

## HAPPY NEW YEAR!

### Battery back-up in your shack

By Bruce Randall, W1ZE

Many of you are volunteers in the local ARES and/or Red Cross group and want to be able to operate your station on storage battery back-up in the event of an emergency and loose of AC from your friendly power company.

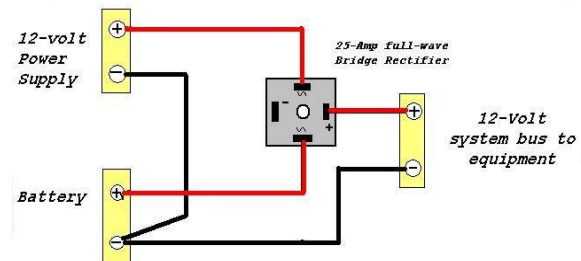
You may already have a deep cycle RV lead-acid battery in your shack and are able to connect it to your rig(s) if the power goes out. You may even have a large switch to switch from your 12-volt power supply to a battery. That works but when the power fails, the processor in your rig may need to be rebooted or at a minimum you have to turn your rig back on.

There is a device sold commercially called a Power Bridge that facilitates an uninterrupted flow of electrons to your radios and other equipment in the shack running off your 12 volt power bus. The KS1R repeaters use such a device to provide uninterrupted power from the big battery bank if we loose power and 12 volts from the 25-Amp Astron power supply. The bridge was put together by the Tech Committee from few parts from K1MNW "Bill on the Hill" Messier's stash of goodies.

The hart of a power bridge are two high current silicone diodes that are capable of handling 20 amps or more. Most of us are not blessed with a supply of these higher current diodes and Radio Shack diodes are rated for just a few amps or less.

Fortunately Radio Shack has a full-wave bridge rectifier (RS# 276-1185) capable of handling 25-Amps that could be use and it sells for just a few bucks. This bridge is a small flat block about 1-1/4 inches square with four terminals that encapsulates four high current diodes in the full-wave bridge configuration.

All that is needed for the circuit is the Radio Shack full-wave bridge rectifier (only half the rectifier is used), a small metal enclosure (chassis box) and three + / - terminals blocks. The rectifier block can be mounted in the metal box with a 6-32 bolt and nut. The aluminum enclosure protects the internal circuit and acts as a heat sink for the rectifier block. Use #12 stranded or larger wire to handle 25 amps. If your shack 12-volt system needs more than 25 amps, use two bridge rectifier blocks wired in parallel and increase the wire size to handle the current. If you have an old aluminum heat sink in your parts bin, use it to mount your rectifier block(s) to.



Happy soldering, **Bruce, W1ZE**

# MARA VE Report

By Bryce Rumery, K1GAX

**Date:** 12/10/05 **Time:** 10:00

**Place:** Patten Free Library, Bath

**Attending VEs:** K1GAX, W1ZE, N1GWE, AA1FI & N1GRO

## **Exams Given:**

Element 1 (Code) 0  
Element 2 (Technician) 1 (Failed)  
Element 3 (General) 1 (Passed)  
Element 4 (Extra) 1 (Failed)

## **New Licenses/Upgrades Granted:**

Technician.....0  
Technician/HF.....0  
General.....1  
Extra.....0

## 2005 Statistics

### **Exams Given**

Element 1 (Code) 8 (5 Passed, 3 Failed)  
Element 2 (Tech.)23 (12 Passed, 11 Failed)  
Element 3 (General) 11 (9 Passed, 2 Failed)  
Element 4 (Extra) 6 (3 Passed, 3 Failed)

### **New Licenses/Upgrades Granted:**

Technician.....9  
Technician/HF.....1  
General.....7  
Extra.....3

## **73, Bryce, K1GAX (MARA VE Liaison)**

**Editor's note:** *Kudos to MARA member Marjorie Turner, KB1MRZ of Brunswick for upgrading from Tech(+HF) to General. Marjorie has attended the last two VE sessions in Bath and at both tries she was successful, first with her Technician (element 1 & 2) and then this last session with her General exam (element-3). Well Done Marjorie!*

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## **MAINE TESTS FOR 2006,**

**TO DATE 12/15/2005**

**By Phil Young, W1JTH MBM**

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### JANUARY

**Jan 21 Sat 9:00a South Portland, Maine,** Stewart Morrill American Legion Post #35, 413 Broadway W1UJR/ARRL Bruce Howes (207) 749-0111 w1ujr@arrl.net May also call Bryce Rumery K1GAX (207) 799-1116 k1gax@juno.com ARRL CCE Emergency Communications Course certification exams given with advanced registration with K1GAX

Jan 18 Wed 5:30p Augusta, 125 State St. Use south side entrance nearest rotary. AE1Q/ARRL Don Smith 207-495-3891

### FEBRUARY

**Feb 18 Sat 10:00a Topsham, Maine,** Midcoast Chapter, American Red Cross 16 Community Way K1GAX/ARRL Bryce Rumery (207) 799-1116 [k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE Emergency Communications Course certification exams given with advanced registration with K1GAX

### MARCH

Mar 15 Wed 5:30p Augusta, 125 State St, Use south side entrance nearest rotary. AE1Q/ARRL Don Smith 207-495-3891 Mar 18 Sat 9:00a South Portland, Maine, Stewart Morrill American Legion Post #35, 413 Broadway W1UJR/ARRL Bruce Howes (207) 749-0111 w1ujr@arrl.net May also call Bryce Rumery K1GAX (207) 799-1116 [k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE Emergency Communications Course certification exams given with advanced registration with K1GAX Mar 25 Sat Noon Lewiston, Ramada Inn (Maine Section ARRL Convention) K1GAX/ARRL Bryce Rumery (207) 799-1116 [k1gax@juno.com](mailto:k1gax@juno.com). ARRL CCE Emergency Communications Course certification exams given with advanced registration with K1GAX

### APRIL

**Apr 8 Sat 10:00a Winslow,** Winslow Junior High school on Danielson St. AE1Q/ARRL Don Smith 207-495-3891 Apr 15 Sat 10:00a South Portland, Maine, Stewart Morrill American Legion Post #35, 413 Broadway W1UJR/ARRL Bruce Howes (207) 749-0111 w1ujr@arrl.net May also call Bryce Rumery K1GAX (207) 799-1116 [k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE Emergency Communications Course certification exams given with advanced registration with K1GAX

**Apr 18 Tue 6:30p Presque Isle,** NMCC Augusta Christie Building Room 113 WA1YNZ/ARRL Wilburn Scott (207)455-8333

**Apr 22 Sat 10:00a Topsham, Maine,** Midcoast Chapter, American Red Cross 16 Community Way K1GAX/ARRL Bryce Rumery (207) 799-1116 [k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE Emergency Communications Course certification exams given with advanced registration with K1GAX

Apr 29 Sat 9:00a Rockland, Knox County Courthouse NY1B/ARRL Norm Smith (207)354-6853

### MAY

**May 17 Wed 5:30p Augusta,** 125 State St, Use south side entrance nearest rotary. AE1Q/ARRL Don Smith 207-495-3891

**May 27 Sat 9:00a South Portland, Maine,** Stewart Morrill American Legion Post #35, 413 Broadway W1UJR/ARRL Bruce Howes (207) 749-0111 w1ujr@arrl.net May also call Bryce Rumery K1GAX

(207) 799-1116 [k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE  
Emergency Communications Course certification  
exams given with advanced registration with  
K1GAX

### JULY

**Jul 8 Sat 9:00a Union, Union Hamfest**

NY1B/ARRL Norm Smith (207)354-6853

**Jul 19 Wed 5:30p Augusta, 125 State St, Use**  
south side entrance nearest rotary. AE1Q/ARRL  
Don Smith 207-495-3891

**Jul 22 Sat 9:00a South Portland, Maine, Stewart**  
Morrill American Legion Post #35, 413 Broadway  
K1GAX/ARRL Bryce Rumery (207) 799-1116

[k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE Emergency  
Communications Course certification exams given  
with advanced registration with K1GAX

### SEPTEMBER

**Sep 16 Sat 9:00a South Portland, Maine, Stewart**  
Morrill American Legion Post #35, 413 Broadway  
W1UJR/ARRL Bruce Howes (207) 749-0111  
w1ujr@arrl.net May also call Bryce Rumery K1GAX  
(207) 799-1116 [k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE  
Emergency Communications Course certification  
exams given with advanced registration with  
K1GAX

**Sep 23 Sat 9:00a Rockland, Knox County**  
Courthouse NY1B/ARRL Norm Smith (207)354-  
6853

### OCTOBER

**Oct 17 Tue 6:30p Presque Isle, Red Cross, 141 State**  
St. WA1YNZ/ARRL Wilburn Scott (207)455-8333

Oct 21 Sat 10:00a Topsham, Maine, Midcoast  
Chapter, American Red Cross 16 Community Way  
K1GAX/ARRL Bryce Rumery (207) 799-1116  
[k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE Emergency  
Communications Course certification exams given  
with advanced registration with K1GAX

Oct 21 Sat 10:00a Winslow, Winslow Junior High  
school on Danielson St. AE1Q/ARRL Don Smith  
207-495-3891

### NOVEMBER

**Nov 15 Wed 5:30p Augusta, 125 State St, Use**  
south side entrance nearest rotary. AE1Q/ARRL  
Don Smith 207-495-3891

**Nov 18 Sat 9:00a South Portland, Maine, Stewart**  
Morrill American Legion Post #35, 413 Broadway  
W1UJR/ARRL Bruce Howes (207) 749-0111  
w1ujr@arrl.net May also call Bryce Rumery K1GAX  
(207) 799-1116 [k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE  
Emergency Communications Course certification  
exams given with advanced registration with  
K1GAX

### DECEMBER

**Dec 9 Sat 10:00a Topsham, Maine, Midcoast**  
Chapter, American Red Cross 16 Community Way  
K1GAX/ARRL Bryce Rumery (207) 799-1116

[k1gax@juno.com](mailto:k1gax@juno.com) ARRL CCE Emergency  
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with advanced registration with K1GAX

**PLEASE NOTE THAT THESE ARE TENTATIVE  
DATES ONLY.**

Send updates and cancellations to: Phil Young,  
W1JTH, ARRL Bulletin Manager, Maine Section 47  
Longwood Ave., August ME 04330-4130 or by  
phone 207-622-1385, by radio on the Sea Gull Net or  
by e-mail to: younmp@aol.com

## **SOME HAM EVENTS FOR 2006**

**24-25 Mar 2006 \*\* Maine State Convention**  
("Andy" Hamfest & Computer Fair) Ramda Inn -  
490 Pleasant Street, Lewiston, ME Androscoggin  
Amateur Radio Club -

<http://www.mainearrl.org/convent.htm> Contact:  
Rick James, N1WFO, 7 Judkins Avenue, Lewiston,  
ME 04240 Phone: 207-740-1266 - Email:  
[n1wfo@adelphia.net](mailto:n1wfo@adelphia.net)

**25-27 Aug 2006 \* N.E. Division Convention -  
FEMARA - <http://www.boxboro.org>.** Holiday Inn  
Boxboro Woods, 242 Adams Place, Boxboro MA  
Contact: Mike Raisbeck, K1TWF, 85 High Street,  
Chelmsford, MA 01824 Phone: 978-250-1236, Fax:  
978-250-0432, Email: k1twf@arrl.org

**73, Old Phil, W1JTH**

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## **News From Newington**



### **ARRL EXPERIMENTING WITH ICOM D- STAR DIGITAL SYSTEM**

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/tech>  
char/> 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 manufacturer.

"We appreciate ICOM's cooperation and support  
as we explore D-Star'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 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 Garcia, 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 cross-communicate 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.

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## ARRL recommends HF privileges for Technician ticket holders

Shortly after the FCC made it known they intended to eliminate the Morse code requirement, the ARRL Issues a Petition for Rule Making (RM-10867) that would create a new entry level license like the old Novice class that would provide a vehicle for the new ham to experience HF. It appears that the League is having difficulty convincing the FCC that there should be an entry level license that would include HF.

The league is now promoting an idea that would adopt their Novice HF idea into the Technician class license. Their new recommendation is to allow HF privileges at for Technician class holders in the 80, 40, 15 and 10 meter bands at power levels up to 100-watts. The privileges are as follows:

### **80 meters:**

*CW-RTTY-Data = 3550 to 3700 kHz*

*CW-Phone-Image = 3900 to 4000 kHz*

### **40 meters:**

*CW-RTTY-Data = 7050 to 7125 kHz*

*CW-Phone-Image = 7200 to 7300 kHz*

### **15 meters:**

*CW-RTTY-Data = 21060 to 21200 kHz*

*CW-Phone-Image = 21350 to 21450 kHz*

### **10 meters:**

*CW-RTTY-Data = 28050 to 28300 kHz*

*CW-Phone-Image = 28300 to 28500 kHz*

Even though CW privileges are granted in the League's proposal, exam element No.1 will be eliminated. Do not expect any decisions from the FCC until the spring-summer of this year. Stay tuned!

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ago.**

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PO Box 3247  
Framingham, MA  
01705-3247  
www.qcwa.org

or

Pine Tree Chapter, QCWA  
Bruce Randall, W1ZE  
1 Smithfield Crossing,  
Phippsburg, ME  
04562-4047  
207-442-9630  
w1ze@arri.net



## HAMS OF THE YEAR

If you were fortunate to attend the MARA's Year End dinner you know that two fine members of the Association received the coveted "HAM OF THE YEAR" award. Most years it is awarded to just one ham that has gone the extra mile

for the MARA and the Amateur Radio community here in southern and mid-coast Maine. This year we had two members nominated and the awards committee could not figure which one was better than the other, so another break with tradition took place and both equally qualified folks were would receive the award plaques.

The first plaque was presented to John Goran, K1JJS of Freeport for being Mr. Volunteer. John volunteered for every committee that needed help and jumped to help on every public event the MARA was involved in, not to exclude those of other groups in southern Maine.

Since he could not make the dinner the second plaque will be presented to Lee Trask, W1LWT of Lisbon Falls at the first MARA meeting in January. Lee received the HOTY award for his efforts here in Maine for bring back enthusiasm and interest in Amateur Radio by his major effort and expense in facilitating High Altitude Balloon launches with Amateur Radio payloads. Hundreds of hams throughout Maine and the surrounding states got involved. Lee plans to do more launches in 2006.

Again congratulations to John and Lee for bringing a very positive light on the

MARA and the Amateur Radio Community here in the great state of Maine.  
WELL DONE GENTILMAN!

## From the Editor:

*I want to wish each and every one of the readers of our Associations little newsletter all the happiness, health and prosperity in this New Year.*

*We hope that you will continue to support our great hobby and get involved in its activities. The MARA appreciates your continued support and we hope we provide a vehicle for you to share your interest in Amateur Radio with likeminded individuals. We also hope you will continue to participate in MARA activities And bring your ideas and interest in the hobby to us so we can all share. HAPPY NEW YEAR!  
73, W1ZE*

### **Merrymeeting Amateur Radio Association KS1R**

President:

Bryan Dorval, AA1WI

V .President:

Donnie Dauphin, WD1F

Secretary:

Abe Galonski, KC1W

Treasurer:

Bob Watson, N1GWE

Membership Chairperson:

Annette Dorval, KB1HNU

Activities Chairperson:

Lee Tribou, N1HOC

KS1R/MARA Trustee & Editor:

Bruce Randall, W1ZE